

# HIGHER EDUCATION IN REVIEW

**Volume 10  
2013**

*Higher Education in Review* is an annual publication of the Higher Education Student Association and is supported by the Center for the Study of Higher Education and the Department of Education Policy Studies at the Pennsylvania State University.

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ISSN 1556-5424  
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**Volume 10**  
**2013**

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*Higher Education in Review* is an independent, refereed journal published by graduate students of the Higher Education program at the Pennsylvania State University. Our mission is to make a substantive contribution to the higher education literature through the publication of high-quality research studies, scholarly papers, and literature reviews in areas related to the university, the four-year college, and the community college. In so doing, we provide graduate students first-hand experience with the publishing process.

*Higher Education in Review* (print edition) welcomes manuscripts that employ qualitative, quantitative, or mixed methods; literature reviews that disclose relevant gaps in existing research on a relevant topic; theoretical analyses of important issues in higher education; policy analysis papers; reports of preliminary findings from a larger project (e.g., a dissertation); and historical papers. Submitted papers should have a clearly specified research question and a theoretical or conceptual framework, employ appropriate methods, and contribute new knowledge to the body of the higher education literature. Submissions are accepted year-round, with annual publication in the Spring/Summer.

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# HIGHER EDUCATION IN REVIEW

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## Editor's Introduction

It is my distinct privilege to begin this introduction by welcoming you, our readers, to the tenth volume, and thereby our decade anniversary edition, of *Higher Education in Review*. A brief survey of the past year's activities and accomplishments serves to highlight not only the tremendous dedication of the graduate student editorial board, but also the previous decade of students' diligence and commitment to quality that has laboriously gone into making *Higher Education in Review* (HER) the premier graduate student-run, peer reviewed, academic journal in the field of higher education.

In the fall, HER was featured at the annual meeting of the Association for the Study of Higher Education (ASHE) at the graduate student luncheon where each attendee received a past volume of HER and a call for papers. This past spring HER was also featured at the American Educational Research Association's (AERA) annual meeting where several members of the editorial board facilitated a Division J-sponsored working group that focused on creation and management of graduate-student run journals. As with all healthy organizations, change and innovation have been hallmarks of HER; with each editorial staff seeking to maintain the journal's quality while also nudging the journal into new directions. As such, over the past two years the editorial board has engaged in critical discussions about future directions for HER which have resulted in the decision to develop a strategic plan for increasing the online presence of the journal, aptly named HERO (Higher Education in Review Online). This plan includes opportunities to explore various forms and delivery methods of digital content. I believe this direction will provide our audience with greater access to and engagement with the journal. Finally, the end of the academic year has brought another record-breaking total number of submissions to the journal. The pool of submissions constituted a consistently high level of quality and scholarly importance that make me proud to be an early-career scholar in our field. In accordance with our mission to develop graduate students into better scholars—despite receiving over 60 manuscripts—the editorial board, along with our expert review board, have sought to diligently provide each of our submitting authors with detailed and substantial feedback.

Of this highly competitive pool, I am happy to introduce an invited piece by Dr. KerryAnn O'Meara and three peer-reviewed pieces that have been selected for print publication in this volume. While the following pieces are fairly representative of the scholarly rigor present in many of the submissions we receive, they are indeed exemplars based upon the critical thought undergirding their construction and the contributions to the field that their findings and conclusions provide. These four pieces are joined by an online publication by Yvette E. Beersingh, Carrol S. Perrino, and R. Trent Haines, titled *Predictors of Success in a STEM Gateway Mathematics Course for HBI Summer Bridge*

*Students* (available at [www.higheredinreview.org](http://www.higheredinreview.org)). This piece provides a provocative examination of a gateway mathematics course provided for first-year students at a historically Black institution that includes findings important for practices and policies aimed at improving students' retention and persistence rates.

In our invited author piece, *Advancing Graduate Student Agency*, Dr. KerryAnn O'Meara draws upon literature, her own experiences as a professor, and current research to provide an examination of agency as a construct, how departments can scaffold agency for their graduate students, and ways in which graduate students can assume agency for themselves. O'Meara argues that agency can be cultivated via faculty mentors, departmental practices, and individual reflection. I am grateful to Dr. O'Meara for supporting our journal with such a thoughtful piece that is particularly important for our graduate student and professorial audiences.

Dr. O'Meara's piece serves as an excellent apéritif to our first peer-reviewed piece written by Christos Korgan, Nathan Durdella, and Mark Stevens. Their piece, *The Development of Academic Self-Efficacy among First-Year College Students in a Comprehensive Public University*, utilizes focus groups conducted with 146 participants to explore the intrapersonal and environmental factors that affect the development of academic self-efficacy in first-year college students. Drawing upon themes that arose from a sample that was ethnically diverse, largely female, and largely first-generation the authors' findings support the thematic construction of Bandura's (1977) theory of academic self-efficacy while offering a multilayered presentation of three areas related to interpersonal and environmental factors that provide greater specificity to the development of academic self-efficacy for college students.

In our second peer-reviewed piece, *Gender, Spirituality, and Community Engagement: Complexities for Students at Catholic Women's Colleges*, Kathryn A. E. Enke and Kelly T. Winters utilize a feminist framework to explore how students at a Catholic women's college understand their identity within the context of community engagement. The authors found that participants seemed to draw upon both an ethic of care and justice frameworks in conceptualizing their motivations for, and meaning-making from community engagement activities. The authors go on to provide an intriguing discussion about students' conceptualization of how these frameworks maybe complicated by discourses of gender and spirituality.

In our final peer-reviewed piece, *The Impact of State Financial Support on the Internationalization of Public Higher Education: A Panel Data Analysis*, Chrystal Annuciata George Mwangi investigates how international student enrollment at public four-year institutions maybe influenced by state financial support. Grounding the study's conceptualization in resource dependency theory, George Mwangi utilizes a sophisticated panel data analysis to find that the

enrollment of undergraduate international students has a significant negative relationship with institutional revenue from state appropriations. The conclusions and implications of George Mwangi's piece are especially striking given the ongoing financial divestment in higher education occurring throughout many states in America.

It has been a true honor to serve as the Editor for this volume of *Higher Education in Review*, which has been one of the most academically purposeful activities during my tenure in Penn State's Higher Education program—which I assure you, is overflowing with excellent academically purposeful activities. The editorship of any journal requires a great deal of time and energy; however, taking on that task while dissertating is a challenge unto itself. A challenge that I would have been unable to complete without countless hours volunteered by the editorial board and with unwavering support to me as a colleague and friend. I am particularly indebted to the Jess Bennett (Associate Editor for Digital Content), Michael Flaherty (Associate Editor of Production), and Rodney Hughes (Managing Editor). Though I thank the many current members of the editorial board who will continue to serve the journal in coming years, I am particularly pleased to be able to announce that Talia Carroll has been selected to serve as Editor for volume eleven. *Higher Education in Review* is well poised to continue its tradition of excellence and innovation in Talia's very capable hands!

Travis T. York, Ph.D.  
Editor

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## **Advancing Graduate Student Agency**

KerryAnn O'Meara

University of Maryland

*The purpose of this essay is to consider the role of agency in the lives and careers of graduate students. Three questions guide the discussion. First, what is agency and what does it look like in the careers and lives of graduate students? Second, what can departments do to cultivate and support it? Third, what can individual graduate students do to assume agency?*

### **What is agency?**

Building from an extensive literature review of social science literature (for key works see for example, Alkire, 2005; Emirbayer & Mische, 1998; Ganz, 2010; Marshall, 2005; Neumann, Terosky & Schell, 2006; Sen, 1985), colleagues and I have developed a definition of agency in the academy as a professor, instructor, or other academic member *assuming strategic perspectives, and/or taking strategic actions toward goals that matter to him/her* (O'Meara, Campbell & Terosky, 2011). Agency has two forms: perspective, or making meaning of situations and contexts in ways that advance personal goals, and the actions taken to pursue goals in a given situation (Campbell, 2012; O'Meara et al., 2011). Agency is always enacted in relationship to something and individuals can display agency in one area but not in another. For example, a graduate student may assume agency to balance family commitments with completing her dissertation, but not feel much agency in determining the direction of her research agenda, in assuming leadership positions within her department, or developing a network in her field.

This view of agency asserts that individuals are embedded in social contexts that deeply shape the range of agency they may experience at any given time. Yet their fate is not determined by that social context. Individuals have free will and can “produce” their worlds (Elder, 1994; Lawton, 1989; Lerner & Busch-Rossnagel, 1981). Indeed, the sense of agency graduate students will feel during the pursuit of their degree will be influenced by their individual identities and interactions between those identities and their academic department and institution (Rhoades et al., 2008). Likewise, institutional policies, practices, and field norms will influence the range and degree of agency they assume in pursuit of their goals. For example, a graduate student who wants to write her dissertation on sexual assault may feel inhibited by the fact that few graduate students or faculty are writing on this topic, and that the initial reactions to the topic she received from her adviser and peers were not supportive. However, what she does next is still up to her. She can decide to assume a perspective that she should give up her topic, because it will not receive the support she desires. Or she can decide to forge ahead, and convince others with compelling work of the significance of the project. This does not mean that her department colleagues do not have an important role to play in scaffolding the agency this doctoral student feels in pursuing her topic—it just means that they both have a role to play. Likewise, institutions that have allowed graduate student parents to extend the time to completion clock or provided funds for parental leave have created policies that scaffold those students' agency in balancing work and life priorities.

For the purposes of this essay, I will focus on agency in completion of the Ph.D. and pursuit of career goals—whether those career goals are toward the professoriate or not. Neumann & Pereira (2009) explain this form of agency as

meaning-making which “entails a reflexive purposefulness, a thoughtful directedness born of personal desire and valuing” (p. 139). Archer (2003) refers to this expression of agency as “reflexive deliberation of agents” (p.135). A graduate student who assumes an agentic perspective is not naïve or simply an optimist. They do not deny constraints, but instead acknowledge the reality of a situation and decide to see choices where others see only walls. For example, a graduate student may have a poor personal relationship with his adviser. They do not seem to communicate, collaborate, or inspire each other. Yet the adviser is the most knowledgeable about the student’s topic, and is helpful with requirements, feedback, and other aspects of their work together. A student taking an agentic perspective decides to view the situation as one where he will get certain things from the advisor and other supports elsewhere. He decides to see the situation as something that can be overcome. The key point is assuming an agentic perspective means noticing both constraints and potential opportunities, acting as a strong evaluator of situations, and then moving forward with a belief in choices and possibilities (Archer, 2003).

Agentic action is discrete from, but often closely follows, and is related to, agentic perspective. In the same situation mentioned above, the individual graduate student might take strategic actions to get those other supports he needs and is not getting from his advisor. These actions might involve developing relationships with other faculty, forming peer support networks, or offering to assist the faculty member with some of his research in order to see if there are other ways to connect with his adviser. In recent years, scholars have studied faculty assuming agency via asserting free will when prioritizing teaching within a publications driven context (Terosky, 2005; 2010), embracing an institution’s aspirations to become a world class research university (Gonzales, 2012), engaging in race-related service (Baez, 2000a), taking parental leave (O’Meara & Campbell, 2011), and creating a campus-wide outreach program (Kiyama, Lee & Rhoads, 2012). Whether faculty member or graduate student, the key is that agency actions taken are strategic. They are enacted with self-awareness of goals and contexts.

What are the outcomes of acting with agency? Most research in human development, life course, and sociology shows significant benefits overall to acting with agency in work, life, and relationships (Alkire, 2005; Archer, 2003; Elder, 1994; Emirbayer & Mische, 1998; Marshall, 2005; Sen, 1985). However, this does not mean that every time graduate students assume agency they will experience positive outcomes. Suppose a graduate student assumes agency to confront a difficult issue with her adviser, makes a decision to move her research in a new direction, or confront a peer who seems to be stealing her ideas. While the long-term benefits may be greater self-actualization, more meaningful work, or a better relationship—the short term results could be a strained relationship, a disagreement, or longer time to degree. As such, the assumption of agency does

not guarantee a fix to every problem a graduate student may have in pursuit of a goal. Rather, assuming agentic perspectives and taking agentic actions should be thought of as one very important way for graduate students to feel in control of their studies, pursue work that is meaningful to them, and remain strategic in the face of constraints and opportunities that present themselves.

### **How can departments scaffold graduate student agency?**

Much research on organizational environments underlines the important role that organizational norms and expectations, climates, resources, policies, and leadership play in scaffolding the agency individuals inside that organization feel to pursue their goals (O'Meara et al., 2011; Archer, 2000; Giddens, 1979).

Here I would like to outline three ways departments (and specifically this means department chairs, faculty and students in them collectively) can enhance graduate student agency in pursuit of their degrees and career aspirations. First, much research suggests that the advisor-advisee relationship is critical to doctoral completion, pursuit of meaningful careers, and productivity (O'Meara, Knudsen & Jones, 2013). As such, departments can scaffold graduate student agency by creating contexts wherein the development of relationships is prized, rewarded, celebrated, and supported. While many departments have awards for faculty mentoring, much more is needed in this area. In a recent study of emotional intelligence displayed in faculty-doctoral student relationships, I and colleagues (O'Meara et al., 2013) found that it was the display of emotional intelligence of both students and faculty that influenced the success of advising relationships. As such, departments can scaffold good relationships by having brown bag lunches and events where they "lay-open" the nature of what is supposed to, or could, happen in the development of productive working relationships. This would result in a system not dependent on a few gifted and agentic students and faculty, but instead careful, strategic attention to what both students and faculty need to do inside relationships to create and maintain good communication, progress toward objectives, and mutual satisfaction from their work together.

Second, departments need to invest in transparency. Graduate students are more likely to assume agency if they feel like they understand the formal and informal rules, requirements, and expectations. Graduate students who do not understand why their peer received a fellowship or travel scholarship and they did not, or who do not understand why one student was able to take the comprehensive exams from home and another was not, will feel less control and confidence in pursuit of their own goals. It is easy for graduate students to feel as if some students are "insiders" and they are "outsiders" or that the requirements are fuzzy, like shooting archery in the dark. Often the reality is not nefarious, it is simply a matter of some students asking for things and others not. Regardless, as Susan Sturm (2006) has observed, building "inclusive" environments means



ensuring as much transparency as possible, for as many individuals as possible. When individuals have a sense of what is expected they can go out and obtain the necessary knowledge and skills to achieve their goals.

Third, departments can support graduate student agency by affirming multiple pathways. By multiple pathways I mean several different things. A key aspect of agency is feeling like one has choices and some freedom in how to achieve their goals. A key way in which those in power can assert dominance is by persuading individuals inside a system that there is only one way to do something. Often this occurs through “institutional scripts” or often repeated sayings or understandings within a culture about appropriate or expected behaviors (Powell & Colyvas, 2008). Norms and institutional scripts have been found complicit in both the shaping and limiting of faculty agency among interdisciplinary scholars negotiating legitimacy for their work (Gonzales & Rincones, 2011) and in how faculty theorize about teaching and learning (Clegg, 2005; Kahn, 2009). Likewise, graduate students can face institutional scripts throughout their graduate years that limit the sense of possibility they feel for how to pursue their goals and manage their lives. For example, graduate students may be told there is only one kind of research they should do, or one set of appropriate topics. Graduate students may be told the only legitimate career aspiration is to become a faculty member in a top tier research university, or that if they have children before they graduate they will badly damage their career. These are all limiting scripts. When graduate students assume agency, they evaluate scripts in light of their own goals, and if necessary, decide to ignore them. Departments can play a critical role by intentionally confronting common institutional scripts they see forming in their departments. Groups of faculty and students can come together to reinforce the idea that, in fact, there is not a single way to accomplish their goals, but many. This might be accomplished by bringing in alumni who are working in multiple higher education institutional types, industry, government, and other organizations to discuss careers in those organizations. Likewise, successful alumni that managed parenting and degree completion can be brought in to discuss strategies they used to be successful. In this way, departments can play an active role in expanding student sense of choice and possibility.

### **How can graduate students assume agency?**

Assuming agency begins with reflection and self awareness of key goals, constraints and opportunities (Archer, 2003; O'Meara et al., 2011). Thus, graduate students can assume agency in pursuit of their degree and career aspirations by periodically identifying, clarifying and re-clarifying their goals, and strategies to achieve them.

