Faculty Internationalization: Experiences, Attitudes, and Perceptions of Full-Time Academics Across Vermont

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FACULTY INTERNATIONALIZATION: EXPERIENCES, ATTITUDES, AND PERCEPTIONS OF FULL-TIME ACADEMICS ACROSS VERMONT

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ABSTRACT

Internationalization on campus is being called for in order to adapt to a rapidly globalizing social and economic context. However, many institutions, including those across Vermont, have not yet polled their faculty to see what international experiences or backgrounds faculty members have. Few have a comprehensive understanding of faculty language competencies, or in what ways faculty members have been collaborating with foreign scholars.

This study looked at attitudes and beliefs faculty members have towards bringing global dimensions into their faculty role, as well as their perceptions of internationalization on campus. This study takes the extra step of looking at the data collected on Vermont faculty, and then slices it through multiple lenses, looking to see if there are trends and connections by demographic factors such as gender, academic rank, discipline, number of years in the field, or having a preference for student learning or research.

Results of this dissertation study revealed a faculty composition that was reassuringly internationalized when looking at language abilities, international

experiences, among other demographic factors. Results also revealed that faculty attitudes and beliefs as well as perceptions of campus climate towards internationalization, were overwhelmingly positive. Following comparisons to prior national and international studies, Vermont institutions have strong evidence to claim support for internationalization among their faculty.

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CHAPTER 1: INTRODUCTION AND PLAN FOR THE DISSERTATION

Introduction

This dissertation examines the critical topic of faculty internationalization, specifically looking at experiences, attitudes and perceptions of academics across the state of Vermont. To debate whether colleges and universities should educate students for a globalized future is no longer an option, it is has become an inherent responsibility. Institutions face a tall order to prepare individuals to succeed in the diverse, fast-paced global twenty-first century. The Association of American Colleges and Universities (AAC&U) has listed global knowledge, ethical commitments to individual and social responsibility, and intercultural skills as the cornerstones of a 21st century liberal education (Musil, 2006). In turn, the American Council on Education (ACE) has claimed faculty as the "key drivers of internationalization" (Green, Luu, & Burris, 2008). There are many factors that impact and shape this process, from financing to policy, but this study looks at the particular importance of the faculty. In order to ensure students graduate from college prepared to enter the global work-stream, and for American institutions to remain competitive internationally, faculty support for internationalization is critical (Green et al., 2008).

Focus of the Dissertation

This dissertation focuses on the international experiences, language competencies, perceptions, attitudes and beliefs of faculty members across Vermont. This study is being conducted at a time when internationalization on campus is being

called for in order to adapt to a rapidly globalizing social and economic context. However, many institutions, including those across Vermont, have not yet polled their faculty to see what international experiences or background faculty members have. Few have a comprehensive understanding of faculty language competencies, or in what ways faculty members have been collaborating with foreign scholars.

This study seeks to answer many of these questions, drawing data on who comprises the faculty, and what attitudes and beliefs they have regarding internationalization on campus. In addition, this study looks at not only attitudes and beliefs faculty members have generally, but their perceptions of internationalization on their campuses. This study takes the extra step of looking at the data collected on Vermont faculty, and then slices it through multiple lenses, looking to see if there are trends and connections by demographic factors such as gender, academic rank, discipline, number of years in the field, or having a preference for students learning (teaching) or research.

In an age where institutions are seeking to diversify offerings and reel in budgets, international initiatives have been turned to as potential revenue generating measures and more importantly to prepare graduates for an ever-increasingly globalized society. Vermont in particular, without a metropolitan hub or nationally recognized research reputation, is in search of ways to both stem brain drain of local students out of state, and foster growth attracting both out-of-state and foreign students alike. With tuition driving the bottom budgetary lines, international initiatives have been turned to as one of many options for schools to explore. Some

institutions capitalize on study abroad, pushing international experiences for undergraduate, and increasingly graduate student populations, as a component of disciplinary programs.

Other institutions have looked at international research collaborations with foreign scholars, especially when tackling cross-border issues such as climate change or clean energy, where resources, insight, and cultural nuances can help shape discoveries. Some institutions have looked at creating partnerships globally, looking to draw academic talent of both international students and faculty, exploring branch campuses, online course offerings, twinning programs, among a number of new initiatives to drive change for a more globalized, rapidly expanding market.

Importance for Vermont

Vermont institutions need to know where they stand in this internationalization mix, especially at a time when tuition prices have skyrocketed, the economy is struggling to rebound, and salaries and employment rates have fallen in dramatic fashion. Vermont institutions need to know how they are currently positioned in this new globalized context. With information in hand regarding faculty members' affinity towards international strategies and proposals, senior leaders among the institutions can appropriately decide where to target initial resources and energy, where they currently have accrued academic and international capital, and where they might best position themselves to diversify and grow.

The purpose of this study is to look at what the current international experiences, attitudes and beliefs of Vermont faculty members are to see how the sample compares to prior faculty studies, and to serve as a building block for institutions as they seek to internationalize their campuses. The dissertation does not create a unified roadmap for institutional leaders to follow, rather provides baseline data that can be used to inform internationalization strategies. Each institution is diverse with an individualized mission and population they serve, and in turn, new information regarding faculty will inform each campus differently. Ranging from a doctoral granting research university to small, experiential liberal arts colleges, Vermont offers a diverse array of higher education opportunities, and this could prove to be its strength.

One of the greatest attributes of the American higher education system is its ability to attract foreign academic talent, with a cluster of institutions found highly attractive to academics and students from around the world. In part, this attraction is to the institutional reputations, research, and caliber of academic quality. It is also in part the economic and political climate of the United States. For instance, the obstacles abroad can range from political opposition to having a closed economy. Within the United States, there is an entrepreneurial culture, and open economy, and a democratic and legal system that supports a continued advantage in the global higher education market (Fallows, 2010). This is on the national scale. However, insights and cues can be gleaned from the broader picture to the context in Vermont. If Vermont can work to harmonize both the culture, protections, and climate attractive

to international talent, as well as offer a campus community and educational programs that promote and advocate for internationalization, institutions could position themselves for growth. This will challenge insular institutions by geography or by choice, to recognize the potential benefits internationalization efforts can bring. It will also challenge Vermont institutions to define what it is about their organization and setting that can draw talent to campus.

As indicated, in many respects Vermont captures a quintessential piece of Americana through it's agriculture, rolling mountains, tourism and dairy industries, while residing as a border state sharing a shoreline along one of the largest bodies of fresh water in the world. With just over 600,000 people sharing a border with Canada, Vermont ranks as one of the least densely populated states in the country, second only to Wyoming. Vermont is home to five public colleges within the Vermont State Colleges (VSC) system along with the University of Vermont, the sole Ph.D. granting institution in the state. These institutions are complimented by a variety of larger and smaller private colleges and universities that offer a diverse selection of experiences (Lewis, 2007). Vermont has only one medical school and one school of law. Vermont struggles to secure research funding and has ranked behind all fifty states and Puerto Rico in total Federal spending, NSF funding, NASA funding, Department of Transportation funding, among others (NSF, 2005). Vermont proportionately offers the nation's most expensive public education, despite a state government seeking to realize economic benefits through educational initiatives (NEA, 2001; NSF, 2005).

These challenges will not prohibit Vermont institutions from internationalizing, but it may likely add to the effort needed to mainstream such initiatives.

Vermont has its challenges laid before it, and competition to attract talented students able to pay tuition and grow programs will become increasingly fierce. By having such large faculty participation from Vermont colleges and universities, this study offers a first snapshot into the internationalization beliefs, perceptions and experiences of academics across the state. With data to drive strategy and change, Vermont institutions should be able to make informed and wise decisions for planned future growth during an era of uncertainty and global connectedness.

Adding to the Literature

Faculty internationalization trends have been examined and highlighted in prior research at the national and international levels looking faculty members' attitudes and beliefs, and international experiences brought into their daily work teaching, researching, and providing service (Altbach & Lewis, 1996; Martin J. Finkelstein, Walker, & Chen, 2009; Siaya & Hayward, 2003). This study highlights who the full-time faculty is in Vermont, and the international experiences and competencies of full-time Vermont faculty. It shows faculty attitudes and beliefs toward internationalization and perceptions of campus climate. Differences in findings by gender, academic rank, teaching or research orientation and number of years employed have been explored. The growth of female and foreign-born scholars

pursuing and entering the faculty ranks, as well as the trend towards hiring more part-time and non-tenure track academics is explored in more detail in chapter four.

However, it is important to recognize how the academic profession is changing, especially in alignment with the push for colleges and universities to be more globally engaged. Scholarship and research production, commercialization of technology, online course offerings, service projects, consulting and star faculty, as well as the assessment and reward system all have influenced the profession, and will continue to make marked impacts in the years to come. As administrators and faculty alike seek to serve students and greater society through research, teaching and service, a clear understanding of the faculty role and how incentives are structured should be transparent and evaluated.

This study comes at a time when globalization and free trade are openly occurring across knowledge-based economies. America's institutions of higher learning are viewed by many as the premier centers of innovation, research, and civic learning (Fallows, 2010). Faculty at the intellectual heart of all institutions, have experiences and beliefs that fall across the spectrum in regards to how important they view internationalization issues, especially in relation to their own discipline and institution.

This dissertation study adds to the current literature in the field on full-time faculty and their international experiences, as well as their beliefs and perceptions towards internationalization. To date, individual institutions have sought to assess internationalization efforts across their own campuses. This study however, gathers

information from across an entire state's collective higher education system, both public and private, giving institutional leaders both a grasp on what experiences and beliefs faculty hold on their own campuses, as well as how these findings compare to their fellow institutions' faculty across the state.

The data from this study will be useful for administrators and faculty as a first step in understanding campus internationalization, and an important piece to ensuring Vermont institutions remain globally competitive through programs, research, and student outcomes. In addition, study findings will be compared to three previous studies conducted by the Carnegie Foundation for the Advancement of Teaching, the American Council on Education, and the Changing Academic Profession, which investigated faculty internationalization from similar, but wider lenses.

The Carnegie Foundation for the Advancement of Teaching is an independent policy and research center originally founded by Andrew Carnegie in 1905. Its mission is to research and support initiatives to transform American education "through tighter connections between teaching practice, evidence of student learning, the communication and use of this evidence, and structured opportunities to build knowledge" (Carnegie, 2010). The Carnegie Foundation for the Advancement of Teaching study of 1992-1993 was a comprehensive look at faculty internationalization across fourteen nations. The study set the bar for future research looking at faculty experiences, attitudes and beliefs regarding internationalization. Researchers from the Carnegie project found many interesting findings when looking across American faculty members specifically.

For instance, it was found American faculty ranked last out of fourteen countries surveyed in their commitment to internationalization. More than half of faculty surveyed did not belong to international academic organizations and seven out of ten had not been to a conference outside of the United States within the prior three years. Two-thirds of faculty had not published abroad and only one in ten had written an article or book in another language other than English (Haas, 1996). The study also found with the exception of selective liberal arts colleges, faculty with teaching orientations were less likely to be as internationally focused as those with research orientations (Altbach & Lewis, 1996).

There was a general sense American academics wanted to contribute to the international education system, but were less firm on the need to "tap into the richness and educational achievements of other cultures" (Haas, 1996). American faculty indicated overwhelmingly connections with foreign scholars was important to their work, and were in favor of foreign exchanges. However, more than half surveyed did not belong to an international organization and the majority had not attended a foreign conference in the prior three years. The study found on the whole, a gap between the internationalist attitudes of American faculty and the amount of participation and international experiences they engaged in (Haas, 1996). The Carnegie study paved the way for the American Council on Education study several years later.

The American Council on Education is the only higher education organization to represent presidents and chancellors of all types of U.S. accredited degree-granting

institutions, from community colleges through tier-one research universities. Since its foundation in 1918, ACE serves as a common voice on behalf of colleges and universities and seeks to influence public policy based on research, initiatives, and advocacy work (ACE, 2010). In 2002, the American Council on Education conducted a study on faculty attitudes, experiences and perceptions towards internationalization. In comparison to the Carnegie study ten years prior, the American faculty seemed to indicate having a wider acceptance of internationalization. Of those surveyed, a majority had traveled outside the United States for academic purposes and indicated having foreign language competencies. One in four said they had worked collaboratively with a foreign scholar and one in five had published in a foreign journal. Twenty-seven percent had the perception 'incorporating global dimensions into their professional work' factored into tenure and promotion decisions (Siaya & Hayward, 2003).

The study found faculty at liberal arts colleges the most supportive of international course requirements, most likely to teach international courses in comparison to research universities, most likely to incorporate foreign readings, and most likely to integrate new technologies to enhance international dimensions to their courses. Comparatively, faculty at research universities were the least likely to believe undergraduates were finishing their degrees and leaving the institution with an awareness of other countries, cultures or global issues (Siaya & Hayward, 2003). Liberal arts colleges were the least likely to include internationalization into their mission statement, list it as a priority in their strategic plan, or have assessed their

international efforts in the last five years. In these aspects, doctoral-granting universities demonstrated the highest levels of internationalization (Green & Olson, 2003).

In 2007, a new international survey of faculty was conducted as a fifteen year follow up to the original Carnegie study. This nineteen-country survey entitled "The Changing Academic Profession" (CAP) sought to reveal changes among the American faculty since the advent of the internet, the emergence of free trade and the development of a knowledge-based economy (Martin J. Finkelstein et al., 2009). In order to address problems comparing new data to the results of the Carnegie study, the researchers used an alternative method to look at the results by generational differences. The researchers compared the findings of new entrants, those hired since 2000, and senior faculty, those who had been working for longer.

The CAP study sought to examine faculty internationalization in an era of free trade and a globalized economy to see whether the American academic community had adapted to the changing context. Former researchers from the original Carnegie study were contacted including Juergen Enders at the University of Twente, Akira Arimota now at Hiyajima University, and William Cummings of George Washington University. A ten member executive committee was called to guide the study with representation from Japan, China, Mexico, India, Germany, the United Kingdom, and the United States.

The United States has 655,000 full-time appointed faculty members across nearly 4,000 schools. A sample of 5,772 faculty members across 80 institutions were

chosen, and sent the electronic survey. Nearly 1,000 email invitations bounced back, and paper surveys were sent to these individuals. A total of five reminders were sent to potential participants. The study sought to identify key pieces of information about the faculty including gender, race, age, institution type, discipline, experience abroad, a teaching or research orientation, and at what stage they currently were in their careers. Based on these criteria, The CAP study found new entrants were just as likely to publish abroad as those more senior faculty members (those who had been working in the field for seven years- the typical duration for earning tenure). However, their research was less likely to be international in scope and less likely to have involved the collaboration of foreign partners than their more senior colleagues (Martin J. Finkelstein et al., 2009). Unlike the Carnegie study, the CAP study did find a difference across gender, with female academics more likely to focus their teaching on international issues. Also of note, faculty members who had spent time abroad were more likely to include international dimensions into the content of their courses. Perhaps out of sync with common assumption, the researchers found faculty members working at non-doctoral granting universities were more likely to indicate their research included international themes. In contrast, research university faculty were more likely to infuse international perspectives into their teaching (Martin J. Finkelstein et al., 2009).

Using these prior studies as guideposts, questions for this dissertation emerged to investigate several areas of inconsistency, changes over time, and intriguing trends warranting further research. For starters, American faculty members' international

experiences seem to have an impact on their willingness to bring international perspectives and dimensions into their professional work. Factors such as type of institution, faculty discipline, faculty members' preferences towards teaching or research, along with gender seem to correlate with attitudes towards internationalization.

Informing Future Studies

This dissertation looked to see if similarities consistent with prior studies were present across the Vermont sample, including whether female academics were more likely to bring international dimensions into their teaching, whether faculty members who have spent time abroad are more apt to bring international dimensions into their teaching and research, and whether one's discipline impacts internationalization support. The colleges and universities in this study ranged widely in mission including technical, religious, military, graduate student-focused, and research intensive. Faculty responses were compared to see if there were correlates among academics' experiences, attitudes and perceptions. Faculty members' preferences for teaching or research, gender, number of years employed, as well as academic rank have also been used as variables for comparison.

With institutional competitiveness growing both domestically and internationally, new data from this study will help to influence others who are looking to develop comprehensive studies on their own campuses or across individual states. Although international and national data are useful as benchmarks, each state and

region can have such dramatically different cultural and economic conditions, that a more focused study can more accurately reveal and portray what is happening locally. It is this new angle and perspective that this study lends to the field, an analysis that is both comprehensive and focused. Following are the list of research questions that guided this study.

The Research Questions

The main questions guiding this study were influenced and shaped by prior studies, to advance what is currently known on faculty internationalization. In following in the footsteps of the Carnegie, ACE and CAP studies, comparisons and differences could be pointed out when looking at areas such as differences by gender, discipline, number of years in the field, international experience, or academic preference. Vermont institutions could obtain a sense as to how they matched up against prior faculty studies.

1. Who are the full-time faculty based on demographics and background?
2. What international experiences, travels and foreign language competencies do full-time faculty members have?
3. What attitudes and beliefs do full-time faculty member hold in regards to internationalization?
4. What perceptions do full-time faculty members have regarding campus climate and its affect on internationalization? Do results vary by academic rank? By gender? By teaching or research orientation? By discipline? By number of years employed?
5. How do full-time Vermont faculty responses compare to the American faculty respondents of the 1992-1993 Carnegie Foundation study (Haas, 1996)? To the full-time faculty respondents of the 2002 American Council on Education

report (Siaya & Hayward, 2003)? To American faculty respondents of the 2007 Changing Academic Profession (CAP) faculty internationalization survey results (Finkelstein et al., 2009)?

This dissertation study will allow participating institutions to see what international experiences and language competencies their faculty members have. It allows schools to gain a better indication of how faculty weigh international issues, and what beliefs and perceptions they hold in regards to internationalization issues generally. Institutions will be able to compare their results to prior national and international findings, as well as against the state mean comprised of data from fellow Vermont colleges and universities, to see how they comparatively match up. This study expands on the accepted belief in the literature that for substantive change to occur, faculty must be at the heart of the conversation (Fischer, 2007). This study will lend insight to institutions across the state towards faculty attitudes and inclinations to bring international concepts into their teaching, research, and service.

This study surveyed all full-time faculty members across participating institutions in Vermont offering at minimum a bachelor's degree. Information gathered will be especially useful for Vermont college and university leaders as they move forward in shaping strategic plans, crafting programs, allocating funding, and competing for academic talent.

Plan for the Dissertation

The following chapters present a comprehensive look at internationalization across Vermont institutions, through the lens of the academic community. Chapter

two details the research questions that steered this study and the methodology used to gather and analyze the data. Included within this chapter is a detailed breakdown of the research process, from the initial drafting of the questions, through the review process, and ultimately how survey was distributed and collected. This process is outlined in depth for future researchers to evaluate and utilize as seen fit. The methodology is mapped out and an overview of the procedures that were conducted is given. This chapter lays out the importance of the tests conducted, why there were chosen, and how they in turn deliver information needed to validate the study. This is not meant as a full tutorial, rather a broken down rationale for the construct of the study itself. Through this transparent process, future researchers can better understand how the data was collected, analyzed, and interpreted.

Chapter three is a comprehensive review of the literature on higher education internationalization and the American academic profession, providing context and rationale for the study. This chapter gives a clear picture of current academic life, the challenges and the changes over time, along with areas of growth impacting the field. The full-time faculty structure as it has been shaped over time is again going through changes, with increasing numbers of faculty being hired in a part-time or non-tenure track capacity. This chapter discusses the importance of these changes and how the academic profession and internationalization are creating new areas of growth.

Chapter four looks at the descriptive backgrounds of Vermont faculty and highlights any differences based on demographics and background. Faculty international experiences, travel, and foreign language competencies are included.

Pulled from multiple sections across the survey, faculty responses offered a clear picture of the collection of faculty working within Vermont institutions. Details discussing what drives faculty to travel internationally, whether it be for conference attendance, to teach, or collaborate on research projects are covered. Also of interest within this chapter is the analysis of when and why faculty members travel overseas, and whether this tends to happen for the first time as a faculty member, or whether there is a trend for faculty members to have studied abroad previously as either undergraduate or graduate students. These among other demographic questions are thoroughly vetted, giving a comprehensive picture of who makes up the Vermont faculty.

Chapter five describes the construct of the Attitudes and Beliefs dependent variable used to further investigate faculty views towards internationalization. This chapter seeks to find whether there are significant differences in attitudes and beliefs towards internationalization across faculty members by gender, academic rank, academic discipline, student learning (teaching) or research orientation, and/or by the number of years one has been employed at their current institution. In making these comparisons it is possible to see if there are correlations of importance that show surprising connections or relate well to data from prior studies. Whereas Chapter Four looks at demographics, Chapter Five really takes a statistically significant look at what relationships either exist or fail to exist when looking at faculty attitudes and beliefs across multiple variables. Knowing whether gender or academic rank correlate to the way a faculty member feels about internationalization is important information

to have. It allows institutions to recognize that there might be significantly different ways they need to approach internationalization initiatives on their campus given who already is showing signs of buy-in, who has their back up against the idea, or who may not have international issues on their radar at all. It is this next step of analysis beyond simple demographic trends that can also allow comparisons to prior studies in depth.

Chapter Six describes the construct of a perceptions variable used to see whether significant differences exist among faculty by: gender, academic rank, academic discipline, having a preference for student learning or research, or by the number of years employed. The Perceptions variable varies from the Attitudes and Beliefs variable in that it is specifically focused on how faculty members view internationalization on their campuses. Whereas the Attitudes and Beliefs variable captures information on how in favor of internationalization faculty are generally, including their tendencies to bring global dimensions into their work, the perceptions variable more clearly focuses on faculty members' views of how internationalization is playing out on their campuses. This difference in variables is important to clarify, since a faculty member could have strong beliefs in favor of internationalization, but feel disenchanted with their perceptions of how their specific institution is going about the process of internationalizing. Differences found among the perceptions of faculty could prove useful to institutional leaders as they move forward in partnering with faculty to foster internationalization on campus. If faculty perceptions vary significantly from the messaging of the college or university, that disconnect would

be critical for an institution to explore, especially to better understand the root cause. This information will allow for a starting point in a collective conversation.

Chapter Seven compares and contrasts findings based on descriptive findings and logical assumptions made between this dissertation study and prior research. In particular, comparisons are made among faculty internationalization studies conducted by the American Council on Education, the Carnegie Foundation for the Advancement of Teaching, and the 2007 Changing Academic Professions survey. Given these three prior studies were conducted over a span of fifteen years, it gives a nice sounding board by which to compare findings, and will allow Vermont faculty and administrations to see changes over time, and where similarities and differences exist. Patterns of growth or change are important to understand so that future mapping of both curriculum and programs can be achieved. Where significant differences exist, they have been pointed out to highlight where Vermont bucks the trends of former studies, and why these differences matter.

Chapter Eight discusses the implications of the study and the potential for future applications and successive studies. This final chapter serves as a summary and compilation of the data found, and walks through the importance and significance of the new information. It discusses where future research might next lead in the shadow of this study, and areas of future growth that could be explored. As in many studies, the research itself leads to more questions than answers, but it is my hope that this chapter does a strong job of indicating the relevance and importance of the take away points of this study.

Conclusion

With a clear understanding of the importance of this study, the questions guiding it, and how it can influence future decisions, the next chapter gives the details on the design of this study. The methodology behind any study is important to flesh out given it can make or break a study's value and determine whether findings, if found, hold significant value. Each step of this study is described and discussed so that the process is transparent, from choosing the quantitative method to following IRB protocol. The next chapter is the skeleton of this research, framing the creation of the assessment tool and how data was collected.

CHAPTER TWO: METHODOLOGY

Introduction

Chapter two takes an in-depth look at the methodology driving this study. From the design of the survey questions, through data collection and analysis, this chapter focuses on each of these processes. Since this study looked at fourteen different institutions, it was important to have a coherent system in place that could manage the logistics of such a large number of total faculty participants. The methodology guiding this study helped keep the project manageable and allowed for data to be compared to prior studies.

The Methodology

It became quite clear early on that facilitating focus groups, or individually interviewing nearly two thousand faculty members was not a feasible option. Rather, this study used a quantitative, exploratory and descriptive approach using an online survey instrument to examine faculty experiences, attitudes and perceptions towards internationalization. The quantitative survey method was chosen given the large number of faculty involved as well as to more easily compare descriptive characteristics across multiple variables. It should be noted that there are benefits to both quantitative and qualitative methodologies. Since this study was exploratory, it could be argued that a qualitative approach would have been more appropriate, since through listening and coding faculty members' individual responses would have

allowed trends to emerge and more significant personal accounts to be aired. However, in using a quantitative approach, it allowed me to create a survey that would be consistent among participants, and to remain objective when analyzing the data. Along with the logistical ease of distributing a survey versus interviewing individuals, the quantitative methodology also allowed for data to be compared to prior studies, and for the information to be generalized to a greater extent for future use.

The survey was distributed and collected entirely online using Qualtrics, an online survey distribution instrument. This format afforded a secure way to reach each individual faculty member, helped to ensure consistency in distribution and collection times, eased the coordination of the high number of full-time faculty participants while limiting cost. The invitation to the survey was emailed out to all Vermont faculty members, except those from the University of Vermont on September 21st, 2009. Data was collected via Qualtrics for a total of two weeks, closing on October 5th, 2009. The University of Vermont needed to wait until October 21st to send out the survey, and so their data collection ended two weeks from their start date on November 4th, 2009, with a reminder email sent out at the midpoint on October 28th.

Response Rate

In total, the survey was sent to 1,845 full-time faculty members across fourteen institutions, with 790 total responses giving a 43% response rate. Of the 790

respondents, 557 individuals self identified as full-time full, associate or assistant professors, giving me a final response rate of 71%. Another 233 faculty members, 29% of respondents, did not identify as full, associate or assistant professors. For the purposes of this study, and to most easily compare data to prior studies, only the responses of full-time faculty were analyzed (557 individuals).

Faculty completed an online survey to collect data and key facts about their international experiences, attitudes and perceptions towards international dimensions of teaching and research. This included foreign travel, publications, language competency, and ties to colleagues and students. The survey data was broken down to exhibit faculty responses by gender, academic rank, discipline, number of years of service, and identifying as having either a teaching or research orientation.

In order to bolster the survey response rate, along with having the initial invitation sent from an institutional administrator, a reminder email was also sent out from the administration to each faculty member at the midpoint of the two-week data collection period. The reminder emails included a link to the survey, along with a note thanking those who had already completed the survey, and words of encouragement to those who had not yet completed the questionnaire.

Population

This descriptive study focused on the experiences, perceptions and attitudes of full-time faculty across higher education institutions within Vermont. Although this study initially looked to focus upon only the full-time faculty across Vermont, for

most institutions, it was more valuable for them to have the entire faculty surveyed. Across several schools, the number of full-time, tenure-track faculty is minor in comparison to the number of part-time and adjunct faculty. For instance, at Goddard College, there are only twelve full-time faculty members. However, given their model of independently constructed majors and the low-residency design they use, they actually have a larger faculty of 83 academics affiliated with their programs. When looking at internationalization, it was important for Goddard to understand faculty attitudes and perceptions beyond just the full-time cohort of twelve. The University of Vermont is the only school that was able to, and chose to, survey only their full-time faculty.

To make comparisons to prior studies, this study looked only at those full-time faculty members, who self-identified as working in an assistant, associate or full professor capacity. This is important to note in order to be able to make comparisons across prior studies.

Table 1
Faculty Numbers by Institution

College	Total # of Faculty	Total # of Full-Time Faculty	Percent who are Full-Time	# of Full-Time Faculty Respondents	Full-Time Faculty Response Rate by Institution
Burlington College	64	11	14%	1	9%
Castleton State College	215	88	41%	27	31%
Champlain College	313	88	28%	49	56%
College of St. Joseph	64	14	22%	5	36%
Goddard College	83	12	14%	11	92%
Green Mountain College	84	49	58%	25	51%
Lyndon State College	167	58	35%	19	33%
Marlboro College	41	39	95%	11	28%
Norwich University	311	121	39%	15	12%
St. Michael's College	209	155	74%	58	37%
SIT Graduate Institute	41	34	83%	4	12%
Southern Vermont College	40	17	43%	7	41%
University of Vermont	1303	1081	83%	297	27%
Vermont Technical College	229	78	34%	28	36%
Total	3164	1845		557	

Also of use is to see where faculty members are from by discipline. For example, the majority of faculty members in the sample who identified as being in the Agricultural and Animal Sciences are from UVM. Table 2 gives perspective to where individuals are from when specific disciplines are referred to throughout the study.

