Full Length Research Paper

The Gender Shift in Enrollment Patterns in Higher Education: A Case Study of a School Administration Program

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Recent trends in higher education suggest that there are more women than men enrolled and that more degrees are being conferred to women across all levels at the associate, bachelor's, master's, and the doctorate levels (Hussar &Bailey, 2011; Wang & Parker, 2011). I offer theoretical perspectives about the rapid growing female enrollment in higher education, arguing that it is a major force in shifting college student demographics. The conclusions are based on an investigation of student enrollment patterns in a school administration program at a large comprehensive university in southeastern United States from 2000 through 2011. The results revealed that in this program, females outnumbered males by 2:1. Chi-square tests revealed statistically significant gender differences in enrollment patterns across age, semester, academic year, type of program, and type of campus. A further test using logistic regression analysis confirmed these findings. These results mirrored national trends where females now outnumbered males in higher education.

Keywords: gender*,* enrollment, higher education, school administration

Introduction

Researchers in several studies and reports documented a gender shift in enrollment patterns in higher education. Jacobs (1996) and Hepburn and Simon (2006) noted a growing trend in the United States as women outnumbered males in higher education. In fact, women surpassed males in degrees conferred as early as 1982. Sax (2008) noted that, "a rapidly growing female enrollment depicts gender as a major force in shifting college student demographics" (p. 15). Women, more than men, are seeing the value and benefits of a college education by experiencing personal and intellectual growth (Wang & Parker, 2011). In a recent study by Hussar and Bailey (2011) titled *Projections of Education Statistics to 2019,* the authors showed that enrollment in postsecondary degree-granting institutions increased by 34% from fall 1994 through fall 2008. Enrollment increases were projected to rise from fall 2008 through fall 2019 by 17%. In the same report, data indicated that since 1994 there were more women than men enrolled in higher education and that more degrees were conferred to women across all levels at the associate, bachelor's, master's, and doctorate levels. However, the authors reported that women continued to pursue traditionally gendered majors and careers such as education, nursing and other health professions while men enrolled in engineering, computer science, and business, but with almost

gender parity in the fields of law and medicine (Hepburn & Simon, 2006; Sax, 2008).

The increasing gender shift in the college enrollment of women is a welcome development for which women's movements and affirmative action groups have been clamoring (Austin & Leland, 1991). However, women are still underrepresented in executive positions in community colleges, four-year colleges, and doctorate granting institutions. The underrepresentation of women in leadership positions also permeates K-12 education. Females are the majority in the teaching positions in K-12 education according to the National Center for Education Statistics [NCES] (2009). Hepburn and Simon (2006) noted that women have dominated enrollment in Education degrees across all levels. Additionally, in K-12 education, 75% of the teaching force is comprised by women (Shakeshaft, 2006). However, when it comes to career development of women into the principalship, authors of independent studies confirmed that female principals are concentrated at the elementary level, with the numbers decreasing at the middle and high schools levels. Studies conducted in Texas revealed that female principals were the majority at the elementary level (73.5%), decreased at the middle school (41.3%), and further decreased (29.8%) at the high school level (Roser, Brown, & Kelsey, 2009). Mcgee

(2010), in a recent study in Florida, reported a similar pattern of distribution where women were the majority at the elementary level and the minority at the secondary level. Earlier studies also corroborated the underrepresentation of women in the principalship at the high school (Wexler Eckman, 2004; Wrushen & Sherman, 2008). The underrepresentation of women extended to the superintendency, where female leadership was disregarded or devalued (Dana & Bourisaw, 2006). This may suggest that the leadership competencies of women are questioned and that, therefore, women are not seriously considered as bona fide leaders. The tendency is to explain successful leadership according to gendered expectations where the benchmark for success is framed from masculine perspectives that focus on decisiveness, risk-taking, and aggressiveness (Dana & Bourisaw. 2006). Based on this bias, hiring males to lead schools is regarded as effective and normal (Witmer, 2006).

I have made efforts to theorize why women are outnumbering men in higher education. I am aware of flaws in theorizing because of the possible inadequacy of the theories to explain the emerging phenomenon. The changing enrollment trends in higher education, where women outnumber males, can be explained by two theoretical perspectives, ethnomethodological approaches and poststructuralist discourses (Kelan, 2010). Scholars of ethnomethodological approaches view gender as a social construct enacted in a given situation, or something achieved through social interaction, but the behavior must conform to certain norms or else is questioned by others when it appears abnormal. "Ethnomethodology assumes the omnipresent relevance of gender, and one way of undoing gender is when it loses its importance in social interactions' (Kelan, p. 189). In other words, when using ethnomethodological approaches, gender can be undone by referring to it or ignoring it. Poststructuralism assumes multiple forms or pluralism of femininity and masculinity, thereby challenging the universalized gender binary of male/female. This multiplicity of gender enacts new forms of identity, deviating from accepted gender norms. Poststructuralist thought upsets or destabilizes the status quo by embracing new expressions and practices of gender. What is common between these two perspectives is that gender can be done or undone, performed or not performed hence references to the un/doing of gender (Kelan, 2010).

Poststructuralism, as expressed in Foucauldian thought, may also explain the gender shift. Paras (2006) stated "Choice, freedom, reflection, experience, agency: these were the undisguised hallmarks of Foucault's last philosophical interventions" (p. 147). The proposition that power dominates people, but knowledge—that is—the truth—sets people free" (Danaher, Schrirato & Webb, 2000, p. 63) may explain why women participate in higher education en masse. Danaher et al. (2000) argued that "Power can flow very quickly from one point or area to another, depending on changing alliances and circumstances" (p. 71). Through experience, reflection and agency, women are now exercising collective transformation to improve their lives. Modernization driven by economics, politics and technology

could have been catalytic in shaping new ways of thinking among women.