Given the importance of the advisor-advisee relationship in doctoral completion, I think a key part of being strategic is for students to ask themselves:

what am I doing to develop, maintain, and engage in my relationship with my advisor? Have I taken classes with my advisor, offered to be a TA or research assistant on a project, attended their presentations at national conferences, congratulated my advisor on papers or awards, read their research, or offered to provide feedback on a paper? A big part of the socialization process inside doctoral education is learning to become a good colleague. One of the key ways doctoral students can show agency is not waiting for others to engage them. Rather students can invest in the relationship by taking specific steps to dig deeper into the relationship and to identify how working together might enable possibilities for both the faculty member and their student. This suggestion does not reduce faculty accountability for support of their students, it just acknowledges that working relationships are two-way streets (O'Meara et al., 2013). Doctoral students can assume agency through their own perspectives and actions in that relationship.

Second, graduate students can assume agency by seizing and creating opportunities. There will be many, many opportunities provided to graduate students during completion of the doctoral degree. Students can assume agency by considering these various opportunities strategically, in relationship to their goals. They assume agency by saying no to opportunities that will not advance their goals and yes to ones that will. Agentic individuals tend to not only seize opportunities put before them, but create them. For example, graduate students who know they want to publish in peer reviewed journals but are finding it hard to get pieces accepted, might request a conversation with department faculty about strategies to improve the competitiveness of their articles for targeted journals. A student who wants to experience teaching a graduate course can offer to act as a teaching assistant for a faculty member. They do not have to wait to be asked.

Third, my interviews, observations, and survey work related to faculty agency at the University of Maryland has underscored the importance of pursuing work that is meaningful as a form of agency. For some graduate students this might mean doing an engaged or interdisciplinary dissertation, and others pursuing academic outreach related to their degree and public policy, education, or extension projects. This might also mean diving into what it means to be a good teacher and new techniques for facilitating learning. My research suggests that individuals who pursue work that is meaningful to them find they have greater persistence in the face of obstacles, greater satisfaction when these projects come to fruition, and greater work-life integration. Archer (2003) has observed that assuming agency requires pulling deeply from one's whole life and all of the identities and talents one brings to any particular project. Thus, I advocate graduate students assume agency by choosing dissertation topics and forms of professional work (GA/RA positions, internships, research team experiences) wherein they will find the most meaning, and success will follow.

## Conclusion

In conclusion, Marshall (2005) observes that agency often reveals itself as the structuring of choices. There is no doubt that based on life experiences and individual traits, the environments where individuals reside, and available resources, some graduate students will find it easier to assume agency than others (O'Meara et al., 2011). However, like leadership or awareness of biases, agency is something that can be cultivated, and practiced. It is sometimes easier for faculty or students in any given academic department to complain about how one or the other group is not doing this or that, or to list constraints. Yet we are all the products of our choices to some degree. Departments that try to make program expectations and practices transparent, support the development of productive relationships, and reveal multiple completion and career pathways can go a long way to scaffolding graduate student agency. Individual graduate students who decide to reflect on priorities and then advance them through their own investments in professional relationships, seizing and creating opportunities, and pursuit of meaningful work, are likely to find multiple rewards for their efforts. I have experienced such agency first hand in students who approached me to work on research projects, become teaching assistants, develop their own research teams, and present at international conferences. They stepped forward, and enabled the possibility that followed.

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# **The Development of Academic Self-Efficacy among First-Year College Students in a Comprehensive Public University**

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*This qualitative study investigated the intrapersonal and environmental factors that affect the development of academic self-efficacy in freshman college students in an ethnically diverse, comprehensive, public institution in the western United States. Utilizing Bandura's (1997) model as a conceptual framework, findings from thematic analysis of focus groups employing 146 participants are presented. Results revealed three primary environmental factors nested within Bandura's (1997) model: family/home environment, peer environment, and academic environment. Similarly, results demonstrating intrapersonal factors found themes of student resiliency to affect academic self-efficacy. Descriptions of how factors reported by Bandura (1997) function within the intrapersonal and environmental framework are offered.*

Academic self-efficacy plays an important role in undergraduate students' lives. Indeed, research shows that students' self-efficacy beliefs, or level of confidence to successfully complete academic endeavors and tasks, influence academic achievement (Bandura, 1977; Bandura, et al. 1996) and, in fact, positively predict college GPA (Zajacova, et al., 2005). While we know that a positive relationship between academic self-efficacy and academic achievement exists (Elias, 2008), we know less about the development of academic self-efficacy, particularly among first-year college students. When we consider the effects of academic self-efficacy on students who are in their first year of college, we find even more important implications. In fact, the implications of a higher college GPA among students in the first year of college are profound, including an increased likelihood of retention, persistence, and future achievement (Allen, et. al. 2007; Pascarella & Terenzini, 2005).

Although, we find an extensive body of literature that demonstrates the complex nature of academic self-efficacy, both from an intrapersonal or environmental perspective (Camgoz, Tektas, & et al., 2008; Lundberg, McIntire, & et al., 2008), we find fewer studies that describe the process that influences the development of academic self-efficacy in first-year college students. What we currently know about academic self-efficacy largely comes from studies that are quantitative and examine undergraduate students from single majors or investigations that rely on student samples from foreign countries. In fact, these studies do not explain the interaction between the intrapersonal and environmental factors in the development of academic self-efficacy, particularly among first-year college students at comprehensive—or regional—public U.S. universities. Consequently, we developed a study that explores the intrapersonal and environmental factors that contribute to the development of academic self-efficacy among first-year students. Accordingly, the questions we ask are: What are the intrapersonal and environmental factors that shape the development of academic self-efficacy among first-year college students at a comprehensive public university? How do these intrapersonal and environmental factors affect the development of academic self-efficacy among first-year students at a comprehensive public university?

## **Background**

The development of academic self-efficacy is a complex process. Several researchers have shown that academic self-efficacy is not a form of academic self-concept (Camgoz, Tektas et al., 2008; Ferla, Valcke et al., 2009; Chong, Klassen et al., 2010), but instead the amount of confidence that a student experiences when completing academic tasks. That is, the self-confidence related to academic tasks that a student experiences largely explains what we know as academic self-efficacy. Accordingly, what we know about academic



self-efficacy relates to the confidence of a student's ability to academically succeed as measured from an intrapersonal perspective.

### **Intrapersonal Factors Influencing Academic Self-Efficacy**

Intrapersonal development tends to shape the development of academic self-efficacy. For example, attitudinally, how a student thinks and feels about intellectual pursuits and scholarly work is directly related to the development of academic self-efficacy. Indeed, Stevens (2007) found that students often felt that intelligence was fixed and did not have a clear perception of how effort and persistence positively impact academic performance—in subjects that are chronically perceived as too hard and—in which they are not smart enough to succeed. Elias (2008), employing exclusively college business students as participants, found that if a student maintained a higher level of anti-intellectualism, or negative thoughts about intellectual pursuits, then his/her levels of academic self-efficacy would be lower. As demonstrated in Elias' study, the intrapersonal development of academic self-efficacy was highly dependent on a student's desire to learn rather than value on education. This individual contribution demonstrates the relationship between attitude and the development of academic self-efficacy. If a student maintains a negative outlook on desire to learn, then he or she will be less likely to successfully develop the confidence necessary for academic success.

While we know that attitudes profoundly shape educational outcomes, we also know that a number of environmental and intrapersonal processes affect attitudes and, in turn, have the capacity to affect the messages students tell themselves related to their academic self-confidence. In this study, Stevens (2007) reports that students carry stories of feeling shamed by what he calls "mini-academic traumas" for years. Furthermore, he suggests that students' attitudes about their learning abilities and comfort to seek help are dramatically stifled by these shaming experiences. In his research, Stevens reported that students' help-seeking behaviors increased as a result of reflecting on their academic mini traumas. Subsequently, students' attitudes about their abilities to do well in previously considered too difficult classes shifted and their academic self-efficacy increased.

Despite mini-academic traumas and other deleterious environmental influences, some students maintain the ability to deflect negative influence and prevent the internalization of harmful environmental messages. Resilience is an intrapersonal characteristic that might affect the development of academic self-efficacy. Indeed, students with higher levels of resilience might be more likely to have a higher facility to manage complex academic tasks by way of higher academic self-efficacy. That is, the development of academic self-efficacy might not be negatively affected by damaging stimuli, as mitigated through levels of

resilience. For example, a recent investigation by Mak, Ng, and Wong (2011), tested to see if the relationships between resilience, life satisfaction, and depression could be explained by positive views of the self, the world, and the future (positive cognitive triad). These researchers, through the use of structural equation modeling, analyzed data collected from 1,419 college students and discovered that, indeed, resilience was significantly related to positive cognitions about the self, world, and future. That is, students that were the most resilient maintained generally positive thoughts about themselves, despite experiencing very difficult personal or educational circumstances.

Other investigations exploring both general and academic resilience suggest that individuals harness personal and social resources in extremely stressful situations in order to shield themselves from risk (Block & Kremen, 1996). This finding suggests that not only is resilience an outcome explained by difficult circumstances, but, additionally, the level of psychological resources that a student has at his or her disposal in order to mitigate the extent to which stress and difficulty might negatively affect self-perception, a component of academic self-efficacy. As a vital intrapersonal variable, this study explores resilience and investigates its connection to academic self-efficacy.

### **Environmental Factors Influencing Academic Self-Efficacy**

While intrapersonal factors partially explain the development of academic self-efficacy, environmental factors support a more robust view of how academic self-efficacy forms among students. Among environmental factors, familial perception and, specifically, parental confidence in a child are integral components of what shapes academic self-efficacy. Using a sample of nontraditional students, Lundberg, McIntire, and Creasman (2008) showed that familial support directly affects the development of academic self-efficacy and, specifically, that perception of parental confidence and support affects the extent to which a student develops academic self-efficacy. Research also suggests that family support for their children's educational pursuits significantly declines as they get older. (Lundberg, McIntire, & et al. 2008). Furthermore, studies using foreign student samples show that the higher level of confidence a parent maintains, the higher level of academic self-efficacy a child will have (Steca, Bassi, & et al., 2011).

In addition to familial and parental roles in the development of academic self-efficacy, we know that peer factors shape academic self-efficacy. We see this influence through the lens of social comparison theory (Festinger, 1954), which argues that a person evaluates himself by utilizing surrounding individuals as a point of comparison and suggests that if an individual experiences oneself as performing subpar as compared to his or her counterparts, then one's level of academic self-efficacy is at risk of decreasing. Along the same line, Hutchison-

Green, Follman, and Bodner (2008), employed a sample composed of freshman engineering students and found that the formation of a student's self-efficacy beliefs was influenced by comparison performance evaluations with other students. This investigation was conducted using a sample from a single major and generalizability to other majors is unknown. This might suggest that the precise methods that a student employs to influence the development of academic self-efficacy might be discipline-specific. That is, what affects a student in one major may not have the same effect on a student in another major (Thomas & Gadbois, 2007).

Other research suggests that perhaps what transpires between majors isn't the only considerable factor affecting the development of academic self-efficacy. Research by Hutchinson-Green, Follman, and Bodner (2008) showed that students that engage in this sort of social comparison behavior in an academic setting find themselves less confident as a result of juxtaposing themselves to the perceived abilities of their peers and lose confidence in their abilities as a result. This finding lends support to Bandura's (1997) theory of academic self-efficacy formation and Festinger's (1954) suggestion of strong social comparisons.

In addition to peer and academic major influences in educational environments, research demonstrates that instructors influence the development of academic self-efficacy. According to research conducted on students in Asia, a teacher's self and collective efficacies influenced, not only academic performance, but also successful development of student academic self-efficacy (Chong, Klassen, & et al. 2010). Consequently, teachers tend to influence the extent to which their students will go on to attain higher levels of academic self-efficacy, demonstrating that the instructional environmental influences the development of academic self-efficacy. For example, Chong et. al. (2010), using quantitative research methods, found that the confidence of a teacher for a student translated to the academic confidence of a student.

Additionally, technology, another essential characteristic of educational environments, was shown to affect a student's attained level of academic self-efficacy. In a quantitative study by Clark (2003), 85 third-through-twelfth-grade African American student participants, representing 13 different public schools in Northern California, were given a pretest and posttest before and after they received laptop computers equipped with word-processing programs and Internet access. She found that academic self-efficacy with mathematics had increased positively and that participants tended to show an increased concern for their career goals and educational attainment. Unfortunately, however, Clark (2003) did not employ a control group in his study, which would have afforded an accurate calibration of the laptop computer influence on academic beliefs and career aspirations and ruled out the possibility of any confounding variables.

Likewise, research shows that perhaps a student's adopted learning approach can affect the early development of academic self-efficacy. While academic self-

efficacy is widely believed to be an individual cognitive variable (Uwah, McMahon, et al. 2008), the cognitive strategies that a student employs, either aiding or destroying information attainment, seem to affect the level of academic self-efficacy. Likewise, in another quantitative study that included international participants, researchers show that the development of academic self-efficacy might be highly dependent on learning strategy (e.g., deep/surface level processing) (Diseth, 2011). According to Diseth (2011), the higher level of confidence an individual maintains toward academic self-governing affects the utility of focused processing, which is a component necessary for academic success. Unfortunately, though, the research in this area remains primarily quantitative and, as described in numerous earlier examples, employs a sample from other countries, which uses different pedagogical strategies and a host of other variables and may not necessarily be directly applicable to most students in the United States.

While previous research demonstrates the importance of person-centered factors in the development of academic self-efficacy, research also shows that, to a certain extent, the development of academic self-efficacy may be dependent on environmental factors (Ferla, Valcke, & Cai, 2009). Using quantitative methods and an engineering graduate student sample, Jungert (2010) found that students with higher levels of academic self-efficacy were more likely to engage instructors and become more involved in the learning process than their counterparts. This might suggest that in addition to any person-centered variables contributing to academic self-efficacy development, the classroom environment present in graduate study might also facilitate higher levels of academic self-efficacy.

## **Conceptual Framework**

Given that the focus of this study is on the identification of factors that contribute to the construction of academic self-efficacy, we explore the developmental process through the conceptual framework introduced through previous empirical evidence. Specifically, we used Bandura's (1997) model to further differentiate intrapersonal and environmental factors that affect the development of academic self-efficacy. Bandura's (1997) theory of academic self-efficacy purports a comprehensive theory of the formation of academic self-efficacy as sourced from four different places: mastery experiences, vicarious experiences, social persuasions, and physiological states. *Mastery experiences* are described by previous research as not only being the most influential source of academic self-efficacy but also a student's self-interpretation of task performance (Bandura, 1997; Zeldin, 2000). For instance, if a student interprets his or her performance on a complex academic task as positive and successful, then that student is more likely to have the confidence necessary to perform well

on subsequent academic pursuits. That is, the mastery experience on a complex academic task will likely yield positive outcomes on future work.

In Bandura's (1997) model, the second most influential source of academic self-efficacy formation is *vicarious experiences*, which is manifested through the comparison of personal abilities to the perceived abilities of others (Hutchison-Green, Follman, & Bodner, 2008). Like Festinger (1954), Bandura (1997) suggested that social comparisons are highly influential in determining perceived self-confidence when students are not entirely sure of their capacity to succeed within a certain area or an area in which they have little or no experience. For instance, if a student is taking a course beyond the boundaries of his or her current knowledge base, then that student is more likely to engage in this sort of comparison in order to develop a sense of academic self-efficacy. Next, according to Bandura (1997), *social persuasion*, or feedback from others, influences the formation of academic self-efficacy. The messages that we receive from influential individuals, according to Bandura (1997), seem to play a role in academic self-efficacy development. Last, Bandura (1997) suggests that the physiological state, or *emotional experience*, that a student associates with their behavior also has the potential to impact self-efficacy beliefs. For example, if a student encounters an overwhelming sense of anxiety by doing a task, then that physiological response will likely systematically trigger a series of responses and messages that have the capacity to substantially harm the formation of high levels of academic self-efficacy.

Although Bandura's (1997) theory of academic self-efficacy formation explores the factors that help contribute to the core of academic self-efficacy development, it fails to explore the exact environmental and intrapersonal factors that shape its development. For instance, although Bandura's (1997) theory purports that vicarious experiences are a major contributor to academic self-efficacy he omitted the identification and explanation of the physical manifestations associated within vicarious experiences. Similarly, Bandura's (1997) theory does not differentiate variables that are more closely intrapersonal and factors that are external, or environmental. For example, Bandura (1997) highlighted that social persuasion, or feedback from others, is influential on academic self-efficacy development, but did not specify which type of environmental feedback is most influential. Because students do not experience all social feedback identically, similar types of criticisms are also the case for the other three factors that Bandura (1997) outlines. Informed by Bandura's (1997) theory, this investigation examines and further explores the development of academic self-efficacy through the lens developed by Bandura (1997) and Caprara (2008) in an attempt to raise specificity on the development of academic self-efficacy.