Table 2
Faculty Numbers by Institution

College	Ag/ Nat. Sci	Bus/ Com	Edu	Eng/ App.	Art	Hum	Life Sci	Phy/ Math	Soc/ Beh	Other	Total
Castleton State College	0	3	2	0	1	6	4	2	5	2	25
Champlain College	0	11	3	3	3	11	1	1	6	5	44
College of St. Joseph	0	1	0	0	0	1	0	1	1	1	5
Goddard College	0	0	2	0	2	2	0	0	0	4	10
Green Mountain College	0	1	2	0	2	6	3	2	5	3	24
Lyndon State College	0	0	2	0	1	3	0	5	4	3	18
Marlboro College	0	0	0	0	2	5	1	0	2	0	10
Norwich University	0	0	1	0	0	4	4	2	3	0	14
St. Michael's College	0	2	4	0	2	17	6	5	13	6	55
SIT Graduate Institute	0	0	2	0	0	0	0	0	1	1	4
Southern Vermont College	0	1	0	0	0	4	0	0	1	0	6
University of Vermont	12	8	16	12	11	48	91	17	45	19	279
Vermont Technical College	2	3	0	11	0	1	4	2	0	4	27
Total	14	30	34	26	24	108	114	37	86	48	521

All fourteen participating Vermont institutions in this study are accredited by The New England Association of Schools and Colleges. The University of Vermont is the sole doctoral granting research institution, with the majority of the other institutions heavily focused on teaching. This offers a nice cross-section of the different types of higher education options available within Vermont. Included are a

military university, a graduate institute, small elite liberal arts schools, small public and private colleges, a Catholic institution, as well as technical and experiential schools. Five Vermont institutions chose not to participate in this study, including Bennington College and Middlebury College that are otherwise considered to be leaders in the field due to their progressive adoption of internationalization practices. I was surprised they were adamant in not wanting to participate, but do not want to speculate here as to what their rationales might be. The other three institutions, Vermont Law, Sterling College, and Johnson State did not respond to any of my outreach attempts.

Survey Organization

The survey for this dissertation was broken into four sections: International Experience, Attitudes and Beliefs, Campus Climate, and Demographics. As mentioned, questions were used from the American Council on Education's *Faculty Survey* which provided data on academics for the three-part *Mapping Internationalization on U.S. Campuses* report (Siaya & Hayward, 2003). Questions were also pulled from the Carnegie Foundation for the Advancement of Teaching's *International Study of the Academic Profession* survey (Altbach & Lewis, 1996). In addition, several questions were used from the 2006 unpublished dissertation study of Michele S. Schwietz, entitled *Internationalization of the Academic Profession: An exploratory study of faculty attitudes, beliefs and involvement at public universities in Pennsylvania*. These questions were used in collaboration with new questions I

constructed, in keeping with the scales of the older studies, in order to seek new information.

I was seeking results that allowed for general comparisons of full-time faculty in Vermont to the findings of the 1993 Carnegie Foundation study, the 2002 ACE report, and the 2007 CAP faculty study. I looked to see whether faculty members with teaching orientations were less likely to be internationally involved than those with research orientations, and whether academic rank, field of study, gender or number of years in the field make a difference.

Questions in the 'International Experience' section sought information on faculty members' international experiences as an undergraduate student, graduate student and as a faculty member. It looked to gather information on experiences with study abroad and length of time spent outside of the country. It sought information on language ability, collaboration with foreign colleagues and the incorporation of foreign perspectives and materials into courses. Questions 1 – 9.6 made up this section. Question two was used from the Carnegie study. Questions 4.5 and 6 were those I developed. Questions 8 and 9.6 were informed by Schwietz's study. The remaining questions in this section were pulled from the 2002 ACE study.

The Attitudes and Beliefs section sought information on how important faculty believe international perspectives are to their work, and to the students graduating from their institutions. It looked at faculty beliefs regarding the importance of study abroad, language ability, and international courses. This section sought information about faculty members' own beliefs regarding the time necessary

to incorporate global perspectives and gauged the interest level in internationalizing their work. Questions 10 – 13.6 comprised this section. Questions 10.1 – 10.5 were utilized from the ACE study. Questions 11 and 12 were shaped by the Schwietz study. I constructed questions 13.1 – 13.6.

The Campus Climate section sought information about faculty perceptions and how conducive or supportive they perceive their campus environments to be in fostering internationalization. Questions sought information as to whether faculty feel encouraged to incorporate global dimensions, whether they see tenure and promotion decisions influenced by internationalization participation, and whether they perceive students graduating with international perspectives. Lastly, this section sought to find out whether faculty members believe it is the faculty or administrators who hold primary control over internationalization on campus. Questions 14.1 – 14.8 constructed the Campus Climate section. Questions 14.3 – 14.4 were pulled from the Schwietz study, and I developed questions 14.7 and 14.8. The remaining questions in this section were pulled from the 2002 ACE study.

The Demographics section collected information on gender, discipline, what country faculty members were born in, whether faculty members retain ties with foreign colleagues, and the number of years of service faculty have at their current institutions. This section included questions 15 – 20. Question 15 was pulled from the Carnegie study. Questions 16, 18, and 19 were shaped by the Schwietz study. I developed questions 17 and 20 to round out the section.

Once the questions were framed with proposed scales, based on my working knowledge of the past theoretical work of DeVellis, including the constructed variables Attitudes & Beliefs, and Perceptions, the survey was ready to be pilot tested among faculty to see how it held up under use, and to solicit feedback to improve the design to the greatest extent possible. Below is a table outlining how each question was utilized to answer the questions framing this dissertation, and to compare findings to prior studies. Under each organization title are the key foci from their reports, and how I sought to compare questions in order to match-up Vermont faculty responses.

Table 3
Ties between Dissertation Questions and Survey Questions

Carnegie: 1. Attended a conference outside of the United States – Q. 4.6 2. Ever published abroad – Q. 9.2 3. Teaching orientation (less likely to be as internationally focused as w/research orientation) – (Q. 12 w/Q.10.1-10.5 & 13.1-13.6)
ACE: 1. Travelled outside the United States for academic purposes – Q. 4.1-4.7 2. Foreign language competencies – Q. 7 & 8 3. Worked collaboratively with foreign scholars – Q. 9.3 4. Perception that 'incorporating global dimensions into academic work factors into promotion/tenure' – Q. 14.5
CAP: 1. Differences by number of years employed compared to the likelihood to publish abroad, and the likelihood to collaborate w/foreign partners – Q. 19 w/Q. 9.2 & 9.3 2. Female faculty more likely to focus teaching on int'l issues – Q. 15 w/Q. 9.1 3. Faculty who spent time abroad more likely to include int'l dimensions to into their courses – Q. 5 w/9.1, 9.4, 9.5
Fields: 1. Who are faculty based on demographics/background – Q. 2, 9.6, 11, 16, 18 2. International experiences, travels, and foreign language competencies – Q. 3, 4.1-4.7, 5, 6, 7, 8, 9.6, 16, 17 3. Attitudes and Beliefs help by academic rank, gender, teaching/research orientation, # of yrs. employed – (Q. 10.1-10.5 & Q.13.1-13.6 w/ Q. 2, 15, 12, 19) 4. Perceptions regarding campus climate and its affect on internationalization – Q. 14.1-14.8 w/ Q. 2, 15, 12, 19

Content Validity

In addition to those questions I designed, this dissertation borrowed and utilized questions from three key prior studies: the *International Study of the Academic Profession* (Altbach & Lewis, 1996), the *Mapping Internationalization on U.S. Campuses* (Siaya & Hayward, 2003), and the 2007 Changing Academic Profession faculty internationalization survey (Martin J. Finkelstein et al., 2009). Questions were also used from the 2006 faculty internationalization dissertation of Michele S. Schwietz from the University of Pittsburgh (Schwietz, 2006). I made sure to investigate how questions from previous studies had been tested before including them along with those that I designed, as part of the reliability and validity testing, as well as pilot test.

As a first step in the survey design, scales needed to be shaped to determine how the questions were going to be asked. For instance, the ACE study used Likert-like scales, ranging from low to high, across a span of five choices when asking participants internationalization questions. To maintain consistency, I felt it best to adhere to these same scales since I was borrowing questions and wanted to ensure they remained reliable. I used the same scales from 1-5 (5 being most in favor of internationalization), and amended the scales by pulling out questions that either weren't related to my study or overly lengthened the survey. By testing my scales with exploratory factor analysis I was able to ensure that the new scales were still performing as expected, as well as determine the two variables Attitudes & Beliefs and Perceptions.

When designing scales care must be taken to avoid ambiguity, how a survey question is asked becomes very important, as do the designed options for a respondent to choose among when answering. Ambiguity in a question can lead to an item not performing as expected. It is a process that seeks to ensure that a question is interpreted by a participant the way a researcher intends it to be, and allows for a participant to answer in a way that a researcher finds useful and valid. A poorly designed item will either result in misinterpretation by the participant, or the participant will be unable to answer the question fully. An example of this would be a multi-layered question, where a participant may agree with the first part of an item, but disagree with the second. This would be an example of poor question design, where a participant does not know how to answer appropriately, and a researcher will end up with data that may be misrepresentative of what their participants' intentions were. Scale design is a skill that takes experience and practice to develop. I had confidence in the work of ACE's prior research and where possible followed a similar design.

The response options for most of the questions throughout this dissertation ranged from Strongly Agree to Strongly Disagree, coded from 1-5 respectively. A challenge I faced as I was designing this survey was whether to include a "Neither Agree nor Disagree" option. Should it be placed in the center of the range of options, or set off to the side? The inclusion of this response option can heavily shape data results, as it can have an impact on how respondents view the question. For this study I chose to keep a middle point based upon feedback I received during the pilot, and

intentionally kept it in the center, between Agree and Disagree. In doing this, it was my intention to have faculty see the potential choices as a range, with 'Neither Agree nor Disagree' as mid-point option within that spectrum of choices, rather than as a 'Not-Applicable' option off to the side.

The proposed scales were constructed to mirror those used from previous studies, with questions framed to obtain answers to my initial questions guiding the study. Several questions that served to collect demographic data were straightforward and required nothing more than bivariate responses, in other words, yes or no answers. However, in order to measure attitudes and beliefs, as well as perceptions, I needed to construct a variable for each through the use of asking questions framed around those two areas. Through exploratory factor analysis, it was determined that questions ten and thirteen collectively comprised the Attitudes and Beliefs variable, and questions 14.1-14.7 would make up the Perceptions variable. Each would range from Strongly Disagree to Strongly Agree, coded from 1-5 respectively.

Both questions 10.1 from the Attitudes and Beliefs scale and 14.1 from the Perceptions scale were worded negatively, and were recoded so that all of the items for those respective sections faced the same way. The coding would generate a "score" for each faculty member participating in the study, with those having higher scores showing a stronger affinity for internationalization. Similar scales were used for question fourteen (1-7) to comprise the Perceptions variable.

Attitudes and Beliefs Scale

The Attitudes and Beliefs variable was created by combining questions 10.1-10.5 and 13.1-13.6. Question 10.1 was recoded into 10.1R in order to face the same direction as the other items in the scale since it had been negatively worded in the survey. By recoding it, once the items were summed, a faculty respondent's score to that question would be in keeping with the rest of the items in the scale. Items within the variable were summed, so that a faculty member with a higher score would be indicative of stronger attitudes and beliefs in favor of internationalization. However, before this summing process could occur, the Attitudes and Beliefs variable needed to be statistically tested to ensure that it was going to hold up under scrutiny.

This scale was constructed of eleven items that targeted faculty members' individual attitudes and beliefs in favor of internationalization. These scales were created to specifically target faculty members views on allocation of class time and whether time spent on international issues pulls away from time that might be better spent on what they may view as core requirements. The second item seeks to see whether faculty members view international education as a critical piece to students' educations. Item three sought to look at faculty members' view of study abroad and how valuable they deemed the experience. Question four looked to see if faculty members identify comprehension of a foreign language as an asset needed prior to students graduating. Items five and six sought to understand whether faculty members believe that international topics and action to internationalize are the responsibility of colleges and universities. Item seven looked at faculty support of internationalization,

whereas questions eight and nine pointedly asked about bringing international dimensions into teaching and research. Question ten looked at faculty members' interests in partnering with organizations, businesses or schools, and lastly question eleven sought to find out whether time constraints weighed into an ability to bring more international components into one's work.

1. The more time that is spent teaching students about other countries, cultures or global issues, the less time is available for teaching the basics
2. International education is a critical component of higher education
3. All students should study abroad at some point during their college experience
4. Students should be required to study a foreign language if they don't already know one
5. Colleges and universities should require students to take courses covering international topics
6. It is the responsibility of colleges and universities to internationalize in order to better prepare graduates to enter the work-stream
7. Faculty support is the most important factor to successful internationalization at colleges and universities
8. I would like to teach more international content within my courses
9. I would like to incorporate international themes or collaborate with foreign scholars in my research
10. I would like to work with local organizations, businesses, or schools on projects of an international nature
11. I would be more inclined to bring international dimensions into my work if I had more time

Perceptions Scale

The Perceptions variable was created by combining questions 14.1 – 14.7. This process was similar to what needed to be done for the Attitudes and Beliefs section prior. Question 14.1 was recoded into 14.1R in order to face the same direction as the other items in the scale, since it was the only question to have been negatively worded. By recoding it, once the items were summed, a faculty respondent's score to that question would be in keeping with the rest of the items in the scale. This scale was constructed of seven items that targeted faculty members' views of campus climate, and whether they viewed their institution as conducive to internationalization. Still ranging from 1-5 (5 being most strongly agree). Each of the items were prompted with "At my institution…"

1. Study abroad impedes a student's ability to graduate on time
2. Faculty are encouraged to include international perspectives in their courses
3. International expertise is part of recruitment and selection procedures of new faculty
4. Most students graduate with an awareness about other countries, cultures or global issues
5. International research or teaching is a consideration during tenure and promotion decisions
6. Faculty development funds specifically to increase international skills and knowledge are available
7. Internationalization efforts are directed in large part by the faculty

Psychometric Properties of Survey Scales

A factor analysis was run to see if items within each section were correlated, allowing common factors to be identified and later used for t-tests and ANOVA analysis. The factor analysis looks to explain the amount of variance in the variable accounted for by a factor. An exploratory factor analysis procedure was done to determine whether the scales reflected the latent variables, accurately estimating faculty attitudes and beliefs (DeVellis, 1991). A factor analysis was run and interpreted to identify which items loaded onto which factors (Attitudes and Beliefs or Perceptions). The results would either confirm or discredit the apriori scales. Similar properties were seen and didn't waiver across the three groups of UVM faculty, Non-UVM faculty, and the Total Faculty.

Table 3.1
UVM, Non-UVM, Total Faculty

Scale Statistics

	Mean	Variance	Std. Deviation	N of Items	Chronbach's Alpha
UVM Faculty	62.1742	73.574	8.57753	18	0.818
Non-UVM Faculty	63.8312	66.219	8.13752	18	0.799
Total Faculty	62.9475	70.685	8.40747	18	0.81

Principal axis factoring was the method used, with extraction set with an eigen value greater than one, and a Varimax rotation. Coefficient loadings less than .3 were suppressed. All but two of the items grouped as expected, however, due to theoretical considerations I kept them grouped as anticipated. The items functioned well, most

were positive and moderately high as shown in Table 5. No items were negatively correlated, and all were close to zero or positively correlated.

Table 4
Rotated Factor Matrix for Attitudes & Beliefs and Perceptions

Rotated Factor Matrix(a)

#	Question text	Factors: Attitudes & Beliefs	Perceptions
AB #8	Like to teach more international content within my courses	0.692	
AB #9	International themes or collaborate with foreign scholars	0.681	
AB #5	Students to take courses covering international topics	0.680	
AB #6	Prepare graduates to enter the workstream	0.670	
AB #3	Students should study abroad at some point	0.641	
AB #2	International education is a critical component of higher education	0.637	
AB #10	Local organizations, businesses, or schools	0.588	
AB #4	Study a foreign language if they don't already know one	0.586	
AB #1	Time spent teaching global issues, the less time… basics	0.496	
AB #11	Would bring international dimensions with more time	0.457	
AB #7	Faculty support is the most important factor	0.447	
P #1	Study abroad impedes ability to graduate on time	0.394	
P #7	Internationalization efforts directed by the faculty		
P #3	International expertise is part of recruitment and selection		0.673
P #2	Faculty encouraged to include international perspectives		0.590
P #4	Students graduate with an awareness about other countries		0.541
P #5	Int'l research or teaching is a consideration during tenure		0.536
P #6	Faculty funds to increase international skills available		0.488
	Explained Variance	24%	10%

Extraction Method: Principal Axis Factoring. Rotation Method: Varimax with Kaiser Normalization.

Reliability and Validity

Reliability is the consistency of a measure, or the ability to repeat a measure, with similar outcomes. I examined only internal consistency as opposed to test-retest or parallel forms, looking at inner correlation and how well items within the scales

were measuring. Validity is the strength of the outcomes, and how "valid" or accurate the measurements were based on the variables used. For instance, was variation in survey responses based on differences among faculty, or differences in the way faculty interpreted the question? The prior would be a sign of a valid instrument. The latter would suggest trouble with how questions were worded or ordered within the survey.

The Chronbach's Alpha measures internal consistency, ensuring each question within a variable fits with one another. As a rule of thumb, a reliability score of .7 or higher is sought by researchers to demonstrate sufficient reliability across questions within an item. However, many factors including the length of a study, the alpha used, among others can impact a reliability score. The highest a Chronbach's Alpha score can be is +1, although it is not necessarily ideal to have a perfect score of +1, since this can indicate questions within a scale are actually too similar to the point of being repetitive. This can be a sign that a researcher would conceivably have been better off having more diversity among their questions. This leads to score of .7 being the target to hit as general rule of thumb when internal consistency is being measured. When reliability was tested across the two constructed variables of Attitudes and Beliefs and Perceptions, the Chronbach's Alpha was .810.

Both validity and reliability are important to consider in every study, and care was taken to ensure issues that might compromise the quality of the study were limited to the greatest extent possible. I used questions from prior studies that had gone through extensive analysis, both in development and field-testing. For those

questions borrowed from The American Council on Education, I found confidence in knowing they had contracted the Center for Survey Research and Analysis at the University of Connecticut to help design their study. This included multiple focus groups where questions were piloted, leading to a draft of the survey that was brought to the advisory board for full review (Siaya & Hayward, 2003).

The Carnegie Foundation for the Advancement of Teaching had a designated research director for each country that participated in the study to help ensure quality research design. Each of these directors was involved in the designing and reviewing of questionnaires to ensure questions were clear and translated appropriately to the native cultural and educational contexts. The instrument was pilot tested in each country and revisions made where necessary (Whitelaw, 1996). For those questions shaped by the dissertation of Michelle Schwietz, I had confidence in her process of utilizing the Center for Educational and Program Evaluation and the Applied Research Lab at Indiana University of Pennsylvania to help in the development and review of her survey questions. Once developed, her questions were pilot tested and critiqued to ensure reliability and validity needs were met. For the questions I developed in addition to those pulled from each of the projects mentioned above, I worked in collaboration with the Statistical Research team in the Information Technology Services office at Boston College. Once the instrument was designed, constructed of both new and borrowed questions, it was piloted, assessed, and modified to include all pertinent feedback and recommendations. This process was

both challenging and critically important, and was my first thorough attempt at survey design.

Table 5
Reliability for Attitudes & Beliefs and Perceptions Scales

#	Mean	Std. Dev.	Mean if Deleted	Variance if Deleted	Item-Total Correlation	Sq. Mul. Corr.	Cronbach's A. if Deleted
AB #1	3.832	0.9868	59.1152	63.385	0.403	0.305	0.801
AB #2	4.270	0.9129	58.6768	61.948	0.550	0.484	0.792
AB #3	3.541	1.0541	59.4061	60.914	0.526	0.428	0.793
AB #4	3.781	1.0283	59.1657	61.786	0.485	0.460	0.796
AB #5	4.034	0.9861	58.9131	60.683	0.588	0.554	0.789
AB #6	3.816	0.8956	59.1313	61.807	0.574	0.419	0.791
AB #7	3.721	0.8507	59.2263	65.098	0.354	0.228	0.804
AB #8	3.339	0.9490	59.6081	61.640	0.547	0.557	0.792
AB #9	3.660	0.9340	59.2869	61.270	0.584	0.495	0.790
AB #10	3.325	1.0006	59.6222	61.847	0.498	0.404	0.795
AB #11	3.559	0.9877	59.3879	64.574	0.324	0.395	0.806
P #1	3.913	0.8715	59.0343	64.547	0.384	0.229	0.802
P #2	3.379	0.8800	59.5677	66.886	0.210	0.304	0.811
P #3	2.824	0.9498	60.1232	65.088	0.306	0.331	0.807
P #4	3.274	0.9465	59.6727	68.383	0.090	0.246	0.819
P #5	2.543	0.9803	60.4040	65.739	0.251	0.265	0.810
P #6	2.796	1.0950	60.1515	66.052	0.193	0.186	0.815
P #7	3.333	0.9308	59.6141	65.905	0.259	0.132	0.809

Pilot Test and Review

The instrument was pilot tested among ten faculty members from Michigan State University, the University of San Diego, and at Boston College to obtain feedback regarding any potential concerns. The online program Qualtrics allowed me to create text boxes within the pilot, so that as reviewers were taking the pilot, they could leave feedback for each question as they answered it. This worked particularly well, allowing me to later go back and amend, delete, reframe and adjust questions as needed. Recommendations that came from the pilot included language and wording suggestions, question clarification, question order, answer options, and the implementation of skip logic. An example of skip logic was question four, which asked: "Have you ever travelled outside the United States?" Those who answered 'yes' would then be asked another series of questions based on their experiences. Those who answered 'no' were skipped ahead to the following question, without being asked a subsequent series of questions regarding foreign travel.

Overall, it was incredibly helpful to receive feedback from the faculty, as it highlighted how differently individuals can interpret the meaning of a single question. The pilot afforded me an opportunity to take this information to my committee and ensure moving forward I was using the most clear and comprehensive version of the survey possible. Item language was clarified and strengthened with changes that included replacing "important" with "critical" in question 10.2, "if they don't already know one" was added to question 10.4, and item 13.8 was removed from the Perceptions scale. Once I had the approval of my committee, the next step was for me

to package all of the materials together, including the survey itself, and submit them for the approval of the Institutional Review Board.

IRB Protocol

The Institutional Review Board ensures research integrity and protects participants in research studies from harm. In order to ensure ethical standards were met, and to take into consideration the importance of faculty anonymity when answering sensitive questions about attitudes and perceptions, Institutional Review Board (IRB) criteria need to be met. The first stage of this process was to package together materials needed for an exempt review by Boston College's IRB Office. I was asked to provide an introduction and background, the specific aims, objectives, and the methodology to be used for this study. I had to indicate who the target population was going to be and what recruitment methods were going to be used. Along with this I had to provide informed consent procedures, how confidentiality was to be handled, potential research benefits, and my resume and background information. These requirements were sent in along with a copy of the survey itself, and both the first survey invitation letter as well as the second reminder/follow-up letter to be sent out one week into the study. Boston College IRB approved my study on August 3rd, 2009. This entire packet of information was then sent to each participating institution for their review. Several of the schools participating in the study did not have an IRB office on their campus (several were predominantly teaching-focused institutions), and so in these instances the Boston College IRB

review met their needs to ensure human subject safety and research quality. However, for six of the institutions, I had to submit additional research applications, similar to what Boston College had required, to each of their individual IRB Offices and await approval.

This took just over one month, and consent from each school was ultimately attained by the beginning of September. Once I had the green light from my committee, Boston College's IRB office, and each campus I was intending to survey, I was ready to distribute the study to the faculty.

Survey Distribution

The target population was the entire full-time Vermont faculty at institutions offering at minimum, a bachelor degree accredited by the New England Association of Schools and Colleges. This included all full-time assistant, associate, and full professors across all disciplines and campuses. Since the survey was conducted electronically, it was also sent to those faculty members meeting the aforementioned criteria who were on leave or sabbatical. Since this went out to all full-time faculty members, it served as a census, and hence there wasn't a random population sample drawn. The survey was distributed and data collected electronically via the online program Qualtrics. This instrument was recommended by the senior statistical team in Boston College's Information Technology Services office as being both secure, and more comprehensive than similar instruments. The email with an invitation to participate in the study was sent to each faculty member with a URL link to the study.

In an attempt to bolster the response rate, the email with the link to the study, was introduced, and sent out by an institutional representative from each school to indicate the purpose of the study and to encourage faculty participation. Complete anonymity was assured to those participating. Each institution was assigned a number 1-14, with the email invitation sent to participants by their institutional advocate indicating their school's number. The first question of the survey asked participants to indicate which number school they are from. This allowed individual faculty anonymity while still retaining an ability for me to later filter down and identify and connect each response back to a specific institution (Dillman, Smyth, & Christian, 2008). In order to maintain consistency, the email introduction came from a senior administrator, such as a Dean, Vice President or Provost from each institution. In the email introduction letter, a rationale for the importance of the study, with a brief endorsement from the Center for International Higher Education was included. Ultimately fourteen institutions participated in the study out of nineteen across the state. Surprisingly both Middlebury College and Bennington College refused to participate. Both schools, and especially Middlebury, have prestigious reputations, along with histories supportive of experiential learning, and study abroad in particular. Middlebury in many aspects could be considered a leader on international initiatives, making it that much more surprising they refused to participate. Table 6 lists those institutions that willingly participated, along with the representative from each who agreed to send the survey out on my behalf.

Table 6
Participating Institutions' Representatives

Institution	Representative
Burlington College	Art Hessler, Dean of Academic and Student Affairs
Castleton State College	Renny Harrigan, Associate Academic Dean
Champlain College	Jim Cross, Associate Provost and Senior International Officer
College of St. Joseph	Nancy Kline, Academic Dean
Goddard College	Lucinda Garthwaite, Academic Dean
Green Mountain College	Anne Colpitts, Director of International Programs
Lyndon State College	Donna Dalton, Dean of Academic and Student Affairs
Marlboro College	Felcity Ratté, Dean of Faculty
Norwich University	Hal Kearsley, Associate Dean of Academic Programs
St. Michael's College	Karen Talentino, V.P. Academic Affairs
SIT Graduate Institute	Barbara Carver, Associate Dean
Southern Vermont College	Al DeCiccio, Provost
University of Vermont	Chris Lucier, V.P. Enrollment Management
Vermont Technical College	Rose Distel, Associate Academic Dean

Survey Administration

Once the administrator sent out the invitation email, faculty members were quickly able to access the questionnaire by having it automatically start when they clicked on the Qualtrics embedded URL link. The survey was a set of twenty questions, broken up over five pages for ease of viewing. One nice feature Qualtrics offered was the ability to track the amount of time it took for each faculty member to complete the survey. It turned out the average was eight minutes. Respondents advanced through each page by clicking arrow buttons at the bottom of each page. Data was captured irrespective of whether or not a faculty member completed the entire survey or answered every question. Primarily multiple choice and closed-ended

questions were used, with a matrix style format for several questions that were framed on the same topic. For instance, questions 14.1 – 14.8 collectively outlined the 'Campus Climate' section in a matrix style format. However, some open-ended responses were incorporated sparingly to capture faculty answers and insights that might not otherwise be reflected. For instance, language competency and academic discipline questions allowed respondents to fill in their own answer within an "other" text box. The very final question was also open-ended, asking for any additional comments not addressed in the survey. These responses were evaluated for commonalities and disparities. This method of question delivery addressed issues of consistency across respondents, and was easier to construct and tally.

Skip logic was used twice within the survey instrument to automatically advance the participating faculty member ahead in the survey based upon previous responses. The two instances where this was used was when asking whether an individual has traveled outside of the United States, and when asking whether the individual spoke another language other than English. In both cases, if the participant answered yes, a second series of follow up questions was prompted. In both instances if the respondent answered no, then the follow up questions were not prompted and the faculty member automatically advanced to the next question within the survey.

Considerations

Although non-response was a concern, support for the survey from the Center for International Higher Education at Boston College, as well as being emailed out by

an institutional advocate, seemingly helped to limit faculty misgivings regarding the questionnaire. Random replacement was not an option, so it was imperative faculty responded in high enough numbers to have a representative respondent sample. Also, given the administrative procedures of the survey, I was not able to track which individuals chose not to complete the survey, a limitation of not having individual identifiers for each participant. Without comprehensive knowledge of how many full-time faculty members there are across the state, it is impossible to draw direct comparisons and to have concrete external generalizability to the broader population. Individual item non-response, although problematic, is less hazardous to the value of the study than complete lack of contribution. The survey was intentionally conducted at the beginning of the fall term after the first few weeks of the academic year when faculty are most busy.