Literature Review

An attempt to understand the new gender shift in enrollment patterns requires a definition of gender. Gender is expressed, performed, and observed, and therefore, is a fluid concept (Doan, 2010; Good & Sanchez, 2010). It represents the attributes and roles given to maleness or femaleness in society. These attributes vary across cultures (Peterson & Runyan, 2010). On the other hand, sex is biologically given, expressing the genitalia function/anatomical difference, while gender is a social construct which is differentiated based on race, culture, and ethnicity. Gender is also expressed in a spectrum of public and private spaces (Doan, 2010). It is a social construct that runs on a continuum because an individual can feel more masculine or feminine depending on the space and context (Good & Sanchez, 2010). In other words, males can behave like females or vice versa depending on the space and/or context. For example, female executives may engage in "double conformity" where they have to dress in dark suits like male executives and also may be aggressive to prove that they can lead. Males and females can choose to lift these restrictions imposed upon their gender by challenging the engrained societal stereotypes.

Arguably there must be a new order of social reality that potentially attacks and threatens the traditional taxonomy of gender power and roles of masculinity and femininity (Gardner, 2010). Male supremacy and hegemony is cherished and idealized (Bourdieu, 2001). Traditional understandings of gender roles relegate women to being wives and pleasing their husbands, being mothers, and serving the function of reproduction through child bearing and rearing; while men do the hard work and provide for their families (Becker & Wagner, 2009; Bourdieu, 2001; Krais, 1993). Under the traditional dichotomy of gender power, women are the recipients of benevolent sexism from men (Becker & Wegner, 2009). Women do the work that is not quantifiable and not paid because "most of the reproductive labor of women is not seen as labor" (Krais, p.163). For example, carrying a pregnancy to full term is not seen as amounting to any form of "work." The taxonomy suggests that gender inequality precipitates a redefinition of quantifiable work by women in order to participate in the job market.

This prompts the question: how have women challenged the stereotypes about gender and reached a point where they outnumber men in higher education and go into traditionally male dominated fields? This question is based on the claim by (Danaher et al. 2000) who argued that understandings of ourselves and our lives are always filtered through the ideas, discourses and institutions that constitute society. Following this logic, women have come to a collective understanding of their isomorphic experiences as the marginalized and disadvantaged in society, regardless of race and background. They have learned to perform gender, and challenge the status quo in order to satisfy their aspirations, despite the close surveillance of

society's watchful eye. Women have learned to "unlearn the gendered self" (Flannery, 2000, p. 251).

The exercise of gender impacts several aspects of life for several reasons. Gender is the basis for inequality between men and women (Peterson & Runyan, 2010), and carries a perceived importance in society as Krais (1993) stated,

> One of the most powerful and ubiquitous systems of classification in social practice—even in complex societies—is the taxonomy of male/female, and it is this taxonomy through which the division of labor between the genders is assessed, perceived, defined, and structured." (p. 159)

Applying the hallmarks of Foucauldian thought of choice, freedom, reflection, experience, and agency (Paras, 2006), the first choice women have is the exercise of gender. It is important to note that gender conformity and non-conformity have negative effects in society (Good & Sanchez, 2010).

Diffusion of Power and Gender Roles

Having defined gender as a social construct, its exercise is closely tied to power. Gender cannot be discussed without reference to power because the exercise of "power is inscribed in the rituals and practices of gender yet it is both more or less than gender" (Radtke & Stam, 1994, p. 1), and is a product of gender relations. Power is the capacity or potential to influence and manipulate the behavior of people so that people do things that they would not otherwise do. Power is also described as "the capacity to have an impact or produce an effect" (Lips, 1994, p. 90). The exercise of power is based on motives or to get what one wants. Power can be classified into three categories: "stick (threat power), the carrot (economic power), and the hug (integrative power)" (Radtke & Stam, 1994, p. 3). This characterization of power conjures images of the destructive force of power, reciprocal exchanges, and the ability to create relationships with the powerful influence of gender controlling the process.

The traditional conceptualization of power is centered on patriarchal values wherein women played a subordinate role in gender relations. Economic power has been traditionally enjoyed by men and women stay at home to raise families or when they join the work force and are relegated to fields that pay less money while men enjoy employment in the more productive sectors (Henig & Henig, 2004). Traditional relationships have been structured in ways which primarily satisfy the desires of men (Bourdieu, 2001). Under traditional power relationships, the appropriate behavior is for women to respect and to follow religiously the social norms of respecting male domination.

Lips (1994) argued that at a very early stage in life, girls were encouraged to develop roots, i.e., were offered fewer chances at mastering the environment while boys were encouraged to develop wings, giving boys a chance at mastery of the environment. Lips (1994) refuted this cultural conditioning because once girls and women go against the traditional

socialization that is based on sex stereotypes they "are at risk, first as targets of a 'wisdom' that clips their wings, and then, eventually, as recipients of a strong message that a powerless stance works best for them in many situations" (p. 89). When women behave outside this socially established order, it is usually resisted by males and viewed as troublesome and socially unacceptable because it destabilizes the traditional gender power relations. The traditional perspective is myopic and oppressive in its conceptualization because it ignores the fact that women, just like men, are free human beings who also have aspirations, choices, and goals (Witmer, 2006).