## Methods

### Research Design

We employed a grounded theory case study design to examine how intrapersonal and environmental factors shape academic self-efficacy among first-year college students. Glaser and Strauss (1967) articulated that what we know as grounded theory today, arguing for the development of theories from empirical research grounded in data rather than deducing conclusions from hypotheses from existing theories. As a grounded theory design, we roughly followed what Birks and Mills (2011) argue as “essential grounded theory methods” (p. 9). In this study, these methods included using initial coding and categorization, concurrent data collection and analysis, theoretical sampling, constant comparative analysis, intermediate coding, and finally finding a core category and developing an explanatory model.

Albeit less consistent with grounded theory, the design of this study was rooted in Bandura’s (1997) theory of the formation of academic self-efficacy. In using an existing theory to guide our research framework, this study attempted not only to assess the comprehensiveness of the theory but to also build upon it through our explanatory model. That is, we were interested in more closely examining and explaining the interaction between individual and environmental variables affecting the development of academic self-efficacy, which is an effort not highly prevalent in the current body of literature attempting to address the development of academic self-efficacy.

### Research Setting

We situated the study in a comprehensive regional public 4-year, non-residential university in the western U.S. With over 30,000 undergraduate students and over 6,000 degrees awarded in 2010, the university serves a diverse community as a comprehensive, regional public university in an urban setting. Given our interest in examining academic self-efficacy within the context of an ethnically diverse, highly enrolled, publically controlled campus environment with a large freshman student population, the university served as an ideal site. Indeed, one of the largest public unified school districts in the region surrounds the university, situating the campus within a broader educational context where nearly one in 10 elementary and secondary students are of color and nearly a quarter are English-language learners, all of which reflects the student diversity in the university. Designated as a Hispanic-serving institution, the university serves over a third of undergraduate students who identified as Latino/a, while just over half of students reported being female and over three quarters of students are traditional college age.

## Data Sources and Sample

We used first-time, first-year students in the 2011-12 academic year as our data source and selected participants using a mixed sampling strategy. First, we used a criterion sampling strategy to identify students who were first-time, first-year students in either the Fall 2011 or Spring 2012 terms. Second, we used a network sampling strategy to identify sections of the university's freshman experience/first-year seminar course whose instructors would be willing to host a focus group in their class during the Fall 2011 and Spring 2012 terms. We invited 13 instructors to participate in the study, and six instructors responded to the invitation and offered their classes for participation.

While six instructors responded to our invitation to participate in the study, two instructors taught more than one section of the class. As a result, we hosted a focus group with two sections with these two instructors, for a total of eight focus groups. In total, we recruited 146 students between the eight focus group sessions in the eight courses. The final sample was largely female, ethnically diverse, and first-generation college students. Indeed, nearly 67% of participants reported being female, while nearly 50% reported being Latino/a, 18% white, 10% Asian, 6% African American, and 4% reporting more than one ethnicity. Nearly 52% of participant reported being a first-generation college student, with more Latino and female students reporting a first-generation college student status than other students in the final sample. To further understand descriptive characteristics of the final sample, we performed a chi-square test of independence on the relationship between ethnicity and first generation college status and found that the relationship was significant,  $p < .01$ , with Latino/a students more likely to report being the first one in their family to attend college. Additionally, we ran a chi-square test of independence on the relationship between gender and first generation college status, which was significant and suggests that women were more likely to report being a first generation college student,  $p < .01$ .

## Data Collection Instruments and Procedures

We used two data collection instruments through the study. First, we employed a short, five-item questionnaire to collect information on participant demographics. The items included age, gender, race/ethnicity, first-generation college student status, and high school GPA. In addition, we used a focus group protocol to collect information on the development of academic self-efficacy. The protocol included a welcome and introduction section and sections related to both informed consent and demographic questionnaire administration. As the study's primary data collection instrument, the protocol had focus group questions organized around attitudes about learning, help-seeking behavior, self-

perceived abilities to complete an assignment and do well on a test, and self-reflections on embarrassing and rewarding academic experiences. We organized questions by initial open-ended (first-level) and intermediate, or second-level questions (Charmaz, 2006). Finally, we considered issues related to students' background, particularly race/ethnicity and gender, with questions about embarrassing academic experiences.

We conducted eight focus groups over the course of two terms, with six focus groups conducted in the Fall 2011 term and two in the Spring 2012 semester. We scheduled the focus groups in the first eight weeks of the semester, although three focus group sessions occurred after the first eight weeks. In general, we set the focus group session for one hour in length, which coincided with the length of the class session associated with the freshman experience/first-year seminar. We preceded the focus group sessions with a single, 15-minutes session in class on a different date than the focus group where we introduced the study to participants and asked students to complete the informed consent form and demographic questionnaire. In general, two researchers were present at the sessions and co-facilitated the focus group, and sessions were digitally audio recorded. At the conclusion of sessions, we invited students to contact us if they had further questions or were interested in reviewing focus group transcripts and our interpretation of the results of the data analysis.

### **Data Analysis Procedures**

We employed a multi-stage, constant-comparative process of data collection and analysis. First, one member of the research team transcribed focus group audio recordings verbatim. Using redacted and de-identified transcripts, we initially segmented and coded data at the end of the Fall 2011 term. After developing initial codes individually, we compared codes to codes and categorized them into meaningful groups or clusters of codes (Glaser, 1992). At this point, we identified three categories that needed further investigation: academic identity, social comparison, and attitudes about learning. After conducting this set of focus groups, we returned to the data to perform intermediate coding and identified a core category, which is consistent with grounded theory (Birks & Mills, 2011) Finally, we integrated intermediate codes and our core category into an explanatory model of the developmental process of academic self-efficacy among first-year, historically underrepresented students.

### **Results**

The analysis of the focus groups held across the duration of Fall 2011 and Spring 2012 terms allowed us to not only validate Bandura's (1997) self-efficacy theory but to also build upon his model. Here, we present results that differentiate



and further specifies Bandura's (1997) theory of academic self-efficacy formation and allow a multilayered presentation of the development of academic self-efficacy from an intrapersonal and environmental perspective during a crucial moment in a student's life, the first-year experience. The results, although nested in Bandura's (1997) overarching thematic construction, afford a more explanatory theory of the development of academic self-efficacy than previously presented, as a result of higher specificity of Bandura's (1997) factors. We introduce the following themes in an order sequential to their perceived impact on a student's academic self-efficacy.

### **Family and Home Environment: The Function of Parents and Siblings in Performance Comparisons and Resilience Related to Academic Self-Efficacy**

Perhaps one of the strongest themes that emerged was related to the events that occur within a student's home environment, which tended to have enduring effects and interactions with students' intrapersonal characteristics. Also nested across Bandura's (1997) themes, the results from this study point to this environmental variable's substantive influence on a student's academic self-confidence. Often, students socially compared themselves to the academic and intellectual accomplishments of their siblings. For example, one participant expressed the following type of familial comparison that influenced her academic self-efficacy: "I've never taken an AP class. Versus my older sister, she's insanely academically smart. But, I think that she always said to me, because I always said, 'How did you take AP classes?' because I signed up for AP psychology, but I ended up dropping it because I couldn't handle it." The participant went on to say: "I always asked her, 'How did you do it?' She said that it's not about how you do it, but that you have to apply yourself. If you want to take it and you want to do good in it, it's all about how much you study and how much effort you put into it. I always said, 'You're smart, you can handle it.' She said, 'No, it's because I study hard, I do the work, and I apply myself to it.'"

Performance comparisons, or vicarious experiences, were something that, as Bandura (1997) suggested, proved highly influential in determining a student's academic self-confidence. Unlike this participant's response, our data suggest that many familial environments, especially those where the most performance comparisons occurred, tend to not exhibit positive dialogues between family members, which would be prerequisite for the healthy development of academic self-efficacy. For instance, another participant suggested that her sibling's intellectual abilities were innate when she explained: "My brother is a sophomore in high school and I know that's way younger than me, but he is always in honors and AP classes and he's always a straight A student. I was never like that because I did not get the brains and he did." This participant concluded her thought about her familial interaction with: "Everyone in my family, like my mom and grandpa,

they did not mean it in a mean way, but they would always say, ‘You know your brother is so smart.’ They made all these comments, which made me feel bad that he was smart and I would really start comparing myself to him even though he was so much younger than me.”

What these participants illuminated went on to support the notion that students listen to their family members and internalize, as suggested by Bandura (1997), the vicarious experiences of their parents and siblings. As evidenced through these rich narratives, our results suggest that the level of emotional responsiveness, an intrapersonal variable, to these environmental claims and social comparisons, influenced a student’s academic self-confidence. Too often, participants evaluated themselves based upon the educational achievements of their siblings, cousins, and even parents.

Furthermore, as mentioned, students in our sample primarily represented students of color. These students possessed an array of cultural variables, nested within their family environment, that suggest a powerful level of cultural influence on the attainment of academic self-efficacy. That is, familial characteristics, some more salient than others, differentially affect the development of academic self-efficacy. One such potent illustration, as evidenced by a high level of confirmative feedback, was portrayed by the following response: “In my case, my parents lived the war in El Salvador. That was always in my mind since I was little. It’s not possible that they survived and I’m going to let it all go to waste, so I want to prove it to them that their sacrifices are not in vain.” This student reconfirmed his confidence by stating, “I’m going to get a college degree. That’s what they wanted. That’s the American dream. I’ll provide that and I’ll do anything possible. I’ll jump any hurdle. I’ll do anything possible to get that degree.” Like this participant, students between focus groups repeatedly confirmed this thematic element. That is, participants recognized the extent to which their immigrant families struggled to provide them with the opportunities to attend higher education.

Our data also suggested that a significant number of individuals within the family unit prove destructive to the academic confidence of students. For instance, a student insightfully shared:

“Umm, well, I just have my mom. She’s always been my biggest support. Then, I have my grandma and she’s negative sometimes, so she would always say, ‘Oh, she’s going to get pregnant soon,’ because I would have friends visit me at my house. She’d thought that I’d drop out from high school and I graduated. I hope she was proud of me, but she saw that I came here and I thought she’d be more proud of me and, like, more supportive. She still makes comments sometimes and it hurts my feelings and it pushes me. (crying). I’m sorry. It just pushes me.”

What this participant shared suggests that resiliency plays a significant role in the formation of academic self-efficacy. This participant persisted and maintained

her academic confidence, despite the overwhelmingly negative messages from her family. Results further suggest that resiliency was a mitigating factor for harmful environmental stimuli. The students in our sample, especially those from historically underrepresented groups in higher education, exhibited strong coping strategies reflective of their resilience. In fact, many students provided encouraging and optimistic responses when asked questions geared toward inquiry into their family domain. For instance, this participant described an experience of academic shaming that she overcame: "...the teacher was trying to make examples so she was passing back papers that students had written previously and they were from our class of good examples and bad examples, and one of them was mine." This student went on to explain, "I didn't feel good about it, the fact that the bad example was mine." Despite being shamed in the classroom with work that was displayed to peers as subpar, this student displayed resiliency by rejecting the negative internalization, "For me, it was positive. I thought this is not going to be me again. What do I need to do to do better because the next time I am going to be the good example." As evidenced by these participants, our data highlight that students in our sample were able to transform negative environmental messages into sources of motivation.

### **Mixed Messages that Facilitate the Development of Academic Self-Efficacy within the Peer Environment in Educational Contexts**

Students are surrounded by their peers from the moment students leave their homes and enter an academic environment until they return. This feedback can vary significantly from something positively reinforcing to something destructively critical. Our data suggested that the messages that peers submit to one another prove exceedingly influential on the development of academic self-efficacy. For instance, another student in our focus groups gave feedback that illustrated the magnitude of peer influence throughout stages of the educational pipeline: "...I know that because I'm taking a bigger load of classes that all the free time I have needs to be used on assignments, but they have so much more free time that they don't understand that and it's hard to say no again and again and again because they don't understand that we're paying more for this." This participant went on to say, "They don't understand that it's hard to balance friends and sometimes you have to give in. My friends guilt trip you, so it's, like, fine, but just for a little bit." As this quotation illustrates, the results go on to support the emotional response component of Bandura's (1997) theory of academic self-efficacy formation. But, unlike Bandura's (1997) theory, our results showed that peers (external factor) are highly provocative for emotional responses (internal factor) that Bandura (1997) partially described.

Thus, our data suggest that *how* students interpret their peers' messages facilitates the development of academic self-efficacy. Again, students' level of

resiliency, an internal variable previously discussed, is not a singular factor that prevents the solidification of low levels of academic self-efficacy. Because of our need to explore data variability across both internal and external variables, we discovered that peers often sling stereotypes, and other universally held misbeliefs, as a method for social persuasion and comparison. Indeed, our results suggest that students carry these messages with them for lengthy periods of time, which results in damaged academic self-confidence. On this note, one student vividly recounted:

“I went to an all girls high school, so my class was 120 students. It wasn’t very big so everyone knew what class everyone was in. We had math classes a lot of the Asians were in Calculus AP, and there was one Asian girl in my class and people would question her and ask, ‘How are you not in the higher calculus?’” Like others, this participant suggested that the lack of fulfillment of cultural and ethnic stereotypes are weapons that students employ which significantly harm the acquisition of high academic self-efficacy. Too frequently, as nested within our data, students are forced to dismantle or reconcile the cultural expectations held by peers. In another testimony, this participant worked hard to ensure that she didn’t internalize the message sent by her peers:

“I agree with what she said because most everybody I went to high school with, they stayed up mostly in the Bay area. I wanted to get away and meet new people so I came down here. Ever since then I’ve been judged by my friends like, ‘Oh, why did you go down there? You don’t want to be with us? You don’t like us?’ When I hang out with my African American friends, they also kind of judge me because they already judge me on the way that I talk, but then it makes it worse that I moved down here and I went to college, and I actually know what I want to do. They always have to make snide comments about the things that I do.”

As this participant indicated, our results further suggest that given the right arena to discuss their experiences, accompanied by the reinforcement from significant individuals, students can successfully dismantle harmful social persuasion from their peers and develop higher levels of academic self-efficacy. Again, the peer environment, as examined through the use of Bandura’s (1997) theory of academic self-efficacy development, demonstrated that peer groups (environmental variable) provoked both social comparisons and emotional responses. While discussing peer groups, we noticed that another reoccurring theme which prompted the notion that aspects of a student’s educational environment, another prominent environmental variable, show academic climates conducive to successful academic self-efficacy development.

## **The Effects of Instructor Attitude and Pedagogical Approaches on Academic Environments**

Our results showed that there are characteristics in students' academic environments that are more conducive to promoting academic self-efficacy. Classrooms and courses endorsing student use of technology for educational purposes appear to catalyze higher levels of student academic self-efficacy. When students have the opportunity to learn using a variety of methods that psychologically engage them, the most learning occurs. More importantly, the appearance of learning as a rigid and strict process is greatly reduced. For instance, one participant shared:

“Uh, well, my dad, he always watches the history channel, sometimes, and he always like, I sometimes will be watching TV and I'll see this whatchama-call-it, the Discovery channel, or, uh, the history channel, and I'll see something that I actually like and I know that if I was like forced to learn it in class I'd be like, ok, this is kinda boring. But, now, that I wanna see it and watch it and learn about it, it's more interesting because I'm doing it for me.”

The story that this participant shared illustrates that technology is employed frequently and proves to be a powerful component nested within academic environments contributing to the formation of academic self-efficacy. As previously explained, Bandura (1997) argued that mastery experiences affect the formation of academic self-efficacy. Here, results suggest that students are more likely to achieve their mastery experiences through supportive educational environments appropriately equipped with technology. Similarly, the data suggested that instructor attitude and beliefs are highly influential within this domain.

Instructors and educational administrators construct atmospheres within the academic setting based not only their pedagogical strategies, but as well as biases and other attitudinal tendencies. The data illustrated that when educators take the time to initiate an enduring dialogue with students, the effects are monumental. For instance, this participant explained how her school administrator created a lasting impression:

“Because my school was very supportive, even the principal. The principal knew the name of every student. That's how important it was to us to know our material. Because of them, talking to them, and they were advising me what to do and how to react to that. I started ignoring them because they were pulling me down and didn't want me to succeed more than them. I passed the level, or the expectations, that they didn't think you're going to pass. It's just that certain goal that put to yourself, to advance, and to reach another level.”

Fortunately, for this student, the messages, expectations, and guidance of this

educator were positive and reinforcing. That is, educators provoke emotional responses (Bandura, 1997) that affect academic self-efficacy formation. Here, results suggest that instructor attitude is a highly influential environmental variable that triggers lasting emotions in students, which, in turn, formulate self-beliefs in students.