Due to the short duration of the study, the minimum number of questions asked, and the ease of online distribution and collection, participant dropout was not expected to be a concern. Location was a non-issue given the instrument was online, allowing those participating in the study to be in the comfort of their own homes or offices while answering.

Limitations

The fact this study was only conducted across institutions in Vermont could be considered a delimitation. Vermont is the second least densely populated state in the US behind Wyoming, has proportionately the most expensive public higher

education, only one PhD granting institution (UVM), ranks behind all 50 states in research funding and is 96.7% white, seemingly an environment not conducive to internationalization. This could limit the ability to generalize findings to other states. A specific limitation of this survey study however, is that without the collection of individual identifiers I was unable to track faculty who failed to respond to the survey, only collecting data on those who did. Although capturing individual identifiers would have allowed me to know who did and who did not participate, it most likely would have decreased my response rate. The exclusion of Middlebury College and Bennington College was unfortunate. Middlebury is known nationally as a premier internationalized institution, and so it seems odd that they were reluctant to contribute. With international issues at the forefront of their institutional plan, including a well-developed study abroad and international research support structure, it can only be assumed that they felt it was unneeded to burden their faculty with a survey to collect data that they are well-versed in. Bennington College quoted survey fatigue of the faculty as their primary rationale for passing on the opportunity.

This study builds upon the strong work done in prior studies, and lends credibility to this study. Using prior studies as guideposts it was possible to see how items, scales and methodologies could be applied to the Vermont context. In part, the strength of this dissertation project comes from the solid foundation of information found through the literature review that allowed for the framing of this study to occur. Without the contributions of prior researchers to the field, this study would still be in its infancy.

Conclusion

The methodology that guided this study was critical to the outcomes, both shaping the survey itself and the response of faculty. Prior research in the field lent considerable guidance in how questions and scales were framed, and sections within the survey constructed. I give considerable credit to the hard-working staff in the Boston College ITS Office for their support and recommendations as I developed an instrument in keeping with their strategies. With the instrument designed, and a blueprint in hand with how I would set about implementing the study, I needed to highlight the rationale for the study. Why this study holds value and where it fits into the greater conversation on the academic profession is imperative for stakeholders to understand the importance of the data. The next chapter delves into both of these issues in depth.

CHAPTER 3: A REVIEW OF THE LITERATURE

Introduction

The purpose of the literature review is to cast this study in light of current and past research, and to offer convincing support and rationale for this dissertation. This review of the literature is broken down into several themes, divided into subsets, and outlined for ease of understanding. Internationalization trends including commercial influences, rationales, and impacts on the academic profession are discussed. Results from previous research are tied into the conversation and set the stage for this dissertation.

The first theme looks at the purpose for internationalization and reasons why it has bubbled up as a top priority for so many institutions across the nation and world. This is followed by the definitions and differentiations between globalization and internationalization. Also discussed within this theme are the current trends, benefits, and rationales for internationalization. Following, comes the section on the academic profession, with subsections outlining topics including faculty time, shifting resources, changing demographics and the academic reward system. Each of these are important to understand as they shape faculty perceptions and help to delineate today's academic climate. The literature review then transitions into a section on economics, in particular focusing on the knowledge economy and workforce preparation. The economic section outlines the interconnectedness between higher education and the modern economic climate. The subsequent theme covers the

importance of research, and the role it plays in the academic profession and in institutional competitiveness. Lastly, the literature review closes with an overview of mobility, which is often at the heart of modern internationalization trends. Detailed within are subsections explaining today's academic context, intellectual mobility, transnational education, quality assurance, and study abroad. Each of these important aspects of international education offers avenues for faculty engagement. The literature review assures the need for this study, and in particular the need to investigate thoroughly faculty experiences, perceptions and beliefs regarding internationalization.

Purpose

One of the key purposes of internationalization is the preparation of individuals to succeed in the global community. Internationalization practices shape critical thinking processes to include global dimensions. With increased global perspectives, informed by experience and engaging dialogue, students can become better prepared to live in America during the 21st century. This is especially true in a nation that continues to more broadly represent the diversity of the world's cultures (*A call to leadership: The presidential role in internationalizing the university*, 2004). Long-term security, social well-being and economic prosperity all stand to be enhanced. There is overwhelming public support for international education, required international courses, foreign language competency, and study/internships abroad

(*Beyond September 11: A comprehensive national policy on international education*, 2002).

Drivers of internationalization include a wide range of players, with new rules and regulations as policies and strategies are set. From international networks and collaborations, to the mobility of academic talent and programs, each comes with a new set of questions and challenges when looking at benefits, challenges, and costs. Since internationalization is a term that has many meanings to many people, it will be important for each institution within Vermont to clearly define what they mean by internationalization. Minimally this needs to be campus-wide, and potentially the in-state institutions will come to common terms on how it should be defined. What is important to note, is that not all initiatives pushing for an agenda of international change are altruistic. New risks can be associated with internationalization from corruption and degree fraud to the unhinging and dismantling (westernizing) of indigenous and local cultures (Knight, 2008).

Some purposes of internationalization include the creation of new research networks and the ability to weave comparative and multiple perspectives into teaching to challenge insular thinking. This is in alignment with programs and institutions shooting to develop global competencies among their constituents and partners, opening the doors to cross-border delivery of programs, study abroad, academic recruitment, research among other opportunities. Some of these initiatives are being pushed with rankings and tuition dollars in mind. Others are conducted to promote peace and goodwill. It is in this gray area, administrators and faculty (often

in collaboration with state governments) will need to weigh and think through their actions and the impacts, gains, and unintended consequences that can result from internationalization policies (Knight, 2008).

As faculty and administrations come together for the common goal of educating those who will become the next generation of workers, citizens, and teachers, the curricular design and the way disciplines are understood will similarly undertake transformation (Hovland, 2006). This study seeks to shed insight on faculty attitudes, experiences, and perspectives in regards to internationalization. Through the literature, a clear argument is made for the need to study faculty perceptions and experiences in regards to internationalization, since it is the faculty who can predicate successful internationalization implementation. American higher education is facing a challenge of agility, a test to remain flexible and current in an era of globalization. Whether Vermont colleges are on the progressive front remains to be seen.

Internationalization and Globalization

Definitions.

Globalization and internationalization are two terms often interchanged throughout publications, but it is important to differentiate their meanings. *Globalization* refers to the larger trends occurring with cross-border reverberations including trans-national movement of students, faculty, and programs, massification, and the world interconnectedness via the web (Altbach, 2002). The most current, inclusive definition of *Internationalization* is "the process of integrating an

international, intercultural or global dimension into the purpose, functions or delivery of post-secondary education" (Knight, 2003b, p. 2). For this dissertation, in basic terms, globalization entails the macro-level social, environmental, economic and political trends occurring in the world. Internationalization describes how individuals and/or organizations react to, engage in, and prepare for, living within that globalized world. It should be mentioned that there are other definitions and approaches to these two complex topics, with additional scholars continuing to write and publish on it. However, rather than diluting the topic, this signals the importance and relevancy of these current issues, for it is not just discipline journals publishing on these topics, rather conversations are occurring upon the pages of magazines, newspapers, and among other mainstream media channels. It signals a growing tendency to view these issues as important and necessary to understand for successful growth in today's economic, political and social climate.

Context.

Internationalization trends span the globe. The International Association of Universities conducted a global study to survey institutional leaders regarding their thoughts on internationalization. Ninety-six percent of them across 95 countries indicated they felt internationalization brought benefits, but an overwhelming majority also saw risks involved, especially in ensuring the quality of higher education (Knight, 2003a). The National Association of State Universities and Land-Grant Colleges (NASULGC) created a task force specifically to look at international

education and found global competence served the purpose "not only to contribute to knowledge, but also to comprehend, analyze, and evaluate its meaning in the context of an increasingly globalized world" (Brustein, 2007, p. 382).

Internationalization trends have been tracked by NASULGC to outline the benefits the U.S. receives from engaging in the process. Budgets pressures are creating increased tuition costs for students across the world, including countries that have had a history of offering higher education for free or close to it. This demand for higher education is coupled with increasing number of students and the middle class grows. There are pressures to secure our borders, and to ensure there is a way to track those who cross over them. Research support is in demand, and it serves as the lifeblood of the university. With financial constraints, and in an effort to partner to defray costs, the private sector financially backed by corporations has ever more involvement in the direction of projects. Colleges and universities have opened campuses overseas as well as online, with new efforts to deliver course offerings that meet the growing demand of students and the technological needs they have (Stohl, 2007).

Internationalization has been found to help in the development of global critical thinking in order to succeed in the international workplace. Internationalization connects communities of the world allowing for universities and colleges to expand their reputations while fostering development and service projects. Internationalization can contribute positively to economic and national security. Perhaps most important on the ground level is the ability of internationalization to

enrich faculty scholarship and teaching, allowing for research expansion and international distinction (*A call to leadership: The presidential role in internationalizing the university*, 2004).

The knowledge-based economy demands highly trained workers on a scale yet unseen, and our domestic system is not currently producing the numbers needed. To put it into perspective, in the twenty years between 1980 and 2000, the workforce expanded by 50%, with baby boomers and women entering the work stream accounting for most of that growth. However, in 2005, a report released by the Committee for Economic Development showed that compared to the over 35 million workers added between 1980 and 2000, only three million workers will be added between 2000 and 2020 (Hunt Jr. & Tierney, 2006). This dramatic drop in workforce preparation highlights a widening rift between the number of positions that require college-trained employees and the number of individuals in the U.S. prepared to fill those jobs. When surveyed by the Association of American Colleges and Universities, over sixty percent of employers claimed graduates hired out of domestic programs lacked the skills needed to function within a global economy (Fischer, 2007). The market-driven rationale for internationalization seems to be taking hold at the institutional level, as economic concerns and international competitiveness become mainstream (Hatakenaka, 2004). Universities see their branding as part and parcel of a successful internationalization strategy, tending to express two common points of responsibility: 1) To enlighten and prepare their students and communities

2) To be the major supplier of intellectual talent and labor force for the coming century (Wood, 2007).

Historically, rationales for internationalization have fallen into one of four categories: social/cultural, political, academic, and economic (Knight, 2004). Jane Knight has expanded these four to include the most current emphasis on branding and reputation. As higher education becomes more commercially oriented, institutions and companies alike are finding themselves competing for international students, market share for programs, services, testing, and accreditation (Knight, 2004). Knight sees these emerging trends falling into two focused categories, national and institutional. Human resource development, strategic alliances, commercial trade, nation building, and social/cultural development fall under the national rationale for internationalization. She sees international branding and reputation, income generation, student and staff development, strategic alliances, and knowledge production as institutional-focused internationalization rationales (Knight, 2004). Mooney argues the two most important rationales for internationalization are to increase student and faculty knowledge and intercultural awareness, as well as to strengthen research knowledge and capacity (Mooney, 2006). Internationalization should be integrated down to the departmental level so both students and faculty can see how globalization affects their disciplines and academic careers (Fischer, 2007). The more successful, globally minded universities tend to be those that embrace both the intellectual and personal side of these groups. Either local or extended, they

clearly communicate the rationale for internationalization and the benefits worthy of individuals' time and energy (Wood, 2007).

In the most recent ACE report, *Mapping internationalization on U.S. Campuses: 2008 edition*, two widely acknowledged premises are laid out. The first is high quality education is inherently international. The second is that every institution needs to pay attention to internationalization trends if it is to prepare students for the multicultural and global society of today and tomorrow (Green et al., 2008). Trade and commerce today is global. Technology has enhanced and accelerated the business cycle making international interactions routine. Money, commodities, ideas, and culture routinely cross borders, including educational ventures. There is an expectation for institutions to produce globally competent graduates, by infusing the collegiate experience and curricula from foreign languages to study abroad. In particular calls are heard from business and government who embrace the international perspective and are awaiting American higher education to catch up (Fischer, 2007).

Academic Profession

The Profession.

The academic profession requires passion of discovery, an ability to thoroughly analyze new findings and their meanings, and to appropriately share and educate others on their broader value and implication. The responsibilities of an academic primarily break down into teaching, research and service. However, these

three arms of the academic profession do not necessarily receive equal play or support. They are however, interests that compete for faculty time, a concern evident in most research on the profession. Ernest Boyer pointed out in his work *Scholarship Reconsidered*, "What's really being called into question is the reward system and the key issue is this: what activities of the professoriate are most highly prized?" (Boyer, 1990). In part, this study will unveil faculty perceptions towards the current system, and whether there is perceived support for internationalization. It takes time for a faculty member to bring an international partner in on a service project, or to orchestrate an international research initiative. It takes time to retool a course to incorporate international themes or to integrate new technologies that can expand a classroom to include webinars for foreign recipients. The academic profession and the allocation of faculty time, what actions are valued and rewarded, and how faculty members perceive competing goals in the current climate is an undercurrent to this study.

The academic profession creates a guild environment for faculty members, selecting their own colleagues, and deciding the caliber and rigor of their department. Knowledge is disseminated through the ranks, and intellectual history is preserved without fear of quick attrition or hiring disrupting the professional course of a faculty. Faculty members have professional and academic autonomy, pushing individuals to seek new knowledge within the support structure of an established guild. Academic freedom is secured through the profession, but more holistically, the tradition and training of faculty is preserved. Faculty members develop lifelong professional

relationships with their colleagues and institutional co-workers, positing loyalty and a sense of identity among faculty. New faculty structures are becoming more mainstream, with half-time and perma-temp hires, many times referred to as adjuncts, are filling teaching and research needs of colleges and universities. The definition of scholarship is broadening as well, looking to assimilate such things as program development, technology commercialization, and stage productions as just a few examples.

Accountability mechanisms have stemmed in part from the private sector, and are transferring into the educational realm. The ability to do more with fewer resources, higher accountability measures, and greater scrutiny of publicly funded, tax-supported education has dripped down from private enterprise (Zumeta, 2000). Changes are apparent when looking at the specialization of fields and the demand for increased productivity of faculty.

When looking across race and gender, the proportion of women among full-time faculty doubling from approximately one in six (17.3%) in 1969 to more than one in three (35.9%) in 1998. Racial and ethnic minorities have grown in number too. Comprising fewer than one in twenty six (3.8%) of full-time faculty in 1969, within thirty years, one in seventeen (14.5%) full-time faculty members identified as racial ethnic minority. Foreign born faculty have grown in substantial numbers as well, making up 28,200 in 1969 (10%) growing to 74,200 (15.5%) of full-time faculty by 1998. Foreign-born faculty is increasingly female and increasingly Asian, and disproportionately concentrated at research institutions.

The proportions of female and ethnic minority faculty are increasing, principally in engineering and the natural sciences, areas emphasized by both government and the private sector to promote economic growth. (Schuster & Finkelstein, 2006). Interestingly however, it is important to note that although women comprise a larger percentage of faculty overall, they are increasingly being hired as full-time non-tenure track (Baldwin & Chronister, 2002). The fraternal nature of the system coupled with the seven year up or out cycle described later, in effect creates a glass ceiling prohibiting some female academics from earning the full privileges of the position including voting rights. So although female faculty numbers are growing, they are still most under-represented within the ranks of full-time, tenure-track positions in the sciences and engineering in both the public and private research universities (Perna, 2005).

Similar patterns hold true when looking at race and ethnicity. The actual numbers of individuals of minority background are increasing within the faculty lines, but of those hires, greater numbers are being hired as full-time, non-tenure track. What is apparent is not only are numbers up, but faculty are reporting working more, with more female full-time faculty reporting working over 50 and 55-plus hour weeks (Schuster & Finkelstein, 2006). These changes in the professorate are the result of higher accountability with fewer resources, and a growing number of students entering the system creating a higher demand. This competition flows into the reward structure for faculty, which lends preference for publications and research output.

Reward System.

Scholarship as a way of measuring faculty value can vary from institution to institution. One might earn promotion differently as a modern dance faculty member at the Julliard School of Music compared to an engineering faculty member at Carnegie Mellon. These rubrics would be challenging to make transparent or standardized across institutions since the needs of individual schools and their constituents differ (Clark, 1983). Faculty moving through the promotion system at their own respective institutions often find a mismatch between what are perceived as priorities among the department and the mission of the school. This tension is magnified at the larger more comprehensive schools, especially as research dollars dwindle and programs continue to expand (Rice & Sorcinelli, 2002). The reward process can direct and emphasize new faculty to meet criteria that differ from that which the university may be looking to improve, such as internationalization or undergraduate teaching, utilization of technology or meeting societal needs.

In the academic profession, success and promotion are often heavily weighed by research and publication. However, 68% of faculty agree there need to be more approaches, potentially creative or alternative ways to evaluate, other than research and publication alone (Boyer, 1990). These discrepancies are amplified when colleges and universities seek to remain competitive and come up to speed with growing globalization trends. Today's academics take on great responsibility, at times with mixed incentive and reward policies. Faculty are rewarded on a system predominantly focused on publications, easy to quantify, but dependent on successful grant writing

to secure funding, an ever increasingly difficult challenge. Boyer argued faculty should be more creatively assessed, with service and applied scholarship carrying more weight, and with promotion and reward systems valuing contributions to human knowledge (Boyer, 1990).

In the current economic climate with calls for fiscal accountability, it is possible transparent and diverse assessment methods could gain traction. In order for faculty to embrace internationalization, especially younger faculty seeking tenure, the reward system must be integrated into the culture. There needs to be incentive to engage in internationalization efforts, and tenure decisions should reward, not jeopardize individuals for such behavior (Altbach, 2006). Based upon evidence from this study's findings, institutions may have evidence to reconstruct their reward systems if they so choose.

Tenure.

Academic tenure is a key component to the academic profession. Tenure is granted to faculty members following a probationary period of six years of full-time work in a department. Following review, within the faculty member's seventh year they are either granted a lifetime appointment as a faculty member or asked to leave following the end of their contract with that college or university at year's end (Van Alstyne, 1996). A faculty member retains their position and maintains academic freedom within their discipline throughout, with guarantee of academic due process if their ability to be dismissed is in question.

Arguments for and against tenure run deep, with those supportive of the system and those in favor of dismantling the system, each have substantive points. Distrust of the academy has stemmed from those outside of the guild struggling to understand why faculty should be sheltered from economic realities and employment insecurities other professionals face. As tuitions rise and overall operational costs of higher education soar, critics name tenure as a key in preventing colleges and universities from having the flexibility and financial wherewithal to react to the economic realities of the marketplace (Baldwin & Chronister, 2002). As colleges and universities become more commercialized, these points only tend to magnify. On the other end of the spectrum, those in support of tenure argue the academic freedom that is ensured through the current system protects the intellectual inquiry of the field and the future protection of the profession. It can be argued further that the academic profession spurs both economic and societal growth, training future leaders, professionals, and providing fertile ground for intellectual discovery. This suggests the withering of the security of the profession would send reverberations and ramifications far beyond just institution walls. The attraction of fresh talent and much needed intellectual elite who find themselves called to the profession can be muted if the underlying security of the field is eroding (Baldwin & Chronister, 2002).

Tenure has been argued to be disadvantageous to institutions due to the inflexibility in hiring it creates, and the difficulty in directing program and curricular moves. With the working lifespan of individuals increasing, tenure's lifetime appointments lock institutions into huge financial obligations, sometimes spanning a

half-century or more of guaranteed salary and benefits (Baldwin & Chronister, 2002). Those claiming academia needs stronger accountability measures in place have brought the issue of deadwood to the surface. Deadwood is the term coined for tenured faculty who have secured lifetime employment but have stopped contributing to the intellectual life of the community and rather have selected to disengage, doing the bare minimum amount of work needed to maintain their positions (Machlup, 1996). This stifles a faculty from replacing an unproductive colleague with someone eager to produce.

Tenure is taken seriously be departments and leads to a very selective practice of deciding on new hires and strict scrutiny of a candidate before tenure is granted. With a six-year probationary period, and a clear up and out system, this allows for a clean split if the assistant faculty member in question is not someone the department is keen on hiring. If a clean tenure system was not in place, such care might not be used in selecting faculty members, and by default the faculty member in question could end up on staff for far longer than anyone initially care to have them (Machlup, 1996).

Economic Issues

Higher education institutions are facing increasing pressure to compete on a global playing field. They must vie for pole position of top scholars, top students, and brand recognition, and many find internationalization as a gateway to success. As a strategy, it is seen as a way to grow market share in the ever-expanding education

services industry. The knowledge economy has laid a foundation and gained recognition as a legitimate medium for fiscal stimulus through increased trade, national capacity building, and diplomatic collaboration on global scale challenges. Capitalism now seems to drive the global knowledge economy, pushing the cycle of innovation, transferability, reward, and reinvestment (Friedman, 2005). It is the countries, and regions within those countries, with the most developed higher education systems that attract top academic talent. These same regions have the ability to take a lead in knowledge systems and connect them to markets creating globally traded goods and services (Guruz, 2008).

From an economic perspective, salaries for faculty would be higher if individuals were to work in the private sector. Productivity is seemingly equated with research results even though faculty still spend a majority of their time teaching. Although promotion relies heavily on research and publication, teaching consumes between 40-60% of one's academic life versus 14-30% spent researching. Time spent counseling students, serving on boards, and other service work comprises the remainder (Schuster & Finkelstein, 2006). When looking at productivity and promotion, a culture is developed whereby working hard and pulling one's own weight is commonplace. Given the guild nature of the profession, it becomes readily clear that one faculty member will have to work additional hours to make up for time not put in by a colleague. What causes confusion, both within faculty departments and among higher education professionals, is what determines being productive? Whether research, teaching or service is incentivized and rewarded is a cultural

component unique to institutions and departments within them (Massy & Wilger, 1995).

Along with productivity is a trend for full-time faculty to align themselves with private industry such as business or engineering. Since full-time faculty can and have been released due to downsizing departments and reorganization of institutions, faculty often try to position themselves as utilitarian. Productivity within their fields may be marketed as lucrative to the institution, beneficial for program development, alumni donations, or other cost saving measures. Liberal arts tend to have a more challenging argument than those in the sciences, medicine, law and business despite those departments' typical higher overhead costs. This tact has worked, and those fields best able to show allegiance and connection to their professional counterpart in the private sector are least likely to be cut during times of transition (Slaughter, 1994). Today, teaching colleges and universities employ a larger share of part-time faculty than do research intensive institutions. Ten years ago however, public institutions had higher rates of full-time faculty than private institutions did. Private institutions were seemingly capitalizing on the flexibility of non-full-time faculty than the public sector (Baldwin & Chronister, 2002). One of the outcomes of the shift towards part-time and non-tenured full-time positions is the hiring and assimilation of individuals from the private sector. Experts in the field can be hired by institutions to teach a course on a semester basis and bring new insight into the classroom. Business schools in particular can find this arrangement attractive, with the prospect of having a Michael Dell or Bill Gates as a lecturer at their institution (Baldwin & Chronister,

2002). However, these individuals are not suitable replacements for full-time faculty who advance the field through research and build allegiance to an institution. One of the key benefits of an institution being able to offer a full-time position to an aspiring faculty member is the ability to compete with the private sector. Starting salaries in industry are so much greater than the economic rewards offered by a college or university, that autonomy, job security, work environment among other benefits must be marketed. Scholars passionate about their field need to be comforted in knowing they are drawn to their academic position for reasons other than financial wealth (Becher, 1996).

With the changes sweeping broadly through higher education and academic life, and the decline of the full-time faculty positions, concurrent employment and star faculty are on the rise. Consulting or contractual work as outside employment while hired as a full-time faculty member is not rare; roughly one in four faculty members in one study indicated as such (M.J. Finkelstein, Seal, & Schuster, 1998). In 1980 with the passage of the Bayh-Doyle legislation, allowing for commercialization of university research and technology, universities moved towards capitalizing on patents and professional research. Within a decade patents went up by over 520 percent and conflict of interest concerns followed closely behind. With expert full-time faculty working under the guard of academic freedom, commercial pursuits on behalf of companies led to concern about access of information and ownership of intellectual property (O'Neill, 2007).

The research produced by full-time faculty isn't the only commodity involved. Well-regarded faculty members with a prestige are highly sought after by institutions, and have a "star" quality to them that can command high salaries, pulling them from one university to another. Their prestige and notoriety also helps draw top-end graduate students to programs, following the notion that working under an expert in one's field at a renowned institution will open doors following graduation (Youn, 1989). In a professional field where colleagues work together so intimately, star scholars can create jealousy, and often find less time for mentoring junior faculty. With speaking engagements all over the country, their on-campus time can be minimized, again causing disruptions and resentment among the rest of the faculty (O'Neill, 2007). Although such stars bring a spotlight to a department, on the home front, they often perform similar behavior to deadwood by disengaging too far from their faculty commitments. This said, it is not uncommon for star faculty to be offered substantial salaries to do research, with few if any teaching requirements. There are the elite, and since William Rainey Harper offered sweeter deals in Chicago than Clark could in Worcester, institutions have pulled faculty to their campuses for the prestige factor (Kirp, 2003). Although "star" faculty could perhaps collect larger salaries in the private sector, and most often fall within the pool who earn additional income consulting or contracting on top of their institutional duties, they too have decided to stay in a full-time faculty position and remain within academia.

About the same time the Bayh-Doyle Act was passed, university managers were reorganizing the professional staff on campus in much the same strategy as the

private sector. Administrators pushed for higher teaching loads for faculty, increased use of part-time faculty, and a reduction in benefits. This created a rift between the full and part-time faculty and created a two-tier labor force that has weakened the faculty and ultimately hurt institutions (Slaughter, 1994). Research dollars are shrinking while pressure is applied to faculty to fight for them, even though in some fields the funding rate of an approved proposal is just one in ten (Boyer, 1990). Boyer suggested an altogether revamping of the academic profession to one towards scholarship, with all faculty keeping in touch with their respective fields, but finding creative ways to induce and reward faculty in all areas so that true expertise in teaching, service, and research can be advanced.

The model Boyer proposed was radical in theory, and would impact the reward system dramatically, especially when looking at how young faculty performance could be measured. In a more commercialized environment of higher education than ever before, administrations acting as company executives, divestment in departments and the vitality of the liberal arts is at stake. The pressure to have a revenue-generating department is strong. The entrepreneurial forces would be even stronger if college managers were able to skirt around academic freedom entirely (Chait, 2002).

The shift within higher education also mirrors shifts within the full-time faculty. The swell of students enrolled in community colleges and professional programs at 4-year institutions (nursing, business, law) have led to higher rates of faculty hired without tenure. Since the private sector is available as a backup, much

like the star faculty, there is job security without the need for it (Chait, 2002). Perhaps most striking to watch has been the growth of the online and for-profit higher education sectors, both leading to higher rates of part-time faculty. None of the for-profits conduct research or offer tenure, and this growing sector is educating larger numbers of students.

Addressing the time allocation for new faculty is crucial. Newer faculty reported spending roughly two-thirds of their time teaching even though they felt promotion decisions would be driven by research abilities and publications (Menges, 1999). More flexible promotion tracks allowing for families to be raised and for the over-working of junior faculty to be limited should be woven into the system. It has been suggested that there should be a stoppage of the tenure clock for up to two years or reduced load options for faculty who are the primary care giver either for children or for someone with a disability, in accordance with AAUP standards (Colbeck & Drago, 2005). Those graduate students who are in the pipeline need to be tracked and more equitable solutions need to be found to recruit and retain minorities and women into the field across all disciplines. Affirmative action measures urge these moves and the health of academia requires it.

Internationalization Calls from Industry.

One of the core outcomes attendees of a college or university program seek after graduation is to apply the knowledge one has gained to practice in the field. Graduates with innovative ideas, critical thinking skills, an ability to write

persuasively and collaborate across political lines enter the workforce with a calling to one's discipline. This process starts in the classrooms and research labs under the guidance of faculty, learning the nuances of problem solving and the principles that guide one's field. However, in today's economic, social and political context, where globalization is rampant, the knowledge-based economy demands highly trained workers on a scale yet unseen, and our domestic system is not currently producing the numbers needed.

To put it into perspective, in the twenty years between 1980 and 2000, the workforce expanded by 50%, with baby boomers and women entering the work stream accounting for most of that growth. However, in 2005, a report released by the Committee for Economic Development showed that compared to the over 35 million workers added between 1980 and 2000, only three million workers will be added between 2000 and 2020 (Hunt Jr. & Tierney, 2006). When surveyed by the Association of American Colleges and Universities, over sixty percent of employers claimed graduates hired out of domestic programs lacked the skills needed to function within a global economy (Fischer, 2007). These skills include language competency, an ability to negotiate across cultural lines, to understand political and geographical history, and to adapt quickly to an ever-changing social, political and economic climate. The market-driven rationale for internationalization seems to be taking hold at the institutional level, as economic concerns and international competitiveness become mainstream (Hatakenaka, 2004). Universities see their branding as part and parcel of a successful internationalization strategy, tending to express two common

points of responsibility: 1) To enlighten and prepare their students and communities 2) To be the major supplier of intellectual talent and labor force for the coming century (Wood, 2007). Academics play an integral role in this process. As key stakeholders both in the recruitment of academically talented students and their training to effectively enter a globalized market once they graduate, it is critical faculty members are engaged and supported in their roles.

