Gender and Multi-Cultural Curriculum Issues for Undergraduate Aviation Students

Patrick Mattson, Jeffrey Johnson, Angela Olson, and Michael Ferguson
St. Cloud State University

ABSTRACT

St. Cloud State University aviation students were asked about their perception of completed multicultural, gender and minority (MGM) diversity course requirements and their beliefs concerning current aviation industry workplace practices regarding gender and minority issues. The authors' goal was to examine how students are being prepared for employment in a diverse aviation work environment. Data were collected through the use of a survey questionnaire distributed amongst undergraduate students (*n = 99*) about their experiences with MGM coursework. Students were asked demographic related questions regarding age, school year, major area of study, and then were directed to respond to questions which used a Likert-type five point scale. The results were not generalized to the larger post secondary student population as this study is institution and domain specific. The researchers found that respondents surveyed for this study were exposed to the MGM component about non-Western societies. The respondents indicated that qualified candidates should be considered equally for employment regardless of gender and/or ethnicity. Results also indicated that respondents would like the existing work culture to be preserved and they did not believe that the courses prepared them to work in a diverse organizational environment.

INTRODUCTION

Beginning with the 1990-91 academic year, St. Cloud State University has required students to take three multicultural, gender and minority (MGM) designated courses as part of their undergraduate baccalaureate load; one of these courses must be a racial issues course requirement taken in the first year of enrollment (St. Cloud State University, 2004). The MGM requirement is designed to foster respect for human dignity and differences by methods that employ and strengthen the cognitive powers of students by an impartial and critical examination of facts, interpretations of facts, and arguments. These MGM courses are offered in a variety of educational disciplines to expose students to various pedagogies addressing the MGM components in non-Western societies.

There are 60 designated MGM courses offered through 34 different departments or specialized programs at St. Cloud State University (St. Cloud State University, 2004). The Aviation Department offers a *Women in Aviation* course which is designated as an MGM course. Students may take no more than one course from any one department while pursuing their MGM designated coursework requirement. One of the anticipated outcomes of the MGM program is that students will be introduced to the unique interpretations and philosophies of diverse areas by taking MGM courses from different departments or programs (St. Cloud State University, 2004).

The authors' goal was to examine aviation student perceptions of these courses and whether they thought the coursework prepared them to work in a racially and gender diverse aviation industry. After a literature review, the results of the survey conducted during early spring 2006 semester are presented. Surveying helped determine how students are being exposed to the MGM components.

AVIATION EMPLOYMENT DEMOGRAPHICS

Although the primary demographic component of the aviation industry as a whole remains the Caucasian male, the number of minorities and women employed in specific sectors of the aviation industry is significant. Employment data (see Table 1) illustrates the number of women and minorities employed in the aviation industry. Additionally, the Federal Aviation Administration (FAA) reported total permanent employee numbers of 48,503 for fiscal year 2004. This number includes 36,668

men (75.6%), and 11,835 women (24.4%). In addition, the total FAA employment number for 2004 included 9,604 minorities (19.8%).

The data in Table 1 suggests that, although these segments of aviation employment are populated mostly by Caucasian males, there is a measure of diversity that is present in the aviation industry. With this knowledge in mind, it is important that postsecondary aviation programs are cognizant of the need to prepare their students to thrive in a culturally diverse work environment typically found in the aviation industry. Many aviation organizations have increasingly recognized the value of a diverse environment and have implemented internal initiatives which not only acknowledge diversity, but are actually providing specific training in diversity to their employees.

Table 1. *U.S. Equal Employment Opportunity Commission, 2003*

Air transportation type	Total	Male	Female	Minority (M & F)
Scheduled air carriers	429,377	244,805 (57%)	184,572 (43%)	109,829 (26%)
Nonscheduled	21,377	15,223 (71%)	6,154 (29%)	3,384 (16%)
Support areas	74,620	57,294 (76%)	17,326 (23%)	35,184 (48%)

GENDER AND MINORITY ISSUES IN AVIATION

Employment in the aviation industry has consisted primarily of white males (Turney & Bishop, 2002). Hansen and Oster (1997) reported that "aviation occupations, although changing, do not mirror the diversity of the overall American workforce". (p.44) This relatively homogeneous work environment has established a certain culture that has permeated the work environment of the flightdeck and females and minorities have assimilated themselves to the existing culture.