Similarly, results suggested that many students received messages that portrayed instructor attitudes on subjects and students that were less than positive. In our focus groups, however, we noticed that our sample was comprised of resilient students. Indeed, the resilience of our students was noteworthy. For instance, this student's ability to deflect such a negative message was truly resilient:

"In 9th grade, going back to high school, I had two teachers, one was Latino. ...The teacher never really asked me where I was from, he just knew that I knew Spanish and that was about it. One time I came late to the class from the nurse and he said, 'Now you're showing who you really are,' and I'm like, 'What am I?'" Then, the in explaining the instructor's response and reaction, the participant went on to say, "'Oh, you're Latina and now you're going to start missing school and eventually you're going to drop out.' I was really quiet. I just sat down and I didn't really say anything. He told me to sit down with my people because either way I was going to turn out like them. After, I think he realized what he did. He told me to stay after class and he told me, 'What are you really?' I told him, 'I'm Mexican.' He told me, 'Are you really Mexican?' I said, 'Yeah, I was raised over there,' and he said, 'You don't seem like a typical Mexican girl.' I said, 'What are Mexican girls supposed to do?'"

The participant further explained the presumptuous conclusions of her instructor by saying, "He said, 'They're really loud, they're really disrespectful, they play around with guys too much, and they don't focus on school.' It just made me feel sad. I would expect that from a student, not from a person that went to college and supposedly has an open mind."

This participant's story supports Bandura's (1997) theory, which suggested that the social persuasion, or feedback from others, accompanied by the physiological response, or emotional state, work collaboratively at constructing academic self-efficacy. But, Bandura's (1997) model of academic self-efficacy does not attempt to explain the particular variables that contribute to the ASE developmental foundation.

Given that we argue that Bandura's (1997) finding of the four most significant factors that contribute to academic self-efficacy formation do not adequately explain the development of academic self-efficacy, we propose an adapted explanation, incorporating Bandura's (1997) theory as a nested component to the larger, more explanatory factors that shape the development of academic self-efficacy among first-year college students. That is, we found that

Bandura's (1997) explanatory theory required further specification in order to meaningfully illuminate the complex interaction of environmental and intrapersonal variables that influence academic self-efficacy.

## **Discussion**

### **Intrapersonal and Environmental Factors that Shape the Development of Academic Self-Efficacy**

Given the results of our investigation, we return to address our first research question: What are the intrapersonal and environmental factors that shape the development of academic self-efficacy among first-year college students at a comprehensive public university? Accordingly, the focus groups held at various points in time across the first semester among groups of freshman college students revealed that Bandura's (1997) theory, which suggested a theory of development of academic self-efficacy in students, although descriptive, lacked explanatory power for this phenomenon. Therefore, through the principles of grounded theory and a constant-comparative method of data collection and analysis, and in response to our first research question, these three primary factors were identified to shape self-efficacy development: family/home environment, peer environment, and academic environment. Bandura's (1997) model of academic self-efficacy development theoretically highlights experiences that have the capacity to calibrate the level of academic self-efficacy attainment, but fails to identify the factors that contribute to its development.

Also consistent with previous research surrounding familial influence, the data suggest that the level of parental support is related to a student's academic self-confidence (Lundberg, McIntire, & Creasman, 2008). As demonstrated in the results, students internalize the messages sent to them from within their home environment. Our data suggest that these messages become belief systems and that these belief systems strongly relate to the conscious and unconscious messages that students repeat to themselves during difficult tasks and challenging academic experiences. The data were saturated with codes and themes, which demonstrate the pervasiveness of parental messages on the successful acquisition of academic self-efficacy.

Interestingly, previous research failed to accurately determine the extent to which peers might have influenced academic self-efficacy acquisition, other than from a social comparative perspective (Festinger, 1954). Partially supportive of past research, our findings suggest that students do, indeed, compare their performance with other students. But, past research evaporated and filtered the totality of peer influences on academic self-efficacy. The results from this investigation determined that the interaction between students extends far beyond academic and social comparisons on challenging tasks. In fact, students interact

with peers at various stages of their academic careers and, indeed, the interpersonal markers and events that transpire prove to be strong enough to spill over from one academic stage, or level, to the next. At this point, we reiterate that the findings from our work demonstrate that academic self-efficacy, as partially interpreted through Bandura's (1997) explanatory model, is sourced from three main influential spheres: the family/home environment, the peer environment, and the academic environment.

With respect to intrapersonal factors and environmental interaction that influence academic self-efficacy, it is important to note that students' intrapersonal characteristics interact with environmental factors to produce academic self-efficacy. As the results suggest, there were a few striking qualities of the students that have effects on the messages they tell themselves about difficult academic tasks, which affect their academic confidence. The students with more resilience tended to perform a different mental operation than their counterparts: connecting and transforming their negative experiences to something motivating and positive. Building upon previous research that identified positive environmental characteristics conducive to enhancing a student's academic resilience, our findings further explained that resilience is a mitigating factor for academic self-efficacy formation. Future research might determine the psychological factors that affect resiliency, in an attempt to further explain the effects of this primary intrapersonal variable on academic self-efficacy formation.

Similarly, the emotional response a student experienced in reaction to the aforementioned environmental variables was highly influential on the way a student developed academic self-efficacy. This intrapersonal variable, as supported by Bandura (1997), had a high degree of variability in the way it affected academic self-efficacy formation. Hypothetically, a student's emotional response to our primary environmental variables might be mitigated by the first intrapersonal variable, resilience. That is, the higher a student's resilience, the lesser extent to which negative environmental messages might be internalized and affect confidence and performance on complex academic tasks. In response to our second research question, our inquiry suggested that resilience and emotional response are primary intrapersonal variables that affect the acquisition of high academic self-efficacy.

It should be noted that further research is needed in order to further explore precisely how resilience and emotional response interact with the environment to produce academic self-efficacy. Likely, resilience and emotional responsiveness are not mutually exclusive variables, but, instead, interact with each other in complex ways that cumulatively interact with the environment. More research is needed to increase the explanatory power of our intrapersonal variables. For instance, further investigations might use a mixed-methods approach to



illuminate this phenomenon. Quantitative data is needed in order to generalize these variables across people and educational contexts.

As previously mentioned, our findings not only suggested that these factors affect the development of academic self-efficacy, but also *how* these factors are particularly sensitive in first-year college students. We return to the following and final research question to address the interaction of these factors in first-year college students: How do these intrapersonal and environmental factors affect the development of academic self-efficacy among first-year students at a comprehensive public university? As suggested by the results of this investigation, students with higher resilience tended to detach their negative experiences from the achievability of their goals and educational outcomes. Through the mechanism of resiliency, some students were able to successfully transform their negative environmental input into motivation and fuel for positive self-propulsion. In fact, students that were more resilient at resisting the faulty predictions they received from either their home or academic environments, were more likely to express higher confidence in their ability to execute complex academic tasks.

The results from this investigation not only fit well with factors that past research identified as major contributors in the development of academic self-efficacy but also theoretically synthesized what previous studies proposed as separate predictive entities. In other words, factors that were previously found to highly influence academic self-efficacy formation, like technology and instructor attitudes (Clark, 2003; Chong, Klassen, & et al., 2010), were found to actually be nested factors of contemporary classrooms and educational experiences within an academic environment. Additionally, the data from this study suggested that factors previously determined to be influential on academic self-efficacy and exclusive to parents, like parental attitude and efficacy beliefs (Steca, Bassi, & et al., 2011), were actually much more complex and intricately connected to other factors that occur within a home and family environment, like the extension of culture and other familial belief systems. The stimuli shown to have effects on academic self-efficacy acquisition should not be regarded as individual parts, but instead represented holistically. In fact, the results from this study suggested that when examining academic self-efficacy, influential spheres should not be sliced to their smallest components, but instead represented in their entirety, as done here, in order to produce a model with the capacity for more description and validity.

## **Recommendations for Practice**

The three aforementioned environmental domains of influence provide a series of meaningful implications and recommendations for future research and practice. The practical applications of this study's findings extend into

classrooms, campuses, and homes. In the campus context and at the classroom level, instructors may benefit from an increased awareness of their capacity to influence the acquisition of academic self-efficacy in their students. The verbal and nonverbal messages and cues that instructors deliver to their students are extensive. These messages haunt, or enhance, students for years following their interactions with educators. In this sense, findings from this study support the recommendation that instructors thoughtfully and constructively use supportive and empowering communication when interacting with students. Additionally, an understanding that some students enter into the classroom with low levels of academic self-efficacy, and perhaps related to the subject matter, is useful information for the instructor. In fact, there is some evidence (Stevens, 2007 b) that suggests asking students to reflect upon how they feel about learning the material in this classroom is welcomed and leads to self-awareness and an increased likelihood of asking for help. In addition to how and what they communicate, findings from this study support the notion that instructors need to not only work diligently to develop supportive, non-shaming educational environments but to also limit the communication of negative attitudes toward a subject with their students.

Instructors may want to consider taking a pro-active approach with their students by providing resources and opportunities to enhance students' academic self – efficacy (Stevens, 2008). Examples include: 1. Giving extra credit for attending tutoring or faculty office hours, 2. Providing students a quick self-assessment about academic confidence and self-efficacy (Stevens, 2007a), 3. Providing contact information for learning resources and other supportive service departments on a syllabus, 4. Pairing students up as accountability partners and providing guidelines on how to support one another in their academic success, 5. Providing information and examples on how to ask for help and facilitate a discussion about the intrapersonal roadblocks to help-seeking, 6. Helping students remember their learning capabilities and resiliency by facilitating discussion and/or a journal exercise about the importance of remembering and analyzing their past “proud learning moments” as map to enhance academic self-efficacy. 7. Providing information and hands on experience that will enhance the joy of learning in the particular class, and 8. Instructors self-disclosing their own struggles and success stories of enhancing their academic confidence and ways they find joy in the learning process. The implications and recommendations, however, do not remain exclusive to instructors.

In homes, family members must work doubly hard at advancing educational values. The findings suggest that often certain aspects of the cultural fabric of home environments worked counterproductively on a student's academic self-confidence. In this sense, families need to remain cognizant and aware that sometimes their cultural practices and uniformly held beliefs concerning how our sons and daughters should approach higher education are deleterious. In fact,

families must work at ensuring that the measures with which they raise their children are constructive in that they encourage advanced academic pursuit, scholarship, and educational diligence. One tactic that families might employ in order to promote this recommendation is to have regular candid conversations with each other with the intention of making plans and creating strategies for students beyond the attainment of a high school diploma. Parents and guardians are considered to be the primary manufacturers of home environments, and instructors, judged to be the main creators of academic environments, need to understand the extent to which their routine decisions yield lasting effects on the acquisition of academic self-efficacy.

### **Limitations and Recommendations for Future Research**

We note some important limitations in our study. First, and most obvious, it is difficult to generalize the results of this study to first-year undergraduate students in university contexts that are not similar to the one in our study. For instance, the majority of our sample was composed of undergraduate students of color that have been historically underrepresented in higher education, so the results from this study may not extend to students who share similar background characteristics but who attend a research intensive university in a suburban community or, by contrast, a rural community college. Second, it is difficult for us to make inferential predictions surrounding the extent to which the factors yielded from our data actually represented academic self-efficacy. Undoubtedly, the approach that we took in this study presented a new lens and explanatory model for the formation of academic self-efficacy, but in order to more accurately predict relationships, causality, and effects, more research is required.

In addition to these more general limitations, we identify two specific limitations of the findings in our study. First, we relied on the participation of instructors of the university's freshman experience/first-year seminar course. Given that only six of the several dozen instructors who teach the course responded affirmatively to our invitation, we wonder if the instructors who responded share characteristics as a group that differentiate their instructional approaches and the effects that these approaches have on students. Second, the use of whole, intact undergraduate classes as our focus group may bias the results of our study as we consider the implications of the influence of a regulated instructional environment with pre-existing academic expectations and social dynamics on student responses to our interview questions. Clearly, in this setting, some students would have been less likely to participate in the focus group session, given the identity that they formed as a student in the first-year experiences/freshman seminar course prior to our arrival. To mitigate the effects of this environment, we attempted to conduct focus groups as early in the semester as possible.

As we consider the implications of this study for future research, we argue that future studies should further explore the factors and relationships identified in this study and consider approaches to determine the extent to which our factors quantitatively influence the formation of academic self-efficacy. With respect to the former, examinations with similar students in different settings would confirm the findings of this study. Equally important, we feel that using alternative methodological approaches would extend what we found in this study. For example, future studies may consider examining the factors identified from this investigation using multivariate methods, specifically exploratory factorial analyses, in order to develop measures to quantify our constructs. Then, while using existing validated measures for academic self-efficacy, future studies can determine the extent to which our constructs predict academic self-efficacy, ideally while controlling for other exogenous factors. With data from predictive analyses, these findings would be more generalizable to the population and given more credence.

The findings from this investigation provide both scholars and practitioners with information on how to understand what positively affects undergraduate students' academic self-efficacy formation. By using the findings from this study, parents and families will be more aware about how their actions affect their children as students. In addition, instructors, educational administrators, and policymakers should rely on the findings from this study as they shape policies and practices for first-year college students. For example, educational advocates should ask themselves the following set of questions when making decisions that impact the life of a student: How will my decision affect academic self-confidence? Will implementing this foster a supportive educational environment? Am I certain that my behavior is sending supportive messages to students? As long as individuals continue to introspectively approach the data from this study, then the educational arena should shift in such a direction that will fuel the acquisition of the highest possible levels of academic self-efficacy.

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Appendix A

**ACADEMIC SELF-EFFICACY STUDY  
DEMOGRAPHIC QUESTIONNAIRE  
FALL 2011**

**Directions:** Use a pen or pencil to complete the questions below. To respond to a question, *circle* or *write* the answer that best represents your opinion.

1. What is your age?
2. \_\_\_\_\_  
Which one of the following categories most closely describes your gender?  
Male                      Female                      Transgender
3. How do you identify racially/ethnically?
4. \_\_\_\_\_  
What is your high school GPA?
5. \_\_\_\_\_  
Are you the first in your immediate family to attend college/university?  
Yes      No      Unknown

**THANK YOU FOR COMPLETING THIS QUESTIONNAIRE!**

Appendix B

**ACADEMIC SELF-EFFICACY STUDY  
FOCUS GROUP PROTOCOL  
FALL 2011**

Facilitator(s): \_\_\_\_\_

Class: \_\_\_\_\_

Instructor: \_\_\_\_\_

Date: \_\_\_\_\_

Time: \_\_\_\_\_

Room: \_\_\_\_\_

Participants: \_\_\_\_\_

**I. Introduction/Background**

**Welcome and introduction:**

*Good morning. Thank you for taking the time to come together for this focus group discussion with us today. We will be leading today's discussion. We've invited you to this focus group so that we can learn about the influences on the development of academic self-efficacy and the influence of academic self-efficacy on retention of first-year college students. Specifically, we intend to develop an explanatory model of how undergraduate students at a four-year university develop academic self-efficacy and, in turn, how academic self-efficacy affects the retention of students during the first year of undergraduate studies.*

**Informed consent:**

*Please find an informed consent form as part of your focus group session packet. At this time, I ask you to read, review, and sign the informed consent form. If you have questions, please ask them now. If you would like to ask a question in private, please let me know.*

**Questionnaire:**

*We invite you to complete a short, five-item demographic questionnaire, before we begin.*

**Timing:**

*Today's focus group will last approximately 60 minutes. Are there any questions before we get started?*

**II. Focus group**

1. How do you approach a learning task that you perceive will be challenging?
  - What are you saying to yourself about participating in this task?
  - What past experiences may have influenced your perception that you may be challenged by this learning task?
  - How has this approach to learning been an obstacle for you in terms of academic success?



2. What are the varieties of ways you seek help when you feel challenged?
  - What are the internal obstacles to you seeking help?
  - How do you approach instructors or others when you have difficulty with an assignment?
3. Discuss how you evaluate your abilities to complete an assignment in a class.
4. Discuss how you evaluate your abilities to perform well on a test.
5. Talk about a time when you have been embarrassed by another person (e.g., parent, sibling, friend, teacher, fellow student) in regard to your academic abilities?
  - How do you think that experience has impacted your academic self-confidence today?
  - How do you think your specific demographic (ethnic gender SES place of birth, language) was a factor in being targeted?
6. Please describe a learning experience where you better understood that effort pays off.
  - How has that experience influenced your learning habits?