Faculty members are responsible for designing curriculum, devising inventive service projects and developing research proposals among other duties such as sitting on committees and serving in administrative functions. It is a demanding schedule, and yet faculty members bring students into these processes at all levels where appropriate and possible. For internationalization to take root, and for global dimensions to be seamlessly melded into the academic life of campus, faculty members will need support and incentives. As is highlighted next, so very few American students study abroad, what international information and perspectives they glean from faculty members in the classroom can be critical, and the main conduit by which they learn these important pieces needed to successfully work in a globalized environment after graduation. Faculty members are necessary catalysts through their teaching and research work, and critical to supporting and promoting internationalization changes on campus for their students.

Mobility

Context.

International academic mobility is increasingly prevalent among the professional ranks, as open door policies and exchange programs are put into place. This is true for both students and faculty, as mobility for the most part mirrors skilled-labor migration, from knowledge users to producers. International student mobility trends are important to mention as the U.S. plays host to the greatest numbers of foreign students, some of whom stay on for graduate work and ultimately become faculty members in our institutional ranks. Many of the major countries of sending origin invest heavily to become host countries. In the case of China, they are set to soon surpass Australia as the fifth major host country globally for mobile students. The other four nations at the top of the hosting list are the U.S., the U.K., Germany and France, altogether hosting over fifty percent of the world's mobile students (Guruz, 2008). The U.S. attracts the most students of any country in the world, hosting 623,805 in 2007, contributing $15 billion to the U.S. economy. This was a seven percent boost from a year prior, and the first real gains seen since the September 11th, 2001 tragedy which set studying abroad back several years (Chow & Marcus, 2008; McMurtrie, 2008).

Foreign faculty often enter the pipeline as graduate students, and end up taking faculty positions upon completion of their programs. This brain exchange from one country to another favors the U.S. as an acquiring hub, with many of the world's top universities on domestic soil. However, whether this holds true in Vermont, and

whether foreign-born faculty have taken up positions within the rank and file at Vermont institutions is interesting to see. By asking questions aimed towards learning more about faculty members' international experiences for academic purposes, and relationships they maintain with foreign scholars, more insight should be learned. The movement of academics, coupled with technology that allows for cross-border education, are shaping the higher education landscape in new and creative ways.

Brain Circulation.

Brain drain or brain circulation as it is now commonly referred, is the expatriating movement of intellects. It is becoming more frequent and tracked as higher education markets continue to emerge. For underdeveloped nations, this can result in a net loss of top academic students and future leaders. Top students who go abroad for their studies, often are recruited to stay abroad for graduate work or are offered professional positions outside of their home countries, resulting in an intellectual capital gain for whichever country they move to (Altbach, 1998).

Foremost researchers are recruited to conduct studies under institutions' umbrellas, both for the research dollars they can raise and the prestige and reputation they draw. Star faculty can be pulled in multiple directions with lures of higher salaries, preferred schedules or increased lab access. Even in instances where the foreign graduate student or faculty member does not stay within the United States, they return to their home nation with a better understanding of American culture, ethics, innovation and outlook. As indicated by Andres Martinez, Director of the

Bernard L. Schwartz Fellows Program at the New American Foundation, this may be America's greatest influence in the world. As he says, "If you bring together teenagers from Nigeria, Sweden, South Korea and Argentina – to pick a random foursome – what binds these kids together in some kind of community is American culture: the music, the Hollywood fare, the electronic games, Google, American consumer brands. The only think they will likely have in common that doesn't revolve around the U.S. is an interest in soccer" (Martinez, 2010, pp. 41-42). These qualities can remain with an individual long after they leave, and combined with continued relationships with academic faculty in the U.S., allow for continued collaboration.

Transnational Education.

Transnational higher education is a growing area within international education. It describes circumstances where a scholar is located in a different country than an institution offering a program is based (Dunn & Wallace, 2008). Faculty members, especially those capable of teaching across cultures and able to utilize technology, are necessary for transnational operations. Examples of transnational education are branch campuses established in other countries, the franchising of programs to foreign destinations and working within a partnership with a foreign provider to deliver courses jointly. Transnational educational initiatives are often spurred by developed countries' universities seeking to expand. The Futures Project reports over 1,000 American universities now provide online courses overseas.

In order to offer such programs, faculty both domestic and abroad need to see the value in transnational education practices, and be willing to invest the time and energy it takes to teach across cultural lines, often necessitating technological savvy. For those faculty comfortable teaching and conducting research via transnational means, the potential to generate revenue and college brand recognition increases. Questions within this dissertation seek to learn whether Vermont faculty members maintain relationships with either foreign students or collaborate with foreign faculty. These relationships are a recognizable early step towards the integration of internationalization measures, and allow for continued growth and opportunity over time. As these practices and relationships evolve, they will become more refined over time, efficiencies will develop, and quality will be enhanced.

Quality.

Quality internationalization practices in the U.S. are critically important. Colleges and universities often must compensate for a lack of foreign language and cultural awareness training in high schools, common around the globe, and especially across European schools (de Wit, 2002). One of the hurdles in this process is the lack of an accreditation standard or assessment model to assure quality. Although different models have been utilized, one clear, universal assessment tool has yet to be implemented widespread. It is possible faculty are reluctant to invest time and energy into internationalizing their work prior to such parameters and guideposts being established.

Faculty members seeking to bring global dimensions into their courses or research, collaborate with foreign scholars, or develop study abroad programs, often find that there are not clear objectives, guidelines, or incentives on their campuses to foster such opportunities. In many instances, quality varies by faculty member as much as it does by discipline, as those who are first adopters and recognize the value added by internationalizing their work scramble to develop their own practices, often piecing together projects and opportunities based on what has worked in the past. A quality and uniform and namely comprehensive approach, will be a necessary step for institutions across Vermont to investigate in order to develop consistency across campuses and to allow faculty members' to feel supported in their efforts. One key area that some institutions have begun this process is when looking at the growth of study abroad.

Study Abroad.

Study abroad on American campuses has grown dramatically over the years among undergraduate students. These programmatic offerings in many cases are faculty led, offering a domestic faculty member the opportunity to travel abroad while having an international experience in one's discipline. However, on the American front, the vast majority of students do not study abroad. Strikingly, a 2007 study showed of 55% of college-bound high school students who indicated their intent to study abroad, only 1% actually did (Fischer, 2008a). Although study abroad opportunities have increased, from 65% to 91% across U.S. institutions since 2001,

less than 3% of undergraduates study abroad during their four years of college (Brustein, 2007). Today, Asia is by far the largest sending region of students in the world, with China and India annually posting the highest numbers. Up to eight million students are slated to study outside of their home countries within the next fifteen years, and America's culture and society are still a major draw (Altbach, 2004).

Faculty immersion trips and study abroad opportunities are becoming more commonplace to promote global awareness and develop internationalists among the academic ranks (Fischer, 2008b). Madeleine F. Green, the Vice President for International Initiatives at the American Council on Education claims, "I tell presidents if they have any money at all for internationalization, faculty development is the place to put it" (Fischer, 2008b). Faculty members lacking experience writing international grants or developing international research partnerships, can use study abroad opportunities to expand their breadth and depth as an academic. This also allows for faculty members who may be reluctant to bring international dimensions into their teaching and counseling of students, an opportunity to change perspective after having a firsthand experience. Such measures could benefit Vermont institutions if alternative ways to support faculty internationalization are adopted, sending academics, as well as students abroad.

Conclusion

This literature review weaves together the main themes affecting faculty during the current push to internationalize higher education. This study in particular adds to the current body of research in further exploring how these areas of internationalization are playing out among Vermont faculty members, filling a necessary void by introducing state-level data. In particular, Vermont's demography, higher education capacity, economic needs, and border-state geography make it that much more interesting to focus on. With only one research-intensive institution, the majority of Vermont's internationalization practices are taking place across primarily small, liberal arts colleges. Whether this has a dramatic impact on the data and whether new areas of further exploration are developed will unfold.

The academic profession is changing markedly during the same era as global markets emerge and new channels of communication and partnership take hold. As industry and the private sector bridge markets with new technology, it is quickly adopted into the academic world, allowing for new ways to partner and collaborate on research, deliver comprehensive courses virtually, and assess and retool best practices when looking at scholarship and the return on investment. It is an exciting and challenging time to study the heart of the institution, starting with those faculty members who drive and collectively make a college or university the valuable asset that it is.

The next chapter looks specifically at who makes up the Vermont faculty, and what demographic differences exist. With a greater understanding of who is among

the faculty ranks, trends, challenges, and emergent data can be harnessed to further understand internationalization, and comparisons to prior studies along with projections for future study can be made.

CHAPTER 4: DEMOGRAPHICS, EXPERIENCES, COMPETENCIES

Introduction

This chapter focuses on faculty demographics of academics across Vermont. Analyzing the responses full-time faculty members gave, this chapter paints a clear picture of who makes up the faculty across Vermont institutions, and what backgrounds they bring to their roles on campus. Faculty members surveyed for this study were asked questions that investigated and sought out to discover what international experiences and language competencies faculty members have, as well as what initiatives they have undertaken to bring global dimensions into their academic work. These responses were analyzed to unveil any interesting patterns or trends that existed by faculty gender, academic rank, academic discipline, student learning (teaching) or research preference, or number of years of service.

Demographics

Faculty demographics serve as a great starting point to capture a comprehensive look of who makes up the faculty across the fourteen participating institutions in Vermont. In turn, these demographic factors can be used as variables when looking at faculty responses to see if there are variations or trends that emerge. By looking at the five areas of gender, rank, discipline, teaching or research orientation and number of years in the profession, it is possible to not only get a

picture of who comprises the faculty, but whether those differences correlate with particular answers, trends or patterns.

When looking at faculty rank by gender, more men than women hold the rank of full professor. Thirty-nine percent of men compared to 32% of women faculty members indicated being full professors, while 27% of men and 33% of women are assistant faculty members.

Table 7
Faculty Responses by Gender

Gender	Response	Percentage
Male	297	59%
Female	204	41%
Total	501	100%

Also of interest is when looking by discipline, some academic fields showed a higher percentage of faculty towards one end of the rank spectrum than the other. For instance, including both genders, only 3% of those academics within the discipline of engineering and applied sciences indicated being full professors. In comparison, 7% of faculty members in the sample identified as being assistant professors. This trend was the opposite among the faculty within the physical and mathematical sciences, where among all faculty sampled 12% of respondents indicated they were full professors and only 3% indicated being assistant professors.

Table 8
Faculty Responses by Discipline

Discipline	Response	Percent
Agricultural & Animal Science	14	3%
Business & Commerce	30	6%
Education	34	7%
Engineering and Applied Sciences	26	5%
Fine, Applied, & Performing Arts	24	5%
Humanities	108	21%
Life Sciences & Health Professions including Medicine	114	22%
Physical & Mathematical Sciences	37	7%
Social & Behavioral Sciences	86	17%
Other	48	9%
Total	521	100%

When academic rank was looked at across the sample, in connection to having either a teaching or research emphasis, 42% of those who indicated having an academic preference primarily for student learning, as compared to a focus on research, were full professors. In comparison, only 27% were assistant professors. On the other end of the spectrum, of those who answered as having an academic focus primarily in research, 28% were full professors and 45% were assistant professors. These trends highlighted by the data are in keeping with the structure of the academic profession, and the push to publish in order to be promoted and receive tenure once hired on as an assistant professor. Lastly, when looking at academic rank by the number of years faculty members have been working at their institutions, these responses also aligned as expected. For instance, of those who indicated having worked 0-4 years, 72% were assistant professors. On the other end of the range,

among those who have worked 20+ years at their institutions, 79% were full professors.

Table 9
Faculty Responses by Number of Years Employed

Years	Response	Percent
0-4 years	128	25%
5-9 years	129	25%
10-14 years	79	15%
15-19 years	48	9%
20+ years	137	26%
Total	521	100%

When looking at gender across the faculty surveyed, interesting trends emerged by discipline. Specific academic fields are seemingly dominated by men. For instance, 76% of engineering and applied science faculty and 78% of physical and mathematical science faculty are male. In fact, education was the only discipline reporting higher numbers of female faculty than male, and then by just over half (56%). Every other discipline had a male majority. When comparing gender to faculty preference for teaching or research, interestingly of those who identify with having a preference primarily in student learning (teaching) 60% were male compared to 40% female.

Whereas when looking at those who identify as having a preference primarily in research, the percentages were much closer, with 54% being male and 46% being female. When viewing gender across the number of years of service, there were some other interesting observations. Those who have worked at their institution between

15-19 years are more likely to be female (54%) than male (46%). However, those who have served for over twenty years are much more likely to be male (71%) than female (29%). This signifies a growth in female faculty numbers, who came into the academic profession on the heels of what was traditionally a male-dominated occupation. When looking at the demographics by gender, the data seems to reiterate known trends that men dominate in sheer numbers across most disciplines, specifically in the "hard" sciences, have held their positions longer, and hold more full professorships.

There were virtually no differences in faculty preference for student learning compared to research by gender across the sample. By academic rank, most faculty members lean towards student learning, but assistant professors are the most likely to be drawn primarily to research with 9% indicating this was their preference. Faculty members from business and commerce (50%) and engineering and applied sciences (50%) had the strongest preferences for student learning (teaching). On the other side of the spectrum, the life sciences and health professions including medicine (16%), agricultural and animal sciences (7%) and the social and behavioral sciences had the strongest preferences towards research.

Table 10
Faculty Teaching Responsibilities

Teaching Responsibility	Response	Percent
Entirely Undergraduate	250	47%
Some Undergraduate, some graduate or professional	193	36%
Entirely graduate or professional	72	14%
Not teaching at this time	18	3%
Total	533	100%

Foreign Travel

Regarding foreign travel, nearly all full-time faculty members indicated having travelled outside of the United States (99%). In retrospect, this question could have been worded more specifically to exclude Canada, since Vermont shares a border with their neighbor to the north. International travel to large cities such as Montreal in many cases can take less time to get to than domestic hubs such as Boston.

Table 11
Faculty Reasons for Travelling Outside the United States

Travelled outside the U.S. to…	Yes	No	Response
Attend class or participate in research as undergraduate	32%	68%	519
To attend class as a graduate student or faculty member	38 %	62%	524
To conduct research as graduate student or faculty member	52%	48%	530
To accompany undergraduate or graduate students on study abroad	25%	75%	524
To teach at a foreign college	27%	73%	523
To attend a disciplinary conference	68%	32%	528
To participate in service project	28%	72%	519

When asked about travelling abroad to participate in service or development projects, of those who indicated having had had this opportunity, 30% were male and 23% were female. When asked about length of time spent outside of the United States for either academic purposes or administrative work, there were again some differences by gender. Although there was a relatively even split among men and women faculty for those who had travelled abroad for under one year, female faculty responded in higher numbers when looking at those who had been abroad for longer than one year. Only 19% of male faculty, but 26% of female faculty, had travelled abroad for more than 1 year for academic purposes or administrative work. Very few male or female faculty members have taught for a foreign college or university through distance or online learning, with only 6% and 4% respectively having this experience. It would be interesting to further explore why it is that nearly one in four female faculty have had the opportunity to travel abroad for over a year.

Assistant and associate faculty members were more likely to have travelled abroad to attend classes or participate in undergraduate research (35% and 36% respectively) than full professors (27%). This could be due in part to age, as study abroad and opportunities to take courses and participate in research have grown over time. That said, when looking across the other reasons for travelling outside the U.S. for academic purposes, there was a common connection where full professors responded in higher numbers than associate professors, who in turn responded in higher numbers than assistant faculty. For instance, 65% of full professors have travelled abroad to conduct research as a graduate student or faculty member. The

same is true for 51% of associate professors, and 38% of assistant professors. This same pattern holds steady when looking at those faculty who have travelled abroad to teach at a foreign college or university. Among the full professors, 40% have had this experience. In turn, so have 27% of associate faculty and 11% of assistant faculty. This pattern suggests that in time, faculty members have more international opportunities available, and seemingly take advantage of them. When looking at the length of these experiences, 35% of full professors, 47% of associate, and 49% of assistant faculty had travelled abroad for under one month.

On the other end of the spectrum, 25% of full professors, 20% of associate, and 23% of assistant professors had travelled abroad for longer than one year. Although there is not tremendous variation by rank, it is interesting to see that minimally one out of every five faculty members have taken advantage of an opportunity to engage in academic work abroad for over one year. Lastly, although the overall numbers of those who have taught a class for a foreign college or university through distance or online learning are very small, 7% of full professors, 4% of associate professors, and 3% of assistant professors have had these experiences.

When looking across academic disciplines, experiences varied in regards to the reasons why individuals had travelled outside the United States. When asked about attending classes or participating in research as undergraduates, only 24% of faculty in the life sciences and health (including medicine) had such opportunities, compared to 39% of faculty from the agricultural and animal sciences. The division

was even wider when asked whether one had attended classes outside the U.S. as a graduate student or faculty member. For instance, only 16% of engineering and 20% of business/commerce faculty have travelled outside the United States to attend classes as a graduate student or faculty member, compared to 55% of humanities faculty and 46% of fine, applied and performing arts faculty.

These numbers are even more pronounced when looking at those who have travelled outside the U.S. to conduct research as a graduate student or faculty member. Whereas 68% of humanities faculty, and 67% of faculty in the arts answered positively, only 23% of business/commerce faculty and 44% of engineering faculty answered the same way. Interestingly, the highest faculty responses were from those in the agricultural and animal sciences (71%), which could correspond with recent international epidemics of mad cow disease, bird flu, and H1N1 swine flu that have captured headlines within the past few years.

When asked about travelling abroad to accompany students on study abroad, again the numbers reflected similar trends. Business had 7% and engineering had 8% of faculty who responded positively, whereas 42% of faculty in the arts had taken advantage of such opportunities. Responses as to whether or not faculty have taught at a foreign college or university were equally low for business and engineering faculty (10% and 12% respectively) compared to 39% of agricultural and animal science faculty and 30% of physical and mathematical science faculty. Whether these differences are due to time constraints, academic culture, or scholarship and reward

differences could be further explored by looking more in depth at the disciplines themselves.

In terms of travel outside of the United States to attend a disciplinary or scientific conference, nearly all faculty within the agricultural and animal sciences (93%) indicated having had this experience. Larger numbers of engineering faculty indicated having travelled for conferences (73%), as did 78% of those faculty members within the life sciences and health professions including medicine. Social and behavioral science faculty were also within the top few disciplines to travel abroad to attend an academic conference, with 71% indicating they had had this experience. The length of all of these opportunities, from teaching, research, study abroad and conference attendance varies by discipline as well. Those disciplines with the highest percentage of faculty who have travelled for less than one month were engineering (63%) and education (58%). Faculty within the humanities were the most likely to have travelled abroad for more than a year (37%), with no other discipline having more than 25% of their faculty travel for so long. Interestingly, business (35%), education (42%) and life science and health profession (45%) faculty had the greatest percentage difference between those who travelled abroad for less than one month and those who travelled abroad for more than one year. Across each of these disciplines, the number of faculty who had travelled abroad for such a great length of time plummets compared to other disciplines. Lastly, and perhaps not so surprisingly, education faculty members were the most likely of the disciplines to teach a course for a foreign college or university through distance or online learning.

Thirty-seven percent of faculty members who have primarily a preference for student learning (teaching) over research, have travelled abroad to attend classes or participate in research as undergraduates. This compares to 14% of faculty who have a preference for research. Over one in five (22%) faculty with a preference for student learning (teaching) have accompanied undergraduate or graduate students on a study abroad program compared to just 7% of those faculty with a preference for research. In contrast, 93% of faculty with a preference for research indicated having travelled outside the United States for a scientific or disciplinary conference as compared to just under half (48%) of those faculty members with a preference for student learning (teaching). In terms of the length of time faculty have spent abroad, over half of all faculty (both teaching-focused and research-focused) indicated they had spent less than a month outside the United States. However, faculty with a preference for research were more likely to have spent more than a year abroad (26%) compared to those with a preference for student learning (12%). Research-focused faculty are the most likely to travel abroad for conference attendance or to engage in long-term research projects (over 1 year in length), but less likely to travel abroad to participate in study abroad programs as faculty members or to have done so when they were students themselves. Lastly, very few faculty members overall have taught for a foreign university or college regardless of their teaching or research preferences, with under 5% across all groups having had such experiences.

Looking across faculty foreign travel by the number of years academics have been employed, some interesting trends emerge. For instance, 33% of faculty

members have travelled outside of the United States to attend classes or conduct research as an undergraduate student, that is, except for those faculty members who have been working for 15-19 years, where this number sharply drops to only 17%. This drop-off can be seen again when looking at the responses to the question asking whether faculty have ever travelled outside the United States to conduct research as a graduate student or faculty member. There is an upward trend where the more years of service a faculty member has, the more likely they are to have conducted research abroad. For instance: 0-4 years (40% have conducted research abroad), 5-9 years (49% have conducted research abroad), 10-14 years (59% have conducted research abroad) and 20+ years (63% have conducted research abroad). However, faculty members with 15-19 years of service stand as outliers, with only 52% having conducted research abroad. Why these dips within that specific range occurs is very interesting, and could be further explored to see if there are correlations to events in history, or within the academic pipeline, that could help account for them.

Table 12
Faculty Longest Period of Time Spent Outside the U.S. for Academic Purposes

Length of Time	Response	Percent
Less than 1 month	220	43%
At least 1 month but less than 3 months	69	14%
At least 3 months but less than 6 months	50	10%
At least 6 months but less than 12 months	57	11%
12 months or more	115	23%

When looking at faculty members who have travelled abroad for less than one month, 45-50% of faculty members across all age groups have had such experiences. These percentages dip for faculty members with 20+ years experience, where only 34% indicated having ever travelled abroad for such short stints. These trends could be reflective of a younger cohort of assistant faculty who have studied or conducted research abroad for over a year as undergraduate or graduate students. The older cohort of faculty with 20+ years of experience may now be established in their careers with an opportunity to travel abroad for greater periods of time or able to take advantage of sabbaticals. There are many possible explanations, and this would be an interesting area of study to further investigate why these trends exist.

Language Competency

Faculty members were asked about their ability to speak another language and whether they came from a bilingual home. Sixteen percent of male and 17% of female faculty answered that they were native speakers of another language or came from a bilingual home. Overall, 68% of male faculty and 77% of female faculty indicated they can speak or read a language besides English. Faculty indicated a wide range of languages they can speak and/or read, with French, Spanish and German being the three most common. Thirty-four percent of men and 48% of women speak French, 21% of men and 27% of women speak Spanish, and 21% of men and 13% percent of women speak German. Just over one in five faculty members of both genders speak a language other than those I had included in the study, which were:

Arabic, Chinese, French, German, Russian, and Spanish. The most common languages written in by faculty members were Greek, Italian and Japanese.

Assistant faculty members, with 22% responding they were native speakers of another language or came from a bilingual home, had the highest numbers among the faculty ranks. Fourteen percent of associate professors and 16% of full professors indicated having the same background. When looking at language competency by academic discipline, it was interesting to see that 43% of faculty members within the agricultural and animal sciences (primarily based at the University of Vermont) are either native speakers of another language or come from bilingual homes. Twenty two percent of faculty members within the physical and mathematical sciences identified as being bilingual. All other faculty members within the sample from other disciplines averaged 14%. When looking at language competency by discipline, the same three languages of French, Spanish and German were still most common, however there was a greater number of Chinese speaking faculty (14%) within the agricultural and animal science faculty than other disciplines. How these two might be correlated, and whether other states have similar trends within the agricultural and animal sciences would be interested to explore.

Faculty members with a preference primarily for research were more likely to be a native speaker of another language or come from a bilingual home, with nearly half indicating as such (46.4%). In comparison, 12% of faculty members with a preference for student learning (teaching) indicated being bilingual. Faculty members with a preference for research also had the highest numbers of individuals who spoke

Chinese (12%) and Russian (12%), although French, German, and Spanish were still the overwhelmingly most common. Interestingly, faculty members with a preference for student learning (63%) were less likely to speak a language other than English than those with a preference for research (77%). It is interesting that the research-focused faculty have language competencies from developing countries such as China and Russia.

Table 13
Faculty Foreign Language Competency

Language	Response	Percent
Arabic	11	2
Chinese	15	3%
French	209	41%
German	100	20%
Portuguese	16	3%
Russian	17	3%
Spanish	123	24%
Other	115	23%
None	140	27%

Faculty Initiatives

In addition to exploring faculty experiences and language abilities, questions sought to better understand what initiatives academics take to bring global dimensions into their work. A series of questions that were primarily pulled from the American Council on Education study from 2002, were used to help frame and better capture what faculty may or may not be doing to bring international themes into their teaching, research and service. Through this series of questions, interesting trends and patterns emerged.

Table 14
Faculty Internationalization Experiences

In the past 3 years…	Yes	No
Taught a course in which at least 25% of the instruction included information about other countries, cultures or global issues?	44%	56%
Submitted to or published in a foreign journal or press	45%	55%
Worked collaboratively with a foreign scholar	51%	49%
Used readings from international author(s) to present information about other countries, cultures, or global issues	67%	33%
Had a foreign-born scholar or student present information or perspectives in your class about his/her country of origin	49%	51%
Worked with local organizations, businesses or schools on projects of an international nature	30%	70%

When asked whether they had taught a course in which at least 25% of the instruction included information about other countries, cultures, or global issues, slightly more female (47%) than male (40%) faculty indicated they had. These percentages were virtually flipped when faculty were asked whether they had submitted to or published in a foreign journal or press, with 48% of male and 39% of female faculty indicating they had. Female faculty members (73%) however, were more likely to have used readings from international authors to present information about other countries, cultures or global issues than are male faculty members (62%).

When looking across academic rank at faculty initiatives, full professors are the least likely to have taught a course in which at least 25% of the instruction included information about other countries, cultures or global issues. However, they were the most likely of all faculty ranks to have submitted to or published in a foreign

journal or press and to have worked collaboratively with a foreign scholar. Full professors were also the most likely to have foreign-born scholars or students present information or perspectives in his/her class about the student or scholar's country of origin. Interestingly, assistant faculty members were the most likely to have used readings from international authors to present information about other countries, cultures or global issues.

Faculty from differing academic disciplines also showed variation in their responses. For instance, 8% of engineering and applied science faculty indicated they have taught a course in which at least 25% of the instruction included information about other countries, cultures or global issues compared to 83% of faculty from the humanities. Business faculty only had 13% report that they had submitted to or published in a foreign journal or press. Other faculty disciplines ranged from 30-60%, with agricultural and animal sciences having the greatest percentage of their faculty (71%) indicating such activity.

In fact, agricultural and animal science faculty were by far the most likely to have worked collaboratively with a foreign scholar, with 86% reporting they had done so within the last three years. Another wide variation by discipline was between the physical and mathematical sciences and education faculty when looking at those who indicated they had a foreign-born student or scholar present within a class. Only 11% of faculty from physical and mathematical sciences had done so compared to 65% of education faculty. A similar rift was noticeable when looking at those who have worked with local organizations, businesses, or schools on projects of an

international nature. Engineering had 12% of their faculty members indicate they had participated in such activity compared to 57% of the faculty from agricultural and animal sciences. Wide disparities are also evident when looking at faculty members who have a student learning (teaching) preference in comparison to those with a research focus. Nearly 40% of faculty with a student learning (teaching) preference have taught a course in which at least 25% of the instruction included information about other countries, cultures, or global issues. In contrast, only 11% of faculty with a research preference indicated having done the same. In many respects this is to be expected. As is the fact that 76% of faculty who claimed to have a preference for research have also submitted to or published in a foreign journal or press compared to just 17% of faculty with a teaching emphasis. Faculty members with a research orientation proved to be three times more likely to work collaboratively with a foreign scholar than faculty members with a teaching preference (75% to 23% respectively). However, faculty members with a student learning (teaching) preference were twice as likely than a research-oriented faculty member to have had a foreign-born scholar or student into their course to present information on his/her country of origin (52% and 24% respectively). Overall, it is interesting to see how aligned faculty activity is with what they indicated as their academic preference, with the comparisons falling into one category or the other so decisively. Interestingly, there were not any major differences in comparison by the number of years a faculty member has served at an institution, which tends to suggest that other factors such as academic preference or discipline may have more influence over faculty initiatives.