The perpetual subordination of women is an oppressive and destructive force that can lead to revolution or revelation. Women have since embraced the freedom, value and benefits offered by a college education (Kochhar, 2012). Through education, women are refusing to have their wings clipped, and metaphorically speaking, they want to fly like other birds (males). Marginalized and oppressed people at some point seek freedom (Freire, 2005) and some women may seek freedom from male domination in aspects of their lives (Bourdieu, 2001).

The Changing Cultural Economy

Another factor that might contribute to why more women than men are enrolling in higher education is a shift in the cultural economy. Lash (1993) cited Bourdieu's cultural-economic model as assuming the notion of a cultural market or economy where there is an exchange of symbolic gifts in the practice of culture. The symbolic capital and dependence, institutionalized in marriage, was once powerful, but is slowly diminishing as both men and women realize that they can still acquire this symbolism outside of marriage (Bourdieu, 2001). Women now realize that they can acquire the social and symbolic capital through education because of the perceived value and benefits a college education purchases. For instance, the recession of 2007-2009 might have triggered more women to enroll in higher education for skills acquisition as Kochhar (2012) in a study indicated that more women than men were negatively impacted by the recession.

Arguably, the evolution in the cultural market implies a new kind of buyer and consumer. The new buyers are industries that are demanding the goods and services that require educated and skilled workers. In order to participate and compete in these new markets, women look at other role models and engage in collective action—an armoring process acquired through higher education. Culture and economics are dynamic, and, therefore, the cultural-economic model requires new ways of thinking that may be responsible for changes in women's ways of thinking and knowing. More economic power usually brings more autonomy. As women participate in markets, they gain more autonomy and free themselves from the shackles of "gender and symbolic violence" (Krais, p. 156) engrained in society. Krais further argued that domination has many faces that include "physical violence, coercion, structural violence as operated by the power of economic forces and social institutions, and symbolic violence" (p. 168).

The exercise of gender and power dictates the division of labor. Bourdieu (2001) argued that gender and power are fundamentally symbolic. He pointed to gender differentiation and the role of the mental representation of the division of labor. The question is, can the symbolic markers be re-assigned to the opposite genders, and if so, can there be a symbolic reconstruction of the division of labor? With the rise of industrialization in the 18th century and the world wars, women worked in factories, and thereby expanded their roles and assumed roles that were previously the turf of men. Times have changed and new dictates about gender, power, and culture have been created. For example, the rising phenomenon of the stay-at-home dad, initially frowned upon, is increasing and becoming acceptable in American society (Gardner, 2010).

As women address male domination in society, they upset the status quo and challenge the balance of power that has been in favor of men. Participating in and responding to the new markets requires an exchange of gender roles where men take care of the family while women pursue careers or education. This requires attitudinal shifts and collaboration on both sides, on the part of men as well as women. Furthermore, institutions such as the workplace are embracing women's experiences, perspectives, and leadership styles. For example, Fortune 500 companies now benefit from a value added component by bringing women in the boardroom because women broaden perspectives and discussion about stakeholders, bring a more collaborative approach to leadership and pursue answers to difficult questions than men do (Konrad & Kramer, 2006).

Influence of the Feminist Movement

Feminist movements in the United States alerted women about the need to voice their experiences in the public discourse. Work by Astin and Leland (1991) revered the work of women predecessors, articulated women's experiences, evaluated the progress made, and reminded women of the work that still needed to be done. For instance, policies that promote gender equity in colleges such as Title IX are attributed to the feminist movement (Austin & Leland, 1991). Today, women participate in higher education partly because of this landmark legislation in the women's movement. Work by Belenky, Clinchy, Goldberger and Tarule (1986) in their book *Women's Ways of Knowing*, celebrated the collective efforts of women. They recognized and touted women's ways of knowing and contributed knowledge about strategies women could use to advance themselves in society. They interviewed American women from all walks of life and postulated that when women acquire subjective knowledge they seek "quest for self, or at least protection of space for growth of self…To learn to speak in a unique and authentic voice, women must 'jump outside' the frames and systems authorities provide and create their own frame" (p 131). Tisdell (2000) claimed that such feminist education seeks transformation and freedom from a traditional educational system that offers gender privilege and opportunities to men. Tisdell acknowledged the work of Belenky et al. (1986) as a major contribution about how women (a) constructed knowledge,

(b) shifted their identities as individuals, (c) shared authority between teacher and leaners, and (d) developed voice, i.e., how they described themselves to themselves. Corroborating the work of Belenky et al. Boaler and Irving (2006) suggested women acquired knowledge characterized as *connected knowing* that reflects "intuition, creativity, hypothesizing and induction" (p. 213). This connected knowing progressively moves from uncritical to critical, thereby challenging gender norms.

Traditionally, women have anchored their identity and success through their husbands and families (Gardner, 2010). Today that kind of tradition is waning for several reasons. First of all, the configuration of the traditional family of the father being the breadwinner and mother being the caregiver has changed. Women now assume roles that were once the preserve for men and in some cases are earning more money than their husbands. With education, women have gained autonomy where they can compete as free agents in the economy because they now have bona fide expertise and knowledge. The women's movement has managed to garner and mobilize women to reject benevolent sexism, where women are the recipients of patronizing patriarchal favors.