### **Closing questions**

*I would like give you a final opportunity to help us evaluate the program. Before I end today, is there anything that I missed? Do you have any other issues related to the evaluation of the program? Have you said everything that you anticipated wanting to say but didn't get a chance to say?*

### **III. Debriefing**

*Thank you for participating in today's focus group session. We appreciate your taking the time and sharing your ideas with me. We also want to restate that what you have shared with me is confidential. No part of our discussion that includes names or other identifying information will be used in any published reports or documents. We want to provide you with a chance to ask any questions that you might have about this focus group. Do you have any questions at this time?*



# **Gender, Spirituality, and Community Engagement: Complexities for Students at Catholic Women's Colleges**

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*In this research, we explored the ways that junior and senior students at two Catholic women's colleges in the Midwestern United States understand community engagement, and we examined how they came to know and understand their gender and spiritual identities in relation to their engagement activities. Participants seemed to draw on both an ethic of care and an ethic of justice (Gilligan, 1982) when framing their motivations for doing community engagement work. The findings enhance what is "known" about how students experience and make meaning from structured programs that encourage community engagement.*

While much attention has been paid to the development of students while in college, a recent book reported a lack of emphasis on students' inner development, and in particular, spiritual development (Astin, Astin, & Lindholm, 2010). Like Astin, Astin, and Lindholm, we believe that society's problems require people who are not only technically skilled and "book smart," but also self-aware, concerned for others, and oriented toward justice. College experiences have the potential to help students develop those "inner" traits. As feminist educators, we generally use the phrase identity development, rather than inner development, as we help college students consider life's biggest questions: Who am I? What do I value? What is my place in the world? How do I want to change the world?

Identity development happens via many avenues and experiences inside and outside of college. In this research, we explored the ways that junior and senior students at two Catholic women's colleges in the Midwestern United States understand community engagement, and we examined how these students came to know and understand their gender and spiritual identities in relation to their engagement activities. We use the term community engagement to encompass activities participants described as change agency, charity, civic engagement, service, service-learning, social justice advocacy, and volunteering. Our research was guided by two overarching questions: How do the discourses of community engagement at Catholic women's colleges shape students' understandings of their identities? How do students make meaning of their community engagement experiences within their college context?

We focus our research on community engagement because previous studies have made connections between gender, spirituality, and engagement. Existing literature has found that participation rates in community engagement are much higher among college women than among college men (Damon-Moore, 2000). Participation in engagement activities also tends to be higher among religious people than among those who identify as non-religious (Wuthnow, 1999). However, the interconnections between community engagement, spirituality, and gender have not yet been fully explored. In framing our study, we noticed a paucity of research on what participation in engagement activities means as an aspect of student identity development.

We chose to conduct our research at Catholic women's colleges because these institutions have missions that are overt in their attention to gender, spirituality and ethical commitments to communities. They are *Catholic* and *for women*. Further, Catholic women's colleges have been lauded for successfully connecting their missions to the needs of their students and communities that they serve (Knoerle & Schier, 2002). Roman Catholic institutions are places where engagement, in general, and "charitable involvement," in particular, tends to be very high (Astin, Astin, & Lindholm, 2010). One way in which Catholic colleges and universities frame their educational missions is through the tradition

of Catholic social teaching. With its attention to the dignity of all people and care for the environment, Catholic social teaching forms the basis for a particular form of ethical development. As institutions committed to educating women in the tradition of Catholic social teaching, Catholic women's colleges present a unique research context for studying community engagement. We wanted to know how students who attend such a type of institution, attentive to both identity and community engagement, made sense of their college experiences.

Our research is also situated within previous research on caring. Much has been written about caring as an ethical and moral perspective. The purpose of this paper is not to rehash arguments about orientations of care and justice, or to defend care as a (mature, feminine) way of moral reasoning. Rather, our research asks what explicit attention to the development of gender, spiritual, and caring identities means for college students. This study also seeks to introduce readers to discussions of care and justice among students participating in community engagement activities at two Catholic colleges for women.

In this paper, we first review literature related to gender, spirituality, and community engagement. We discuss literature on caring and the unique context of Catholic women's colleges, informed by commitments to gender and spiritual development. Then, we discuss the specific methods used to conduct this research. In the findings section, we consider how participants interpreted their community engagement experiences in relation to their own gender and spiritual identities. We explicitly consider how students drew on both care and justice frameworks in understanding their community engagement activities. We end the paper with a consideration of how these frameworks are complicated by discourses of gender and spirituality.

### **Ethic of Care**

In her important work on moral development, Gilligan (1982) posited that women framed and resolved moral problems through a care focus—concerned with connection, peace, and responding to need—whereas men framed and resolved moral problems through a justice focus—concerned with equality, reciprocity, and rights. These two moral orientations, care and justice, were not opposites, but simply different ways of thinking about moral problems. The care orientation attended to problems of detachment or abandonment, with the ideal solutions being attention and response to need. The justice orientation attended to problems of inequality and oppression, with the ideal solution being reciprocity and respect (Gilligan, Ward, & Taylor, 1988). Gilligan posited that women, through a care focus, envisioned moral problems as attached to their own situation, rather than as a more abstract issue of equality. The result was a different envisioning of the available responses to the moral problem, not a stunting of moral development as previously theorized.

In her scholarship on caring, Noddings (1984) agreed that a commitment to caring and to defining one's self in terms of capacity for caring is a feminine manifestation of the highest level of moral thinking. In her understanding, caring is not synonymous with care-giving, which historically has been the domain of women, but the ethic of care does have its origin in the female experience. While both men and women can be caring, women in particular approach moral problems by assuming personal responsibility for the choices to be made. Caring about others (a feeling) is a foundation for caring for others (an action of service). Noddings (1984; 2002) posited that education plays a critical role in developing students' ethic of caring.

In addition to being a gendered ethic, caring is also related to spirituality. In Astin, Astin, and Lindholm's (2010) study of spirituality, which developed ten measures of students' spiritual and religious qualities, three measures related to caring: Ethic of Caring (caring about others), Charitable Involvement (caring for others), and Ecumenical Worldview (connectedness to others and the world). Not surprising given earlier research on caring, the authors found that more women than men scored higher on all three measures. The authors concluded that personal involvement in charitable activities enhanced students' sense of caring and connectedness, two important spirituality measures. Particularly, community service experiences were a powerful means to enhancing students' spirituality. Other research has found important effects regardless of whether the experience was course-based or extracurricular (Astin & Vogelgesang, 2006).

### **Community Engagement: From Charity to Social Justice**

As noted above, community engagement encompasses a broad range of activities whereby students *engage* with *communities* outside academe. This range of activities includes change agency, charity, civic engagement, service, service-learning, social justice advocacy, and volunteering, as well as other activities. Scholars of community engagement have described paradigms of service differentiating a charity paradigm from a social change paradigm (Moely, Furco, & Reed, 2008; Morton, 1995). Generally, a charity paradigm involves offering assistance to individuals who are in need of help with immediate problems. In contrast, a social change paradigm focuses on making changes in the societal structures that lead to inequities among groups of individuals. Past research has shown that college students most often express a preference for charity rather than social change engagement (Bringle, Hatcher, & McIntosh, 2006), and that women students in particular prefer the charity paradigm (Moely, Furco, & Reed, 2008). Discussions of these paradigms often put them on a continuum, with charity at one (lower) end and social change on the other (higher) end.

Foos (2000) used Gilligan's (1982) work on women's moral development to challenge the assumption that the goal of community engagement is to move students along a continuum that has charity at one end and social change on the other. Foos argued that this sort of a continuum devalues the direct service work of women and leads to a "narrow view of what mature service should look like" (p. 74). Foos suggested that the care and justice orientations may lead women and men have differing service preferences. From Foos's perspective, charity and social justice are highly inter-related; they are both valuable paradigms of service, and neither is deficient or preferred. We believe, echoing Neururer and Rhoads (1998), that community engagement in multiple forms has the potential to help college students bridge the gap between the self and the other, between individualism and community, and between an ethic of care and an ethic of justice. Further, we take a feminist approach to our research on community engagement, paying particular attention to the ways that identities and power structures mediate the ways that students experience engagement activities in Catholic women's college contexts.

### **Feminism and Community Engagement**

A feminist perspective raises particular concerns about the ways in which engagement and identities co-exist on- and off-campus. Discussions of community engagement rarely consider the important exploration of identity that happens when students do work within a community. It is also infrequent that these discussions consider the identities of those being served. Feminism generally argues that there is a need to pay attention to the ways in which gender, power imbalances, and the possibility for social change are mutually constructed (Ropers-Huilman & Winters, 2011). It is one lens that can be used to understand the relationship between the identity of students and the identities of those "being served." This perspective calls for service to "be reenvisioned in a more equitable, mutually beneficial way for those serving as well as for those being served" (Wilson, 2008, p. 131). This reenvisioning involves questioning why and who women serve, how their service efforts contribute to social change, and how their efforts benefit the communities they serve as well as the women themselves. Wilson posited that such reenvisionings are possible through service-learning experiences in college. Similarly, Damon-Moore (2000) claimed that community service experiences in college offer students "the opportunity to take risks and to explore their identity with working with, rather than for, others" (p. 47). Both Wilson and Damon-Moore note that women's studies classrooms provide an excellent location for such re-envisionings to occur. We extend this logic to women's colleges, positing that they also could provide a location for students to participate in equitable and mutually beneficial community engagement activities that allow women to explore their own identities.

### Community Engagement at Catholic Women's Colleges

As noted above, Catholic women's colleges express their missions overtly in terms of gender and spirituality. They also are informed by Catholic social teaching and have missions that explore issues of social justice. Catholic social teaching refers to the "sum total of teachings provided by Catholic leaders—popes, bishops, and sometimes theologians—concerning social issues of the day" (Connors, 2008, p. 289). It includes a commitment to the dignity of human beings, a call to supporting the well-being of communities, an instruction to put the needs of the poor and vulnerable first, respecting the rights of workers, a commitment to non-violence, and a call to stewardship of the environment (United States Conference of Catholic Bishops, 2005). The two institutions we studied have missions committed to educating women to become "ethical, reflective and socially responsible leaders" who "engage with the world" around them.<sup>1</sup>

Yet, there are also many ways in which Catholic social teaching is complicated, especially for women who wish to have this value system inform their efforts. As Hesse-Biber and Leckenby (2003) note, social justice actions can be in direct conflict with the hierarchal structure of the Roman Catholic Church. While American Catholicism has a history of dedication to countering discrimination and an emphasis on social justice, the Catholic Church also has "a counter-tradition of misogyny and of second-class status" for women (Stetz, 2003, p. 101). The Vatican's recent doctrinal assessment of the Leadership Conference of Women Religious and subsequent actions is only one example of this (*Doctrinal Assessment*, 2012). Such contradiction and tension between Catholic social teaching, traditions, and doctrine about the roles of women in the Church add complexity to how community engagement is understood by students at Catholic women's colleges.

Most Catholic women's colleges were founded by orders of women religious, their campuses constructed in close proximity to convents so that the Sisters would be able to easily negotiate serving as college presidents and faculty members while also adhering to the strictures of cloister (Sisters of St. Joseph of Carondelet, 2001). While the number of Sisters on most of these campuses has rapidly declined since the Second Vatican Council, many Catholic women's colleges continue to express their Catholic identity in ways that align with the articulated mission of their founding orders of women religious (Morey, 2002). Since these founding orders of women are micro-cultures of complicity with and resistance to patriarchal Church structures, it is important to note that the culture

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<sup>1</sup> These quotes are taken directly from the mission statements of the two institutions we studied, but our commitment to keeping these institutions as anonymous as possible foreclosed opportunities to quote these statements at length.



of each of these unique colleges is also complex. While we have chosen two Catholic women's colleges for our study, we make no claim that the two institutions are identical or interchangeable. We proceed with an acknowledgement that our study captured but a fraction of the possible discourses in existence at either campus.

## Methods

We conducted our study at Amata College and Magda College (both pseudonyms), two Catholic women's colleges located in the Midwestern United States. Both colleges have publicly articulated mission statements that commit to social justice, service, and Catholic social teaching. Both colleges also promote their close connections to a founding order of Catholic Sisters. Magda College has common core courses in which students are introduced to stories about the founding Sisters and readings that explain Catholic social teaching and social justice. It also has an office that is responsible for coordinating community engagement opportunities for faculty and students, and runs a series of Catholic social teaching and social justice retreats and workshops through its campus ministry office. Amata College also has an office that coordinates community engagement activities and an active campus ministry office that provides community engagement connections between students and the monastic community. It requires two courses on Judeo-Christian Heritage. Both campuses make their missions clear in curricular and extra-curricular offerings for students, and aim to provide quality community engagement experiences for their students.

In order to examine how students at Amata and Magda understood their community engagement experiences, we used purposive sampling to select information-rich cases for this study (Patton, 1990). We worked with staff members in campus ministry and service-learning offices at each institution to identify students of junior or senior credit standing who had participated in long-term community engagement work. Potential participants were sent an email invitation to join the study. A total of five focus groups containing 21 students were conducted, and 19 students chose to participate in follow-up individual semi-structured interviews. Each focus group lasted one to two hours and follow up interviews lasted between 45 and 90 minutes. The interviews and focus groups were conducted by the authors, and the questions asked students to describe the community engagement activities in which they had participated, their motivations for doing community engagement work, and the ways that their own identities mediated their community service activities. Within the interviews, we sought in-depth knowledge about each participant, in line with a qualitative research design (Ragin, Nagel, & White, 2004).

Demographic information about participants is shared in Table 1. All participants are referenced by pseudonyms. About half of the participants

identified as Catholic, and another quarter had been raised Catholic but did not currently identify as such. Fourteen students identified as White American, two were international students, three were students of color, and one student identified as biracial (Latina and White). One student, Elise, identified as an out lesbian, and other students identified as heterosexual. Students represented a variety of majors, with social work and Spanish most highly represented. The sample is representative of the demographics of the two institutions, with the exceptions of social work and Spanish being overly represented.

We asked students in this study not only about their religious participation, but also about their spiritual beliefs. For some students, religion and spirituality were highly connected, but for others, they meant quite different things. We include in our study participants who identified themselves as “not religious or spiritual” and “Atheist/individualist” because we believe that these identifications also represent the values and beliefs fundamental to these students’ lives as they seek answers to life’s big questions. Our own understandings about spirituality are constantly evolving, and we attempted to make no assumptions about the students’ spiritual perspectives or lack thereof. We crafted our interview and focus group questions so that students with multiple belief systems would be able to respond meaningfully.

Participants described a range of community engagement activities, including ministering to inmates, building homes for families, preparing high school students for college, volunteering at a women’s shelter or an orphanage, providing health education to immigrants, and teaching students with disabilities how to swim. Students described projects that reflected traditional “women’s work,” things like teaching, nursing, and care-giving, but they also related experiences in leadership and policy development. While all of the projects involved service, not all were strictly volunteer experiences. Many participants indicated that they had received some fellowship or work-study money in order to complete certain projects, and others had done projects as part of a service-learning requirement for a class.

Participants articulated that those majors that required service-learning projects at both Amata and Magda were most often traditionally female-dominated majors like social work, education, and nursing. All of the social work majors participating in this research noted that their major was popularly considered “women’s work.” A social work major at Magda commented that the very few men in the profession were the ones who generally took leadership roles. And, in traditionally male-dominated majors like science and math, community engagement activities were rarely required. Mikayla, however, noted that many people at Magda did not need a service-learning requirement to participate in service; they did it voluntarily.

Table 1  
Interview Participants

	Race/Ethnicity	Religion/Spirituality	Class	Major
		Amata College students		
Ellen	White American	Catholic	Junior	Communication
Brooke	White American	Catholic	Junior	Psychology
Michelle	White American	Catholic	Senior	Spanish
Katie	White American	Raised Catholic, not religious now	Senior	Political Science
Georgia	White American	Catholic	Senior	Economics
Noelle	White American	Catholic	Senior	Psychology
Jen	White American	Not religious or spiritual	Senior	Spanish/Social Work
Alice	White American	Raised Catholic, not religious now	Senior	Social Work/Sociology
Christine	Bosnian	Christian Orthodox	Senior	Political Science/Peace Studies
Amber	White American	Raised Catholic, now more spiritual	Senior	Political Science
Marie	White American	Raised Catholic, now spirituality is guided by CST	Senior	Biology
		Magda College students		
	Mexican-American (Immigrant)	Catholic	Senior	Biology/Pre-Dentistry
Guadalupe	White American	Raised Catholic, now more spiritual than religious	Senior	Accounting
Mikayla	White American	Catholic	Senior	Social Work
Rebecca	White American	Atheist/individualist	Senior	Sociology/Women's Studies
Jules	Hmong American	Raised Catholic, does not subscribe to it now	Senior	Nursing/Public Health
Apple	Polish	Catholic, but only interested in CST	Senior	Art/Journalism
Lily	White American	Raised Lutheran, not religious now	Senior	International Relations
Elise	White American	Catholic	Senior	Social Work/American Indian Studies/English
Kateri	Native American	Catholic	Senior	Spanish/Elementary Education
Teresa	White American	Catholic	Senior	Spanish
Sally	Latina & White American	Catholic	Senior	Spanish

In conducting this research, we acknowledge our own identities and experiences as researchers. We are both white women who attended Catholic women's colleges as undergraduate students, and who subsequently worked at Catholic women's colleges. We were both raised Roman Catholic, and have grown away from the Church in our adult years. We each identify as feminist, and are committed to social justice through our research agendas. These subjectivities, along with many others, affected our research and analysis.