Table 15
Faculty Foreign Ties

Foreign Ties	Response	Percent
Foreign Faculty	290	56%
Foreign Researchers	238	46%
Foreign Staff	84	16%
Foreign Students	194	37%
None	152	29%

Teaching Responsibilities

Faculty were asked to describe their teaching responsibilities at their institutions by selecting whether they were focused on entirely undergraduate, a mixture of some graduate and undergraduate, entirely graduate or professional, or whether their faculty responsibilities did not include teaching at all at this point in time. Some smaller trends did emerge from looking at faculty teaching responsibilities. For instance, though total numbers were only sixteen, more than twice as many female faculty members (4.93%) than male faculty members (2.03%) indicated that their faculty responsibilities did not include teaching at the time of the survey. Otherwise the numbers were relatively close by gender, nearly half of faculty teach entirely undergraduates, nearly 40% indicated they teach a mixture of undergraduate and graduate students, and 13-14% focus solely on teaching at the graduate and professional level. It would be interesting to further investigate why female faculty members indicating not have teaching responsibilities at the same rate as male faculty. Whether this indicates female faculty are holding more administrative functions such as the role of dean, are on sabbatical, maternity leave or conducting research would be useful to explore.

When looking at these same issues through the lens of academic rank, assistant faculty are the most likely to be teaching purely undergraduate students, with 53% indicating this to be the case, higher than associate (43%) or full (46%) faculty members. Perhaps most interesting was that assistant faculty members (6%) indicated being three times more likely than either associate (2%) or full (2%) faculty members to have responsibilities that do not include teaching at the time of the survey. Although overall these numbers of faculty members were smaller, again why such a dramatic difference seems to be the case for junior faculty could be explored further.

By discipline, those faculty members within the fine, applied and performing arts were the most likely to only be teaching undergraduate students, with 92% reporting that to be the case. Interestingly, every faculty member from the humanities indicated teaching at least some undergraduate students with 68% teaching solely that population. Perhaps understandably, the life sciences and health professions including medicine saw the highest percentages of faculty members who teach some, if not entirely, at the graduate and professional level. Faculty members from the agricultural and animal sciences had the highest percentage of faculty members (14%) indicate that their responsibilities did not include teaching at the time of the survey.

When looking at teaching responsibility in comparison to faculty members having a teaching or research orientation, there were few surprises. Sixty-eight percent of faculty who indicated having a preference for teaching, teach entirely undergraduates. This compares to just 10% of faculty who indicated having a

preference for research. However, 35% of research-focused faculty claimed to have teaching responsibilities that are entirely at the graduate or professional level, and another 35% indicated that their faculty responsibilities did not include teaching at the time of the survey. It can be assumed that in part, this is due to obligations conducting research.

Few trends were noticeable in looking at faculty responses by the numbers of years of service. However, it should be noted that faculty members with 15-19 years of experience, similar to faculty foreign travel trends, stand as outliers when looking at teaching responsibilities. This cohort is the most likely to teach entirely graduate or professional students (25% indicated this to be the case) and are also the most likely to have faculty responsibilities that currently do not involve teaching (6.3% compared to 1.3% for those with 10-14 years service). To delve into this trend further would be an interesting angle to pursue in a future study.

Over 65 percent of faculty members surveyed did not agree that the more time spent teaching students about other countries, cultures or global issues, the less time there is available for teaching the basics. This suggests that on the whole, faculty members realize the value of internationalization, and do not see it necessarily as in direct conflict with teaching the basics. Just over ten percent of faculty had the opposing opinion. Even more telling was that 85 percent of faculty agree or strongly agree that international education is a critical component of higher education. Fifty-five percent of faculty agree or strongly agree that students should study abroad at some point during their college experience, and seventy percent agree or strongly

agree students should be required to study a foreign language if they don't already know one. Eighty percent of faculty surveyed agree or strongly agree colleges and universities should require students to take courses covering international topics.

Looking across faculty teaching and research experiences, nearly half of all faculty members indicated that their teaching responsibilities at their institution were focused entirely on the undergraduate population. Thirty-six percent of faculty members had a mix, teaching some undergraduate and some graduate or professional courses. Only fourteen percent taught entirely at the graduate or professional level, and only three percent did not have faculty responsibilities that include teaching at this time. These findings make sense given the institutional mix in Vermont, with institutions having substantially larger undergraduate than graduate populations generally.

In keeping with these findings, 69 percent of faculty when asked to describe their academic preferences for student learning compared to research leaned towards (teaching). Seventy percent of faculty members surveyed agreed or strongly agreed that it is the responsibility of colleges and universities to internationalize in order to better prepare graduates to enter the workstream. Faculty seem to understand their important role in preparing graduates, since nearly seventy percent of faculty members also agreed or strongly agreed that faculty support is the most important factor to successful internationalization at colleges and universities. Over forty percent of faculty surveyed agreed or strongly agreed that they would like to teach more international content within their courses and would like to work with

organizations, businesses, or schools on projects of an international nature. Nearly sixty percent would like to incorporate international themes or collaborate with foreign scholars in their research.

Despite these findings, it could be that time is the greatest constraint, with well over half of faculty agreeing or strongly agreeing that they would be more inclined to bring international dimension into their work if they had more time. For instance, when faculty were asked whether at their campus study abroad impedes a student's ability to graduate on time, over 70 percent disagreed or strongly disagreed, indicating a strong collective belief that student's should be able to integrate such experiences into their academic plans without slowing the pace at which they earn their degrees. Nearly fifty percent of faculty both agreed or strongly agreed that faculty on their campuses are encouraged to include international perspectives in their courses, as well as that most students graduate with an awareness about other countries, cultures, or global issues. Interestingly, faculty members did not seem to indicate a strong sense of support for such endeavors on their campuses. For instance, nearly forty percent of faculty either disagreed or strongly disagreed that international expertise is part of recruitment and selection procedures for new faculty. Just shy of fifty percent indicated that they disagreed or strongly disagreed that international research or teaching is a consideration during tenure and promotion decisions.

Lastly, over forty percent disagreed or strongly disagreed that faculty development funds specifically to increase international skills and knowledge are available. Anecdotally, this series of questions seems to shed insight that faculty

members are interested and engaged in internationalization, but the resources and rewards system does not seem to be in place to promote such endeavors on campus.

Conclusion

With a better handle and understanding of faculty experiences and demographics, institutions and departments alike can begin to align their strategic plans and agendas to compliment faculty members' backgrounds. If there are an overwhelming number of faculty members who have had an experience abroad conducting research, this could serve as a jumping off point for a department. If there are a number of faculty members who are bilingual, this too could serve as a great resource for an institution to capitalize on. In many respects, it could be that international experiences and background are already present among faculty, they just need to be asked and tapped as a resource to pull the information out and make it accessible. As faculty experiences and demographic backgrounds continue to be better understood, along with faculty interests which may well include ambitions to integrate international themes into their work, the potential for fostering internationalization growth across campuses is promising.

The following chapter looks more pointedly at faculty members' attitudes and beliefs towards internationalization. Faculty attitudes and belief questions were pooled together to create a useful variable to compare faculty responses by variables including gender, rank, discipline, teaching/research preference, and number of years

in the field. Through analysis, significant results were identified helping to better understand Vermont faculty views.

CHAPTER 5: ATTITUDES AND BELIEFS

Introduction

This chapter focuses on faculty attitudes and beliefs towards internationalization, to see if there are differences across gender, academic rank, discipline, number of years in the field, or academic preference between research and teaching. The findings from this chapter allow for comparisons to prior studies to see how Vermont academics compare or contrast, when looking across similar items. Where appropriate, charts have been embedded to give visual representations of trends and outcomes.

Statistical Tests

Once testing of the variable was completed with positive outcomes, the eleven items formulating the Attitudes and Beliefs section were summed together to create an internationalization score ranging from 11-55 (55 being the highest). Questions had five answers on a Likert-like scale, ranging from strongly disagree to strongly agree. Each of these possible responses were numbered from 1-5. A faculty member who strongly agreed with a question, indicating they had a positive affinity towards internationalization, would score higher than someone else who chose disagree or strongly disagree. This scoring system over the eleven items that comprised the Attitudes and Beliefs variable was in effect how a score was generated. This summed Attitudes and Beliefs (AttBel) variable was then used to run statistical analysis on the

data to see if there were significant differences across factors such as gender, academic rank, teaching or research orientation, discipline, and number of years in the field. A t-test was run for the bivariate variable gender, and ANOVA (analysis of variance) was used for each of the other factors since a t-test is not appropriate when comparing means across multiple variables. Scheffe and Bonferonni are two types of post-hoc tests that were used to compare means. Scheffe was used because it is considered to be the most conservative, and Bonferonni because it is widely used and accepted generally in social science research. With confidence in the items, and the survey itself, it was time to see what sort of findings faculty responses were generating.

Gender

Gender was the first item tested for differences across the means of the attitudes and beliefs variable. Since only two options were available, "male" or "female," a t-test was run with all full-time faculty responses. The Levene's Test for Equality of Variances indicates whether the assumption of the t-test had been met. The significance (p-value) of the Levene's test was greater than .05, so variances could be assumed to be equal. I failed to reject the null hypothesis across the 289 male faculty (m=40.29) and 197 female faculty (m=41.51), albeit the average attitudes and beliefs scores were fairly high. Out of a possible high score of 55, the average was about 40, a positive showing for both genders. In particular this suggests that although differences across gender may not have proved largely different, both

genders did score high averages in favor of internationalization when looking at faculty members attitudes and beliefs.

Academic Rank

Academic Rank was the second item to be tested for differences across means for the attitudes and beliefs variable. Since there were more than two possible responses, the bivariate t-test would not suffice. Instead, an ANOVA was run to compare means across multiple groups, or in this case, across the three categories of professor: "Assistant Professor," "Associate Professor," and "Professor." The dependent variable attitudes and beliefs (AttBel) was used across the three independent faculty rank variables, and the first chart below highlights the descriptive statistics from this test. When comparing the means of the three groups, again all three groups had averages that were quite high in favor of internationalization. All faculty ranks had an average score above 40 (out of a possible 55), with full professors scoring just slightly higher above assistant faculty members, who came in just higher than associate faculty. Although there were not significant differences across academic rank within the sample group, it was clear across all groups attitudes and beliefs are firmly in support of internationalization.

Academic Preference

Academic Preference (Teaching vs. Research) was the next item to be tested. An ANOVA was run to compare means across multiple groups, or in this case, across

the five answer options to the question asked to faculty "Which of the following best describes your academic preferences for student learning compared to research?" The five answer options, which created the five independent variables for the ANOVA were: "Primarily in Student Learning," "In both, but leaning toward student learning," "In both, but leaning toward research," "Primarily in research," and "None of the above." The dependent variable attitudes and beliefs (AttBel) was compared across the five independent variables.

Those faculty members who chose "In both, but leaning towards student learning" had the highest mean or strongest affinity towards internationalization, and those faculty members who chose "Primarily in research" had the lowest mean, or least positive support for internationalization. This gives some insight towards internationalization attitudes and beliefs, but not enough to claim statistical differences.

Number of Years Employed

Number of Years Employed was the next item to be tested. The five answer options, which created the five independent variables for the ANOVA were: "0-4 years," "5-9 years," "10-14 years," "15-19 years," and "20 + years." The dependent variable attitudes and beliefs (AttBel) was compared across the five independent variables. When looking at the significance of the F ratio the p-value was .576. If the p-value had been less than or equal to alpha (.05) I could have rejected the null hypothesis that all means were equal (across the multiple year spans). However, given

.576 > .05, I had to fail to reject the null hypothesis, and once again did not have the evidence needed to claim significant differences existed among the different employment time spans.

As with gender, academic rank, and academic preference, I was still without significant differences across the means, in this case for number of years employed. The means were only slightly different from one another, and it is interesting to note that those faculty members with 0-4 years had the highest mean or connection to internationalization and those with 10-14 years experience had the lowest mean (least support) and yet they were the second to smallest group. The 15-19 year cohort was comprised of 45 people, and they had the highest mean at 41.4.

Academic Discipline

Academic Discipline was the final item to be tested. Again an ANOVA was used since there were more than two options a faculty member could choose among. The test was run comparing means across the ten answer options to the question "In which discipline listed would you most closely identify your department or unit in which you are employed?" The ten answer options, which created the ten independent variables for the ANOVA were: "Agricultural and Animal Sciences," "Business and Commerce," "Education," "Engineering and Applied Sciences," "Humanities," "Life Sciences and Health," "Physical and Mathematical Sciences," "Social and Behavioral Sciences," "Fine, Applied and Performing Arts," or "Other." With a p-value less than

alpha (.05) I had finally struck my first significant findings. I rejected the null hypothesis that all means were equal (across disciplines).

Those faculty members within Agricultural and Animal Sciences, Education, and Humanities had stronger attitudes and beliefs towards internationalization than did faculty across the Physical and Mathematical Sciences, Engineering and Applied Sciences, and Life Sciences and Health Professions including Medicine. This new information validated what had been found through looking at faculty demographics, and showed consistency within the data. Faculty members from the Agricultural and Animal Sciences had showed very strong international responses during the demographic analysis, and now showed statistically that they had the highest mean, indicating the strongest attitudes and beliefs in favor of internationalization. Along these lines, Engineering and Applied Sciences faculty when looking at the demographic data consistently had lower responses and fewer international experiences than other disciplines. Here too, these same faculty members had the lowest mean, statistically showing they had the least favorable attitudes and beliefs towards internationalization.

Significant Differences by Institution

For several institutions, when looking at attitudes and beliefs across institutions, strong findings were found across variables. For instance, for several colleges, gender was an area of difference, with female faculty members having a

stronger affinity for internationalization then their male colleagues. This section highlights these key institutions with notable differences.

Castleton State College.

Castleton State College showed significant differences by gender. Female faculty members (m=45, 7 cases) had significantly higher means than the male faculty members (m=39, 14 cases). This points to female faculty members having stronger attitudes and beliefs in favor of internationalization. Also of interest, faculty members who had taught between 15-19 years had the strongest attitudes and beliefs in favor of internationalization (m=52, 2 cases) as compared to those faculty members with 0-4 years experience (m=39, 6 cases). This is interesting to see since the cohort of those with 15-19 years of experience have shown to have varying views of internationalization throughout this study, as noted earlier when looking at demographic differences among faculty in Chapter 4. Why this particular group of faculty members varies from the rest would be useful to further explore and understand in subsequent studies.

Champlain College.

Champlain College showed significant differences by discipline. Engineering and applied sciences faculty members had the weakest attitudes and beliefs towards internationalization (m=32, 3 cases) as compared to faculty within the Fine, Applied and Performing Arts (m=47, 2 cases) who had the strongest. Again, this information

compliments what has been shown throughout this study, with a strong variation among faculty in the sciences versus those in the humanities.

Lyndon State College.

Lyndon State College showed significant differences by gender similar to Castleton State College. The female faculty members had the strongest attitudes and beliefs in favor of internationalization (m=46, 7 cases), whereas the men were less supportive (m=40, 10 cases. This too is a consistent trend shown at multiple points in the study. It would be interesting to further explore why it exists, and what promotes it specifically at Lyndon State. It would be beneficial to further understand what is dissuading or incentivizing one group over another.

University of Vermont.

At the University of Vermont, academic rank proved to be a factor that led to significant differences among faculty members. Full professors (m=42, 87 cases) were shown to be the most in favor of internationalization based upon their attitudes and beliefs, as compared to associate professors who were the least supportive (m=39, 114 cases). With UVM being the sole research university in the state, emphasis on faculty rank, and promotion through research and publication could be influencing this finding. Whether UVM's outcomes are similar to research universities across the country, specifically in other states with only one doctoral granting institution, would be interesting to explore in a future study.

It is interesting that over such a large swatch of schools with hundreds of faculty members, so few significant differences emerged by institution. It is also somewhat surprising that aside from gender, each of these institutions that did find significant differences didn't seem to share much in the way of commonalities. For instance, they did not each find differences by one factor such as rank, or gender. Instead, these factors varied by institution. It could likely be that individual institutions simply didn't have enough faculty members participate in the study to allow for trends and differences to fully emerge through statistical analysis.

Conclusion

The statistical tests looking at faculty attitudes and beliefs across the five variables of gender, rank, discipline, teaching/research preference and years in the field did show some differences among individual institutions. It shows diversity in internationalization support, and highlights Vermont faculty members are not homogenous in their beliefs. When looking across faculty responses from all of the institutions, the statistical tests showed variety and differences. It would be valuable to further explore why there were pronounced differences across some disciplines, and why those sometimes referred to as the "softer" sciences, were more inclined and showed a higher affinity towards internationalization than the "harder" sciences?

In the following chapter, faculty perceptions of campus climate towards internationalization is explored by variables and broken down by institution.

CHAPTER 6: PERCEPTIONS

Introduction

Following the first significant findings from the Attitudes and Beliefs variable, this chapter takes another investigative look at whether there were differences among faculty when focused on faculty perceptions of internationalization on their individual campuses. Similar in design to Chapter 5, the factors of gender, academic rank, discipline, number of years in the field and academic preference between research and teaching were used to see if there were differences when compared against the Perceptions variable. Where appropriate, charts have been embedded to give visual representations of trends and outcomes.

Statistical Tests

Once testing was completed with positive outcomes, the seven items formulating the Perceptions section were summed together to create an internationalization score ranging from 7-35 (35 being the highest). Those faculty members who had a more positive affinity towards internationalization scored higher. This summed Perceptions variable was then used to run statistical analysis on the data to see if there were differences across the factors of gender, academic rank, teaching or research orientation, discipline, and number of years in the field. A t-test was run for the bivariate variable gender, and ANOVA (analysis of variance) was used for each of the other multivariate factors. Scheffe and Bonferonni post-hoc tests were

used to compare means. With confidence in the items, and the survey itself, it was time to test if I could find more significant differences across the Perceptions variable than I had with the Attitudes and Beliefs variable.

Gender

Gender was again the first item tested to see if there were differences across the means of faculty members when correlated with the Perceptions variable. Since only two options were available, "male" or "female," a t-test was run with all full-time faculty responses. The p-value of the Levene's test was greater than .05, so variances could be assumed to be equal. The t-test failed to show a statistically reliable difference between the attitudes and beliefs mean of the 288 male faculty (m=22.18) and the mean of the 198 female faculty (m=21.98) for alpha .05. Male faculty did have a slightly higher mean indicating a stronger perception of positive internationalization on their campuses, but it was not significantly different from the women. In fact, the two means were very similar, which itself is interesting that both male and female faculty members had such similar perceptions of campus internationalization.

Academic Rank

Academic Rank was the second item to be tested for differences across means for the Perceptions variable. An ANOVA was run to compare means across multiple groups, or in this case, across the three categories of academic rank: "Assistant

Professor," "Associate Professor," and "Professor." The dependent variable Perceptions was used across the three independent faculty rank variables, and the second stage of the ANOVA was the Test of Homogeneity of Variances.

The p-value for the homogeneity test for academic rank was .141, above alpha (.05), increasing confidence that the variances were equal and the homogeneity of variance assumption was met. When looking at the significance of the F ratio the p-value was .764. Given .764 was much higher than alpha (.05), I noted there were no significant differences across rank. However, as with gender, there were differences across the means, with assistant faculty members nudging out full professors to earn the most positive perceptions of internationalization on campus. However, the margins between each other, and in comparison to associate faculty, were all very similar. In reviewing the post-hoc tests, faculty rank did not seem to factor heavily in determining perceptions of internationalization on campus.

Academic Preference

Academic Preference (Student Learning vs. Research) was the next item to be tested. An ANOVA was run to compare means across the five answer options to the question "Which of the following best describes your academic preferences for student learning compared to research?" The five answer options, which created the five independent variables for the ANOVA were: "Primarily in Student Learning," "In both, but leaning toward student learning," "In both, but leaning toward research,"

"Primarily in research," and "None of the above." The dependent variable Perceptions was compared across these five independent variables.

The test for homogeneity p-value for academic preference was .480, above alpha (.05), increasing confidence that the variances were equal and the homogeneity of variance assumption was met. When looking at the significance of the F ratio the p-value was .849. Given how far above alpha this was, there was not enough evidence to claim significant differences existed among the means of the groups. However, even though the majority of faculty members leaned towards having a preference in teaching over research, the average perceptions score was still around 22 (out of 35). This suggests from the post-hoc tests that despite faculty members' teaching or research preferences, perceptions of internationalization on campus remained at a consistently high (63% favorable) level.

Number of Years Employed

Number of Years Employed was the next item to be tested. An ANOVA was run to compare means across the question "How many years have you been employed at your current institution?" The five answer options, which created the five independent variables for the ANOVA were: "0-4 years," "5-9 years," "10-14 years," "15-19 years," and "20 + years." The dependent variable Perceptions was compared across these five independent variables. The homogeneity p-value for number of years employed was .006, below alpha (.05), and the significance of the F ratio the p-value was also .006. This indicated the first significant finding among Perceptions.

There were significant differences in faculty perceptions by the number of years they had been employed at their current institution. In particular, the post-hoc tests showed that faculty members with 0-4 years and those with 20+ years had the strongest perceptions towards internationalization on their campuses.

This is interesting because it was in keeping with some of the information that the CAP study had found, whereby those at the ends of the faculty spectrum share similarly positive views towards internationalization. That my sample population of Vermont faculty endorsed the CAP findings is relevant. It would serve as a great subsequent study to delve further into why individuals just starting their academic careers and those with many years experience, have more positive perceptions of internationalization on their campuses than faculty mid-stream in their professional lives. One possible rationale for this could be the reward system in place. With pressure applied to junior faculty to research and publish, perceptions of internationalization on campus may be weaker since at most institutions international initiatives are not weighed into the promotion and tenure process. For both faculty members and administrators, this would be worth revisiting. If bringing international dimensions and experiences into faculty teaching and research were weighted in the promotion system, it is possible those mid-stream in their academic careers would have more favorable perceptions.

Academic Discipline

Academic Discipline was the final item to be tested against the Perceptions variable. An ANOVA was run to compare means across the ten answer options to the question "In which discipline listed would you most closely identify your department or unit in which you are employed?" The ten answer options, which created the ten independent variables for the ANOVA were: "Agricultural and Animal Sciences," "Business and Commerce," "Education," "Engineering and Applied Sciences," "Humanities," "Life Sciences and Health," "Physical and Mathematical Sciences," "Social and Behavioral Sciences," "Fine, Applied and Performing Arts," or "Other." The p-value for number of years employed was .216, above alpha (.05), and the F ratio the p-value was .013. Significant differences existed across faculty perceptions by discipline. The post-hoc tests showed that those faculty members within the "Humanities," "Fine, Applied and Performing Arts," and the "Agricultural and Animal Sciences" had the strongest perceptions towards internationalization on their respective campuses, significantly more so than faculty from the "Physical and Mathematical Sciences," "Engineering and Applied Sciences," and "Life Sciences and Health Professions including Medicine." This information supported what had been uncovered both through analysis of the demographic information as well as what had been found through looking at Attitudes and Beliefs.

The significant differences in perceptions across the disciplines was in keeping with the overall trend that faculty members within the humanities and arts were much more likely to have positive views of internationalization than those from

the fields of engineering or physical sciences. On the surface, the argument could be made that each of the fields has global dimensions that are important and could be woven into both research and teaching. However, in many instances it could be the perception of internationalization, which is often times equated with study abroad, is creating the difference in campus perceptions across faculty from different disciplines. Although "internationalization" was clearly defined for the purposes of this study at the top of every page of the survey, faculty preconceived notions of what they believed internationalization to be, or how it is played out on campus, might vary from the definition I chose. It could also be that there is a history of certain fields embracing internationalization on campus, creating a culture that is more visible and tangible for faculty members to point to. Further studies could more fully investigate why these differences in perceptions exist by discipline.

Significant Differences by Institution

Castleton State College.

Castleton State College showed significant differences by gender. Female faculty members (m=45, 7 cases) had higher means than the male faculty members (m=39, 14 cases). This outcome is in harmony with the findings from the Attitudes and Beliefs test, and reiterates the trend that female faculty members have a stronger affinity for internationalization on campus, with stronger positive perceptions, than male faculty. Why this is the case in particular at Castelton State College would be

interesting to further explore, and of use to department chairs and administrators to see if it is something that can be addressed more formally.

Champlain College.

Champlain College showed significant differences by academic rank. Assistant faculty members (m=25, 17 cases) had stronger perceptions in favor of internationalization than did full professors (m=21, 10 cases). Assistant faculty members could be seeing more positive outcomes on campus regarding internationalization. They are newer to their fields, and perhaps have conducted their undergraduate and graduate work in a more globalized context. This could be translating into their perceptions now as junior faculty members, viewing internationalization as something they are more familiar with and an area that they can explore as they seek out new areas of research while climbing faculty ranks.

Goddard College.

Goddard College showed significant differences by discipline. In this case, faculty members from the Humanities (m=23, 2 cases) indicated stronger preferences for internationalization than did those faculty members from the Fine, Applied and Performing Arts (m=16, 2 cases). Goddard's unique experiential design, with an emphasis on the liberal arts, could be weighing into why differences appeared across two disciplines which up to this point have both shown to be receptive and in favor of

internationalization. Without engineering and science programs, these significant differences are arising between two liberal arts disciplines.

University of Vermont.

University of Vermont had differences in faculty perceptions by academic discipline. Faculty members from the Fine, Applied and Performing Arts (m=24, 11 cases) showed the most positive perceptions, along with faculty from the Humanities (m=23, 47 cases) and the Agricultural and Animal Sciences (m=23, 12 cases). In comparison, faculty members from Engineering (m=19, 12 cases) and Business (m=20, 8 cases) held the least positive perceptions towards internationalization. These outcomes are in keeping with what has been a common trend in this study. Faculty members from engineering and business showed a lower regard for internationalization on campus, both their own personal attitudes and beliefs and their perceptions of internationalization on campus. For an institution the size of UVM, it would be useful for administrators to investigate whether there are incentives or barriers across disciplines that would account for these differences.

Conclusion

Among so many institutions it was surprising to find so few significant differences emerge by institution. Similar to attitudes and beliefs, significant differences are less common than perhaps expected, with only a few emerging across all faculty members, and just a handful when looking at specific institutions.

However, those discoveries that were made reaffirmed what had been found earlier looking at demographic data. In particular, those faculty members from engineering and business are less favorably attuned to internationalization, consistently holding the least favorable perceptions of internationalization. Humanities and art faculty without much variation, hold the most positive views. Women are more inclined to favor internationalization than their male colleagues, with little variation by institution.

The statistical tests looking at faculty perceptions across the five variables of gender, rank, discipline, teaching/research preference and years in the field did show there were some significant differences among faculty. When looking across faculty responses from all of the institutions, the statistical tests showed variety and statistically significant differences. It would be valuable to further explore why there were pronounced differences across disciplines, especially why some disciplines, those sometimes referred to as the "softer" sciences, were more inclined and showed a higher affinity towards internationalization than the "harder" sciences? It would also be interesting to explore whether there are factors that lead to female faculty members holding more positive perceptions of campus climate towards internationalization then men.

In the following chapter, outcomes and discoveries from this study are compared to those of previous studies that helped to shape and guide this dissertation. Commonalities and differences are highlighted to see whether faculty members across Vermont vary in particular ways from faculty of prior studies when looking across

similar variables that explore internationalization experiences, attitudes, beliefs and perceptions.

CHAPTER 7: COMPARISONS TO CARNEGIE, ACE, CAP

Introduction

With new data in hand from this dissertation study, and questions framed in connection to previous research projects investigating faculty internationalization, it is possible to draw some comparisons to prior findings. The three studies in particular that it is most important to compare discoveries to are the Carnegie Foundation for the Advancement of Teaching study from 1993, the American Council on Education study from 2002, and the Changing Academic Profession study from 2007. These three studies informed the creation of this dissertation, and in many instances similar questions were intentionally used so that these comparisons could be made. This look to see how Vermont faculty members stack up to prior research groups should help to inform those guiding internationalization decisions on their individual campus, as well as help add to the collective knowledge base to more fully understand the academic profession.

Comparisons to Carnegie

The Carnegie Foundation for the Advancement of Teaching conducted a comprehensive multi-nation study investigating faculty internationalization. The results from their study found that seven out of ten (70%) faculty had not been to a conference outside of the United States within the past 3 years when they conducted their survey in 1992-1993. In comparison, across Vermont full-time faculty 65%

indicated they *had* travelled outside the United States (35% indicated they had not) to attend a disciplinary or scientific conference. Positive responses were skewed towards more senior faculty, with 73% of full professors indicating they had travelled abroad for conference attendance as compared with 56% of assistant professors. However, as mentioned prior, the close proximity to Canada was not addressed in this study, and could have increased the number of faculty responding positively in regards to foreign travel.