World War II gave minorities, such as African American males and women, the opportunity to enter the aviation field through the Army Air Corps pilot training program and the Women Airforce Service Pilots (WASPS). After much pressure from the black community, African American males were accepted for aerial combat training at Tuskegee Institute on January 16, 1941 (Netty, 2000). These pilots were placed in a separate unit in an era and area that was heavily racially segregated. "African American aviators in the Army Air Corps flew 1,578 missions and 15,533 sorties with the Twelfth and Fifteenth Air Corps and destroyed or damaged 409 enemy aircraft in World War II" (Netty, 2000, p. 352). Wilson (2004) noted that the WASPS, a group of women charged with ferrying military planes during World War II, proved themselves to be competent pilots. The WASPs and Tuskegee Airmen made extraordinary inroads into the white male dominated aviation industry. At the time, their impact was felt, but not sustained, because of a variety of social barriers.

It has been the practice of women and minorities to assimilate themselves into the established environment. Davey and Davidson (2000) found that women who were hired as airline pilots had not changed the culture of the flightdeck, but rather had conformed to the traditional masculine values and practices already imbedded in the culture. Women on the flightdeck are visibly different to both colleagues and passengers. A female pilot was quoted as saying "….it was like having two heads really to start with. It wasn't hostility. It was just that people weren't used to you" (Davey & Davidson, 2000, p. 214). Male pilots were reluctant to change their ways when paired with female pilots (Davey & Davidson, 2000). Some flight crew members became more aware of their language, behavior and topics of conversation when a female flight crew member was present. Women also found it unusual to fly with other female crew members. Female pilots had traditionally been trained in a male environment and worked with other male pilots.

Turney and Bishop (2002) found that there are more than gender differences in the flight deck culture between men and women. There is a difference, both perceived and real, regarding how females and males learn and lead. There is

also a difference in how different cultures view leadership and authority. Both of these elements have an effect on Crew Resource Management (CRM) on the flightdeck. The differences in gender and culture must be recognized and understood to make CRM effective and the flightdeck environment safer (Turney & Bishop, 2002).

Female and minority crew members hired by an airline have experienced a degree of harassment on the flightdeck. The harassment varied from pornographic material placed in their flight bag, to sexist or racist comments being made in their presence. “Reporting these comments to a manager did nothing to improve the environment” (Davey & Davidson, 2000, p. 208). The female or minority crew member felt it was best not to respond to these comments in a defensive manner in order to keep their jobs. Some female or minority crew members did not take jokes or comments personally, rather as a sign their fellow crew members felt comfortable enough with them, and had accepted them as a part of their culture. Charles stated that "we are killing people and crumbling aluminum because of poor communication and lack of basic people management skills” (as cited in Turney and Bishop, 2002, n.p.). This is an event that can be precluded by the inclusion of gender and cultural differences in the learning and leadership processes.

AVIATION INDUSTRY DIVERSITY INITIATIVES

A review of scholarly aviation literature suggests that very little has been written on the subject of diversity within the aviation industry workforce. While there are some published works (Firmin, 2002; Perkins, 2004; Turney, Bishop, Karp, et al., 2002; WMU News, 2004) on the subject of aviation diversity, the literature review revealed that most of these papers tend to focus on certain aspects of the flightdeck environment, such as diversity issues in crew or cockpit resource management (CRM). This may suggest that the aviation industry remains a largely untapped potential source for scholarly research, and subsequent potential publications. The literature also appeared to be lacking in the area of collaborative relationships between the airlines and collegiate aviation. In developing and enhancing diversity initiatives in the airline industry, the literature also does not reflect any conscious efforts to actively address the needs of working with the mentally and physically challenged employee and the actively employed worker with a terminal illness.

Despite the lack of scholarly work on the subject, specific segments of the aviation industry have determined that providing diversity training to their leadership employees is not only a good idea, but a necessary business practice to ensure inclusion of all groups and persons. Toward this end, Delta Airlines (DL) has not only embraced the workplace diversity movement, they have created an entire “global diversity” department that is devoted to promoting workplace diversity throughout their global operation. According to Paul Graves, DL Vice President of Global Diversity, “Diversity is not a social experiment for us. When we look at our business, we realize that it’s essential to understand and manage differences. Diversity is not a ‘nice-to-have,’ it’s a ‘got-to-have’” (Diversity/Careers in Education & Information Technology, 2003, par. 15).