In the next section, we discuss how participating students described the relationship between their gender and spiritual identities relative to their community engagement activities. We find that women participants drew on both an ethic of care and an ethic of justice in their community engagement activities. Their community engagement work was influenced by the gender and spiritual identities they brought to their activities as well as the gendered and spiritual environments in which they were acting. Participants perceived that Catholic women's college environments were both complicated and supportive environments in which to learn and from which to launch community engagement efforts.

## **Findings**

### **Gender**

All participants at Amata College, and most at Magda College, made connections between their gender identities and their community engagement activities. All participants noted that the community engagement activities in which they participated were overwhelmingly populated by women, even though most of them were open to women and men at other colleges and in the community. Many articulated a particular commitment to working on women's issues and for women's rights. Several of the women noted that they felt comfortable doing community engagement activities because most of the leaders of these efforts were women.

*Why did the women participate in community engagement activities?* Four of the ten Amata students and one of the nine Magda students participating in individual interviews mentioned inborn female traits as a possible reason why they were interested in serving others. Inborn sex differences also were mentioned in focus groups at Amata and Magda. For example, Alice said that her "motherly nature" contributed to her desire to work with children. Brooke noted that "natural tendencies" caused women to provide service to others: "Women are the nurturing mothers and the caretakers and the healers—more emotional, more empathetic" than men. Michelle articulated that "women tend to be more outwardly-centered" and relational than men. Noelle agreed that women have a "natural maternal instinct to want to help others." Sally noted that men and

women look at problems in entirely different ways, and that women are more likely to be loving and caring.

In contrast, five Amata participants and three Magda participants credited socialized gender roles with encouraging them to participate in community engagement activities. Some of these women said socialized gender roles trumped inborn sex differences; others said that inborn sex differences and socialized gender roles both worked to motivate them to serve others. Ellen noted that her experiences at Amata had helped her break out of socialized gender roles by taking on leadership roles within her community engagement activities. During college, she became more confident in her capabilities as a woman, and she was inspired and motivated by the examples of her capable and confident classmates.

Several women, especially students at Magda, talked about the importance of role-modeling for younger women. These women often participated in community engagement programs which aimed to prepare young women for college. They saw their community engagement activities as a way to create social change by encouraging women from various backgrounds to aspire to higher education. Participants identifying as women of color, as first generation college students, and/or from lower socioeconomic statuses were particularly committed to being mentors for their communities. As one Magda focus group participant said:

I feel like as a woman from a woman's college, I am, like, responsible, and I should be a mentor for . . . young girls because we hear about gender inequality. . . . I was thinking that as a woman, I should show these girls that you can be whomever you want.

Generally, the participants' reasons for participating in community engagement were expressed in terms of attachment, rather than equality, consistent with an ethic of care rather than an ethic of justice (Gilligan, 1982). Participants emphasized the relational aspects of their service, the connections they felt to the communities they served, and the role modeling they did for other women. Still, even as they reaffirmed some stereotypes about women being biologically predestined or socialized to serve others, Amata and Magda students seemed empowered to be active change agents in their communities, and they were also attentive to problems of inequality and oppression, consistent with an ethic of justice (Gilligan, 1982). Many identified as feminists, and they were interested in women's rights and women's issues. They were committed to social justice for women around the world and empowered to help other women in their community by volunteering at battered women's shelters, helping young women prepare for college, and teaching refugee women about women's health. They were educated about women's positions around the world and they were aware of the freedoms that women in the United States have won throughout history. In one of the focus groups, a student shared that her experience at Magda has

“broadened the ideas of what I think needs to be changed.” In college, she became aware of how differences between men and women matter in society, and became committed to changing this.

*What role did the women-focused campus environment play in students’ community engagement experiences?* Most participants noted that their college environment had caused them to question socialized gender roles and empowered them to take on traditionally male roles, such as volunteering for Habitat for Humanity building houses or running for a leadership position on the student senate. Still, Alice noted that service was “easier for females to get involved with [than males] because I think especially in this community there is a little bit of stereotyping. And what males and females are supposed to do, their gender roles.” Participants at both schools agreed that men outside their college environment were not encouraged to provide service without an “ulterior motive” like resume building or paid compensation. They seemed to agree that men were missing out on the opportunity to serve others and to take on traditionally feminine roles, and that community engagement efforts suffered somewhat from the lack of men participants.

Brooke noted that outside of the campus environment, women were often lauded for their service but judged when they took on leadership roles. In comparison, participants noted that both Amata and Magda provided numerous opportunities for both service and leadership in the community, and that women benefited from taking on both kinds of roles. Nearly all of the participants talked about taking on leadership roles in their community engagement activities. For example, Ellen noted that there were opportunities to fill leadership roles in previously established community projects and support for women students to start their own engagement initiatives. In her words: “You’ve got some leaders’ molds to work with, and you’ve got lots of clay to work with.” Mikayla articulated that her Magda College experience had encouraged her to stand up and be a leader, rather than ceding power to men.

Women at both Amata and Magda noted that learning and working in all-women environments gave them confidence to participate in service and to take on leadership roles. A participant in a Magda focus group articulated that her women’s college experience had taught her that “It’s okay to speak up. You don’t have to put a qualifier in front of your answers.” Many of the students cited women mentors and role models within the campus community who had inspired, empowered, and supported them in their community engagement activities. As Jules said, “The people that I surround myself, the departments, the offices, the staff, my mentors: there’s social justice as a big part of these women’s lives as well, and it’s part of what they do, and what is important for them.”

In sum, participants at Amata and Magda articulated that the gender identities mediated their community engagement in multiple and complex ways.

Some said their gender biologically ordained them to serve; or that social norms about gender roles encouraged them to participate in community engagement activities. Some said that the women's college environment encouraged them to take on leadership roles within community engagement activities, whereas others pointed out that there was still stereotyping about gendered roles in their college environments. Many participants talked about the importance of role modeling for younger women, and some participants said that education about injustices toward women motivated them to work for women's rights and women's issues. Most participants credited a number of these gendered themes for encouraging them to participate in community engagement activities.

## Spirituality

Many of the participants from both Amata and Magda said that their spirituality was directly or indirectly related to their service work. While students participating in individual interviews described their spiritual identities in a variety of ways, many related their community engagement to their spirituality and said that their community engagement activities led to spiritual growth.

*How did students relate to the Catholic Church?* About half of the interview participants identified as Catholic now (10 of 19), and a majority of the participants (16 of 19) had been raised Catholic. However, participants described their relationship to the Catholic Church in varying terms, with many expressing conflicted relationships with the Catholic Church due to its prescribed gender roles and strict stance on homosexuality. A Magda student in a focus group said:

It's hard for me to look at the Catholic Church and say, "This is me" when I can't get involved . . . in the decisions that are made. . . . It's my religion, too, but I can't have any say in it. How is that fair?

In one of the focus groups at Amata College, a student talked about the importance of distinguishing "between the hierarchy of the Church, the Church as a very powerful political institution, and the Church as the Body of Christ, which are all of us and the people that do the work of Christ in the world." By differentiating in this way, this student was able to find a place for both feminism and God in her life. A Magda student said that the college sometimes struggled to achieve a similar level of compartmentalization, especially when donors or Church officials disapproved of some of the feminist social justice events planned on campus.

The Sisters seemed to serve as important role models for Amata and Magda College students. Participants described them as radicals, leaders, independent thinkers, models of community involvement, powerful and strong women, and change agents. Sisters were described both as mythical characters and as real people. Most of the students reported hearing inspiring tales about the Sisters' historical works, but they also had interactions with individual Sisters on campus.

During a Magda focus group, one student said that the campus was politically liberal because of the Sisters' leadership. The Sisters living near and working on campus served as examples of how to make change even within the constraints of the Church. Apple described the Sisters as both powerful and caring, as leaders and servers of others.

Many participants agreed that the Catholic Church's treatment of women was in direct contradiction to the messages about women promoted at their Catholic women's college. Alice noted that within Catholicism, she perceived a stereotyped view that it is a woman's responsibility to care for a home, a husband, and a family. Several of the women said that women could not become priests, the most public leadership role in the Catholic Church. This conflicted directly with the messages of Amata and Magda that "women can do anything and be anything," as stated by Alice. Amber articulated that these conflicting messages led to tension on campus between a desire to empower women and the Church's patriarchal system. Apple went so far as to say that Magda was committed to developing women leaders and therefore not really a Catholic institution. She perceived the administration and the Sisters associated with the college as practicing a very open-minded, flexible, and liberal form of Catholicism. Elise noted that there are lots of ways to be Catholic.

Several Amata students noted that they believe the best way to change the patriarchal Catholic hierarchy is from within, and they saw it as part of their spirituality to question their faith and challenge the gender roles of the Church with which they disagree. For example, Michelle thought that everything within the Catholic Church needed to be questioned, but she had chosen to do that questioning from within the Church. Ellen noted that she saw integrating Catholicism and feminism as a challenge that she felt empowered to take on. While others might see Catholicism and feminism as movements at odds with one another, Ellen noted: "They go together in my life, manifested in me. They have to work because they are working [in me]. I find that empowering." Ellen perceived that God was challenging her to be creative in how she makes change within the Catholic Church.

Students articulated that Amata and Magda promoted certain aspects of the Catholic Church more than others. At Magda, Catholic social teaching was a focus. Amata upheld certain community values coming from the religious order that founded the college, including community, hospitality, justice, stewardship, and respect for all people. At both places, students identified a culture of engagement that came from the Catholic nature of the colleges, and from the religious orders that founded them. According to Marie, this culture of engagement encouraged students to become involved in service activities, and it attracted students interested in service to these two colleges.

In the Catholic women's college environment, students' engagements with the distinct concepts of feminism and Catholic social teaching also seemed to



provide ways for them to draw on an ethic of justice in their community engagement work. Catholic Sisters provided models of social justice and change agency. Knowledge about systems of privilege and oppression prompted participants to work for social change. Support for women as leaders provided an alternative to the women as servants model.

*How did students relate their community engagement work to their spirituality?* Participants most often said that religion was more about good ethical values than about dogma. As noted above, many of the Catholic participants described struggles they had with the Catholic Church, but they were committed to the religion because it was how they could connect to God. Catholic social teaching seemed to be a key aspect of that connection to God. For example, Ellen said that God is present when she serves others. An Amata focus group participant noted that she resonates with the teachings of many religious traditions, but that Catholic social teaching serves as a “spiritual manual” for her actions. Another participant agreed that Catholic social teaching guides the “path of [her] life.” Michelle noted that Catholic social teaching “hits right at the core of how [she] understand[s] her spirituality.”

Kateri noted in her individual interview that her spirituality, influenced by both Catholicism and Native American beliefs, emphasized the connectedness of everyone. The view encourages her to serve others because what happens to them affects her. Four Amata students (Amber, Brooke, Alice, and Ellen) also said that their spirituality was about connecting to other people, in a relationship with others, and in a community. In Brooke’s words: “That’s why God made us, to be in relationship with one another.” From Brooke’s point of view, service was a way of building relationships with other people, so it was a key way in which she connected with God and her spirituality.” Ellen described her relationships with God and other people through service as a “trifecta” of mutually beneficial relationships: “It’s me, and God and these people and we’re all getting something out of it, and we’re all doing it for each other, in a way.” This emphasis on relationship is gendered and consistent with Gilligan’s (1982) ethic of care and the sense of connectedness to others and the world identified as a domain of spirituality by Astin, Astin, and Lindholm (2010).

Michelle perceived that more Amata students were “involved in social justice and engagement work for spiritual reasons than at a public university.” She articulated that she had grappled with certain aspects of her faith, but what “always remains constant is the passion for service on a spiritual level and the feeling of a spiritual motivation for service.” Michelle attempted to live Catholic social teaching in her daily life. Catholic student Brooke described a Catholic woman in this way: “We all believe in God. We all believe we should be in service to others; take care of each other; be good stewards; show respect dignity, [and] faith; pursue justice, especially social justice.” In her description of a Catholic woman, it is clear Brooke connected with Catholicism through service,

stewardship, and social justice. Brooke went on to say that she sees places in the Catholic Church where women can be leaders through service.

Marie, Noelle, Teresa, and Guadalupe noted that community engagement experiences allowed them opportunities to explore and grow in their spirituality. Teresa said that her community engagement led to her spiritual growth because she finally found something “real” that she could connect with in the Catholic Church. In her words, she finally found a way she could “be important in making it work.” Community engagement offers a role for women to play in the Catholic Church even as they are excluded from other leadership roles in the Church. Another Magda student, raised Catholic, said that serving others was more important to her spirituality than going to Church. And still another Magda student said that Catholic social teaching gives her hope for her Church, and allows her to find herself in the religion. Kateri said that her community engagement activities gave her a place to celebrate her spiritual identity. Several Magda students said that Catholicism was a support system that encourages them to connect with other people through service. In a focus group at Magda College, a student shared that although she did not agree with everything for which the Catholic Church stands, she focuses on those aspects in which she has a clear agreement:

giving back, with time money or whatever else; ... being respectful to the people that surround you, and to think about others, not just yourselves; not to be selfish; help out and volunteer; listen to the needs of others and in any way possible, try to figure out a way to help them out.

Ellen noted that Catholic social teachings were present in people’s actions and in campus values at Amata College, but that they were rarely talked about as Catholic social teachings. Georgia agreed. Instead, people on campus talked about leadership values, or the values of the founding religious order. Most participants noted that they had not learned about Catholic social teachings in their college classes, but many were familiar with the teachings from their high school experiences, their experiences with campus ministry, or their encounters with the Sisters.

Whereas some students at Amata College noted that Catholic social teaching was not always an explicit part of the curriculum, Magda students said that they did learn about social justice in their college classes. One Magda student who was not Catholic said that she first learned about Catholic social teaching at Magda, and that she’s adopted many of those ideals into her own life. Teresa said that Catholic social teaching named the things she already held as values, but that she had not learned about them before college. She felt that Catholic social teaching was a big connection point to lead people back to the Church, and that it should be featured more prominently within the Catholic Church. Another Magda student said that her sociology and women’s courses had prompted her to think about her beliefs and identities, including her gender and spiritual

identities. Magda students agreed that classes talked about expanding notions of charity and service to include social justice. Magda students also stressed that social justice was not a concept “owned” by Catholics; many other religions also stress the dignity of others.

However, not all Magda students felt that they had been afforded enough opportunities to learn, question, and grow in faith. Lily, in particular, said that many students miss out on these opportunities. She did say however, that the Sisters had changed her perspectives about who Catholic women are and what they do. She found the Sisters’ lives inspiring.

Several students at Amata also conveyed that they were called to share their gifts with others. In this way, they identified themselves as privileged individuals (as White, from families with financial resources, people with access to education, people with specific abilities) who had something to contribute to their communities. One student who was adopted had a particular sense of being placed in her current situation by God, and had a particular commitment to sharing her gifts with others.

Ellen challenged herself to never say no to a service opportunity. She saw these opportunities put before her by God, and she felt that they were her life’s path. Conversely, Georgia had decided to pull away from some of her service activities, finding herself burnt out from taking on too much. Now, she is more reflective about participating in activities that relate directly to Catholic social teaching and contribute to her own spiritual wellness. Amata participants agreed that campus ministry and other groups provide numerous opportunities to serve others.

Eight participants (four at Amata and four at Magda) identified as not religious. These women perceived that they could be good people without being religious. One participant said that the morals she grew up with were rooted in spirituality but that spirituality did not continue to affect her service. Another agreed that religion and spirituality could be motivators for people to serve others, but that it does not have to be a governing force. A third participant said that the religious values of Amata probably promote a culture of service on campus, but that spirituality was not a personal motivator for her to participate in community engagement activities. Two students—one at Amata and one at Magda—described their spiritual beliefs by saying “I believe in myself.” They believed that they held the responsibility and the credit for what they do in the world, and they defined their own passions and beliefs.