The numbers varied by gender, with 71% of male faculty and 61% of female faculty having travelled outside the United States for conference attendance. Experiences travelling internationally to attend academic conferences by Vermont faculty members varied by discipline as well. Nearly all faculty within the agricultural and animal sciences (93%) indicated having had this experience. Larger numbers of engineering faculty indicated having travelled for conferences (73%), as did 78% of those faculty members within the life sciences and health professions including medicine. Social and behavioral science faculty were also within the top few disciplines to travel abroad to attend an academic conference, with 71% indicating they had had this experience. When looking at having a teaching or research preference, 93% of faculty with a preference for research indicated having travelled outside the United States for a scientific or disciplinary conference as compared to just under half (48%) of those faculty members with a preference for student learning (teaching). In these respects, the Vermont faculty demonstrated a far

greater tendency to travel abroad for conference attendance than those surveyed during the Carnegie study.

The Carnegie study reported that two-thirds (66%) of faculty had not published abroad at the time of the 1992-1993 study. In comparison, over the last three years Vermont faculty indicated 45% had submitted to or published in a foreign journal or press (55% had not). Forty-eight percent of men and 39% of female faculty indicating having published in a foreign journal or press, and the majority were full professors. Looking across disciplines, business faculty members were the least likely to have published abroad, with only 13% reporting such activity, compared to other faculty disciplines that ranged from 30-60%, with agricultural and animal sciences having the greatest percentage of their faculty publish abroad with 71% having done so. Interestingly, 76% of faculty who claimed to have a preference for research had also submitted to or published in a foreign journal or press compared to just 17% of faculty with a teaching emphasis. Vermont faculty again seemed to show a higher propensity to submit and publish in foreign journals and publications than those faculty members surveyed in 1992-1993.

The Carnegie study found that with the exception of selective liberal arts colleges, faculty with teaching orientations were less likely to be as internationally focused as those with research orientations. In looking at the Vermont faculty, the statistical tests looking at academic preferences by Attitudes and Beliefs (AttBel) towards internationalization did not show any significant differences in the means. This would suggest that at least across Vermont institutions, those with preferences

for research have become at least as internationally focused as their colleagues with teaching preferences.

Comparison to ACE

The American Council on Education (ACE) found in their 2002 study that a majority (>50%) of the faculty surveyed nation-wide had travelled outside of the United States for academic purposes. Looking across Vermont faculty, 67% indicated they had travelled outside the U.S. to attend a disciplinary or scientific conference, and 52% in order to conduct research as a graduate student or faculty member. Although the majority of Vermont faculty cited having travelled abroad to attend a conference, many others indicated having other experiences as well. Among Vermont faculty, roughly one in three attended a class abroad as an undergraduate, and over 30% of men and 20% of women faculty members have taught abroad. Minimally one if five Vermont faculty members said they had gone abroad for longer than a year, and the higher the rank of the faculty member, the more likely they are to have travelled overseas. These numbers vary by discipline, in particular those in the sciences and engineering are less likely to have had such experiences as those in the arts or humanities. There is also a substantial difference between faculty members with a preference for teaching (37%) and faculty members with a preference for research (14%) when it comes to foreign travel for academic purposes. However, given the reasons and opportunities faculty members have had, there are several areas where generally experience has been fairly limited. For instance, nearly 75% of

Vermont faculty members *have not* travelled outside of the U.S. to accompany students on a study abroad program, to teach at a foreign college or university, or to participate in a service or development project.

The ACE study found a majority (>50%) of faculty indicated having foreign language competencies. Across Vermont institutions, close to 17% of faculty indicated they were a native speaker of another language or came from a bilingual home, and 73% indicated they had some foreign language competency. Of those who could speak another language, 40% speak French, 24% speak Spanish, and 22% speak another language other than those prompted by they survey. Some of the most commonly written in responses included Italian, Japanese and Korean. Nearly 70% of male faculty and over 75% of female faculty across Vermont institutions indicated having an ability to speak or read another language other than English. Differences did stand out by teaching or research orientation, with 46% of those who had a preference for researching and only 12% of those with a teaching preference, having an ability to speak another language. In comparison to ACE, Vermont faculty overwhelmingly have foreign language competencies beyond English. Where ACE found over 50% of faculty nationally speak a foreign language, across Vermont institutions it can be said that over 70% do.

The ACE study found one in four (25%) of faculty had worked collaboratively with a foreign scholar. The Vermont study found 51% of faculty reported having worked collaboratively with a foreign scholar in the last three years. Interestingly, looking across academic rank the percentages tended to tail in accordance. 56% of

full professors, 50% of associate professors, and 45% of assistant professors reported having worked collaboratively with foreign scholars. When looking across the disciplines, nearly 90% of faculty from the agricultural and animal sciences have worked collaboratively with a foreign scholar, and those with a research focus are three times more likely than those with a teaching emphasis to work in conjunction with partners abroad. So not only are did Vermont faculty report having twice average of the national data from ACE when it comes to partnering with foreign scholars, but within some disciplines, and particularly among those with a research focus, the numbers are even higher.

Lastly, the ACE study found 27% of faculty had the perception incorporating global dimensions into their professional work factored into tenure and promotion decisions. Vermont faculty do not seem to share the same sentiment, with half indicating they do not believe incorporating global dimensions factor into promotion and tenure, with only 16% having the perception that such work would be considered in the promotion process. Given internationalization efforts at most institutions is not yet grounds for promotion and tenure, Vermont faculty members seem to have a more accurate understanding of this than the national average as found by ACE. This is not to suggest that Vermont faculty members either agree or disagree with whether internationalization efforts should weigh into promotion, rather that they clearly understand at this point, in most cases, it does not.

Comparison to CAP

The Changing Academic Profession study from 2007 surveyed faculty across the globe, as a fifteen-year follow up to the original Carnegie study. They found that "New entrants," defined as those having worked for less than ten years as a full-time faculty member, were just as likely to publish abroad, but less likely to have collaborated with foreign partners, than those with over ten years experience. For the Vermont survey, "years employed" was broken down into five categories: 0-4 years, 5-9 years, 10-14 years, 15-19 years, 20+ years. Although there was more variation across faculty responses by the number of years employed when looking at those who have collaborated with a foreign scholar than for those who have submitted to a foreign journal/press, the findings did not prove to be significantly different. Vermont faculty members seemed more homogenous than the CAP research group, with less significant difference among age groups. This could be due to the less research-oriented missions of many of the Vermont institutions, with UVM being the sole doctoral-granting institution in the state. This would be interesting to further explore, and to compare against another state with a higher education system that is not particularly research focused the way Vermont is to see if the numbers align more closely. The table below shows the number of years employed by the two factors identified by CAP: Having submitted to a foreign journal or press, and having worked collaboratively with a foreign scholar.

Table 16
Years Employed by CAP Factors

Years employed	Have submitted to foreign journal or press	Have worked collaboratively with a foreign scholar
0-4 years	46%	42%
5-9 years	43%	55%
10-14 years	51%	61%
15-19 years	46%	47%
20+ years	42%	52%

In addition, the CAP study found female academics were more likely to focus their teaching on international issues than their male colleagues. The Vermont study found that there was not a significant difference between male and female responses when asked whether one has taught a course in which at least 25% of the instruction included information about other countries, cultures, or global issues. Although female faculty (47%) had a slightly higher propensity to bring this information into the classroom than their male (40%) counterparts, the widest gaps were by discipline. For instance, only 8% of faculty members from engineering and the applied sciences indicated having taught a course where at least 25% of the material touched upon global issues. This pales in comparison to the humanities faculty, where 83% answered the question positively. Another wide margin was between faculty members with a student learning (teaching) persuasion (40%) and those who had a preference for research (11%). Here too the differences were glaring, and in both cases full professors were the least likely to bring global dimensions into their teaching. So although the Vermont statistics agree with what CAP found, there were some additional demographic differences that outweighed the gender gap.

Lastly, the CAP study found that faculty members who had spent time abroad were more likely to include international dimensions into the content of their courses. The Vermont study agreed with the CAP findings, indicating there were significant differences across means by the length of time spent outside of the United States for academic purposes or administrative work. When Vermont faculty members were asked about their experiences in the past three years, those who had spent time abroad were significantly more likely to include international dimensions into their courses. Interestingly, when dissecting these numbers some more, 19% of men and 26% of women indicated they had spent over a year abroad for academic purposes. When looking at faculty rank, full professors were the most likely to have spent over a year abroad. In keeping with prior results, humanities faculty members were the most likely (37%) to have spent over a year abroad, whereas engineering (63%) and education (58%) were the most likely to have spent less than one month.

All of this is to suggest that if the CAP data is accurate for Vermont, which it seems to be, than this could create a self-fulfilling cycle for disciplines where faculty members who haven't had international experiences are less likely to bring these dimensions into their work, and in turn not influence another generation of students within the discipline. It will be particularly important for institutions with research programs and disciplines in the sciences, business and engineering to evaluate how they address the potential hurdle. Having this information in hand should help make the argument that it could be valuable to develop pathways for faculty within specific disciplines to have international experiences, both to inform their research, but also

their teaching. Table 33 outlines the length of time faculty members spent outside the United States in comparison to the factors influencing international dimensions being brought into course delivery.

Table 17
Length of Time Abroad by International Dimensions to Teaching

Length of time spent outside U.S.	25% of the instruction included information about other countries, cultures, or global issues?	Readings from international author(s) to present information about other countries, cultures, or global issues?	Foreign-born scholar or student present information or perspectives in your class about his/her country of origin?
1 month or less	26%	55%	39%
1-3 months	49%	71%	54%
3-6 months	44%	70%	50%
6-12 months	61%	77%	58%
12+ months	70%	83%	60%

Conclusion

These comparisons prove helpful in allowing institutions and researchers alike to seek out similarities and differences across groups, highlighting where growth and change has occurred over time. In particular, it allows Vermont faculty and administrators to assess how academics within the state compare to prior research studies based on faculty responses. Across the board, Vermont faculty compared well to the Carnegie, ACE, and CAP faculty data, in many instances highlighting above average experiences, competencies and affinity for internationalization. Vermont faculty have

travelled abroad and published abroad in higher numbers than prior studies found. In agreement with the CAP data, this dissertation study found that among Vermont faculty members who have travelled abroad, there was a higher tendency to bring international dimensions into the content of their work. Differences that were found in prior studies between faculty members who held either a research or teaching preference did not match up to what was found among Vermont faculty, where such significant differences do not exist. Foreign language competency in particular is a strength among Vermont faculty members in comparison to faculty from prior studies. Efforts to incorporate global dimensions into the Vermont faculty roles of teaching, learning and service did prove significantly different across the number of years faculty have been employed. As mentioned, this will be an important area for administrators and department chairs alike to assess, to ensure that the gap doesn't continue to widen, and that all disciplines are adequately covering global issues.

This chapter really serves as a segue into Chapter Eight, where all of this data and information is compiled to give a clear picture of the academic climate across Vermont faculty members in regards to internationalization. With the information collected and assessed, it should prove helpful to inform practice, and to help those institutions interested in steering towards a more internationalized focus on their campuses.

CHAPTER 8: IMPLICATIONS AND POTENTIAL FOR FUTURE STUDY

Introduction

This research study delved into the academic profession, looking at faculty international experiences, attitudes and beliefs, and perceptions towards internationalization. Focused on the full-time faculty across fourteen institutions across Vermont, this study is the first to comprehensively capture this critical information, so that faculty and administrations can best shape practices on campus moving forward. As globalization and the private sector continue to influence the academic profession and the ways in which colleges and universities operate, it is important to engage in conversations and to shape strategic plans to determine next steps for institutions to internationalize. This should occur at a pace and in a manner fitting both institutional mission and feasibility. A small institution in Vermont may not have the wealth or need to open a branch campus overseas, where revising curriculum and funding scholarships may be more fitting first-steps.

Internationalization across Vermont institutions is a necessary process to continue growing the numbers of international students and faculty, courses and programs, that today marker top quality higher education programs. Many of the initiatives that are affiliated with internationalization, from study abroad and joint-research opportunities, to global competency courses and language acquisition, all rely on faculty engagement. For Vermont institutions to move forward with a successful strategic agenda, faculty members must be leaders in the process, for it is their buy-in and knowledge that will be

critical to success. As this study outlined, in many instances, Vermont faculty are already ahead of the curve. Vermont institutions are wise to be addressing these issues early as internationalization becomes ever more complex with new actors, competition for resources and rationales for participation evolve (Knight, 2008).

Demographic Highlights

Looking across the Vermont faculty sample, of the 557 full, associate and assistant professors that participated in the study, there was nearly a sixty/forty split between men and women. On the whole, more men are teaching and researching across participating Vermont campuses, with more male faculty holding more full professor positions. Some disciplines, such as engineering and physical and mathematical sciences are almost entirely male dominated.

Interestingly when disciplines were looked at more carefully, there is potentially signs of growth within engineering and applied sciences as the number of assistant faculty members is larger than other fields. When looking at faculty by rank, interesting differences emerged between those who had a preference for teaching and those with a focus on research. Full professors were the most likely to show preferences for teaching, whereas assistant faculty showed an affinity for research. As mentioned, this could likely be due to assistant faculty researching and publishing at length in order to secure tenure, by default preferring to focus on the side of academe that will allow them to most quickly advance. Interestingly, faculty from business and commerce and engineering and applied sciences had the strongest preferences for teaching, as compared to the life sciences and

health professions and agricultural and animal sciences where most everyone is focused on research. Very few faculty members across the board have engaged in distance and online learning. Well under ten percent of all faculty have done so, with assistant faculty the least likely to have had such experiences. This is a relatively new component to higher education, at least among the state and non-profit institutions (for-profit institutions have capitalized heavily on this gap) and so it may be an interesting question to ask again in future studies to see if greater numbers of faculty have taken the leap to at least piloting an online class or offering hybrid versions combining online and in-person formats. To date, education faculty were shown to be the most likely to have tried teaching a course online, and among them only a handful.

Across the sample of those with a preference for teaching, most tend to be men. The male trend continued when looking at those who had been at the institution the longest, with individuals having 20+ years of service (70% male) under their belts being predominantly male. Also, over 70% of men who indicated they had travelled abroad, said they had done so to attend an academic or disciplinary conference. Across both genders this was the most common reason for having travelled overseas, and this is an area where institutions and administrations may look in the future to invest development funds. Women faculty members who have travelled abroad represented larger numbers who had spent over a year abroad, with one in every four having had such an opportunity. Still, the greatest number of individuals overall represent faculty who have spent less than one month abroad, which across this sample was 40%.

When exploring what drew faculty to travel abroad other than conference

attendance, those from the fields of engineering and business were the least likely to have had such experiences as undergraduate students, graduate students or faculty members. Faculty from the humanities and arts, and somewhat surprisingly the agricultural and animal sciences were by far the most likely to have travelled abroad during these phases of life to conduct research or to take classes. Research faculty were less likely to have engaged in study abroad as those with an emphasis on teaching, but both experiences could be seen as experiential in nature. Interestingly, and perhaps to be expected, there is a common trend where the longer a faculty member has been working at an institution, the more likely they are to have travelled abroad to conduct research. These opportunities may tend to come with experience, after earning tenure and developing relations with foreign scholars. This trend holds true for all faculty other than the 15-19 years of service cohort, which is predominantly female.

Much of this travel abroad may be possible and influenced by the large number of individuals capable of speaking a language other than English. Nearly twenty percent of all faculty members either are native speakers of another language or come from a bilingual home. Nearly 70% of male faculty and nearly 80% of female faculty speak another language competently other than English. This bodes well for Vermont higher education, and the push to include languages into the curriculum. This is a trend on the rise, with the greatest concentration of faculty members with second and third language abilities among the assistant professor rank. Over one in five is a native speaker or comes from a bilingual home. Trends emerged by discipline as well, with over forty percent of faculty members within the agricultural and animal sciences (predominantly at UVM)

indicating they were bilingual.

This study sought to investigate what initiatives faculty members are taking to bring global dimensions into their classrooms and into their research and service work. Interestingly, female faculty members are more likely to include information about countries, cultures and global issues, as well as bringing foreign authors and readings into their assignments. Men on the other hand are more likely to submit and publish into foreign journals. When looking by discipline, there were vast differences in the amount of depth international topics were given. Under ten percent of engineering faculty and over eighty percent of humanities faculty spent at least a quarter of their instruction on bringing international dimensions into their teaching. When looking at research, business faculty members were the least likely to publish abroad (under 15%) whereas faculty members from the agricultural and animal sciences have over 70% of their faculty seeking to publish in foreign journals. This is most likely due to the fact that nearly all animal and agricultural science faculty indicate they work collaboratively with foreign scholars. With recent international epidemics such as H1N1 swine flu, avian bird flu, mad cow disease, among others, it makes sense for faculty within this discipline to be as internationally aware and connected as they seem to be.

In fact, faculty members with a research orientation proved to be three times more likely to work collaboratively with a foreign scholar than faculty members with a student learning (teaching) focus. However, faculty members with a student learning preference were twice as likely than a research-oriented faculty member to have had a foreign-born scholar or student into his/her class to present international information. These trends

show the different methods faculty members across the Vermont sample are using to pull international dimensions into their work. Across all full-time faculty members, 85% agree or strongly agree that international education is a critical component of higher education. Among all faculty surveyed, 65% did not agree that the more time spent teaching students about other countries, cultures or global issues, the less time there is available to teaching the basics. Seventy percent of faculty agree or strongly agree students should be required to study a foreign language if they don't already know one, and 80% of faculty agree or strongly agree colleges and universities should require students to take courses covering international topics. All of these findings suggest there is ample support by faculty to internationalize campuses.

For administrators and faculty alike, this is powerful information to know, since it indicates that faculty acknowledge and recognize the value of internationalization, and are in favor of incorporating global dimensions. Along with positive outlooks, over 70% of faculty do not feel that study abroad impedes a student's ability to graduate on time at their respective institutions. From the faculty perspective, these are valuable experiences that should be woven into the curriculum, without delaying one's academic career.

Attitudes, Beliefs and Perceptions

Across all of the participating institutions, the attitudes and beliefs variable was used to see whether there were significant differences among faculty members, and to see if there were trends that would emerge highlighting patterns. Although some significant findings were unveiled, on the whole there were fewer significant differences than I

anticipated. In many respects, given what was learned when analyzing faculty demographics, it suggests that most faculty members are in support of internationalization. Where differences were significantly different, it was in keeping with what was uncovered by looking at faculty members' demographics, and supported those discoveries.

Looking at the total faculty population surveyed, significant differences were noticeable by discipline. Faculty members in the agricultural and animal sciences as well as in the humanities were significantly more supportive of internationalization (stronger attitudes and beliefs) than faculty members from the physical and mathematical sciences, engineering and the applied sciences, and the life sciences and health professions including medicine. This same trend was noticeable when looking at demographic data. Looking specifically at the perceptions variable, there were significant differences by the number of years of service. Similar to CAP, assistant faculty members with 0-4 years experience, and veteran faculty members with 20+ years experience held the strongest perceptions in favor of internationalization. Similar to the attitudes and beliefs variable, when looking specifically at faculty perceptions, significant differences emerged by discipline. Faculty members from the humanities, arts and agricultural and animal sciences held stronger perceptions than faculty members from the physical and mathematical sciences, engineering or the life sciences including medicine. Whereas the Carnegie study found differences by gender, ACE honed in on full-time versus part-time faculty, and CAP found distinctions by the number of years employed, this study seems to indicate there are significant differences by discipline across Vermont institutions. This

is an area institutions would be encouraged to further review, to see whether there are factors pushing or pulling individuals towards or from internationalizing based on their academic field. There could be incentives in place within one department working to encourage the implementation of global dimensions that could be adopted to work for another department on campus.

Individual colleges across the state also have reason to delve deeper into these trends, as some schools did show significant differences among groups when looking at attitudes, beliefs and perceptions. Castleton State College had significant differences in the attitudes and beliefs, and perceptions, of faculty by gender. In both instances, female faculty members held stronger support for internationalization on campus than their male colleagues. Lyndon State College showed a similar trend with significant differences by gender, again with women more strongly supporting internationalization. Castleton State College highlighted differences among the cohort of faculty members within the 15-19 years of service range, which as noted earlier, across the entire sample was predominantly made up of female faculty members (at Castleton, 1 female, 0 male). This cohort had the strongest affinity for internationalization when looking at attitudes and beliefs.

Champlain College had significant differences among faculty members by discipline, with those in the fine, applied and performing arts showing stronger attitudes and beliefs in favor of internationalization than those faculty members within engineering and applied sciences. This was a common theme in the study, and I was surprised actually to not see significant test results among more of the institutions. Goddard

College showed significant differences by discipline between humanities who held the strongest perceptions in favor of internationalization, and the fine, applied and performing arts holding the least supportive views. Champlain College did differentiate from the pack by also showing a trend among assistant faculty members to hold more favorable perceptions of internationalization than full professors. This is interesting since among all faculty members in the study, these two ends of the faculty spectrum were shown to be the most supportive of internationalization. As an institution looking to internationalize, this could point to a younger cohort of faculty that are very much in favor of new initiatives, opening the range of opportunities among their colleagues.

The University of Vermont, the largest institution in the study, showed significant differences among faculty members in keeping with trends seen among the total faculty. Full professors followed by assistant faculty held the most favorable attitudes and beliefs when looking at internationalization, with associate professors having somewhat less favorable reviews. As noted, this could be due to mid-stream career faculty pushing to advance through research and publication, with little time for internationalization efforts that otherwise fall to the periphery. When assessing faculty perceptions, UVM faculty members across the arts, humanities and agricultural and animal sciences held the most positive perceptions, with faculty members from engineering and the applied sciences less positive in their perceptions of internationalization on campus.

Each of these institutional differences hold value individually for the institutions, but when woven together and looked at across all of the schools, a more clear picture of internationalization across Vermont appears. The challenge for faculty and institutional

leaders moving forward will be to make strategic plans for both short and long term planning to address internationalization knowing trends occurring across their campus own campuses as well as the average trends across the state.

The Road Ahead

Vermont institutions are in a good starting position as they investigate ways to bring internationalization initiatives to campus, and to strengthen those already in play. Faculty members from this study indicated being receptive to internationalization efforts, and in many instances are already serving on the front lines to bring about change. One would be hard-pressed to find an institution that hasn't already embraced the clout of having a Fulbright or Rhode Scholar on campus. For many institutions, rather than redeveloping or crafting new programs, the larger project will be to better understand what talents and experiences already reside among their faculty and staff, what programs have succeeded at peer institutions, and how to quickly adopt what is already working elsewhere to their own campuses.

Further investigation into faculty member compensation and selection should be evaluated. Cross-border initiatives including study abroad, faculty collaborations, joint-degree offerings, twinning programs among others, should all be thoroughly vetted and evaluated. The relationship between globalization growth and internationalization activity needs to be weighed at the institutional level, with clear definitions realized so all actors are working from the same playbook. As this study highlights, faculty are already engaged on many levels. There is good will towards making further international strides,

in particular towards efforts to more clearly define how faculty allocate their time and energy when addressing global dimensions, and in turn how they should be compensated or rewarded for that effort. Potentially recruitment, promotion, and tenure systems should be amended to more heavily weight international efforts. The more fully Vermont institutions understand the flow of academic talent, might allow Vermont to play a critical role as ground zero for foreign researchers or international students as a preliminary step in their acclimation to American higher education. Already cities such as Burlington have a large population of refugees, and could realize greater numbers of individuals who find they are welcomed into programs and departments as a first step in connecting to the academic pipeline. These individuals might then move onto graduate programs or full-time positions across other states, but keep their connectivity to their "home" institution in Vermont. This might likely be true even if they ultimately return to their home nation. How such adoptions and adaptations occur will be telling about the Vermont internationalization process, and how faculty members integrate these themes.

As Jane Knight has discussed in many of her writings, the rationales for why institutions and faculty latch on to internationalization will shape what programs, initiatives and policies are formed across Vermont. Whether institutions are seeking to gain financial gains or international status will unfold a different outcome from those who are seeking to foster foreign relations, joint academic agreements, or increasing international scholarly work and teaching. Both tracks can add value, but will set precedents and attract different supporters. What is clear is that the faculty members are ready and eager for recognition and a more clear set of guidelines, and it is in this area

that I hope this study can guide successful change.

Implications and Recommendations

For institutions using this study to inform practice, several suggestions can be made. For starters, the faculty members' responses from within the sciences suggest that the field may be less internationally focused than the humanities. As institutions begin to adopt internationalization strategies, seeking faculty buy-in and recommendations, it may be important to work with disciplines individually to hear what their concerns and perspectives are before assuming all faculty at an institution have similar experiences and beliefs. This will be especially true if faculty recruitment, promotion and tenure are going to be impacted by pending internationalization strategies. In particular, it may be found that for science faculty collaboration with foreign scholars and international travel for conferences is where they need institutional support, whereas humanity faculty may solicit funds for study abroad programs and classroom lesson development.

Institutional leaders could look at faculty funding for international initiatives, in particular to create incentives for faculty members to travel overseas for conference presentation. If funding and time are allocated, this study supports that it will have a positive impact on international dimensions subsequently brought into faculty teaching, research and service. The more faculty members who have an opportunity to glean international exposure, the more able they will be to share first-hand accounts of the positive outcomes such experiences can have.

Colleges and universities across Vermont have a wide range of languages their

faculty members speak comfortably, and this should be viewed as an institutional asset. With a majority of faculty members indicating they speak at least one language other than English, there is an opportunity for growth to connect international scholars with Vermont institutions. Whether using their language abilities to work with foreign students, help with admissions practices, present at international conferences, collaborate on multinational research initiatives, or drive international programs on campus, faculty fluency should be capitalized upon and rewarded.

For many institutions, there were differences between male and female faculty responses in regards to campus internationalization efforts. This will be an important issue to more fully explore, and at an institutional level to ensure opportunities are fostered equally, experiences are recognized, and if promotion and tenure are incentives that they remain transparent.

The study findings suggest that the best approach for all of these initiatives will be at the campus level as opposed to a statewide initiative. Individual institutions can best determine what practices will inform change most effectively on their campuses in keeping with their mission and strategic plan. What works best for one institution may not work for another. In fact, what works for one department may not work for another. This will be particularly true for those institutions relying heavily on part-time and adjunct faculty. This study looked primarily at those faculty members who are full-time and working within the tenure-track system. However, it will be important to have buy-in and to support faculty who make substantive contributions irrespective of tenure status. Their experiences, language abilities and teaching methodologies should not be

overlooked.

Conclusion

From supporting faculty members to collaborate with foreign scholars to encouraging individuals to join and actively engage in international academic organizations, there are significant gains to be made. Overall, this study is an exciting first look into internationalization across a wide sample of Vermont faculty, and opens the door for future studies at the campus level to support the continued efforts to bring international dimensions into the academic heart of the college experience both for the faculty members themselves and the students they teach.

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APPENDIX A – SURVEY INVITATION

Dear [name of institution] Faculty Member,

Internationalization is defined as "the process of integrating an international, intercultural or global dimension into the purpose, functions or delivery of post-secondary education."

Very little is known about faculty experiences, beliefs and attitudes towards internationalization. This study, endorsed by the Center for International Higher Education at Boston College, will be used as part of a doctoral dissertation and to provide scholarly insight for faculty and administrators across institutions in Vermont.

You are greatly encouraged to voluntarily participate in this study. The survey takes a few minutes to complete.

All identifying information will be separated and each institution has been coded, ensuring complete anonymity. The study poses no foreseeable risks to participants.

This study has been approved by the Institutional Review Board at both [name of institution] and Boston College. If you have any questions regarding the human subjects review please contact BC IRB's office at: (617) 552-4778, or irb@bc.edu.

To participate in the research study, please click the link below. By completing the survey, you are indicating your informed consent to participate in this research project.

For the purpose of this study, [Institution] is coded as school #[x]

Study link:
http://survey.qualtrics.com/SE?SID=SV_0eTD5e2x4IQLIS8&SVID=Prod

Thank you for your participation!
Further questions about the research project can be directed to:
David Fields
Boston College, Higher Education Administration
fieldsdd@bc.edu
(617) 332-3299

APPENDIX B – FOLLOWUP SURVEY INVITATION

Dear [institution] Faculty:

Approximately one week ago, you received an invitation to participate in an online survey about faculty experiences, attitudes and beliefs regarding internationalization.

If you have already completed the online survey, thank you for participating. If not, please do so today. The survey takes less than 10 minutes to complete, and is crucial to better understanding this important issue facing higher education. Participation is voluntary, but we do ask for your help.

For the purpose of this study, [Institution] is coded as school #[x]

Study link:
http://survey.qualtrics.com/SE?SID=SV_0eTD5e2x4IQLIS8&SVID=Prod

Thank you in advance for your time,

If you have any questions, please contact:
David Fields
fieldsdd@bc.edu
(617) 332-3299

APPENDIX C – SURVEY INSTRUMENT

Internationalization is defined as the "process of integrating an international, intercultural or global dimension into the purpose, functions or delivery of post-secondary education" (Knight, 2003)

International Experience

Thank you in advance for your contribution. The following 20 questions will advance our collective knowledge of the academic profession as it relates to internationalization within Vermont.