In recognition of the veracity of the diversity viewpoint espoused by Delta, Atlantic Southeast Airlines (ASA), formerly a wholly owned subsidiary of Delta Airlines, followed the lead of their parent company before ASA was sold in September 2005. ASA required their managers and supervisors to attend a mandatory diversity training session titled *Valuing Diversity*. In this training, ASA leaders were taught the value of embracing a diverse workforce, and overcoming stereotypes. According to the *Valuing Diversity* training manual (2004) created by Coleman Management Consultants, Inc., diversity in the workplace is not meant to be a substitute for Affirmative Action programs, nor is diversity meant to be a way of showing favoritism or preferential treatment to certain groups at the expense of other groups. Rather, valuing diversity in the workplace is working to obtain the objectives of an organization by “maximizing the contributions of individuals from every segment of the employee population” (*Valuing Diversity*, 2004, p. 3). In other words, true diversity in the workplace means not only embracing ethnic

differences, but also fostering an organizational culture that harnesses the collective talents of each department and the individual talents of each employee. For example, ASA/Delta Connection integrates diversity programs into the workplace by using professional coaches. Valuing diversity at ASA is more than race and gender, it promotes the understanding of individual needs, actively shows sensitivity to other employees at all levels in the organization, recognizes the value of a diversified workforce, broadens individual norms of acceptance, creates an environment where people respect each other, etc.

Perkins (2004) wrote "The strength of any corporation's commitment to diversity can be evaluated across five categories: products and services, leadership, employment, procurement, and community outreach" (np). Continental Airlines has shown a strong commitment to diversity in the workplace by excelling in four of the five aforementioned criteria (Perkins, 2004). In addition, Continental's corporate commitment to diversity (Latinization Initiative) is also reflected in the number of minorities in their workforce. Perkins also noted that over 10 percent of Continental's management is Hispanic and Hispanics account for about 16.7 percent of the total employee population.

As the general and aviation workforces become more and more diverse in terms of ethnic differences and job specialization, it is very important that students in postsecondary aviation programs become prepared to work in an increasing diverse industry. Consequently, postsecondary aviation programs need to effectively develop ways to prepare their students for the realities of a diverse workplace. By doing so, students may gain a greater benefit by being better equipped to succeed in an industry that is highly kinetic in terms of change in operational issues and expanding diversity.

COLLEGIATE AVIATION DIVERSITY INITIATIVES

The low number of women and minority members considering a career in aviation still remains troublesome despite recent gains during the past two decades. Turney (2000) found that the percentage of women attracted to aviation careers in addition to collegiate aviation enrollment and retention rates have remained marginally low. A research study conducted by Firmin (2002) found that Hispanics account for 11 percent of the workforce in the year 2000 and are projected to increase to 24 percent by 2050. Firmin's study of the workforce also indicated that Asians will increase five percent (six to 11 percent) compared to a marginal growth rate of two percent (12 to 14 percent) for African-Americans during the same time period. A review of the literature (Firmin, 2002; Perkins, 2004 & Wilson, 2004) would seem to suggest that despite a significant projected increase in minority growth into the workplace, the aviation industry remains unprepared to meet the opportunities provided by an increasingly diversified workforce.

Collegiate aviation diversity initiatives are relatively new considering that collegiate aviation is less than 100 years old. During the 1990-91 academic year, two Department of Aviation faculty members at St. Cloud State University actively explored opportunities to attract and retain more female students into the aviation program which ultimately led to the creation of a new course during the following year – *Women in Aviation*. This course was never before offered at the postsecondary level making St. Cloud State University the first university in the nation to specifically address women's contributions (*Flightlines*, 1992) and was developed into a university approved general education multi-cultural/multi-gender course. *Women in Aviation* was specifically designed to educate students on the role and contributions of women to the aviation industry and the original course was team taught by two aviation professors – a male and female. According to Thornberg and Mattson (1992), the male-female team-teaching course delivery utilized the "diverse strengths of two professors and encourages open discussion of the historical and contemporary cultural and societal issues, particularly those which relate to gender definition, which have had significant impact upon women's role in aviation" (p. 6). Furthermore, Thornberg, Mattson, and Sundheim (1995) conducted a research study using pre- and post- survey instruments and found that students completing the *Women in*

Aviation course had an overall favorable attitude transformation towards women in the aviation industry.