Katie, a student who was raised Catholic but did not identify as religious, planned to instill service as a value in her future children. She saw community engagement as a way of instilling a moral compass without religion. She continued to participate in a Catholic organization dedicated to feeding the hungry even though she did not believe in the spiritual elements. Although she did not agree with many of the teachings of the Catholic Church, she

acknowledged that it has given her a moral compass and that it promotes community engagement.

### **Orientations of Care and Justice**

All participants seemed to draw on an ethic of care when framing their motivations for doing community engagement work. This is not surprising given Gilligan's (1982) assertion that most women draw on an ethic of care when making moral decisions. Students articulated that relationship with God and with other people was a key part of their spirituality. In one of the focus groups at Amata College, a student noted that her gender and spiritual identity as a Catholic instilled in her a mission to help and to love. As women, many of these students perceived themselves as either naturally prone or socialized to want to serve others, and those values were supported by traditional notions of Catholic women.

In the Catholic women's college environment, students' engagements with the distinct concepts of feminism and Catholic social teaching also seemed to provide ways for them to draw on an ethic of justice in their community engagement work. Catholic Sisters provided models of social justice and change agency. Knowledge about systems of privilege and oppression prompted participants to work for social change. Support for women as leaders provided an alternative to women as servants.

Comments from Georgia assert the importance of integrating an ethic of care and an ethic of justice. Georgia perceived that Amata College promotes leadership values, but she also stressed the importance of doing direct service. In her words:

[In] hands on service, you come face to face with the people you're saying you care about. . . . Service gives you that hands-on sort of reality check of "Holy crap. I say poverty shouldn't exist and as a Catholic I believe that we should help the poor, but I really had no idea how big of an issue this was."

Georgia thought it was important that both men and women college students take part in both service and leadership experiences, in charity work and in social justice work. She saw work within both paradigms as important to her own moral development.

As posited by Gilligan (1982), care and justice focuses are simply different ways of viewing the world and neither is morally superior. We agree, and we do not view either an ethic of care or an ethic of justice as a superior motivator for community engagement work. However, we believe that participants in this study were well-served by their ability to focus on both care and justice in their community engagement efforts, and we believe that their communities were well-served by student's willingness to both serve the community directly and

connect their acts of service to a larger quest for social change. In participating in community engagement activities, participants articulated benefits for the community and personal benefits for themselves, including enhancing their leadership and professional skills, learning more about their own identities and world around them, and contributing to positive social change that made their world better and more equitable.

## **Conclusions**

It is important to realize that the perspectives of these women may not represent the average student at Amata College or Magda College. Participants were very involved in community engagement activities. Yet, there was also a sense that community engagement was quite prevalent within these Catholic women's colleges, perhaps even institutionalized. This raised a number of questions for us: How does institutionalized community engagement at Catholic women's colleges reinforce traditional notions of women as servants? How does the incorporation of service-learning requirements into traditionally female-dominated majors (like nursing, social work, and education) and the exclusion of such requirements for traditionally male-dominated majors (like math and science) reinstitutionalize the gendered nature of service and the gendered nature of particular majors? What does it mean that participants were involved so heavily in engagement activities that involved caring for children, teaching others, and serving food, traditionally female tasks? At the same time, how do mission commitments to develop women as leaders, policymakers, and social change agents complicate traditional gender roles? How does Catholic social teaching help push the dialog from charity toward social justice? How do competing discourses about Catholic women—coming from the patriarchal Catholic hierarchy, the models of Sisters working on and near Catholic women's college campuses, and the Bible—complicate notions of community engagement and social justice for college women at Catholic women's colleges? To what extent can Catholic women's colleges help women transgress the discourses that shape and restrict their work?

Like Foos (2000), we challenge the assumption that the goal of community engagement is to move students along a continuum that has "charity" at one end and "social justice" on the other. We found that many students were aware of philosophical differences between charity and social justice, but that these meanings were often blurry and dependent on individual perspectives and experiences. Many of the students in the overall study noted that our discussions were the first time that they had been asked to describe how they made meaning of their community engagement work within the broader context of their lives. Students said that they enjoyed hearing each others' stories, and that this opportunity to talk about the complexity of their lives in relation to social justice

work opened up new perspectives that allowed them to hear stories of difference. As such, we recommend that educators at all types of colleges provide opportunities for reflection and reflexive praxis that can help students make sense of their identities in relation to their community engagement experiences.

As noted above, participants seemed to draw on an ethic of care and an ethic of justice when framing their motivations for doing community engagement work. In these Catholic women's college environments, students' engagements with the distinct concepts of feminism and Catholic social teaching provided ways for them to draw on an ethic of justice in their community engagement work, while many students attributed their ethic of care to their identities as (Catholic) women. We believe that participants in this study were well-served by their ability to focus on both care and justice in their community engagement efforts, and that their communities were well-served by students' willingness to both serve the community directly and connect their acts of service to a larger quest for social change.

Participants within this study, to a large extent, saw themselves as having an integrated spiritual/gender identity. In order to make sense of disjunctures and ruptures present on campus (competing discourses about Catholic women, competing discourses about leadership and service), most of the students interviewed needed at times to compartmentalize different aspects of their identities and moral commitments, especially when they came into direct conflict with each other. This finding seems to suggest that these identities are fluid and in-process and, ultimately, context contingent. As a result, educators need to consider the role of experience as we attempt "identity development" or "inner development." The micro lens that we gave to our study illustrates that the process of meaning-making is necessarily bumpy, as it likely is for most students on most campuses.

Compartmentalization seemed to allow students within this study the ability to navigate cognitive incongruities and complex power relations. For most of the students in our study, this was a useful skill that allowed for choice, agency, and a positive self-concept. More research is needed, however, to understand how compartmentalization may limit students' abilities to develop as whole people, and may constrain their avenues for identity development.

Each of the 21 students in our study added another layer of complexity to what is "known" about how students experience and make meaning from structured programs that encourage community engagement. Our findings suggest that the interrelationships between aspects of identity and specific contexts and interpretations of community engagement experience are far from fixed. More research is needed to understand the ways that community engagement activities enhance the inner development of college students in a variety of campus contexts.

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# **The Impact of State Financial Support on the Internationalization of Public Higher Education: A Panel Data Analysis**

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*Levels of state appropriations to public higher education have not kept pace with rising enrollment and costs. Subsequently, internationalization may provide a lucrative revenue source for postsecondary institutions. This study employs an analysis of annual, state-level panel data of 50 states from 1990-2010 to address: How does state financing for higher education influence undergraduate international student enrollment at public four-year institutions? Results indicate statistically significant relationships between international undergraduate enrollment at public four-year institutions and revenue from state appropriations, tuition revenue, total revenue, nonresident tuition and fees, population between the ages of 18-24, and unemployment rates.*

State funding provides the largest source of revenue for public postsecondary institutions (Aud et al., 2012). State governments provide financial support and guidance to public colleges and universities through appropriations and funding for capital projects, student financial aid, and oftentimes through assistance in setting tuition cost (Zumeta, 2004). This financial support can assist colleges and universities achieve greater financial stability and allow for increased college access. States also benefit from their investments through a more educated workforce, a healthier and more civically engaged population, increased tax revenues, and economic stability (Baum, Ma & Payea, 2010). However, since the 1980s the proportion of state financing to higher education has declined, with levels of state appropriations not keeping step with rising college enrollment and educational costs (Rizzo, 2006; Titus, 2009). Consequently, public institutions have sought to raise revenues using a variety of alternative strategies including increased tuition and privatization (Altbach & Knight, 2007; Zumeta, 2004). As states have lessened their financial support, internationalization may also provide a lucrative alternative revenue stream for postsecondary institutions. This study employs an analysis of annual, state-level panel data to address the impact of state financial support on the internationalization efforts of public higher education.

### **Internationalization and U.S. Higher Education**

American postsecondary institutions create a host of globally focused goals and initiatives, which Scott (2006) cites as the development of an internationalization mission. The American Council on Education defines internationalization as “a strategic, coordinated process that seeks to align and integrate international policies, programs, and initiatives; and positions colleges and universities as more globally oriented and internationally connected,” (Center for Internationalization and Global Engagement, 2012, p.3). U.S. colleges and universities are fulfilling the internationalization mission by sending students abroad at record rates, recruiting international students and scholars, partnering with foreign universities to offer joint degree programs, and developing international branch campuses (Lane, 2011). Internationalization can have many benefits including improvement of institutional recognition and prestige as well as financial gain (Altbach & Knight, 2007; Douglass & Edelstein, 2009).

### **International Student Enrollment in the United States**

The enrollment of international students is a common method of internationalization in U.S. higher education. There are over 760,000 international students enrolled in U.S. colleges and universities (Institute of

International Education, 2011). In the years following 9/11, flows of international students into U.S. higher education decreased for the first time since 1971 (Lee & Rice, 2007). Yet in recent years, enrollment of international students has steadily increased with the U.S. remaining the destination for the largest number of international students worldwide (Institute of International Education, 2011; Lee & Rice, 2007). International students contribute to the knowledge economy and talent pool at the national and state level as well as help to enable cross-cultural communication and competence on college campuses (NAFSA, 2006). Attracting these students to the U.S. can also promote state and federal goals for foreign relations and economic development (Douglass & Edelstein, 2009; NAFSA, 2006).

An additional benefit of enrolling international students is financial gain as these students have become important to U.S. higher education and the economy at the national, state, and institutional level; contributing over \$21.2 billion to the U.S. economy in 2010 (Institute of International Education, 2011). Colleges and universities may strategically use the enrollment of undergraduate international students to increase revenue, particularly because nonresident tuition rates can be 2.5 times that of resident tuition (Zhang, 2007). Furthermore, 81% of undergraduate international students in the U.S. use family and personal financial resources as the primary means for funding higher education (Institute of International Education, 2011). The internationalization of higher education and enrollment of international students in a climate of decreasing state financial support for higher education provides a context for this study.

### **Study Rationale**

The purpose of this study is to understand how state funding to higher education may impact international student enrollment. Researchers have examined international student demand for U.S. higher education, but there is a dearth of research examining supply-side factors that lead to their enrollment (Altbach, 2004; Mazzarol & Soutar, 2002). Previous studies that have examined the impact of supply-side factors on nonresident students have often excluded international students from the analysis (for example Groen & White, 2004; Rizzo & Ehrenberg, 2004). With the high demand of a U.S. college education from international students, considering supply-side related factors such as state appropriations provides a broader understanding of international student enrollment based on institutions' enrollment capacity and decision-making. With decreasing proportions of state funding to higher education and increasing levels of internationalization strategies at postsecondary institutions, it is important that researchers begin to explore how these two factors may influence one another. Using annual state-level panel data from 1990-2010, this study examines factors that may lead to international student postsecondary enrollment; particularly how

undergraduate international student enrollment is affected by changes in state financing to higher education.

### **Theoretical Framework**

Resource dependency theory is the framework used to inform this study. This framework highlights the relationship between organizations and their external environment, specifically organizations' dependence on their environment for critical resources and how organizations respond to changes in external resources (Johnson, 1998; Pfeffer & Salancik, 1978). Davis and Cobb (2010) outline the three main tenets of resource dependency theory as, "(1) social context matters; (2) organizations have strategies to enhance their autonomy and pursue interests; and (3) power is important for understanding internal and external actions of organizations" (p. 23). By controlling resource allocation, external constituencies can exert power as well as pressure organizations to adopt certain policies and practices (Pfeffer & Salancik, 1978). Conversely, organizations work to gain power and control over their resources, minimizing dependence on external constituencies (Pfeffer & Salancik, 1978). Resource dependency theory posits that, "organizations deprived of critical resources will seek new resources," (Slaughter & Leslie, 1997, p. 17). Organizations may attempt to reduce their dependency through strategies including mergers, diversification, and legal or political action (Hillman, Withers, & Collins, 2009).

Higher education researchers have used resource dependency theory to illustrate the impact that state financial support has on postsecondary institutions. For example, Leslie and Slaughter (1997) used this theory to address how decreasing state appropriations and increasing state accountability measures to public higher education leads to greater centralization of power on college campuses. Titus (2006) also used resource dependency theory in an empirical study to examine the impact of postsecondary institutions' financial context on student persistence. Yet, these studies do not address the global influence that this theory may have on the fiscal environment of public higher education. The current study draws upon resource dependency theory to understand how changes in state funding may push institutions to seek out alternative forms of revenue through internationalization, specifically tuition from the enrollment of undergraduate international students.

### **Research Design**

This study utilizes resource dependency theory as well as analysis of annual, state-level panel data to address the research question: How does state financing for higher education influence undergraduate international student enrollment at public four-year institutions?

## Description of Data

This study utilizes annual state-level panel data of 50 states from 1990-2010. Unlike cross-sectional and time-series data, panel data allows for analysis of several subjects over multiple time periods (Zhang, 2010). Thus, the conceptual advantage of this technique is the ability to consider both within-unit variation and across-unit variation (Zhang, 2010). Furthermore, higher education research often uses units of analysis that include differences which are difficult to collect or measure; yet omitting these variables can bias estimates (Zhang, 2010). The panel data method is advantageous in this context as it controls for these individual observed and unobserved differences (heterogeneity). Additionally, panel data provides greater statistical efficiency and more detailed data (Zhang, 2010). The main data source for this study is the Integrated Postsecondary Education Data System (IPEDS) administered by the National Center for Education Statistics (NCES). Other data was collected from sources including the U.S. Bureau of Census' Current Population Survey (CPS), the U.S. Bureau of Labor Statistics and the Bureau of Economic Analysis.

**Table 1**  
*Dependent and Independent Variables, Data Years 1990-2010*

Variables	Sources
<i>Dependent variable</i>	
Enrollment of first-time, first-year international students at public four-year institutions	Integrated Postsecondary Education Data System (IPEDS)
<i>Independent variables</i>	
Institutional revenue from state appropriations per FTE at public four-year institutions	IPEDS
Institutional revenue from tuition per FTE at public four-year institutions	IPEDS
Total institutional revenue per FTE at public four-year institutions	IPEDS
Average non-resident tuition and fees at public four-year institutions	IPEDS
Enrollment of non-resident, non-international first-time, first-year students at public four-year institutions	IPEDS
Gross state product per capita	US Department of Commerce
Population between the ages of 18 and 24 years	U.S. Census Bureau – Current Population Survey
Unemployment rate	US Bureau of Labor Statistics

## Variables

The dependent variable is enrollment of first-time, international freshmen at public four-year institutions, which was retrieved from the Integrated Postsecondary Education Data System (IPEDS). IPEDS data classifies international students as nonresident aliens within their dataset and define nonresident aliens on their website as, “A person who is not a citizen or national

of the United States and who is in this country on a visa or temporary basis and does not have the right to remain indefinitely” (<http://nces.ed.gov/ipeds/>).

Additionally, the control variables are: public four-year institutional revenue from state appropriations per full-time equivalent enrollment (FTE) (IPEDS); public four-year institutional revenue from tuition per FTE enrollment (IPEDS); total public four-year institutional revenue per FTE enrollment (IPEDS); average non-resident tuition and fees at public four-year institutions (IPEDS); enrollment of first-time non-resident, non-international freshmen at public four-year institutions (IPEDS); state population between the ages of 18-24 years (U.S. Bureau of Census); gross state product per capita (U.S. Department of Commerce); and state unemployment rates (U.S. Bureau of Labor Statistics). Table 2 provides descriptive statistics on each of the variables used in this study.

**Table 2**  
*Descriptive Statistics for All Variables Used in the Study, Data Years 1990-2010*

Variables	Observations	Mean	SD	Range
<i>Dependent variable</i>				
Enrollment of first-time, first-year international students at public four-year institutions	1050	293	369	3-2,387
<i>Independent variables</i>				
Institutional revenue from state appropriations per FTE at public four-year institutions	1050	\$6,897	\$2,303	\$2,259-\$19,667
Institutional revenue from tuition per FTE at public four-year institutions	1050	\$4,607	\$2,211	\$1,266-\$16,570
Total revenue per FTE at public four-year institutions	1050	\$24,644	\$8802	\$9,031-\$56,798
Average non-resident tuition and fees at public four-year institutions	1050	\$9,379	\$4,039	\$2,602-\$22,503
Enrollment of non-resident, non-international first-time, first-year students at public four-year institutions	744	2,595	1,697	98-9,737
Gross state product per capita	1050	\$34,943	\$9,213	\$17,392-\$65,476
Population between the ages of 18 and 24 years	1050	550,084	612,930	41,735-3,930,313
Unemployment rate	1050	5.43%	1.78%	2.3%-13.7%

Full-time equivalent enrollment (FTE) was calculated by adding one-third of the number of part-time students (undergraduate and graduate) to the number of full-time students (undergraduate and graduate). Next, the total revenue, revenue from state appropriations, and tuition revenue were each divided by the calculated FTE enrollment in order to generate the variables: public four-year institutional revenue from state appropriations per FTE, public four-year institutional revenue from tuition per FTE, and total public four-year institutional revenue per FTE. Additionally, IPEDS collects data on the state of residence of first-time, first-year students in even-numbered years before 2000 and every year

since then. Thus, data on the control variable, enrollment of first-time non-resident, non-international freshmen at public four-year institutions, was not available in 1991, 1993, 1995, 1997, and 1999.

