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School Choice Factors Influencing U.S. Domestic and International Student Pilots' Selections of Vocational Flight Schools

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Air transport is deemed essential to global economic development and prosperity as it accommodates connections among international trade, tourism, and many other economic components; hence, the recovery of air connectivity will be critical as the global economy rebounds from the COVID-19 pandemic in 2020 (International Air Transport Association, 2020). Although international civil aviation in the commercial aviation sector may take several years to recover to 2019 levels, in some countries, the domestic market for air traffic demand has begun to recover and even has sporadically exceeded 2019 levels (Boeing, 2021). As international civil aviation activities have resumed from the pandemic, along with fleet growth, Boeing's (2021) and Canadian Aviation Electronics' (CAE, 2020) pilot outlook emphasized that, due to more senior pilots reaching retirement age in the coming 5-10 years, there is a concern about the industry's capability to supply an adequate number of competent professional pilots.

As of 2019, there were 333,000 active airline pilots (CAE, 2020), and Boeing's (2021) pilot outlook of 2021 to 2040 reported that there is a demand for 612,000 new airline pilots. Thus, in the coming two decades, the demand for new airline pilots will increase by approximately 84%, with 130,000 needed in North America and 482,000 needed outside of North America (Boeing, 2021). Yet, due to the limitations of civilian flight training facilities or the restrictions of domestic airspace in some countries and the high demand for professional pilots, prior to the pandemic, some students preferred to go abroad for training (Aircraft Maintenance Engineer College, n.d.; Chen, 2012 as cited in Turner, 2014). For example, there has been an increase in the number of flight students who choose to be trained in the U.S. (Higgins et al., 2014). Higgins et al.'s (2014) research findings show that the number of non-U.S.-citizen, commercial-pilot-program trainees increased from 17% in 2004 to 45% in 2012.

According to a report in 2011 by the U.S. Government Accountability Office (U.S. GAO, 2011), the U.S. accounted for 60% of the worldwide annual (civilian) pilot training capacity. To the author's knowledge, there has been no updated data about pilot training capacity of different countries or regions. Nation Master's (n.d.) civil aviation statistics demonstrate that in 2019, the U.S. was ranked as the top country with over twice the number of air carrier departures than the second-ranking country among 160 countries. AeroWeb's (n.d.) General Aviation Market Data of the 2020 global market illustrates that nearly 47% of the general aviation aircraft are based in the U.S. These reports suggest that the U.S. has a large capacity of aviation infrastructure and facilities capable of serving the pilot training field and is still shouldering a large role in providing training for international flight students.

Since there will be a high demand for new airline pilots (Boeing, 2021), it is necessary to expand the pilot candidate pool, and promoting flight schools and effective recruiting of students may be one approach. Hemsley-Brown and Oplatk (2016), Hoyt and Brown (2003), and Paulsen's (1990) studies on students' enrollment behavior for higher education suggested that in order to maximize marketing and recruitment efforts, there is a need to improve the understanding of school choice factors affecting students' decisions in choosing their schools. Thus, this study analyzed sub-sets of school choice data gathered from a survey on how choice factors influenced the decision-making in vocational, non-collegiate flight school selections between U.S. domestic student pilots and international student pilots.

Literature Review

A review of literature shows that a limited number of studies have examined school choice factors influencing students' decisions in choosing U.S. vocational, non-collegiate schools specifically from international students' perspectives. This present study mostly

incorporated findings based on students' choice decisions for academic colleges and universities, though, only a handful of these studies specified international students' school choices.

School Choice Theory

Hemsley-Brown and Oplatk (2016) and Paulsen's (1990) research on higher education school choice proposed that students' choice decisions are formed mainly by the interactions between students' characteristics, such as domestic students and international students, and external influences. The external influences typically include school marketing approaches (e.g., campus visits, contact with school staff), relevant people (e.g., family members, friends), and institutional factors (e.g., tuition, school reputation) (Chapman, 1981; Hoyt & Brown, 2003; Melvin, 2003; Meyer, 2019). Many researchers, for instance, Hemsley-Brown and Oplatk (2016), Hoyt and Brown (2003), Melvin (2003), Meyer (2019), and Walton (2014), refer to such external influences as school choice factors.