This survey will only take a few minutes to complete, enjoy!

International Experience

Page 1 of 5

What is your institution's survey number? (Can be found in bold print within the invitation email)

What is your current academic rank at your institution?

Professor	Associate Professor	Assistant Professor	Instructor	Other faculty designation
○	○	○	○	○

Have you ever traveled outside the United States?

- ○ Yes
- ○ No

For the following, please select 'yes' or 'no'

Have you ever traveled outside the United States...

	Yes	No
... to attend classes or participate in research as an undergraduate student?	○	○
... to attend classes as a graduate student or faculty member?	○	○
... to conduct research as a graduate student or faculty member?	○	○
... to accompany undergraduate or graduate students on a study abroad program?	○	○
... to teach at a foreign college or university?	○	○
... to attend a disciplinary or scientific conference?	○	○
... to participate in a service or development project?	○	○

What is the longest period of time you have spent outside the United States for academic purposes or administrative work?

Have you ever taught for a foreign college or university through distance or on-line learning?

○ Yes

○ No

Are you a native speaker of another language or do you come from a bilingual home?

○ Yes

○ No

Besides English, please indicate which languages you can speak and/or read? (check all that apply):

☐ Arabic ☐ Russian

☐ Chinese ☐ Spanish

☐ French ☐ Other

☐ German ☐ None

☐ Portuguese

For the following, please select 'yes' or 'no'

In the past three years...

	Yes	No
... have you taught a course in which at least 25% of the instruction included information about other countries, cultures, or global issues?	○	○
... have you submitted to or published in a foreign journal or press?	○	○
... have you worked collaboratively with a foreign scholar?	○	○
... have you used readings from international author(s) to present information about other countries, cultures, or global issues?	○	○
... have you had a foreign-born scholar or student present information or perspectives in your class about his/her country of origin?	○	○
... have you worked with local organizations, businesses, or schools on projects of an international nature?	○	○

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Attitudes and Beliefs

Please indicate how much you agree or disagree with the following statements:

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
The more time that is spent teaching students about other countries, cultures, or global issues, the less time	○	○	○	○	○

is available for teaching the basics					
International education is a critical component of higher education	○	○	○	○	○
All students should study abroad at some point during their college experience	○	○	○	○	○
Students should be required to study a foreign language if they don't already know one	○	○	○	○	○
Colleges and universities should require students to take courses covering international topics	○	○	○	○	○

Which of the following best represents your teaching responsibilities at this institution?

- ○ Entirely undergraduate
- ○ Some undergraduate, some graduate or professional
- ○ Entirely graduate or professional
- ○ My faculty responsibilities do not include teaching at this time

Which of the following best describes your academic preferences for student learning compared to research?

- ○ Primarily in student learning
- ○ In both, but leaning toward student learning
- ○ In both, but leaning toward research
- ○ Primarily in research
- ○ None of the above

Please indicate how much you agree or disagree with the following statements:

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
It is the responsibility of colleges and universities to internationalize in order to better prepare graduates to enter the workstream	○	○	○	○	○
Faculty support is the most important factor to successful internationalization at	○	○	○	○	○

colleges and universities					
I would like to teach more international content within my courses	○	○	○	○	○
I would like to incorporate international themes or collaborate with foreign scholars in my research	○	○	○	○	○
I would like to work with local organizations, businesses, or schools on projects of an international nature	○	○	○	○	○
I would be more inclined to bring international dimensions into my work if I had more time	○	○	○	○	○

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Campus Climate

Please indicate how much you agree or disagree with the following statements:

At my institution...

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
... study abroad impedes a student's ability to graduate on time	○	○	○	○	○
... faculty are encouraged to include international perspectives in their courses	○	○	○	○	○
... international expertise is part of recruitment and selection procedures of new faculty	○	○	○	○	○
... most students graduate with an awareness about other countries, cultures or global issues	○	○	○	○	○
... international research or teaching is a consideration during tenure and promotion decisions	○	○	○	○	○
... faculty development funds specifically to increase international skills and	○	○	○	○	○

knowledge are available					
... internationalization efforts are directed in large part by the faculty	○	○	○	○	○
... internationalization efforts are directed in large part by the administration	○	○	○	○	○

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Demographic

Are you:

- ○ Male
- ○ Female

What country were you born in? (You can type the first letter of a country name ie. 'D' for Denmark to find quickly)

Do you maintain ties with any foreign faculty, researchers, staff or students? (check all that apply)

- ☐ Foreign faculty
- ☐ Foreign researchers
- ☐ Foreign staff
- ☐ Foreign students
- ☐ I do not maintain any professional foreign ties

In which discipline listed would you most closely identify your department or unit in which you are employed?

- ○ Agricultural and Animal Sciences
- ○ Business and Commerce
- ○ Education
- ○ Engineering and Applied Sciences
- ○ Humanities
- ○ Life Sciences and Health
- ○ Physical and Mathematical Sciences
- ○ Social and Behavioral Sciences

○ Fine, Applied and Performing Arts ○ Other (please type)

How many years have you been employed at your current institution?

Please share any additional comments you may have regarding internationalization that were not addressed in the survey.

Please be sure to click the button below to submit your survey. Thank you for your time!

APPENDIX D – STATISTICAL ANALYSIS

Table 18
Attitudes and Beliefs by Gender

Gender	N	Mean	Std. Deviation	Std. Error Mean
Male	289	40.2941	6.80329	.40019
Female	197	41.5178	6.84791	.48789

Table 19
Independent Samples Test for Full-Time Faculty

	Levene's Test for Equality of Variances		t-test for Equality of Means						
								95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Dif.	Lower	Upper
variances assumed	.709	.400	-1.942	484	.053	-1.22365	.6302	-2.46200	.01470
variances not assumed			-1.939	419.293	.053	-1.22365	.6310	-2.46402	.01672

Table 20
ANOVA for Academic Rank

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	70.607	2	35.304	0.768	0.465
Within Groups	23679.053	515	45.979		
Total	23749.66	517			

Table 21
Scheffe and Bonferroni Post Hoc tests for Academic Rank

Scheffe	Mean Difference (I-J)	Std. Error	95% Confidence Interval Lower Bound	Upper Bound
Prof. v. Assoc. Prof.	0.78659	0.71086	-0.9585	2.5317
Prof. v. Asst. Prof.	0.02534	0.74057	-1.7927	1.8434
Assoc. Prof. v. Prof.	-0.78659	0.71086	-2.5317	0.9585
Assoc. Prof v. Asst. Prof.	-0.76126	0.74431	-2.5885	1.0659
Asst. Prof. v. Prof.	-0.02534	0.74057	-1.8434	1.7927
Asst. Prof. v Assoc. Prof.	0.76126	0.74431	-1.0659	2.5885
Bonferroni				
Prof. v. Assoc. Prof.	0.78659	0.71086	-0.9208	2.494
Prof. v. Asst. Prof.	0.02534	0.74057	-1.7534	1.8041
Assoc. Prof. v. Prof.	-0.78659	0.71086	-2.494	0.9208
Assoc. Prof. V. Asst. Prof.	-0.76126	0.74431	-2.549	1.0265
Asst. Prof. v. Prof.	-0.02534	0.74057	-1.8041	1.7534
Asst. Prof. v. Assoc. Prof.	0.76126	0.74431	-1.0265	2.549

Table 22
Attitudes and Beliefs by Student Learning or Research Preference

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	424.954	4	106.239	2.344	0.054
Within Groups	23161.144	511	45.325		
Total	23586.099	515			

Table 23
Scheffe and Bonferroni Post Hoc tests for Student Learning or Research

(I) Student Learning v. Research	(J) Student Learning v. Research	Mean Diff (I-J)	Std. Error	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
Primarily in student learning	In both, but leaning toward student learning	-1.93239	0.74036	-4.2212	0.3565
	In both, but leaning toward research	-0.27972	0.83023	-2.8464	2.2869
	Primarily in research	0.18571	1.39374	-4.1231	4.4945
	None of the above	0.04286	1.54402	-4.7305	4.8162
In both, but leaning toward student learning	Primarily student learning	1.93239	0.74036	-0.3565	4.2212
	Leaning research	1.65267	0.76805	-0.7218	4.0271
	Primarily in research	2.1181	1.35762	-2.079	6.3152
	None of the above	1.97525	1.51149	-2.6976	6.6481
In both, but leaning toward research	Primarily in student learning	0.27972	0.83023	-2.2869	2.8464
	In both, but leaning toward student learning	-1.65267	0.76805	-4.0271	0.7218
	Primarily in research	0.46544	1.40864	-3.8894	4.8203
	None of the above	0.32258	1.55748	-4.4924	5.1376
Primarily in research	Primarily in student learning	-0.18571	1.39374	-4.4945	4.1231
	In both, but leaning toward student learning	-2.1181	1.35762	-6.3152	2.079
	In both, but leaning toward research	-0.46544	1.40864	-4.8203	3.8894
	None of the above	-0.14286	1.91807	-6.0726	5.7869
None of the above	Primarily in student learning	-0.04286	1.54402	-4.8162	4.7305
	In both, but leaning toward student learning	-1.97525	1.51149	-6.6481	2.6976
	In both, but leaning toward research	-0.32258	1.55748	-5.1376	4.4924
	Primarily in research	0.14286	1.91807	-5.7869	6.0726
Bonferroni					
Primarily in student learning	In both, but leaning toward student learning	-1.93239	0.74036	-4.0197	0.1549
	In both, but leaning toward research	-0.27972	0.83023	-2.6204	2.0609

	Primarily in research	0.18571	1.39374	-3.7436	4.115
	None of the above	0.04286	1.54402	-4.3102	4.3959
In both, but leaning toward student learning	Primarily in student learning	1.93239	0.74036	-0.1549	4.0197
	In both, but leaning toward research	1.65267	0.76805	-0.5127	3.818
	Primarily in research	2.1181	1.35762	-1.7094	5.9456
	None of the above	1.97525	1.51149	-2.2861	6.2366
In both, but leaning toward research	Primarily in student learning	0.27972	0.83023	-2.0609	2.6204
	In both, but leaning toward student learning	-1.65267	0.76805	-3.818	0.5127
	Primarily in research	0.46544	1.40864	-3.5059	4.4368
	None of the above	0.32258	1.55748	-4.0684	4.7136
Primarily in research	Primarily in student learning	-0.18571	1.39374	-4.115	3.7436
	In both, but leaning toward student learning	-2.1181	1.35762	-5.9456	1.7094
	In both, but leaning toward research	-0.46544	1.40864	-4.4368	3.5059
	None of the above	-0.14286	1.91807	-5.5504	5.2647
None of the above	Primarily in student learning	-0.04286	1.54402	-4.3959	4.3102
	In both, but leaning toward student learning	-1.97525	1.51149	-6.2366	2.2861
	In both, but leaning toward research	-0.32258	1.55748	-4.7136	4.0684
	Primarily in research	0.14286	1.91807	-5.2647	5.5504

Table 24
Attitudes and Beliefs by Number of Years Employed

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	132.542	4	33.135	.724	.576
Within Groups	22889.090	500	45.778		
Total	23021.632	504			

Table 25
Scheffe and Bonferroni Post Hoc tests for Number of Years Employed

	(I) How many years have you been employed at your current institution?	(J) How many years have you been employed at your current institution?	Mean Diff (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Scheffe	0-4 years	5-9 years	.79248	.85419	.930	-1.8485	3.4334
		10-14 years	1.56121	.97779	.636	-1.4619	4.5843
		15-19 years	.19283	1.17749	1.000	-3.4477	3.8334
		20 or more years	.81556	.84772	.921	-1.8054	3.4365
	5-9 years	0-4 years	-.79248	.85419	.930	-3.4334	1.8485
		10-14 years	.76873	.97332	.960	-2.2406	3.7780
		15-19 years	-.59965	1.17378	.992	-4.2287	3.0294
		20 or more years	.02308	.84256	1.000	-2.5819	2.6281
	10-14 years	0-4 years	-1.56121	.97779	.636	-4.5843	1.4619
		5-9 years	-.76873	.97332	.960	-3.7780	2.2406
		15-19 years	-1.36838	1.26657	.883	-5.2843	2.5476
		20 or more years	-.74564	.96765	.964	-3.7374	2.2461
	15-19 years	0-4 years	-.19283	1.17749	1.000	-3.8334	3.4477
		5-9 years	.59965	1.17378	.992	-3.0294	4.2287
		10-14 years	1.36838	1.26657	.883	-2.5476	5.2843
		20 or more years	.62273	1.16908	.991	-2.9918	4.2373
	20 or more years	0-4 years	-.81556	.84772	.921	-3.4365	1.8054
		5-9 years	-.02308	.84256	1.000	-2.6281	2.5819
		10-14 years	.74564	.96765	.964	-2.2461	3.7374
		15-19 years	-.62273	1.16908	.991	-4.2373	2.9918

Bon.	0-4 years	5-9 years	.79248	.85419	1.000	-1.6159	3.2009
		10-14 years	1.56121	.97779	1.000	-1.1957	4.3181
		15-19 years	.19283	1.17749	1.000	-3.1271	3.5128
		20 or more years	.81556	.84772	1.000	-1.5746	3.2058
	5-9 years	0-4 years	-.79248	.85419	1.000	-3.2009	1.6159
		10-14 years	.76873	.97332	1.000	-1.9756	3.5131
		15-19 years	-.59965	1.17378	1.000	-3.9092	2.7099
		20 or more years	.02308	.84256	1.000	-2.3526	2.3987
	10-14 years	0-4 years	-1.56121	.97779	1.000	-4.3181	1.1957
		5-9 years	-.76873	.97332	1.000	-3.5131	1.9756
		15-19 years	-1.36838	1.26657	1.000	-4.9395	2.2028
		20 or more years	-.74564	.96765	1.000	-3.4740	1.9827
	15-19 years	0-4 years	-.19283	1.17749	1.000	-3.5128	3.1271
		5-9 years	.59965	1.17378	1.000	-2.7099	3.9092
		10-14 years	1.36838	1.26657	1.000	-2.2028	4.9395
		20 or more years	.62273	1.16908	1.000	-2.6735	3.9190
	20 or more years	0-4 years	-.81556	.84772	1.000	-3.2058	1.5746
		5-9 years	-.02308	.84256	1.000	-2.3987	2.3526
		10-14 years	.74564	.96765	1.000	-1.9827	3.4740
		15-19 years	-.62273	1.16908	1.000	-3.9190	2.6735

Table 26
Attitudes and Beliefs by Discipline

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1547.373	9	171.930	3.869	.000
Within Groups	21995.986	495	44.436		
Total	23543.358	504			

Table 27
Scheffe and Bonferroni Post Hoc tests for Discipline

	(I) In which discipline listed would you most closely identify your department or unit in which you are...	(J) In which discipline listed would you most closely identify your department or unit in which you are...	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Scheffe	Agricultural and Animal Sciences	Business and Commerce	2.96667	2.27689	.995	-6.4458	12.3791
		Education	1.24510	2.23830	1.000	-8.0078	10.4980
		Engineering and Applied Sciences	7.02564	2.32640	.428	-2.5914	16.6427
		Fine, Applied and Performing Arts	1.69697	2.39225	1.000	-8.1923	11.5863
		Humanities	1.21905	2.03131	1.000	-7.1782	9.6163
		Life Sciences and Health Professions including Medicine	3.89583	2.02479	.929	-4.4744	12.2661
		Physical and Mathematical Sciences	5.07619	2.22994	.817	-4.1422	14.2945
		Social and Behavioral Sciences	1.80894	2.06032	1.000	-6.7082	10.3261
		Other (please type)	.41844	2.15603	1.000	-8.4944	9.3313
	Business and Commerce	Agricultural and Animal Sciences	-2.96667	2.27689	.995	-12.3791	6.4458
		Education	-1.72157	1.66978	.999	-8.6243	5.1811
		Engineering and Applied Sciences	4.05897	1.78614	.819	-3.3248	11.4427

	Fine, Applied and Performing Arts	-1.26970	1.87111	1.000	-9.0047	6.4653
	Humanities	-1.74762	1.38001	.996	-7.4524	3.9572
	Life Sciences and Health Professions including Medicine	.92917	1.37039	1.000	-4.7359	6.5942
	Physical and Mathematical Sciences	2.10952	1.65856	.996	-4.7468	8.9658
	Social and Behavioral Sciences	-1.15772	1.42236	1.000	-7.0376	4.7222
	Other (please type)	-2.54823	1.55778	.975	-8.9879	3.8915
Education	Agricultural and Animal Sciences	-1.24510	2.23830	1.000	-10.4980	8.0078
	Business and Commerce	1.72157	1.66978	.999	-5.1811	8.6243
	Engineering and Applied Sciences	5.78054	1.73668	.273	-1.3987	12.9598
	Fine, Applied and Performing Arts	.45187	1.82395	1.000	-7.0881	7.9919
	Humanities	-.02605	1.31535	1.000	-5.4636	5.4115
	Life Sciences and Health Professions including Medicine	2.65074	1.30526	.902	-2.7451	8.0465
	Physical and Mathematical Sciences	3.83109	1.60517	.769	-2.8045	10.4667
	Social and Behavioral Sciences	.56385	1.35973	1.000	-5.0571	6.1848
	Other (please type)	-.82666	1.50080	1.000	-7.0308	5.3775
Engineering and Applied Sciences	Agricultural and Animal Sciences	-7.02564	2.32640	.428	-16.6427	2.5914
	Business and Commerce	-4.05897	1.78614	.819	-11.4427	3.3248
	Education	-5.78054	1.73668	.273	-12.9598	1.3987
	Fine, Applied and Performing Arts	-5.32867	1.93104	.574	-13.3114	2.6541
	Humanities	-5.80659	1.46024	.074	-11.8431	.2299
	Life Sciences and Health Professions including Medicine	-3.12981	1.45115	.863	-9.1287	2.8691
	Physical and Mathematical Sciences	-1.94945	1.72589	.998	-9.0841	5.1852
	Social and Behavioral Sciences	-5.21670	1.50033	.212	-11.4189	.9855

	Other (please type)	-6.60720	1.62928	.061	-13.3425	.1281
Fine, Applied and Performing Arts	Agricultural and Animal Sciences	-1.69697	2.39225	1.000	-11.5863	8.1923
	Business and Commerce	1.26970	1.87111	1.000	-6.4653	9.0047
	Education	-.45187	1.82395	1.000	-7.9919	7.0881
	Engineering and Applied Sciences	5.32867	1.93104	.574	-2.6541	13.3114
	Humanities	-.47792	1.56302	1.000	-6.9393	5.9834
	Life Sciences and Health Professions including Medicine	2.19886	1.55454	.991	-4.2274	8.6252
	Physical and Mathematical Sciences	3.37922	1.81368	.942	-4.1184	10.8768
	Social and Behavioral Sciences	.11197	1.60054	1.000	-6.5045	6.7285
	Other (please type)	-1.27853	1.72200	1.000	-8.3971	5.8400
Humanities	Agricultural and Animal Sciences	-1.21905	2.03131	1.000	-9.6163	7.1782
	Business and Commerce	1.74762	1.38001	.996	-3.9572	7.4524
	Education	.02605	1.31535	1.000	-5.4115	5.4636
	Engineering and Applied Sciences	5.80659	1.46024	.074	-.2299	11.8431
	Fine, Applied and Performing Arts	.47792	1.56302	1.000	-5.9834	6.9393
	Life Sciences and Health Professions including Medicine	2.67679	.90551	.463	-1.0665	6.4201
	Physical and Mathematical Sciences	3.85714	1.30108	.458	-1.5214	9.2357
	Social and Behavioral Sciences	.58990	.98240	1.000	-3.4712	4.6510
	Other (please type)	-.80061	1.16990	1.000	-5.6368	4.0356
Life Sciences and Health Professions including Medicine	Agricultural and Animal Sciences	-3.89583	2.02479	.929	-12.2661	4.4744
	Business and Commerce	-.92917	1.37039	1.000	-6.5942	4.7359
	Education	-2.65074	1.30526	.902	-8.0465	2.7451
	Engineering and Applied Sciences	3.12981	1.45115	.863	-2.8691	9.1287
	Fine, Applied and Performing Arts	-2.19886	1.55454	.991	-8.6252	4.2274

	Humanities	-2.67679	.90551	.463	-6.4201	1.0665
	Physical and Mathematical Sciences	1.18036	1.29088	1.000	-4.1560	6.5167
	Social and Behavioral Sciences	-2.08689	.96884	.864	-6.0920	1.9182
	Other (please type)	-3.47739	1.15854	.438	-8.2667	1.3119
Physical and Mathematical Sciences	Agricultural and Animal Sciences	-5.07619	2.22994	.817	-14.2945	4.1422
	Business and Commerce	-2.10952	1.65856	.996	-8.9658	4.7468
	Education	-3.83109	1.60517	.769	-10.4667	2.8045
	Engineering and Applied Sciences	1.94945	1.72589	.998	-5.1852	9.0841
	Fine, Applied and Performing Arts	-3.37922	1.81368	.942	-10.8768	4.1184
	Humanities	-3.85714	1.30108	.458	-9.2357	1.5214
	Life Sciences and Health Professions including Medicine	-1.18036	1.29088	1.000	-6.5167	4.1560
	Social and Behavioral Sciences	-3.26725	1.34593	.750	-8.8312	2.2967
	Other (please type)	-4.65775	1.48831	.370	-10.8103	1.4948
Social and Behavioral Sciences	Agricultural and Animal Sciences	-1.80894	2.06032	1.000	-10.3261	6.7082
	Business and Commerce	1.15772	1.42236	1.000	-4.7222	7.0376
	Education	-.56385	1.35973	1.000	-6.1848	5.0571
	Engineering and Applied Sciences	5.21670	1.50033	.212	-.9855	11.4189
	Fine, Applied and Performing Arts	-.11197	1.60054	1.000	-6.7285	6.5045
	Humanities	-.58990	.98240	1.000	-4.6510	3.4712
	Life Sciences and Health Professions including Medicine	2.08689	.96884	.864	-1.9182	6.0920
	Physical and Mathematical Sciences	3.26725	1.34593	.750	-2.2967	8.8312
	Other (please type)	-1.39050	1.21957	.998	-6.4321	3.6511
Other (please type)	Agricultural and Animal Sciences	-.41844	2.15603	1.000	-9.3313	8.4944
	Business and Commerce	2.54823	1.55778	.975	-3.8915	8.9879
	Education	.82666	1.50080	1.000	-5.3775	7.0308

		Engineering and Applied Sciences	6.60720	1.62928	.061	-.1281	13.3425
		Fine, Applied and Performing Arts	1.27853	1.72200	1.000	-5.8400	8.3971
		Humanities	.80061	1.16990	1.000	-4.0356	5.6368
		Life Sciences and Health Professions including Medicine	3.47739	1.15854	.438	-1.3119	8.2667
		Physical and Mathematical Sciences	4.65775	1.48831	.370	-1.4948	10.8103
		Social and Behavioral Sciences	1.39050	1.21957	.998	-3.6511	6.4321
Bonferroni	Agricultural and Animal Sciences	Business and Commerce	2.96667	2.27689	1.000	-4.5016	10.4349
		Education	1.24510	2.23830	1.000	-6.0966	8.5868
		Engineering and Applied Sciences	7.02564	2.32640	.120	-.6050	14.6563
		Fine, Applied and Performing Arts	1.69697	2.39225	1.000	-6.1497	9.5436
		Humanities	1.21905	2.03131	1.000	-5.4437	7.8818
		Life Sciences and Health Professions including Medicine	3.89583	2.02479	1.000	-2.7455	10.5372
		Physical and Mathematical Sciences	5.07619	2.22994	1.000	-2.2381	12.3905
		Social and Behavioral Sciences	1.80894	2.06032	1.000	-4.9490	8.5669
		Other (please type)	.41844	2.15603	1.000	-6.6534	7.4903
	Business and Commerce	Agricultural and Animal Sciences	-2.96667	2.27689	1.000	-10.4349	4.5016
		Education	-1.72157	1.66978	1.000	-7.1985	3.7554
		Engineering and Applied Sciences	4.05897	1.78614	1.000	-1.7996	9.9176
		Fine, Applied and Performing Arts	-1.26970	1.87111	1.000	-7.4070	4.8676
		Humanities	-1.74762	1.38001	1.000	-6.2741	2.7788
		Life Sciences and Health Professions including Medicine	.92917	1.37039	1.000	-3.5657	5.4241
		Physical and Mathematical Sciences	2.10952	1.65856	1.000	-3.3306	7.5496
		Social and Behavioral Sciences	-1.15772	1.42236	1.000	-5.8231	3.5077

	Other (please type)	-2.54823	1.55778	1.000	-7.6578	2.5613
Education	Agricultural and Animal Sciences	-1.24510	2.23830	1.000	-8.5868	6.0966
	Business and Commerce	1.72157	1.66978	1.000	-3.7554	7.1985
	Engineering and Applied Sciences	5.78054*	1.73668	.042	.0842	11.4769
	Fine, Applied and Performing Arts	.45187	1.82395	1.000	-5.5307	6.4345
	Humanities	-.02605	1.31535	1.000	-4.3404	4.2883
	Life Sciences and Health Professions including Medicine	2.65074	1.30526	1.000	-1.6306	6.9320
	Physical and Mathematical Sciences	3.83109	1.60517	.782	-1.4339	9.0961
	Social and Behavioral Sciences	.56385	1.35973	1.000	-3.8961	5.0238
	Other (please type)	-.82666	1.50080	1.000	-5.7493	4.0960
Engineering and Applied Sciences	Agricultural and Animal Sciences	-7.02564	2.32640	.120	-14.6563	.6050
	Business and Commerce	-4.05897	1.78614	1.000	-9.9176	1.7996
	Education	-5.78054*	1.73668	.042	-11.4769	-.0842
	Fine, Applied and Performing Arts	-5.32867	1.93104	.270	-11.6625	1.0052
	Humanities	-5.80659*	1.46024	.004	-10.5962	-1.0170
	Life Sciences and Health Professions including Medicine	-3.12981	1.45115	1.000	-7.8896	1.6300
	Physical and Mathematical Sciences	-1.94945	1.72589	1.000	-7.6104	3.7115
	Social and Behavioral Sciences	-5.21670*	1.50033	.025	-10.1378	-.2956
	Other (please type)	-6.60720*	1.62928	.003	-11.9513	-1.2631
Fine, Applied and Performing Arts	Agricultural and Animal Sciences	-1.69697	2.39225	1.000	-9.5436	6.1497
	Business and Commerce	1.26970	1.87111	1.000	-4.8676	7.4070
	Education	-.45187	1.82395	1.000	-6.4345	5.5307

	Engineering and Applied Sciences	5.32867	1.93104	.270	-1.0052	11.6625
	Humanities	-.47792	1.56302	1.000	-5.6047	4.6488
	Life Sciences and Health Professions including Medicine	2.19886	1.55454	1.000	-2.9001	7.2978
	Physical and Mathematical Sciences	3.37922	1.81368	1.000	-2.5697	9.3281
	Social and Behavioral Sciences	.11197	1.60054	1.000	-5.1379	5.3618
	Other (please type)	-1.27853	1.72200	1.000	-6.9267	4.3697
Humanities	Agricultural and Animal Sciences	-1.21905	2.03131	1.000	-7.8818	5.4437
	Business and Commerce	1.74762	1.38001	1.000	-2.7788	6.2741
	Education	.02605	1.31535	1.000	-4.2883	4.3404
	Engineering and Applied Sciences	5.80659*	1.46024	.004	1.0170	10.5962
	Fine, Applied and Performing Arts	.47792	1.56302	1.000	-4.6488	5.6047
	Life Sciences and Health Professions including Medicine	2.67679	.90551	.147	-.2933	5.6469
	Physical and Mathematical Sciences	3.85714	1.30108	.143	-.4104	8.1247
	Social and Behavioral Sciences	.58990	.98240	1.000	-2.6324	3.8122
	Other (please type)	-.80061	1.16990	1.000	-4.6379	3.0367
Life Sciences and Health Professions including Medicine	Agricultural and Animal Sciences	-3.89583	2.02479	1.000	-10.5372	2.7455
	Business and Commerce	-.92917	1.37039	1.000	-5.4241	3.5657
	Education	-2.65074	1.30526	1.000	-6.9320	1.6306
	Engineering and Applied Sciences	3.12981	1.45115	1.000	-1.6300	7.8896
	Fine, Applied and Performing Arts	-2.19886	1.55454	1.000	-7.2978	2.9001
	Humanities	-2.67679	.90551	.147	-5.6469	.2933
	Physical and Mathematical Sciences	1.18036	1.29088	1.000	-3.0538	5.4145
	Social and Behavioral Sciences	-2.08689	.96884	1.000	-5.2647	1.0909
	Other (please type)	-3.47739	1.15854	.127	-7.2774	.3226

Physical and Mathematical Sciences	Agricultural and Animal Sciences	-5.07619	2.22994	1.000	-12.3905	2.2381
	Business and Commerce	-2.10952	1.65856	1.000	-7.5496	3.3306
	Education	-3.83109	1.60517	.782	-9.0961	1.4339
	Engineering and Applied Sciences	1.94945	1.72589	1.000	-3.7115	7.6104
	Fine, Applied and Performing Arts	-3.37922	1.81368	1.000	-9.3281	2.5697
	Humanities	-3.85714	1.30108	.143	-8.1247	.4104
	Life Sciences and Health Professions including Medicine	-1.18036	1.29088	1.000	-5.4145	3.0538
	Social and Behavioral Sciences	-3.26725	1.34593	.700	-7.6819	1.1474
	Other (please type)	-4.65775	1.48831	.083	-9.5394	.2239
Social and Behavioral Sciences	Agricultural and Animal Sciences	-1.80894	2.06032	1.000	-8.5669	4.9490
	Business and Commerce	1.15772	1.42236	1.000	-3.5077	5.8231
	Education	-.56385	1.35973	1.000	-5.0238	3.8961
	Engineering and Applied Sciences	5.21670*	1.50033	.025	.2956	10.1378
	Fine, Applied and Performing Arts	-.11197	1.60054	1.000	-5.3618	5.1379
	Humanities	-.58990	.98240	1.000	-3.8122	2.6324
	Life Sciences and Health Professions including Medicine	2.08689	.96884	1.000	-1.0909	5.2647
	Physical and Mathematical Sciences	3.26725	1.34593	.700	-1.1474	7.6819
	Other (please type)	-1.39050	1.21957	1.000	-5.3907	2.6097
Other (please type)	Agricultural and Animal Sciences	-.41844	2.15603	1.000	-7.4903	6.6534
	Business and Commerce	2.54823	1.55778	1.000	-2.5613	7.6578
	Education	.82666	1.50080	1.000	-4.0960	5.7493
	Engineering and Applied Sciences	6.60720*	1.62928	.003	1.2631	11.9513
	Fine, Applied and Performing Arts	1.27853	1.72200	1.000	-4.3697	6.9267
	Humanities	.80061	1.16990	1.000	-3.0367	4.6379
	Life Sciences and Health Professions including Medicine	3.47739	1.15854	.127	-.3226	7.2774

Physical and Mathematical Sciences	4.65775	1.48831	.083	-.2239	9.5394
Social and Behavioral Sciences	1.39050	1.21957	1.000	-2.6097	5.3907

*. The mean difference is significant at the 0.05 level.