Other schools such as The College of Technology and Aviation at Kansas State University (KSU) in Salina have taken a proactive stance on African-American diversity initiatives by entering into a joint program with Tuskegee University. Diversity has moved from the institutional to the programmatic level in KSU's aviation program. Culture is a set of beliefs, norms, attitudes and practices within a certain population (Pidgeon & O'Leary, 1995) and consequently, diversity initiatives must take into account the diverse culture that often exists within various groups enrolled in collegiate aviation programs. Notwithstanding culture, the complexity is often too real with gender as illustrated by the results from a study by Turney, Bishop, Karp, et al., (2002) that found similar dominant learning styles with collegiate aviation men and women. With respect to cultural diversity initiatives in collegiate aviation, the challenges that lie ahead for educators to favorably affect change not only within various cultural subgroups, but across the entire spectrum of the aviation student body, may appear as extremely daunting.

In 2004, five historically black colleges that offer aviation programs (Delaware State University, Florida Memorial College, Hampton University and Tennessee State University) joined Western Michigan University's College of Aviation to form an Aviation Education Consortium in an attempt to work together to diversify the aviation industry workforce as well as to expand opportunities for minority students and women (WMU News, 2004). According to the WMU News:

> The aim of the new organization is to use the resources and expertise of all consortium members to identify and support minority individuals who have an interest in pursuing an aviation career and establish a strategy and process for taking such individuals seamlessly 'from ninth grade to the airline industry door'. (p. 1)

Dennis stated that the Aviation Education Consortium "will attempt to build an aviation work force that more accurately reflects the industry's work force development needs" (as cited in WMU News, 2004, n.p.) by working to identify, recruit and train students. The five school consortium continues to actively address the problems involving women and minorities and looks for long term solutions. The consortium is a positive step in addressing gender and minority opportunities in aviation careers although the effectiveness could be further realized if a strong connection to the aviation industry was developed and maintained. The lack of related literature would seem to suggest that a significant disconnect between collegiate aviation and the airline industry presently exists.

RESEARCH METHOD

A survey, adapted from Czech, Kelly, and Mattson (2002), was administered during spring 2006 semester in an attempt to assess the perceptions and attitudes of students about their MGM course requirement experience(s). Ninety-nine students enrolled in aviation courses completed the questionnaire. Students were asked to indicate demographic information such as gender, class level, age, and the number of MGM courses completed to date. The selection of classes assessed was based on convenience, and as such we did not randomize the sample selection; all administrations were completed within a one-week period of time. Respondents ranged from first year students to seniors and there were more males (85) than females (14); the ages reported represented typical traditional college age students (see Figure 1).

In surveying students' perceptions of MGM courses, the following construct questions needed to be raised: (1) Do the required MGM courses address non-Western and/or female issues? (2) Do the students perceive that the courses are balanced in their presentation of the required MGM components? and (3) Had the courses helped students' in shaping their attitudes about working in a diverse environment? The responses indicate students' perception of their MGM educational experience and how they view these issues as it might relate to their aviation careers.

Gender	Frequency	Percent
Male	85	85.9
Female	14	14.1
Total	99	100.0

Age	Frequency	Percent
18-20	34	34.3
21-23	50	50.5
24-30	13	13.1
31+	2	2.0
Total	99	100.0

Ethnicity	Frequency	Percent
African American	4	4.0
White	86	86.9
Hispanic/Latino American	1	1.0
Native American	1	1.0
Biracial	4	4.0
Not listed above	3	3.0
Total	99	100.0

School Year	Frequency	Percent
Freshman	10	10.1
Sophomore	24	24.2
Junior	27	27.3
Senior	38	38.4
Total	99	100.0

Major	Frequency	Percent
Management	21	21.2
Operations	30	30.3
Flight	38	38.4
Maintenance	4	4.0
Other	6	6.1
Total	99	100.0

Career	Frequency	Percent
Commercial pilot	57	57.6
ATC	7	7.1
Airport Management	8	8.1
A&P mechanic	3	3.0
Airline Management	6	6.1
FBO	4	4.0
Not listed above	14	14.1
Total	99	100.0

SCSU MGM Taken	Frequency	Percent
Yes	85	85.9
No	14	14.1
Total	99	100.0

Number MGM Taken	Frequency	Percent
One	17	17.2
Two	32	32.3
Three	34	34.3
More than three	10	10.1
Missing Response	6	6.1
Total	99	100.0

MGM Gender or Cultural	Frequency	Percent
Mostly Gender	2	2.0
Mostly Cultural	47	47.5
Equally Gender & Cultural	42	42.4
Other	2	2.0
Missing Response	6	6.1
Total	99	100.0

Figure 1. Demographic Information

The survey results are reported with a Cronbach's Alpha of .754 and standardized items alpha of .733. Carmines and Zeller (1979) indicate an Alpha of .70 or above is considered acceptable for internal reliability and is in a satisfactory range.