Evolution of Women's Identities

Another theory that can explain the collective efforts to change traditional patterns is the evolution of women's gender identities. There are several scholars that attempted to describe how women develop identities. Gender identification is the importance placed on gender as a reference point to judge the behavior of self and of other women (Wegner & Becker, 2009). The development of women's identity can be classified into four groups (Marcia as cited in Sax, 2008). The first group is the *foreclosed*, whose gullible commitment lies in the expectations, values and ideologies of their family. These women have never experienced crises and are cushioned by the comfort provided by their families. The second group is called the *moratorium*. These women reflect on their childhood and seek new identities but are engulfed in crises during the process of identity formation. These have not made up their minds about career and ideological choices. The third group is the *identity achieved*. These have gone through crises and have made up their minds about career choices. They are confident of who they are and do not seek validation about themselves from anybody. The fourth and final group according to Marcia is the *identity diffused*. These are women who avoid identity formation and are neither committed to any career nor experienced any crises.

Another view of gender identity was proposed by Wegner and Becker (2009) who postulated that gender role preference is based on traditional or progressive identities. They developed a gender identity model (GIM) that classifies women into four identities: (a) traditional identifiers, (b) progressive identifiers, (c) traditional non- identifiers, and (d) progressive-non identifiers. The researchers described traditional identifiers as women who prefer the traditional gender role of domestication and being identified as the traditional woman and do not question their position in society. They cherish being a woman and

maintaining the status quo. They have no ambition for a career. Contrary to this group are progressive identifiers or women who reject the traditional forms of femininity and subordination of women in society. Like traditionalists, they are proud to identify themselves as women, but they see their status as lower than that of men in society and they seek to challenge the status quo. The third group, traditional non- identifiers are women who place little value of being a woman, but still identify with traditional roles of femininity. The final group, progressive non- identifiers, down play their identities as "women," identify with masculine attributes, perceive themselves as different from other women, and use men as the reference group. They devalue women who are low achievers. According to researchers these identities help women to frame what is right or wrong for women. Using the gender identity model (GIM) Becker and Wagner (2009) concluded that "women reject Benevolent (BS), Hostile (HS), and Modern Sexisms (MS) and participate in collective action in particular when they are highly identified with the category women and have, at the same time, internalized progressive identity contents" (p. 487).

What is clear from these models is that gender conformity for women plays a critical role in the development of self-esteem (Good & Sanchez, 2010). Women have a choice of identifying themselves as traditionalists or progressives and perform genders that satisfy their projected identities. Women also choose the relevancy of 'their being women" as a basis to evaluate their actions and behaviors. How women describe themselves and how they form their identities ultimately influences their rejection of societal norms or acceptance of the status quo. The caveat, though, is that society rewards or punishes gender conformity or non-conformity depending on the context.

Impact of Lifelong-Learning and the Democratization of Education

Another possible explanation of why women now outnumber men in higher education is the impact of lifelong learning. Women who may have missed the opportunity to advance their education and careers find it possible to do so because of the modes of delivery of education offered both synchronously and asynchronously via the Internet. In the comfort of their own homes, women and men can access education through the Internet while still being able to attend to other personal issues such as child rearing and caring, providing caregiving duties to elderly parents, and having regular jobs**.** The Internet has made it possible for women who would have otherwise faced serious hurdles to pursue an education and graduate degrees.

The access agenda offered by higher education today through the creation of virtual classrooms, delivering classes through face-to-face formats, and combinations known as hybrid formats have democratized the delivery of higher education. Emphasizing the importance of virtual education, Delgado-García and Cuello (2010) stated that "it is a way of adapting to students' needs, since it enables them to combine professional, personal and family commitments with their academic ones" (p. 784). Arguably, women have adapted to these changes and taken

advantage of the opportunities offered by online environments to access knowledge and skills and changing the redistribution of knowledge (Delgado-García & Cuello, 2010), thereby shifting enrollment patterns in higher education. Explaining why more women in the United States of America pursue more higher education than men, Jacobs (1996) postulated a combination of factors that included the preponderance of colleges and universities and the pursuit of individual ideology that offers opportunities for women leading to status achievement.

Method

Participants

As noted earlier, authors in several studies pointed to the growing trend of females outnumbering males in enrollment and in degrees conferred in higher education (Hussar & Bailey, 2011; Sax, 2008). The purpose of my study was to investigate whether there is a statistically significant difference as measured by gender in enrollment patterns in a school administration program at a large comprehensive university in the southeastern part of the United States of America. The school administration program at this university offers a master's degree (36 credit hours), or if the students are already in possession of a master's degree, an add-on licensure program (24 credit hours) to acquire principal licensure. All enrollment data of 29 cohorts for the master's and add-on-licensure programs from 2000 through 2011 were used. The participants were enrollment records of 807 students, (267 [33.1%] male and 540 [66.9%] female; age range: 24-71, and M_{age} = 41.9 years) obtained from the registrar's office.

Instrument

Enrollment records of the school administration dating from 2000 to 2011 were obtained from the registrar's office. The records indicated the names of students, gender of students, the year of enrollment, the semester, expected/estimated year of graduation, whether the program was a degree or add-on licensure, and whether the program was completed on campus or off campus. For purposes of reporting data, the student information was coded by the researcher to protect confidentiality and anonymity.

Design and Analysis

The study is a quantitative design. Descriptive statistics, using the primary statistical test as the Chi-square, were used to establish whether there was a statistically significant gender difference in enrollment in this school administration program. Cross tabulations using Chi-square tests were performed analyzing gender-age, gender-semester, gender-academic year, gender-campus, and gender-program. A logistics regression analysis was conducted with gender as the dependent variable and program, academic year completed, delivery campus, and beginning semester as covariates. The program uses a cohort model. Twenty nine cohorts were analyzed in this study ranging from 2000 to 2011. From 2000 through 2005, the program was primarily offered on campus. Thereafter, the program was

offered wholly off-campus through satellite campuses of the university.