Table 28
Perceptions by Gender

Are you:	N	Mean	Std. Deviation	Std. Error Mean
Male	288	22.1806	3.95736	.23319
Female	198	21.9798	3.42573	.24346

Table 29
Independent Samples Test for Full-Time Faculty

	Levene's Test for Equality of Variances		t-test for Equality of Means						
								95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equal variances assumed	2.675	.103	.580	484	.562	.20076	.34620	-.47949	.88100
Equal variances not assumed			.596	459.062	.552	.20076	.33712	-.46173	.86324

Table 30
Perceptions by Academic Rank

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	7.809	2	3.905	.270	.764
Within Groups	7323.247	506	14.473		
Total	7331.057	508			

Table 31
Scheffe and Bonferroni Post Hoc tests for Academic Rank

	(I) What is your current academic rank at your institution?		(J) What is your current academic rank at your institution?	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
Scheffe	Professor		Associate Professor	.22161	.40102	.858	-.7629	1.2061
		rank	Assistant Professor	-.06915	.42082	.987	-1.1023	.9640
	Associate Professor		Professor	-.22161	.40102	.858	-1.2061	.7629
		rank	Assistant Professor	-.29077	.42188	.789	-1.3265	.7450
	Assistant Professor		Professor	.06915	.42082	.987	-.9640	1.1023
		rank	Associate Professor	.29077	.42188	.789	-.7450	1.3265
Bonferroni	Professor		Associate Professor	.22161	.40102	1.000	-.7416	1.1848
		rank	Assistant Professor	-.06915	.42082	1.000	-1.0800	.9417
	Associate Professor		Professor	-.22161	.40102	1.000	-1.1848	.7416
		rank	Assistant Professor	-.29077	.42188	1.000	-1.3041	.7226
	Assistant Professor		Professor	.06915	.42082	1.000	-.9417	1.0800
		rank	Associate Professor	.29077	.42188	1.000	-.7226	1.3041

Table 32
Perceptions by Preference for Student Learning or Research

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	19.826	4	4.957	.343	.849
Within Groups	7260.607	503	14.435		
Total	7280.433	507			

Table 33

Scheffe and Bonferroni Post Hoc tests for Student Learning or Research

	(I) Which of the following best describes your academic preferences for student learning compared to res...	(J) Which of the following best describes your academic preferences for student learning compared to res...	Mean Diff. (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Scheffe	Primarily in student learning	In both, but leaning toward student learning	.21093	.41967	.993	-1.0866	1.5084
		In both, but leaning toward research	.48887	.47503	.901	-.9798	1.9575
		Primarily in research	-.00613	.82628	1.000	-2.5608	2.5485
		None of the above	-.18613	.87263	1.000	-2.8840	2.5118
	In both, but leaning toward student learning	Primarily in student learning	-.21093	.41967	.993	-1.5084	1.0866
		In both, but leaning toward research	.27794	.43709	.982	-1.0734	1.6293
		Primarily in research	-.21706	.80507	.999	-2.7061	2.2720
		None of the above	-.39706	.85257	.995	-3.0330	2.2388
	In both, but leaning toward research	Primarily in student learning	-.48887	.47503	.901	-1.9575	.9798
		In both, but leaning toward student learning	-.27794	.43709	.982	-1.6293	1.0734
		Primarily in research	-.49500	.83527	.986	-3.0774	2.0874
		None of the above	-.67500	.88114	.964	-3.3992	2.0492
	Primarily in research	Primarily in student learning	.00613	.82628	1.000	-2.5485	2.5608
		In both, but leaning toward student learning	.21706	.80507	.999	-2.2720	2.7061
		In both, but leaning toward research	.49500	.83527	.986	-2.0874	3.0774
		None of the above	-.18000	1.11063	1.000	-3.6137	3.2537
	None of the above	Primarily in student learning	.18613	.87263	1.000	-2.5118	2.8840
		In both, but leaning toward student learning	.39706	.85257	.995	-2.2388	3.0330
		In both, but leaning toward research	.67500	.88114	.964	-2.0492	3.3992
		Primarily in research	.18000	1.11063	1.000	-3.2537	3.6137

Bonferroni	Primarily in student learning	In both, but leaning toward student learning	.21093	.41967	1.000	-.9723	1.3942
		In both, but leaning toward research	.48887	.47503	1.000	-.8505	1.8282
		Primarily in research	-.00613	.82628	1.000	-2.3358	2.3236
		None of the above	-.18613	.87263	1.000	-2.6465	2.2742
	In both, but leaning toward student learning	Primarily in student learning	-.21093	.41967	1.000	-1.3942	.9723
		In both, but leaning toward research	.27794	.43709	1.000	-.9544	1.5103
		Primarily in research	-.21706	.80507	1.000	-2.4869	2.0528
		None of the above	-.39706	.85257	1.000	-2.8009	2.0067
	In both, but leaning toward research	Primarily in student learning	-.48887	.47503	1.000	-1.8282	.8505
		In both, but leaning toward student learning	-.27794	.43709	1.000	-1.5103	.9544
		Primarily in research	-.49500	.83527	1.000	-2.8500	1.8600
		None of the above	-.67500	.88114	1.000	-3.1593	1.8093
	Primarily in research	Primarily in student learning	.00613	.82628	1.000	-2.3236	2.3358
		In both, but leaning toward student learning	.21706	.80507	1.000	-2.0528	2.4869
		In both, but leaning toward research	.49500	.83527	1.000	-1.8600	2.8500
		None of the above	-.18000	1.11063	1.000	-3.3114	2.9514
	None of the above	Primarily in student learning	.18613	.87263	1.000	-2.2742	2.6465
		In both, but leaning toward student learning	.39706	.85257	1.000	-2.0067	2.8009
		In both, but leaning toward research	.67500	.88114	1.000	-1.8093	3.1593
		Primarily in research	.18000	1.11063	1.000	-2.9514	3.3114

Table 34
Perceptions by Number of Years Employed

ANOVA

Perceptions

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	210.451	4	52.613	3.699	.006
Within Groups	7082.392	498	14.222		
Total	7292.843	502			

Table 35
Scheffe and Bonferroni Post Hoc tests for Number of Years Employed

	(I) How many years have you been employed at your current institution?		(J) How many years have you been employed at your current institution?	Mean Diff (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
Scheffe	0-4 years		5-9 years	1.35957	.47616	.088	-.1126	2.8318
			10-14 years	1.44124	.54801	.142	-.2531	3.1356
		years	15-19 years	1.05488	.66245	.639	-.9933	3.1031
			20 or more years	.10259	.47348	1.000	-1.3613	1.5665
	5-9 years		0-4 years	-1.35957	.47616	.088	-2.8318	.1126
			10-14 years	.08168	.54388	1.000	-1.5999	1.7633
		years	15-19 years	-.30469	.65903	.995	-2.3423	1.7329
			20 or more years	-1.25698	.46869	.128	-2.7061	.1921
	10-14 years		0-4 years	-1.44124	.54801	.142	-3.1356	.2531
			5-9 years	-.08168	.54388	1.000	-1.7633	1.5999
	years	years	15-19 years	-.38636	.71268	.990	-2.5899	1.8171
			20 or more years	-1.33865	.54153	.193	-3.0130	.3357
	15-19 years		0-4 years	-1.05488	.66245	.639	-3.1031	.9933
			5-9 years	.30469	.65903	.995	-1.7329	2.3423
		years	10-14 years	.38636	.71268	.990	-1.8171	2.5899
			20 or more years	-.95229	.65710	.717	-2.9839	1.0793
	20 or more years		0-4 years	-.10259	.47348	1.000	-1.5665	1.3613
			5-9 years	1.25698	.46869	.128	-.1921	2.7061
		years	10-14 years	1.33865	.54153	.193	-.3357	3.0130
			15-19 years	.95229	.65710	.717	-1.0793	2.9839
Bonferroni	years	0-4 years	5-9 years	1.35957*	.47616	.045	.0170	2.7022

		10-14 years	1.44124	.54801	.088	-.1039	2.9864
		15-19 years	1.05488	.66245	1.000	-.8130	2.9227
		20 or more years	.10259	.47348	1.000	-1.2324	1.4376
5-9 years		0-4 years	-1.35957*	.47616	.045	-2.7022	-.0170
	years	10-14 years	.08168	.54388	1.000	-1.4518	1.6152
		15-19 years	-.30469	.65903	1.000	-2.1629	1.5535
		20 or more years	-1.25698	.46869	.076	-2.5785	.0645
10-14 years		0-4 years	-1.44124	.54801	.088	-2.9864	.1039
	years	5-9 years	-.08168	.54388	1.000	-1.6152	1.4518
		15-19 years	-.38636	.71268	1.000	-2.3958	1.6231
		20 or more years	-1.33865	.54153	.138	-2.8656	.1883
15-19 years		0-4 years	-1.05488	.66245	1.000	-2.9227	.8130
	years	5-9 years	.30469	.65903	1.000	-1.5535	2.1629
		10-14 years	.38636	.71268	1.000	-1.6231	2.3958
		20 or more years	-.95229	.65710	1.000	-2.8051	.9005
20 or more years	years	0-4 years	-.10259	.47348	1.000	-1.4376	1.2324
		5-9 years	1.25698	.46869	.076	-.0645	2.5785
		10-14 years	1.33865	.54153	.138	-.1883	2.8656
		15-19 years	.95229	.65710	1.000	-.9005	2.8051

*. The mean difference is significant at the 0.05 level.

Table 36
Perceptions by Discipline

ANOVA

Perceptions

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	302.229	9	33.581	2.365	.013
Within Groups	6999.536	493	14.198		
Total	7301.765	502			

Table 37
Scheffe and Bonferroni Post Hoc tests for Discipline

	(I) In which discipline listed would you most closely identify your department or unit in which you are...	(J) In which discipline listed would you most closely identify your department or unit in which you are...	Mean Diff (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
Scheffe	Agricultural and Animal Sciences	Business and Commerce	1.13333	1.21959	1.000	-3.9084	6.1751
		Education	.43750	1.20740	1.000	-4.5539	5.4289
		Engineering and Applied Sciences	2.90000	1.25779	.805	-2.2997	8.0997
		Fine, Applied and Performing Arts	-.25000	1.26717	1.000	-5.4884	4.9884
		Humanities	-.57619	1.07208	1.000	-5.0081	3.8558
		Life Sciences and Health Professions including Medicine	.57207	1.06866	1.000	-3.8458	4.9899
		Physical and Mathematical Sciences	.93243	1.18231	1.000	-3.9552	5.8201
		Social and Behavioral Sciences	.47436	1.09369	1.000	-4.0469	4.9956
		Other (please type)	.13830	1.14726	1.000	-4.6045	4.8811
	Business and Commerce	Agricultural and Animal Sciences	-1.13333	1.21959	1.000	-6.1751	3.9084
		Education	-.69583	.95757	1.000	-4.6544	3.2628
		Engineering and Applied Sciences	1.76667	1.02038	.964	-2.4516	5.9849
		Fine, Applied and Performing Arts	-1.38333	1.03191	.994	-5.6492	2.8826
		Humanities	-1.70952	.78005	.850	-4.9342	1.5152
		Life Sciences and Health Professions including Medicine	-.56126	.77535	1.000	-3.7665	2.6440
		Physical and Mathematical Sciences	-.20090	.92574	1.000	-4.0279	3.6261
		Social and Behavioral Sciences	-.65897	.80950	1.000	-4.0054	2.6875
		Other (please type)	-.99504	.88054	.998	-4.6352	2.6451

Education	Agricultural and Animal Sciences	-.43750	1.20740	1.000	-5.4289	4.5539
	Business and Commerce	.69583	.95757	1.000	-3.2628	4.6544
	Engineering and Applied Sciences	2.46250	1.00578	.740	-1.6954	6.6204
	Fine, Applied and Performing Arts	-.68750	1.01748	1.000	-4.8937	3.5187
	Humanities	-1.01369	.76085	.994	-4.1591	2.1317
	Life Sciences and Health Professions including Medicine	.13457	.75604	1.000	-2.9909	3.2600
	Physical and Mathematical Sciences	.49493	.90962	1.000	-3.2654	4.2553
	Social and Behavioral Sciences	.03686	.79102	1.000	-3.2332	3.3069
	Other (please type)	-.29920	.86358	1.000	-3.8692	3.2708
Engineering and Applied Sciences	Agricultural and Animal Sciences	-2.90000	1.25779	.805	-8.0997	2.2997
	Business and Commerce	-1.76667	1.02038	.964	-5.9849	2.4516
	Education	-2.46250	1.00578	.740	-6.6204	1.6954
	Fine, Applied and Performing Arts	-3.15000	1.07680	.480	-7.6015	1.3015
	Humanities	-3.47619*	.83853	.049	-6.9427	-.0097
	Life Sciences and Health Professions including Medicine	-2.32793	.83416	.556	-5.7763	1.1205
	Physical and Mathematical Sciences	-1.96757	.97552	.906	-6.0003	2.0652
	Social and Behavioral Sciences	-2.42564	.86599	.550	-6.0056	1.1543
	Other (please type)	-2.76170	.93274	.461	-6.6176	1.0942
Fine, Applied and Performing Arts	Agricultural and Animal Sciences	.25000	1.26717	1.000	-4.9884	5.4884
	Business and Commerce	1.38333	1.03191	.994	-2.8826	5.6492
	Education	.68750	1.01748	1.000	-3.5187	4.8937
	Engineering and Applied Sciences	3.15000	1.07680	.480	-1.3015	7.6015
	Humanities	-.32619	.85252	1.000	-3.8505	3.1981
	Life Sciences and Health Professions including Medicine	.82207	.84822	1.000	-2.6845	4.3286

	Physical and Mathematical Sciences	1.18243	.98757	.998	-2.9002	5.2650
	Social and Behavioral Sciences	.72436	.87955	1.000	-2.9117	4.3604
	Other (please type)	.38830	.94534	1.000	-3.5197	4.2963
Humanities	Agricultural and Animal Sciences	.57619	1.07208	1.000	-3.8558	5.0081
	Business and Commerce	1.70952	.78005	.850	-1.5152	4.9342
	Education	1.01369	.76085	.994	-2.1317	4.1591
	Engineering and Applied Sciences	3.47619*	.83853	.049	.0097	6.9427
	Fine, Applied and Performing Arts	.32619	.85252	1.000	-3.1981	3.8505
	Life Sciences and Health Professions including Medicine	1.14826	.51296	.832	-.9723	3.2688
	Physical and Mathematical Sciences	1.50862	.72038	.883	-1.4694	4.4866
	Social and Behavioral Sciences	1.05055	.56324	.942	-1.2779	3.3790
	Other (please type)	.71449	.66129	.999	-2.0193	3.4482
Life Sciences and Health Professions including Medicine	Agricultural and Animal Sciences	-.57207	1.06866	1.000	-4.9899	3.8458
	Business and Commerce	.56126	.77535	1.000	-2.6440	3.7665
	Education	-.13457	.75604	1.000	-3.2600	2.9909
	Engineering and Applied Sciences	2.32793	.83416	.556	-1.1205	5.7763
	Fine, Applied and Performing Arts	-.82207	.84822	1.000	-4.3286	2.6845
	Humanities	-1.14826	.51296	.832	-3.2688	.9723
	Physical and Mathematical Sciences	.36036	.71529	1.000	-2.5966	3.3173
	Social and Behavioral Sciences	-.09771	.55672	1.000	-2.3992	2.2037
	Other (please type)	-.43377	.65574	1.000	-3.1446	2.2770
Physical and Mathematical Sciences	Agricultural and Animal Sciences	-.93243	1.18231	1.000	-5.8201	3.9552
	Business and Commerce	.20090	.92574	1.000	-3.6261	4.0279
	Education	-.49493	.90962	1.000	-4.2553	3.2654

	Engineering and Applied Sciences	1.96757	.97552	.906	-2.0652	6.0003
	Fine, Applied and Performing Arts	-1.18243	.98757	.998	-5.2650	2.9002
	Humanities	-1.50862	.72038	.883	-4.4866	1.4694
	Life Sciences and Health Professions including Medicine	-.36036	.71529	1.000	-3.3173	2.5966
	Social and Behavioral Sciences	-.45807	.75216	1.000	-3.5675	2.6514
	Other (please type)	-.79413	.82813	1.000	-4.2176	2.6294
Social and Behavioral Sciences	Agricultural and Animal Sciences	-.47436	1.09369	1.000	-4.9956	4.0469
	Business and Commerce	.65897	.80950	1.000	-2.6875	4.0054
	Education	-.03686	.79102	1.000	-3.3069	3.2332
	Engineering and Applied Sciences	2.42564	.86599	.550	-1.1543	6.0056
	Fine, Applied and Performing Arts	-.72436	.87955	1.000	-4.3604	2.9117
	Humanities	-1.05055	.56324	.942	-3.3790	1.2779
	Life Sciences and Health Professions including Medicine	.09771	.55672	1.000	-2.2037	2.3992
	Physical and Mathematical Sciences	.45807	.75216	1.000	-2.6514	3.5675
	Other (please type)	-.33606	.69578	1.000	-3.2124	2.5403
Other (please type)	Agricultural and Animal Sciences	-.13830	1.14726	1.000	-4.8811	4.6045
	Business and Commerce	.99504	.88054	.998	-2.6451	4.6352
	Education	.29920	.86358	1.000	-3.2708	3.8692
	Engineering and Applied Sciences	2.76170	.93274	.461	-1.0942	6.6176
	Fine, Applied and Performing Arts	-.38830	.94534	1.000	-4.2963	3.5197
	Humanities	-.71449	.66129	.999	-3.4482	2.0193
	Life Sciences and Health Professions including Medicine	.43377	.65574	1.000	-2.2770	3.1446
	Physical and Mathematical Sciences	.79413	.82813	1.000	-2.6294	4.2176
	Social and Behavioral Sciences	.33606	.69578	1.000	-2.5403	3.2124

Bonferroni	Agricultural and Animal Sciences	Business and Commerce	1.13333	1.21959	1.000	-2.8670	5.1337
		Education	.43750	1.20740	1.000	-3.5229	4.3979
		Engineering and Applied Sciences	2.90000	1.25779	.970	-1.2257	7.0257
		Fine, Applied and Performing Arts	-.25000	1.26717	1.000	-4.4064	3.9064
		Humanities	-.57619	1.07208	1.000	-4.0927	2.9403
		Life Sciences and Health Professions including Medicine	.57207	1.06866	1.000	-2.9333	4.0774
		Physical and Mathematical Sciences	.93243	1.18231	1.000	-2.9457	4.8105
		Social and Behavioral Sciences	.47436	1.09369	1.000	-3.1131	4.0618
		Other (please type)	.13830	1.14726	1.000	-3.6248	3.9014
	Business and Commerce	Agricultural and Animal Sciences	-1.13333	1.21959	1.000	-5.1337	2.8670
		Education	-.69583	.95757	1.000	-3.8368	2.4451
		Engineering and Applied Sciences	1.76667	1.02038	1.000	-1.5803	5.1136
		Fine, Applied and Performing Arts	-1.38333	1.03191	1.000	-4.7681	2.0014
		Humanities	-1.70952	.78005	1.000	-4.2682	.8491
		Life Sciences and Health Professions including Medicine	-.56126	.77535	1.000	-3.1045	1.9820
		Physical and Mathematical Sciences	-.20090	.92574	1.000	-3.2374	2.8356
		Social and Behavioral Sciences	-.65897	.80950	1.000	-3.3142	1.9963
		Other (please type)	-.99504	.88054	1.000	-3.8833	1.8932
	Education	Agricultural and Animal Sciences	-.43750	1.20740	1.000	-4.3979	3.5229
		Business and Commerce	.69583	.95757	1.000	-2.4451	3.8368
		Engineering and Applied Sciences	2.46250	1.00578	.661	-.8366	5.7616
		Fine, Applied and Performing Arts	-.68750	1.01748	1.000	-4.0249	2.6499
		Humanities	-1.01369	.76085	1.000	-3.5094	1.4820
		Life Sciences and Health Professions including Medicine	.13457	.75604	1.000	-2.3453	2.6145

	Physical and Mathematical Sciences	.49493	.90962	1.000	-2.4887	3.4786
	Social and Behavioral Sciences	.03686	.79102	1.000	-2.5578	2.6315
	Other (please type)	-.29920	.86358	1.000	-3.1318	2.5334
Engineering and Applied Sciences	Agricultural and Animal Sciences	-2.90000	1.25779	.970	-7.0257	1.2257
	Business and Commerce	-1.76667	1.02038	1.000	-5.1136	1.5803
	Education	-2.46250	1.00578	.661	-5.7616	.8366
	Fine, Applied and Performing Arts	-3.15000	1.07680	.162	-6.6820	.3820
	Humanities	-3.47619*	.83853	.002	-6.2267	-.7257
	Life Sciences and Health Professions including Medicine	-2.32793	.83416	.246	-5.0641	.4082
	Physical and Mathematical Sciences	-1.96757	.97552	1.000	-5.1674	1.2322
	Social and Behavioral Sciences	-2.42564	.86599	.238	-5.2662	.4149
	Other (please type)	-2.76170	.93274	.145	-5.8212	.2978
Fine, Applied and Performing Arts	Agricultural and Animal Sciences	.25000	1.26717	1.000	-3.9064	4.4064
	Business and Commerce	1.38333	1.03191	1.000	-2.0014	4.7681
	Education	.68750	1.01748	1.000	-2.6499	4.0249
	Engineering and Applied Sciences	3.15000	1.07680	.162	-.3820	6.6820
	Humanities	-.32619	.85252	1.000	-3.1226	2.4702
	Life Sciences and Health Professions including Medicine	.82207	.84822	1.000	-1.9602	3.6043
	Physical and Mathematical Sciences	1.18243	.98757	1.000	-2.0569	4.4218
	Social and Behavioral Sciences	.72436	.87955	1.000	-2.1606	3.6094
	Other (please type)	.38830	.94534	1.000	-2.7125	3.4891
Humanities	Agricultural and Animal Sciences	.57619	1.07208	1.000	-2.9403	4.0927
	Business and Commerce	1.70952	.78005	1.000	-.8491	4.2682
	Education	1.01369	.76085	1.000	-1.4820	3.5094

	Engineering and Applied Sciences	3.47619*	.83853	.002	.7257	6.2267
	Fine, Applied and Performing Arts	.32619	.85252	1.000	-2.4702	3.1226
	Life Sciences and Health Professions including Medicine	1.14826	.51296	1.000	-.5343	2.8308
	Physical and Mathematical Sciences	1.50862	.72038	1.000	-.8543	3.8715
	Social and Behavioral Sciences	1.05055	.56324	1.000	-.7969	2.8980
	Other (please type)	.71449	.66129	1.000	-1.4546	2.8836
Life Sciences and Health Professions including Medicine	Agricultural and Animal Sciences	-.57207	1.06866	1.000	-4.0774	2.9333
	Business and Commerce	.56126	.77535	1.000	-1.9820	3.1045
	Education	-.13457	.75604	1.000	-2.6145	2.3453
	Engineering and Applied Sciences	2.32793	.83416	.246	-.4082	5.0641
	Fine, Applied and Performing Arts	-.82207	.84822	1.000	-3.6043	1.9602
	Humanities	-1.14826	.51296	1.000	-2.8308	.5343
	Physical and Mathematical Sciences	.36036	.71529	1.000	-1.9859	2.7066
	Social and Behavioral Sciences	-.09771	.55672	1.000	-1.9238	1.7284
	Other (please type)	-.43377	.65574	1.000	-2.5847	1.7171
Physical and Mathematical Sciences	Agricultural and Animal Sciences	-.93243	1.18231	1.000	-4.8105	2.9457
	Business and Commerce	.20090	.92574	1.000	-2.8356	3.2374
	Education	-.49493	.90962	1.000	-3.4786	2.4887
	Engineering and Applied Sciences	1.96757	.97552	1.000	-1.2322	5.1674
	Fine, Applied and Performing Arts	-1.18243	.98757	1.000	-4.4218	2.0569
	Humanities	-1.50862	.72038	1.000	-3.8715	.8543
	Life Sciences and Health Professions including Medicine	-.36036	.71529	1.000	-2.7066	1.9859
	Social and Behavioral Sciences	-.45807	.75216	1.000	-2.9252	2.0091
	Other (please type)	-.79413	.82813	1.000	-3.5105	1.9222

Social and Behavioral Sciences	Agricultural and Animal Sciences	-.47436	1.09369	1.000	-4.0618	3.1131
	Business and Commerce	.65897	.80950	1.000	-1.9963	3.3142
	Education	-.03686	.79102	1.000	-2.6315	2.5578
	Engineering and Applied Sciences	2.42564	.86599	.238	-.4149	5.2662
	Fine, Applied and Performing Arts	-.72436	.87955	1.000	-3.6094	2.1606
	Humanities	-1.05055	.56324	1.000	-2.8980	.7969
	Life Sciences and Health Professions including Medicine	.09771	.55672	1.000	-1.7284	1.9238
	Physical and Mathematical Sciences	.45807	.75216	1.000	-2.0091	2.9252
	Other (please type)	-.33606	.69578	1.000	-2.6183	1.9462
Other (please type)	Agricultural and Animal Sciences	-.13830	1.14726	1.000	-3.9014	3.6248
	Business and Commerce	.99504	.88054	1.000	-1.8932	3.8833
	Education	.29920	.86358	1.000	-2.5334	3.1318
	Engineering and Applied Sciences	2.76170	.93274	.145	-.2978	5.8212
	Fine, Applied and Performing Arts	-.38830	.94534	1.000	-3.4891	2.7125
	Humanities	-.71449	.66129	1.000	-2.8836	1.4546
	Life Sciences and Health Professions including Medicine	.43377	.65574	1.000	-1.7171	2.5847
	Physical and Mathematical Sciences	.79413	.82813	1.000	-1.9222	3.5105
	Social and Behavioral Sciences	.33606	.69578	1.000	-1.9462	2.6183

*. The mean difference is significant at the 0.05 level.