Hemsley-Brown and Oplatk (2016), Hoyt and Brown (2003), and Paulsen (1990) stated that students' attitudes and preferences toward schools vary according to students' characteristics; to recruiters, students' characteristics, as well as their attitudes and preferences toward schools, contribute to a vast range of market segments in higher education. Moreover, Ivy (2008) noted that prospective students are more apt to choose a school that provides them with information about the school's qualifications and with recruitment efforts that meet their expectations and needs. Accordingly, when targeting the diverse market, it is essential to understand how various choice factors influence students' ultimate decisions in attending their schools; such an approach can help administrators to obtain determinative recruitment information for developing and tailoring strategies that match different student market segments,

based on students' preferences and expectations for their schools (Hemsley-Brown & Oplatka, 2016; Hoyt & Brown, 2003; Paulsen, 1990).

School Choice Factors

Influence of Marketing Approaches

Melvin (2003) investigated choice factors influencing a sample of 147 study participants/current students attending a university's pilot training program. The key marketing approaches that influenced students' decisions included campus visits, school publications, and the school's website. Recently, Mahajan and Golahit (2017) assessed factors influencing students' decisions to attend a university for the technical programs. Mahajan and Golahit's (2017) study included a sample of 674 current students and recent graduates; the findings showed that the school's website and brochure were the two most effective marketing approaches. As for small colleges which typically provide classes with low student-to-faculty ratio, Martirano (2017) conducted a survey of 286 students and found that internet sources were rated as having the greatest influence on students' school choice decisions.

Influence of Relevant People

Chapman (1981) stressed that when selecting a school, students are greatly influenced by their family members and friends. These groups' comments and direct advice would form students' expectations toward their higher education, which would indirectly affect students' decisions of choosing a particular school (Chapman, 1981). Indeed, Melvin (2003) identified that students did consider family members/parents (ranked 1st) and friends (ranked 2nd) as the two most important people who influenced their selection of a university for the pilot training programs. Many recent studies on higher education school choice, such as Meece (2013), Meyer (2019), Rocca (2013), and Walton (2014), affirmed family members/parents having the most

influence. In addition, these researchers found that high school counselors (Meece, 2013; Walton, 2014), current students or alumni (Meyer, 2019), and high school teachers (Rocca, 2013) also had significant influence on students' school choice decisions.

Influence of Institutional Factors

Hemsley-Brown and Oplatka (2015) asserted that there was no standard set of institutional factors that were common in influencing the school choices of all students; based on a review of several studies, they found that academic reputation was the highest-ranked influential factor. Moreover, Hoyt and Brown (2003) observed nine institutional factors which were rated consistently as having the most influence across 22 previous studies. These factors were academic reputation, location, quality of instruction, availability of programs, quality of faculty, costs, reputable program, financial aid, and career placement. As for factors that students deemed essential to their decisions to enroll in a university's pilot training programs, Melvin (2003) identified the following key influencers: the flying opportunities in the first semester, the programs' academic reputation, the rate of career placement, the opportunity to work as a flight instructor, and the fleet of aircraft.

Gaps in the Research

As seen in the literature, Melvin's (2003) study examined choice factors that influenced students' decisions to enroll in pilot training programs pertaining to a university, yet the study did not specify whether the sample included international student participants. Thus it is unclear if Melvin's (2003) study findings would be applicable for international students as well as vocational, non-collegiate pilot training programs since they make up 95% of U.S. civilian flight schools (GAO, 2011). Due to the gaps in the literature, it is necessary to investigate choice

factors influencing both domestic and international students' decisions in selecting non-collegiate flight schools.

Study Purpose and Objectives

The purpose of this study was to examine choice factors influencing U.S. domestic student pilots' selections of vocational, non-collegiate flight schools for the private pilot programs, specifically in California, in comparison to international student pilots.

The following research objectives were identified to accomplish the purpose of the study:

1. Determine if a significant difference exists between domestic and international student pilots in terms of their perceived influence of marketing approaches on flight school selections.
2. Determine if a significant difference exists between domestic and international student pilots in terms of the level of influence relevant people had on flight school selections.
3. Determine if a significant difference exists between domestic and international student pilots in terms of their perceived importance of institutional factors on flight school selections.