The survey instrument used items one through six as the demographic items. Items seven, eight, and nine asked students the number of MGM classes they had taken, when they had taken their most recent MGM class, and whether their MGM courses stressed instruction in only one of the MGM components, or were balanced equally among the components. The last question was to check to see if the student's experience was balanced across cultural and/or gender issues depending upon which area the course was taught in; this is one of the stated goals of SCSU's MGM curriculum.

DATA ANALYSIS

After answering the demographic items students were asked to react to various statements about MGM courses and their attitudes about aviation industry hiring practices and aspects of aviation employment practices in a diverse environment. Students were asked to rate their reaction, according to the five point Likert Scale, to these statements. There was no time limit imposed on the students as they completed the survey.

The 11 question survey instrument used Likert-type scales for responses, an appropriate means of capturing degrees of attitudes or perception from those assessed in order to measure a variety of characteristics including personal attitudes and knowledge (Tuckman, 1994). Choices available on the questionnaire were (1) Strongly Disagree, (2) Disagree, (3) Neutral, (4) Agree or (5) Strongly Agree. Survey items 10 through 16 asked about students' perceptions of being exposed to new ideas and interpretations of viewing gender and/or non-Western societies, as well as similarities among those items (see Table 2).

Table 2. *MGM Course Questions*

Descriptive Statistics (Questions 10-16)	**N**	**Mean**	**SD**
Q10 MGM courses identified differences between Western and non-Western cultures.	97	3.52	0.948
Q11 MGM courses identified differences between males and females.	97	3.25	1.031
Q12 MGM courses identified similarities among Western and non-Western cultures.	97	3.13	1.017
Q13 MGM courses identified similarities among males and females.	97	3.04	1.060
Q14 MGM courses proposed new ways in which to view minority aviation work roles.	97	2.70	1.165
Q15 MGM courses proposed new ways in which to view female aviation work roles.	97	2.87	1.169
Q16 MGM courses encouraged respect for human dignity and differences.	97	3.88	0.960

Item analysis Question 10-16

Question 10 Almost one-half of the students (47.5%) reported taking courses that were multicultural or cultural in nature. 62.9% (n = 97, Mean 3.52, SD .948) of students surveyed agreed or strongly agreed that the MGM courses identified differences between Western and non-Western cultures.

Question 11 49.5% (n = 97, Mean 3.25, SD 1.031) of students surveyed agreed or strongly agreed that MGM courses identified differences between males and females. The respondents were mostly male (85.9%) and 47.5% reported taking courses that were multicultural or cultural in nature. MGM courses were somewhat successful in exposing the student to ideas about various gender differences. Results of further research may indicate the true extent of MGM success. Although the data show promise, there is more work that needs to be done to increase awareness of gender differences.

Question 12 43.3% (n = 97, Mean 3.13, SD 1.017) of students surveyed agreed or strongly agreed that MGM courses identified similarities among Western and non-Western cultures. Based upon the results of the study, questions regarding the extent of similarities between Western and non-Western cultures seem to arise.

Since students more easily identify differences between Western and non-Western cultures than similarities, future research activities could address how similarities can be used in MGM courses to assist students in better understanding cultural differences.

Question 13 39.2% (n = 97, Mean 3.04, SD 1.060) of students surveyed agreed or strongly agreed MGM courses identified similarities among males and females. The literature review has suggested that gender similarities also exist and it is important that students understand how males and females process information and work together in a team environment.

Question 14 27.8% (n = 97, Mean 3.04, SD 1.060) of students surveyed agreed or strongly agreed that MGM courses proposed new ways in which to view minority aviation work roles. Learning new ways to view things could be helpful in breaking stereotypes which may allow open dialogue to enable an effective, diverse work environment. Based upon the results of question 14, it would. appear that MGM courses have not sufficiently offered new ways to view minority aviation work roles. Perhaps one solution is to develop stronger relationships between successful diversity programs used by aviation industry and collegiate aviation.

Question 15 32.0% (n = 97, Mean 2.87, SD 1.169) of students surveyed agreed or strongly agreed that MGM courses proposed new ways in which to view female aviation work roles. This is not an encouraging result in that 85 of the 99 respondents were male; more than likely it will take actual work experiences to affect change if it will happen. Perhaps even before an attempt to propose new ways to view female aviation roles within MGM courses, academicians should place emphasis on why it is important for males to view female work roles and its impact on the organization.