Presented in Table 1 is a summary of the demographic items identified in the study.

Results

Table 1

Participant Demographics

Demographic Items	Participants (N=807)	Frequency %	N. Male	Gender Frequency%	N. Female	Frequency%
Gender			267	33.1	540	66.9
Age						
Not Stated	1	0.1	0	0.0	1	0.1
21-25 years	2	0.2	1	0.1	1	0.1
26-30 years	57	7.1	16	2.0	41	5.1
31-35 years	152	18.8	55	6.8	97	12.0
36-40 years	182	22.6	64	7.9	118	14.7
41-45 years	155	19.2	49	6.1	106	13.1
46-50 years	110	13.6	33	4.1	77	9.5
51-55 years	78	9.7	24	3.0	54	6.7
56-60 years	53	6.6	15	1.9	38	4.7
61-65 years	16	2.0	9	1.1	7	0.9
66-70 years	0	0.0	0	0.0	0	0.0
Over 71	1	0.1	1	0.1	0	0.0
Semester						
Spring	284	35.2	117	14.5	167	20.7
Summer One	101	12.5	24	3.0	77	9.5
Summer Two	50	6.2	15	1.9	35	4.3
Fall	372	46.1	11	13.8	261	32.3

Table 2 Cont'd

Demographic Items	Participants (N=807)	Frequency %	Gender			
			N. Male	Frequency%	N. Female	Frequency%
Program						
Other	2	0.2	1	0.1	1	0.1
MSA Degree	530	65.7	209	25.9	321	39.8
Add-On Licensure	275	34.1	57	7.1	218	27.0
Academic Year						
2000	96	11.9	44	5.5	52	6.4
2001	49	6.1	25	3.1	24	3.0
2002	12	1.5	4	0.5	8	1.0
2003	68	8.4	26	3.2	42	5.2
2004	85	10.5	31	3.8	54	6.7
2005	48	5.9	21	2.6	27	3.4
2006	76	9.4	29	3.6	47	5.8
2007	77	9.5	15	1.9	62	7.7
2008	140	17.3	35	4.3	105	13.0
2009	67	8.3	17	2.1	50	6.2
2010	72	8.9	14	1.7	58	7.2
2011	17	2.1	6	0.7	11	1.4
Total	807	100.0	267	33.1	540	66.9

Note. Enrollment for 2011 does not include Fall and Spring semesters

The results indicated that in this master's in school administration program, the majority of the students are female 540 (66.9%), with male 267 (33.1%) which translates to a ratio of 2:1. The age of students in the program ranged from 24 to above 71, with the average age at 42. The mode is the 36-40 age groups. There were more females than males in all age groups except 61-65 and over 70, which recorded more males than females.

An analysis of the data by semester revealed that the majority of students typically enroll in the fall semester and a wide gender gap in favor of women at (32.3%) with males (13.8%). The enrollment pattern of females outnumbering males in this program is also consistent in the spring and summer semesters and more noticeable in the fall semester where the ratio is 3:1 in favor of females. The pattern permeates the pathways of the principalship licensure where the majority of students seek the MSA degree with females outnumbering males at slightly above 2:1, and by 4:1 at the ad-on licensure level.

Figure 1 illustrates the enrollment patterns in this master's in school administration program from 2000 through 2011. The frequency percent inserted in this figure is relative to the total enrollment from 2000 through 2011.

Enrollment by academic year revealed that the highest figures were recorded in 2008 with 75% female and 25% male, while the lowest figures were in 2002, but consistently comprising of

75% female and 25% male. After the highest peak in enrollment in 2008, it sharply decreased by 50% in 2009 and 2010. The years 2006 and 2007 had almost equal enrollments.

Chi-square tests on the following variables: (a) gender-age, (b) gender-program, (c) gender-academic year, (d) gender-campus, and (e) gender -semes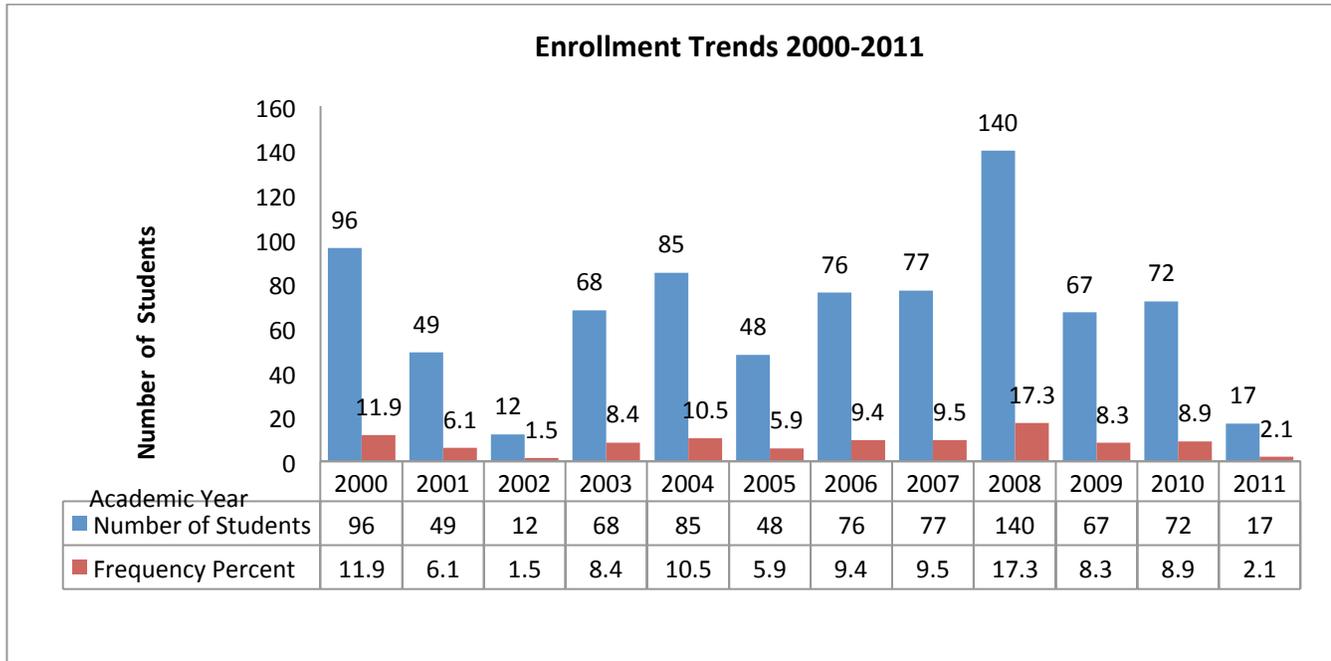ter were performed. The results are displayed in Tables 2 through 6. All tests were performed at a pre-selected alpha level ($\alpha = .05$).