Methodology

Data Source

This study is based on Jin's (2019) survey, which investigated school choice factors that influenced student pilots' decision-making in selecting non-collegiate flight schools. Jin's (2019) survey was conducted between July and October 2019 with Alliant International University's Institutional Review Board approval. The sample included 157 domestic and 44 international student pilots. The study's total sample size of 201 participants met the recommended sample

size of 128 computed from the a priori power analysis by using G*Power software (version 3.1.9.7). The a priori power analysis for this study indicated that a minimum sample size of 128 subjects would be needed to run independent t-tests that would generate a moderate effect size of 0.5 (Cohen's *d*), a power of 0.8, while using a critical alpha of 0.05.

To participate in the study, the participants had to meet the following inclusion criteria: (1) aspired to pursue a career as an airline pilot or was already an airline pilot, and (2) was attending or had attended a non-collegiate Part 61 or Part 141 flight school for the (airplane) private pilot program in California in 2016, 2017, 2018, and/or 2019. At the time of taking the survey, all participants were at least 18 years of age, and they completed the informed consent form.

Basic Research Design

Prospective international flight students who are outside of the U.S. can apply to Part 141 schools, which are certified by the Student and Exchange Visitor Program (SEVP) with the eligibility to enroll M-1 nonimmigrant students. As for prospective international flight students who are already in the U.S. with either a green card, certain valid visa (check with U.S. Department of Homeland Security [DHS]), or valid documentation from the DHS for refugee or asylum status, can apply to both Part 61 and Part 141 schools. It is important to note that since this study aimed to examine student pilots' choice decisions of (vocational) non-collegiate flight schools in general, the results were not differentiated between Part 61 and Part 141 schools but rather were combined. This study sample's demographic characteristics revealed that most domestic participants (61.1%) were attending or had attended Part 61 schools when they took the survey; the remaining 38.9% were from Part 141 schools. As for the international participants,

more than half of them (56.8%) were attending or had attended Part 141 schools, and 43.2% of them were from Part 61 schools.

There are different levels of training programs (e.g., private pilot, commercial pilot, and airline transport pilot) that a student will undergo to be an airline pilot. In order to obtain relatively standardized data, the study focused on student school choice experience pertaining to the private pilot program (initial pilot program). The study was designed to focus on flight schools in California for the following reasons. One reason was that at the time of the survey for this study (Jin, 2019), according to the Federal Aviation Administration (n.d.) U.S. Civil Airmen Statistics of 2016 to 2018, California had the second-largest active student pilot population, which may suggest that California has a great pilot training capability and could be counted as an exemplary study state. In addition, given that economic factors such as the costs for training may vary among states, to collect streamlined data, this study focused on one state.

Data Collection

The data was collected by using the online survey tool, Qualtrics. The survey was distributed to pilot community websites worldwide between July and October 2019. In addition, 110 non-collegiate flight schools were invited to help distribute the survey. A random sampling method was utilized to ensure that all prospective study participants had the same opportunity to participate in the research; this sampling method allows for the collected data to represent the targeted population (Panacek & Thompson, 2007).

Survey Instrument

In order to improve content validity, the survey items were selected and revised based on relevant literature (Burns & Grove, 1993). Forty-two choice factor survey items were included in this present study, and they were categorized and analyzed by the following three sets: (1)

marketing approaches, (2) relevant people, and (3) institutional factors. The questionnaire used a five-point Likert scale model. The participants were prompted to rate the level of influence or importance that each factor had on their decision-making in choosing their flight schools.

Data Analysis

This study used descriptive and inferential statistics to analyze and interpret the results. Specifically, as for inferential statistics, independent two-sample t-tests were used to evaluate and compare factors influencing school selections between domestic and international student pilots. The statistically significant results were based on a critical alpha level set at .05 and with a 95% confidence interval.

Findings

Marketing Approaches

Table 1 presents domestic and international student pilots' rankings of the influence of eight marketing approaches (based on mean scores) on their decision-making in choosing flight schools. In addition, the independent t-tests of the statistically significant differences in the influence of these approaches on school selections between the two groups are also provided in Table 1. Specifically, domestic student pilots rated contact with school flight instructors (M = 3.78; SD = 1.25), contact with school staff (M = 3.59; SD = 1.17), and word of mouth (M = 3.41; SD = 1.38) marketing approaches in their top three rankings. Whereas international student pilots rated word of mouth (M = 3.86; SD = 1.05), contact with school staff (M = 3.80; SD = 0.90), and the school's website (M = 3.70; SD = 1.13) as the three most influential marketing approaches. The t-test results revealed that international student pilots rated word of mouth, the school's website, other internet sources, social media, and conventional media significantly higher than their domestic counterparts.