Resource dependency theory as a theoretical framework suggests that international student enrollment may act as an alternative revenue stream in times of decreasing state support. Therefore, public four-year institutional revenue from state appropriations per FTE is included as a control variable. Institutional revenue from tuition per FTE is included as an additional control variable. This analysis assumes that tuition is not fully demand driven in public postsecondary institutions due to state subsidization and thus public institutions do not necessarily change tuition cost due to increasing/decreasing international student enrollment. The literature highlights the importance of tuition cost as international students often personally pay that expense (Institute of International Education, 2011), which informs the use of average non-resident tuition and fees at public four-year institutions as a control variable. Additionally, the control variables state populations between the ages of 18-24, gross state product per capita, and state unemployment act as exogenous variables, each having been cited in higher education research as having an impact of the level of state financing for postsecondary education (Layzell & Lyddon, 1990; Rizzo, 2006; Titus, 2009).

## **Description of Quantitative Method**

This study utilizes a two-way fixed effects model. This model was selected based on both judgment and statistical tests. Through the use of individual states as the unit of analysis, it was expected that unobservable factors within the states would bias the variables, which is a characteristic consistent with the fixed-effects model. Furthermore, because this study uses time-variant variables on a sample of units, a fixed effects method would typically be most appropriate. To verify these judgments, a Hausman specification test was implemented to determine whether a fixed effects or random effects model should be used. The results of this test indicated a p-value of 0.0000, rejecting the null hypothesis that the random effects model is preferred; therefore, a fixed effects model was selected.

Because the fixed effects model utilizes ordinary least squares regression (OLS), several statistical tests were conducted next in order to determine whether the assumptions of OLS regression were met. The assumption that the variance of the error term is constant across all combinations of independent variables (homoscedasticity) was tested using a modified-Wald test. This test resulted in a p-value of 0.0000, indicating that there is fluctuation in the variance of error terms (groupwise heteroskedasticity) and that the assumption was violated. A second assumption of this model is that there are no systematic patterns to the

errors (serial autocorrelation). A Woolridge test was conducted to test this assumption, which resulted in a p-value of 0.0000 and a rejection of the null hypothesis that no serial autocorrelation is present. Next, a Pasaran cross-sectional dependence test was conducted to determine whether the fixed-effects assumption that error is uncorrelated between groups has been met. This test resulted in a p-value of 0.0000, rejecting the null hypothesis that this assumption has been met and indicating the presence of cross-sectional dependence (also called spatial correlation or contemporaneous correlation). The presence of heteroskedasticity, serial autocorrelation, and spatial correlation were corrected through the use of two statistical techniques, Prais-Winsten regression (P-W) with panel-corrected standard errors (PCSE). PCSE are used to correct the heteroskedasticity violations as well as the contemporaneous correlation. By incorporating P-W regression, serial autocorrelation could be corrected without the loss of many time periods.

Finally, a two-way fixed effects model was used in order to include time-fixed effects or time dummies in the model. A two-way fixed effects model suggests that there are unobserved time specific factors that affect all individuals (e.g. states) in the same period (Zhang, 2010). In order to determine the appropriateness of this model, Stata was used to run the *testparm* command, a joint test to determine if the dummies for all years were equal to zero. This test resulted in a p-value of 0.0000, indicating that the inclusion of time-fixed effects is appropriate.

The structural model for this study is estimated as follows:

$$Y_{it} = \beta_0 + \beta_1 X_{it} + \beta_2 X_{it} + \beta_3 X_{it} + \beta_4 X_{it} + \beta_5 X_{it} + \beta_6 X_{it} + \beta_7 X_{it} + \beta_8 X_{it} + \mu_i + \lambda_t + \varepsilon_{it}$$

Where  $Y_{it}$  is the dependent variable (enrollment of first-time, international freshmen at public four-year institutions);  $\beta_0$  is the intercept coefficient;  $\beta_1$  is the coefficient for institutional revenue from state appropriations per FTE;  $\beta_2$  is the coefficient for institutional revenue from tuition per FTE;  $\beta_3$  is the coefficient for total institutional revenue per FTE;  $\beta_4$  is the coefficient for average non-resident tuition and fees;  $\beta_5$  is the coefficient for enrollment of first-time non-resident, non-international freshmen;  $\beta_6$  is the coefficient for state population between the ages of 18-24 years;  $\beta_7$  is the coefficient of gross state product per capita;  $\beta_8$  is the coefficient for state unemployment rates;  $X_{it}$  represents each of the control variables;  $i$  and  $t$  are indices for individual states and time;  $\mu_i$  are the unobservable characteristics;  $\lambda_t$  is the time-specific fixed-effect; and  $\varepsilon_{it}$  is the error term.



### Limitations of the Study

This study is limited by the amount of publicly available data in the datasets. For example, prior to 2000 the NCES-sponsored Integrated Postsecondary Education Data System (IPEDS) only collected undergraduates' state of residence in even years. Thus data on the control variable, enrollment of first-time non-resident, non-international freshmen, is incomplete. To account for this missing data, the analysis was only run on years with complete data. Therefore, the analysis uses a total of 744 observations, rather than 1,050 observations. Furthermore, the lack of extensive longitudinal data on other factors relevant to this study presents a limitation. For example, some states have restrictions on the percentage of international undergraduate students that can be enrolled at public postsecondary institutions (Douglass & Edelstein, 2009). Yet, complete longitudinal data on state and/or institutional policies restricting enrollment of international students is not available across all states. Including the existence of these policies as a control variable may have provided a richer analysis of the data; however, because of the high level missing data on these policies, it was not included as a variable.

This study is limited by its scope of providing a state-level analysis of international undergraduate student enrollment. IPEDS data is reported at the institutional level and to conduct this analysis the data has been aggregated to the state level. This creates the potential for loss of within-institution variation regarding state financial support and thus care must be taken in interpretation of the findings. Additionally, this analysis does not take into account the impact of institutional-level and student-level variables, such as student quality and institutional selectivity. It is important to note that these institutional- and/or student-level variables may also impact international student enrollment. However, the bias of these omitted variables is reduced through use of the panel data model, which controls for observed and unobserved differences (heterogeneity).

### Results

The results of the two-way fixed effects analyses using Prais-Winsten regression with panel corrected standard errors are provided in Table 3. This regression technique provided an  $R^2$  of .952 and a Prob > F= 0.00, illustrating that the results used to explain international undergraduate student enrollment are robust. Six variables are statistically significant in this model: institutional revenue from state appropriations per FTE ( $\beta = -.219$ ,  $p < .05$ ); institutional revenue from tuition per FTE ( $\beta = -.203$ ,  $p < .05$ ); total institutional revenue per FTE ( $\beta = .235$ ,  $p < .05$ ); average non-resident tuition and fees at public four-year institutions ( $\beta = -.772$ ,  $p < .000$ ); population between the ages of 18 and 24 years

( $\beta = .977$ ,  $p < .000$ ); and unemployment rate ( $\beta = -.201$ ,  $p < .000$ ). These results reflect each variable being log-transformed before the analysis was conducted.

**Table 3**  
*Fixed-Effects Model with Prais-Winsten Regression and Panel Corrected Standard Errors*

Variables	Coefficient	P value	Panel-Corrected Standard Error
Log revenue from state appropriations per FTE	-.219	.023*	.096
Log revenue from tuition per FTE	-.203	.025*	.091
Log total revenue per FTE	.235	.019*	.100
Log non-resident tuition and fees	-.772	.000***	.280
Log enrollment of non-resident, non-international first-time, first-year students	.026	.306	.025
Log gross state product per capita	-.772	.053	.145
Log population between the ages of 18 and 24 years	.997	.000***	.025
Log unemployment rate	-.301	.000***	.082
R-squared = .952			
Prob > F= 0.00			
* $p < 0.05$ , ** $p < 0.01$ , *** $p < 0.001$			

This analysis illustrates that enrollment of undergraduate international students at public four-year institutions has a significant negative relationship with institutional revenue from state appropriations and institutional revenue from tuition. Every 10% increase in state appropriations per FTE corresponds with a 2.2% decrease in international student enrollment and a 10% increase in tuition revenue per FTE is associated with a 2% decrease in international undergraduate student enrollment. Conversely, the relationship between total institutional revenue and international undergraduate student enrollment is positive. A 10% increase in total revenue per FTE is associated with a 2.4% increase in international undergraduate student enrollment. Average non-resident tuition and fees has a significant negative relationship with international undergraduate student enrollment. A 10% decrease in non-resident tuition and fees is associated with a 7.7% decrease in international undergraduate student enrollment. The relationship between international undergraduate student enrollment is positively associated with the state population between the ages of 18 and 24, with a 10% increase in the population of 18 to 24 year olds associated with a 9.8% increase in international undergraduate student enrollment. International student enrollment has a significant negative relationship with state unemployment rates. A 10% increase in unemployment is associated with a 2% decrease in international undergraduate student enrollment.

## Conclusions

In this study, state-level panel data was used to examine how international undergraduate student enrollment at public four-year institutions is affected by state funding. Using resource dependency theory as a guide, several conclusions can be drawn from this research. The results of this research suggest that lower levels of state appropriations are associated with higher enrollment of international students. This negative relationship between international student enrollment and state appropriations aligns with the concept of resource dependency theory, which highlights that as external constituencies (e.g. state government) constrain resources, organizations (e.g. colleges and universities) will seek out alternative resources (Pfeffer & Salancik, 1978; Slaughter & Leslie, 1997). In this case, the alternative resource would be tuition revenue gained from increased international student enrollment. These results are also in alignment with the literature on internationalization in higher education, which suggests that colleges and universities may enroll international undergraduates as a source of revenue (Douglass & Edelstein, 2009; Institute of International Education, 2011).

The results highlighting the inverse relationship between international student enrollment and tuition revenue parallels that between international student enrollment and state appropriations. As overall tuition revenue decreases, enrollment of international students increases, which may help to fill the tuition revenue gap. Like with the previous results on the relationship between international student enrollment and state appropriations, these results suggest that colleges and universities may enroll international undergraduates in part as a source of revenue (Douglass & Edelstein, 2009; Institute of International Education, 2011). Conversely, the results indicate a positive relationship between total institutional revenue and international student enrollment. This finding suggests that international student enrollment is not only a means for increasing tuition revenue or mitigating decreases in state financial support. Instead international student enrollment may also be driven by other reasons, which the literature states can be the desire to increase institutional quality or pursue an internationalization mission (Altbach & Knight, 2007; Douglass & Edelstein, 2009).

The negative relationship between non-resident tuition and fees and the enrollment of international students is not surprising given the number of choices that international undergraduate students have for higher education in the United States and even worldwide as well as the fact that most of these students are paying tuition themselves or through the help of family (Institute of International Education, 2011; Lee & Rice, 2007). Thus, as the tuition becomes higher than international students are willing to pay, they are likely going to select another institution and that institution may not be in the same state or even the same

country. Yet, it is also possible that the international student response to changes in tuition and fees differ by type of institution and institutional selectivity (Zhang, 2007), a factor that was not accounted for in this study.

### **Implications for Research**

Researchers should consider a number of additional variables that would provide a deeper understanding of states' impact on international student enrollment and/or internationalization in higher education. Some of these variables include policies on restrictions of the percentage of international undergraduate students that can be enrolled at public postsecondary institutions as well as political and historical factors among states, which may also affect universities' enrollment decisions regarding international students (Douglass & Edelstein, 2009). Including these variables may require researchers to collect primary data, as some of these variables are not currently available longitudinally in traditional datasets.

A second implication stemming from this study would be for researchers to conduct an institutional-level panel data analysis on international student enrollment. This state-level analysis does not take into account the impact of institutional-level and student-level variables, such as student quality and institutional selectivity. Institutions often enroll international students to improve their reputation and the level of international student enrollment is generally higher at more highly selective institutions (Altbach & Knight, 2007). An analysis at the institutional level would provide a means of incorporating these variables in order to examine the factors that influence the enrollment of international students beyond tuition revenue.

Third, future research should continue to address issues of internationalization in higher education. This study creates a number of additional questions that can be addressed in future research: As state governments find postsecondary institutions enrolling higher numbers of international students, do they choose to lessen state financial support? To what extent does the revenue gained by international enrolling international students exceed the costs of their recruitment and retention? Do institutions become more sophisticated in analyzing the benefits and costs of alternative revenue streams as they become less dependent on state resources? To what extent do non-financial factors drive international student enrollment (e.g. desire to increase institutional quality or pursue an internationalization mission)? The panel data method provides researchers the opportunity to explore internationalization topics in higher education both across units and time periods. Potential research topics to consider include examining other benefits states and/or institutions gain from enrolling more international students outside of added fiscal revenue; the role of international students in STEM degree production; the impact of state funding on

the enrollment of international students at community colleges; outcomes of state and institutional financial support for international students at the graduate and/or undergraduate level; and the impact of international student visa policies on educational outcomes and economic development.

### **Implications for Policy**

The results of this study provide a variety of implications for state policymakers regarding the internationalization of higher education and international student enrollment. State governments often develop higher education policy that prioritizes the needs of their state residents (Douglass & Edelstein, 2009). Yet, states continue to expect postsecondary institutions to find alternative sources of revenue outside of appropriations (Rizzo, 2006). With decreases in state appropriations coinciding with increases in international student enrollment, states should support the revenue-building opportunity of international student enrollment through policy. More than 22 states have resolutions stating that international students are an important source of cultural exchange, yet most of these resolutions are not backed by formal policy (Douglass & Edelstein, 2009). Douglass and Edelstein (2009) suggest that states view public colleges and universities as global assets, with states creating policies that support institutions in “actively recruiting, enrolling, and supporting international students,” (p. 17).

Policymakers should develop state strategies for increasing international engagement and visibility among public postsecondary institutions. Although state governments may not be able to allocate large resources across their entire state system of higher education, specific colleges and universities can targeted to amplify their internationalization missions and market for international students. Strategies for increasing international student enrollment can also be linked to wider state goals such as improved international relations and economic development (Douglass & Edelstein, 2009). Although the concept of internationalization is often a lesser priority in times of economic crisis, it is important for state governments realize that supporting the internationalization of higher education can provide benefits to their economy and the financial well being of their postsecondary institutions.

This study illustrates that increased non-resident tuition and fees can weaken levels of international student enrollment. Therefore, in order for states to compete for these students who have a variety of options of college enrollment both in the U.S. and worldwide, it will be important for governments and institutions to provide financial support for undergraduate international students. This can include grants, but also loans or subsidized part-time work programs. Financial support can be provided at targeted institutions and/or in targeted academic programs, such as STEM where there is typically an international

student pipeline. This may lessen the tuition revenue from these students in the short run; however, in the long run these strategies can increase international student enrollment, which can then more significantly contribute to tuition revenue.

Another strategy is for policymakers to pay greater attention to the price elasticity of international students at public colleges and universities in setting non-resident tuition price in order to avoid deterring international students due to cost. In order to continue to generate revenue, tuition should be set at a rate that is both competitive internationally and still higher than the real costs of the degree program for domestic students. Additionally, because authority for setting tuition prices is not uniform across all states, I recommend that states consider adopting a governance structure of statewide governing boards that have tuition setting responsibility for all sectors of higher education. This can allow states to set tuition policies that align with the development of a collective state strategy for internationalization and international student enrollment.

Lastly, it is important for state policymakers to realize that they do not have to support international students at the expense of state residents. State policy can focus on increasing enrollment and/or degree production rates in both domestic and international populations. There are a variety of states and institutions that restrict the enrollment of international students through maximum enrollment percentage policies (Douglass & Edelstein, 2009). These policies weaken the ability to create strategies that support internationalization as well as restrict institutions from reaping the financial and other benefits of enrolling international students. Instead, policymakers should develop a strategic approach that meets the access needs of growing state populations as well as includes capacity for growing the number of international students (Douglass & Edelstein, 2009). This will create a means of supporting the internationalization of higher education and provide institutions with the ability to generate revenue in a time of decreasing state financial support.

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