Enrollment Trends 2000-2011

Academic Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Number of Students	96	49	12	68	85	48	76	77	140	67	72	17
Frequency Percent	11.9	6.1	1.5	8.4	10.5	5.9	9.4	9.5	17.3	8.3	8.9	2.1

Table 2

Chi-square Summary of Gender and Age

			Age											Total
			Not Stated	21-25 years	26-30 years	31-35 years	36-40 years	41-45 years	46-50 years	51-55 years	56-60 years	61-65 years	Over 71	
Gender	Male	Count	0	1	16	55	64	49	33	24	15	9	1	267
		Expected Count	.3	.7	18.9	50.3	60.2	51.3	36.4	25.8	17.5	5.3	.3	267.0
	Female	Count	1	1	41	97	118	106	77	54	38	7	0	540
		Expected Count	.7	1.3	38.1	101.7	121.8	103.7	73.6	52.2	35.5	10.7	.7	540.0
Total		Count	1	2	57	152	182	155	110	78	53	16	1	807
		Expected Count	1.0	2.0	57.0	152.0	182.0	155.0	110.0	78.0	53.0	16.0	1.0	807.0

There was not a significant relationship with the age and gender of the student χ^2 (10, $N = 807$) = 9.67, $p = .469$. The male age groups that enrolled and exceeded the expected counts were the 31-35 and 36-40, and 61-65. Contrarily, females seemed to postpone and enrolled in the age ranges of 41-45, 46-50, 51-55, and 56-60.

Table 3

Chi-square Summary of Gender and Program

				Program		
			Other	MSA Degree	Add-on Licensure	Total
Gender	Male	Count	1	209	57	267
		Expected Count	.7	175.4	91.0	267.0
		% within Gender	.0	.8	.2	1.0
		% within Program	.5	.4	.2	.3
		% of Total	.0	.3	.1	.3
		Residual	.3	33.6	-34.0	
		Std. Residual	.4	2.5	-3.6	
		Adjusted Residual	.5	5.3	-5.4	
	Female	Count	1	321	218	540
		Expected Count	1.3	354.6	184.0	540.0
		% within Gender	.0	.6	.4	1.0
		% within Program	.5	.6	.8	.7
		% of Total	.0	.4	.3	.7
		Residual	-.3	-33.6	34.0	
		Std. Residual	-.3	-1.8	2.5	
		Adjusted Residual	-.5	-5.3	5.4	
Total		Count	2	530	275	807
		Expected Count	2.0	530.0	275.0	807.0
		% within Gender	.0	.7	.3	1.0
		% within Program	1.0	1.0	1.0	1.0
		% of Total	.0	.7	.3	1.0

The results of gender and program revealed a statistically significant χ^2 (2, $N = 807$) = 28.87, p = .000). Expected counts and observed counts revealed that more males than expected enrolled for the Master's in School Administration degree while females prefer to enroll for the add-on licensure.

Table 4

Chi-square Summary of Gender and Academic Year

			Academic Year											
			2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Gender	Male	Count	44	25	4	26	31	21	29	15	35	17	14	6
		Expected Count	31.8	16.2	4.0	22.5	28.1	15.9	25.1	25.5	46.3	22.2	23.8	5.6
	Female	Count	52	24	8	42	54	27	47	62	105	50	58	11
		Expected Count	64.2	32.8	8.0	45.5	56.9	32.1	50.9	51.5	93.7	44.8	48.2	11.4
Total		Count	96	49	12	68	85	48	76	77	140	67	72	17
		Expected Count	96.0	49.0	12.0	68.0	85.0	48.0	76.0	77.0	140.0	67.0	72.0	17.0

The results of gender and academic year revealed a statistically significant difference χ^2 (11, N = 807) = 37.23, p = .000. There were more males than expected in 2000, 2001, 2003, 2004, 2005, and 2006, while more females than expected enrolled in 2007, 2008, 2009, and 2010.

Table 5

Chi-square Summary of Gender and Campus

			Type of Campus		
			On Campus	Off campus	Total
Gender	Male	Count	163	104	267
		Expected Count	129.0	138.0	267.0
	Female	Count	227	313	540
		Expected Count	261.0	279.0	540.0
Total		Count	390	417	807
		Expected Count	390.0	417.0	807.0

The results of gender and campus revealed a statistically significant difference χ^2 (1, N = 807) = 25.86, p = .000. The results suggest that more males than expected took class on campus than on off campus. The reverse is true for females where more females registered for off campus classes than males.