Table 1

Influence of Marketing Approaches on Flight School Selections

	Domestic Student Pilots		International Student Pilots	
	M (Rank)	*SD*	*M* (Rank)	*SD*
Contact with school flight instructors	3.78 (1)	1.25	3.68 (4)	1.18
Contact with school staff	3.59 (2)	1.17	3.80 (2)	0.90
Word of mouth*	3.41 (3)	1.38	3.86 (1)	1.05
Campus visits	3.31 (4)	1.34	3.36 (6)	1.22
School's website*	3.15 (5)	1.45	3.70 (3)	1.13
Internet sources (other than school's website and social media)*	2.90 (6)	1.35	3.43 (5)	1.15
Social media*	2.50 (7)	1.26	2.93 (7)	1.21
Conventional media (e.g., radio, television, and print)**	1.80 (8)	1.15	2.36 (8)	1.20

Note. Domestic student pilots (n = 157), international student pilots (n = 44).

Likert scale: 1 = not influential at all, 5 = extremely influential.

*$p < 0.05$. **$p < 0.01$. The p values were calculated with independent t-tests.

For those independent t-tests that showed significant differences, their corresponding effect sizes were between small (Cohen's d = 0.2) and medium (Cohen's d = 0.5).

Relevant People

Table 2 presents the level of influence that eight relevant people had (based on mean scores) on domestic and international student pilots' decision-making in choosing their flight schools. In addition, the independent t-tests of the statistically significant differences in the influence of these people on school selections between the two groups are also demonstrated in Table 2. Specifically, domestic student pilots rated school flight instructors (M = 3.29; SD = 1.40), family members (M = 3.11; SD = 1.54), and current trainee pilots (M = 2.96; SD = 1.47) as the three most important people who influenced their school selections. As for international

student pilots, they rated school flight instructors (*M* = 3.91; *SD* = 1.29), current trainee pilots (*M* = 3.80; *SD* = 1.15), and graduates/program graduates (*M* = 3.59; *SD* = 1.26) as the top three influences. The t-test results revealed that international student pilots rated school flight instructors, current trainee pilots, graduates/program graduates, friends, school executive committee, and school sales personnel significantly higher than their domestic counterparts.

Table 2

Influence of Relevant People on Flight School Selections

	Domestic Student Pilots		International Student Pilots	
	M (Rank)	*SD*	*M* (Rank)	*SD*
School flight instructors *	3.29 (1)	1.40	3.91 (1)	1.29
Family members	3.11 (2)	1.54	3.11 (5)	1.45
Current trainee pilots**	2.96 (3)	1.47	3.80 (2)	1.15
School staff	2.92 (4)	1.32	3.20 (4)	1.30
Friends*	2.55 (5)	1.40	3.05 (6)	1.33
Graduates/program graduates**	2.50 (6)	1.40	3.59 (3)	1.26
School executive committee**	2.04 (7)	1.24	3.02 (7)	1.41
School sales personnel**	1.84 (8)	1.15	2.68 (8)	1.33

Note. Domestic student pilots (n = 157), international student pilots (n = 44).

Likert scale: 1 = no influence at all, 5 = extreme influence.

*$p < 0.05$. **$p < 0.01$. The *p* values were calculated with independent t-tests.

For those independent t-tests that showed significant differences, their corresponding effect sizes were between small (Cohen's $d = 0.2$) and medium (Cohen's $d = 0.5$).

Institutional Factors

Domestic and international student pilots' rankings of the importance of twenty-six institutional factors (based on mean scores) on their flight school choice decision-making are

shown in Table 3. In addition, the independent t-tests of the statistically significant differences in the importance of these institutional factors on school selections between the two groups are also included in Table 3. Specifically, both groups rated the same nine factors within the top ten rankings which included training quality, availability of flying opportunities, training costs, safety records of the programs, the overall reputation, length of time to complete program, reputation of flight instructors, scheduling flexibility, and training capacity. The t-test results showed that international student pilots rated training capacity, mechanics on staff, administrative effectiveness, campus technology and facilities, availability of extra tutoring, insurance policy for training, appeal of the campus, school social life, and the distance of training aircraft to the runway significantly higher than their domestic counterparts.