Question 16 72.2% (n = 97, Mean 3.88, SD .960) of students surveyed stated agreed or strongly agreed that MGM courses encouraged respect for human dignity and differences. It is very possible that the students surveyed had a high respect for others and they were reflecting these values in their responses. Since almost three-fourths of the respondents reported a favorable view of MGM courses fostering human dignity and differences, the student results for question 16 are encouraging in that many students are being exposed to dignity and respect for cultural differences and it is hopeful that these types of favorable experiences in MGM courses will carry over into the aviation industry.

Item analysis Question 17-20

Survey items 17 through 20 asked the student what they thought about aspects of aviation employment practices and if the courses helped them prepare to work in a diverse environment. (See Table 3)

Table 3. *Aviation workplace employment specific questions*

Descriptive Statistics (Questions 17-20)	**N**	**Mean**	**SD**
Q17 Qualified candidates should be considered equally for employment regardless of gender.	99	4.38	0.866
Q18 Qualified candidates should be considered equally for employment regardless of ethnicity.	99	4.41	0.769
Q19 Aviation employees should strive to blend into the existing work culture.	98	3.56	1.016
Q20 College classes in gender, cultural, and/or ethnic studies have prepared me to work in a diverse organizational environment.	99	2.93	1.180

Question 17 86.9% (n = 99, Mean 4.38, SD .866) of students surveyed indicated that qualified candidates should be considered equally for employment regardless of gender. This is not too surprising as the majority of respondents were males.

Question 18 89.9% (n = 99, Mean 4.41, SD .769) of students surveyed indicated that qualified candidates should be considered equally for employment regardless of ethnicity. Respondents indicated that professional qualifications should be the determining factor in employment decisions and candidates should not receive preference given their ethnicity.

Question 19 60.2% (n = 98, Mean 3.56, SD 1.016) of students surveyed said that aviation employees should strive to blend into the existing work culture. It appears that the survey population desires few changes to the workplace demographics.

Question 20 35.4% (n = 99, Mean 2.93, SD 1.180) of the students surveyed felt that college classes in gender, cultural, and/or ethnic studies prepared them to work in a diverse organizational environment. This number is disturbing in that the goal of the courses is to help students become better prepared. We can only conclude that the courses are not satisfying this outcome. Aviation educators may benefit from collaboration with those responsible for designing and implementing aviation industry diversity programs.

CONCLUSION AND COMMENTS

Assessment of the reaction of aviation students who have completed MGM courses is important in determining if the MGM general education requirement is effective at this university. After analyzing the survey results, it does not appear to the researchers that the MGM course completion provides a significant benefit to these aviation college students, the very group that professors are trying to influence. Possibly, the aviation industry diversity practices could be incorporated into the academic classroom. This way the students could see the relevance of what they learn in the classroom as it applies to their professional careers.

Completing these courses may help the student develop a sense of fairness across disciplines and recognize that all people contribute to the fabric of life. Too often, society does not acknowledge the achievements made by persons of color and women. These courses should serve as a starting point for all aviation students to gain a respect for all contributions to the field as well as a dose of self-confidence to accomplish their chosen life's work. Formal post-secondary education programs should provide a global education to allow students to be prepared for an ever increasingly diverse workforce. Students should be informed of multicultural, gender and minority differences in the global environment in which we live and work. They should be given the tools to succeed with different cultures and genders in a dynamic aviation industry.

It might be beneficial to survey a group of alumni and compare their answers on survey items 17 through 20 to those asked of the students in this research. This may lead to changes in how MGM classes are taught to include material about aviation employment practices and actual preparation to work in a diverse environment. In surveying alumni, attention should be given to the various segments within the industry itself as alumni responses may vary significantly depending on the culture and demographic makeup.

Caution is advised in attempting to categorize and interpret responses based upon demographic makeup in some segments within the aviation industry as the results may be unreliable. For example, the percentage of women and minorities employed in groundside airline operations may be significantly higher than corporate aviation. This type of data analysis across non-homogenous disciplines within the aviation field may not yield any significant results.

Women and minorities have achieved some degree of success in the aviation industry. Relevant and ongoing aviation diversity initiatives must evolve as the aviation industry becomes more diverse. If academicians can transform student perceptions of diversity that are meaningful from aviation industry standards, students may truly understand the value that a diversified workforce has to offer.

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