Table 6

Chi-square Summary of Gender and Semester

			Semester				
			Spring	Summer One	Summer Two	Fall	Total
Gender	Male (N=267)	Count	117	24	15	111	267
		Expected Count	94.0	33.4	16.5	123.1	267.0
		% within Gender	.4	.1	.1	.4	1.0
		% within Semester	.4	.2	.3	.3	.3
	Female (N=540)	Count	167	77	35	261	540
		Expected Count	190.0	67.6	33.5	248.9	540.0
		% within Gender	.3	.1	.1	.5	1.0
		% within Semester	.6	.8	.7	.7	.7
Total		Count	284	101	50	372	807
		Expected Count	284.0	101.0	50.0	372.0	807.0
		% within Gender	.4	.1	.1	.5	1.0
		% within Semester	1.0	1.0	1.0	1.0	1.0

The results of gender and semester analysis revealed a statistically significant difference χ^2 (3, $N = 807$) = 14.39, $p = .002$. More males registered for the spring classes exceeding the expected counts, while more females registered than the expected counts in the summer and fall semesters.

Based on these results and in order to determine specific trends in these relationships, a logistics regression analysis was conducted with gender as the dependent variables and program, academic year completed, delivery campus, and beginning semester as covariates. All covariates were treated as categorical variables and dummy coded as such. The size of the data set ($N = 807$) was sufficient to allow all the covariates to be considered at the individual response level.

The forward stepwise analysis generated the most significant model (Chi-Square = 40.095, $df = 4$, $p < .000$) that included two predictors, program and the semester that students began their program. The delivery campus and the academic year the student completed were not included in the final model as they were not significant in explaining any additional variation between the genders.

Table 8

The Forward Stepwise Analysis of Program and Semester

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1[a]	Program(1)	-.912	.173	27.717	1	.000	.402
	Constant	1.341	.149	81.310	1	.000	3.825
Step 2[b]	Program(1)	-.876	.178	24.068	1	.000	.417
	Semester			10.083	3	.018	
	Semester(1)	-.418	.169	6.115	1	.013	.658
	Semester(2)	.161	.266	.365	1	.546	1.174
	Semester(3)	.287	.334	.740	1	.390	1.333
	Constant	1.436	.171	70.795	1	.000	4.203

a. Variable(s) entered on step 1: Program.

b. Variable(s) entered on step 2: Semester.

The odds ratio (Exp(B))is a measure of the difference in odds between the two levels of the dependent variable, males versus females. Based on this data, females are 1.17 times more likely than males to initially enroll in the second summer semester, and 1.33 times more likely than males to initially enroll in the fall semester. When the odds ratio is less than 1 such as program differences (Exp(B) = .417), the interpretation is less direct. But the observation that the ratio of males enrolled in Add on Licensure program (57 out of 266 or 21.4%) is much lower than

the ratio of females enrolled (218 out of 539 or 40.4%) indicates that females are almost twice more likely to enroll in Add on Licensure programs. These outcomes would seem to indicate that when compared to male counterparts, female student completers are more likely to enroll in Add on Licensure programs beginning in the second summer or fall semesters

Discussion

The results of this study seem to corroborate national trends (Hauser & Bailey, 2011; Wang & Parker, 2011) that indeed women are outnumbering men in higher education and that more degrees are conferred to women than men. Kochhar (2012) claimed that more women than men were affected by the economic recession where job growth for women was lower than that of men. Women may be enrolling in higher education in order to acquire skills to increase their chances of employability during this tough economic environment. In this study, women outnumbered males in each age category. Of particular interest was the gender difference along the pathways to the principalship. Women tended to take the longer route because they had a master's degree first in their academic discipline before moving to the licensure degree. Men tended to take a shorter route where they moved from a bachelor's degree to a licensure degree

Gender and Age

Another striking difference was the age of students when enrolling for the program as revealed by the Chi-square test where more males than expected enrolled at the 31-35 and 36-40 age groups. Women tended to postpone enrollment and higher counts than expected were observed at age ranges 41-45, 46-50, 51-55, and 61-65 years. A possible explanation using the age factor in enrollment consideration is that women tended to enroll as part-time students (Jacobs, 1996) although all students in this program are part-time students and full-time employees. In reference to moving into administration, Witmer (2006) observed that women usually considered career changes in the forties or fifties. Generally more women than men are seeing the benefits of going back to college because a college education and the acquisition of knowledge results in enhanced feelings of self-efficacy.

In this study, women faced a double-edged sword because although enrolling part-time increases time for parenting and for female teachers to attain the principalship, added time using the longer route often reduced professional mobility (Witmer, 2006). Postponing bearing and raising children goes against women's biological clock. It therefore becomes a strategic and well calculated move for women to defer or postpone enrolling until after raising a family. Men do not have to worry about the effect of the

biological clock in regards to associated risks of childbearing and age as would women. Therefore, pursuing a career that takes considerable more time from the family is less appealing for women.

Perhaps males see better chances of entry into principal positions and the superintendency compared to females as reflected by national trends (Dana & Bourisaw, 2006). Another reason could be that the principalship is predominantly a male field, giving males a perceived advantage in hiring considerations. If this is a shared view among women, it may trigger a sense of frustration, despair, and general dissatisfaction about the outcomes and chances of entry into the principalship because of the reality of the numbers. If principalship programs prepare more females, as in the case of this study, it appears males are disproportionally hired over women for the job.

Since results of my study revealed that men enrolled in the program in their younger years, there may be strategic reasons behind this as well. The considerations for males could be based on the perceived outcomes of better career mobility after graduation. Enrolling in the program may have more economic purchase for males than females as supported by the gender disparity in the principalship, particularly at the secondary level.

What is considered unproductive work becomes the burden of wives while husbands pursue careers. Men may postpone marriage and pursue careers due to perceived benefits after graduation. It was not possible to obtain the marital status of the students, and yet such information would have established whether males in the study postponed marriage or not.

Gender and Program

In this program students have a choice of obtaining licensure via two routes. The school administration program at this university offers a master's degree (36 credit hours), or if the students are already in possession of a master's degree, students obtain a principalship certification through an add-on licensure program (24 credit hours). It is clear that male students preferred a shorter route, i.e., obtaining the master's degree in school administration while women took the longer route of acquiring a master's degree in another field, before enrolling for licensure. Of the 267 male students in the study, 209 (78.3%) males pursued the master's degree compared to the 540 females in the study where 321(59.4%) pursued the master's degree. This means 22.7% of males and 40.6% females had a master's in their teaching disciplines and enrolled as add-on licensure students. This suggests that more females than males choose teaching as their first career, acquire another master's degree in their academic discipline such as master's in curriculum instruction and then pursue administration as a second or third career. This is

contrary to males, who spent a shorter time in the classroom, and pursued administration as their second career. Witmer (2006) argued that for most men and women administration brings more benefits that include "more money, more autonomy, more status, and more power … The male culture often views power as power-in-itself and for themselves , while women view it as limitless, tending to empower others as they themselves acquire power" (p. 7).

Gender and Academic Year

From 2000 through 2006 male students enrolled beyond the expected counts, but failed to meet the expected count from 2007 onwards, a trend that seems to have continued into 2011. The trend was totally reversed for women. From 2000 through 2007 female enrollment declined and never met the expected counts. However, from 2008 female counts went beyond the expected counts with the biggest gap between observed and expected counts recorded in 2008. One can arguably attribute this to the recession of 2007-2009 that affected more women than men (Kochhar, 2012). Women in general went back to school to enhance their chances on the job market amidst an ailing economy and to reap the benefit of a college education (Wang &Parker, 2011).

Gender and Campus

The school administration program was offered on campus from 2000-2006. During those years more males than females enrolled than expected as revealed by Chi-square tests and logistics regression analyses. Considering that students are full-time employees, the length of commute to campus, taking night classes, may result in women inclined to opt for off campus classes that are offered in locations reachable by most students. Off campus programs have an added advantage to nursing mothers, students with young families, and/or those with elderly care responsibilities because this arrangement gives them time to balance these activities. Fewer classes taken and avoiding the commute to campus, which in some cases could be more than two hours, may be more appealing.

Gender and Semester

Clearly more females enrolled in the fall than males and more males enrolled in the spring than females. This may suggest issues that are germane to each gender that could not be established in the scope of this study, but suffice to leave it at conjectures. Students have very little choice of transferring from cohort to cohort since the cohort model is not offered every semester.

Conclusion and Recommendations

The purpose of the study was to investigate whether there is a statistically significant difference as

measured by gender in enrollment patterns in a school administration program at a large comprehensive university in the southeastern part of the United States. Using descriptive statistics and Chi-square tests, the study revealed the following relating to gender: (a) more females than males enrolled for the program at a ratio of 2:1; (b) gender and age revealed a statistically significant difference with women preferring to postpone enrollment until middle ages; (c) males preferred to enroll for the degree program while females preferred the add-on licensure program; (d) gender and academic year revealed a statistically significant difference with highest enrollment figures recorded in 2008 and with more females enrolled, but enrollment sharply declined thereafter; (e) gender and campus revealed a statistically significant difference where more females enrolled off campus than males and vice versa on campus (f) gender and semester revealed a statistically significant difference with more males enrolling in the spring and more females in the fall.

The implications of this study may inform several stakeholders in light of the disproportionate underrepresentation of women in the principalship. Principal preparation programs in colleges and universities need to encourage female voices in school leadership by better training students, particularly women, to be able to navigate the nuances of the job and the hiring process. Women aspiring for the principalship need to identify the challenges and barriers and participate in mentoring programs and academies to enhance their chances at early stages of their teaching careers. Clearly males have a ready pool of potential candidates as they enter principal preparation programs early in their teaching careers, but this pool is developed later in the careers of women. Women need to be encouraged to start early and use the shorter route to the principalship, i.e., the master's degree rather than the longer route, the add-on licensure program. Finally, school districts should groom female leaders and actively consider women in the hiring process of assistant and principal positions. Hiring more women may close the yawning gender gap in the principalship. Policy makers may need to examine the long term impact of the gender shift in enrollment patterns in higher education and the principalship. Universities and colleges could be resorting to a reproductionist approach that ignores job market trends, an issue that could be addressed by policy makers and human resources directors altering recruitment procedures to target women.

An investigation of whether women's increased participation in school administration program correlates with interest to pursue a career in the principalship or whether there is a correlation with employment of women in the principalship would be a potential follow-up to this study. Another possible study involves investigating retention and attrition rates in the program based on gender and other variables investigated in this study such as age, type of program, i.e., degree or add-on licensure, campus, and semester. It will be of interest to investigate how many women pursue the Education Specialist degree and the doctorate from the graduates of the school administration principalship cohorts of this program.

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