Table 3

Importance of Institutional Factors on Flight School Selections

	Domestic Student Pilots		International Student Pilots	
	M (Rank)	*SD*	*M* (Rank)	*SD*
Training quality	4.73 (1)	0.63	4.66 (1)	0.61
Availability of flying opportunities	4.39 (2)	0.75	4.43 (4)	0.82
Training costs	4.36 (3)	0.89	4.41 (5)	0.84
Safety records of the programs	4.29 (4)	1.07	4.55 (3)	0.70
The overall reputation	4.22 (5)	0.94	4.27 (7)	0.85
Length of time to complete program	4.20 (6)	0.99	4.32 (6)	0.77
Reputation of flight instructors	4.19 (7)	0.91	4.43 (4)	0.73
Scheduling flexibility	4.15 (8)	0.87	4.14 (10)	0.88
Training capacity (student to training aircraft and flight instructor ratio)**	3.99 (9)	1.05	4.57 (2)	0.66
Administration integrity	3.94 (10)	1.19	4.11 (11)	0.87
Location	3.83 (11)	1.07	4.05 (12)	1.06
Friendliness of the campus	3.74 (12)	1.17	3.89 (14)	0.87
The types of training aircraft	3.64 (13)	1.25	3.70 (17)	1.09
Career placement	3.62 (14)	1.39	3.82 (15)	1.17
Administrative effectiveness**	3.59 (15)	1.16	4.16 (9)	0.83
Mechanics on staff**	3.59 (15)	1.33	4.23 (8)	0.83
Distance from your home	3.586 (16)	1.31	3.48 (19)	1.47
Campus technology and facilities*	3.48 (17)	1.21	3.95 (13)	0.96
Availability of various training programs	3.44 (18)	1.21	3.59 (18)	1.06
Financial aid	3.29 (19)	1.50	3.34 (21)	1.43
Availability of extra tutoring*	3.16 (20)	1.26	3.73 (16)	1.02
Appeal of the campus*	3.01 (21)	1.22	3.43 (20)	1.04
Flight simulators	2.98 (22)	1.27	2.93 (23)	1.23
Insurance policy for training**	2.85 (23)	1.44	3.70 (17)	1.05
School social life**	2.60 (24)	1.39	3.34 (21)	1.08
The distance of training aircraft to the runway**	2.44 (25)	1.35	3.23 (22)	1.29

Note. Domestic student pilots (n = 157), international student pilots (n = 44).

Likert scale: 1= not important at all, 5 = extremely important.

*$p < 0.05$. **$p < 0.01$. The *p* values were calculated with independent t-tests.

For those independent t-tests that showed significant differences, their corresponding effect sizes were between small (Cohen's $d = 0.2$) and medium (Cohen's $d = 0.5$).

Discussion

Marketing Approaches

Contact with school flight instructors and contact with staff were rated as the two most influential marketing approaches by domestic student pilots in their school choice process. This finding may be unique to flight schools in the domestic market. Some other recent studies on higher education school choice found that students rated website/internet sources as the most influential or effective marketing approach (Mahajan & Golahit, 2017; Martirano, 2017; Meyer, 2019). Domestic student pilots in this study were found to value personal communication-based marketing approaches since they rated contact with flight instructors, contact with staff, word of mouth, and campus visits within the top four rankings.

This finding could be due to the fact that being a pilot is a high-stakes profession, and the pilot programs involve frequent one-on-one, practice-based training. Instructors' competency and commitments may greatly affect students' flight learning quality and their career accomplishments. Understandably, domestic student pilots tended to depend upon personal communication to collect information and determine their schools. Accordingly, when targeting the domestic market, the recruitment efforts can emphasize personalized contact and communication with instructors and staff. In addition, providing campus tour activities regularly, inviting prospective students and their family members to visit the school-affiliated airport and participating in school celebratory events for current students' passing the check rides or first solo flight, can also be good opportunities for instructors and staff to bond with prospective students.

International student pilots rated word of mouth as the most influential marketing approach. This finding was supported by Alfattal's (2017) study in which international students'

choices for their university were investigated. Moreover, domestic student pilots, in this current study, were also found to select this marketing approach (ranked 3rd in Table 1) as a key influencer. Sipilä et al.'s (2017) study affirmed the effectiveness of word of mouth for students' higher education decision-making; they cited Lang and Hyde's (2013) proposals that a "concrete" word of mouth marketing approach can be effectively applied through indirect and direct marketing tactics (p. 183). Typically, indirect tactics go through general advertisements including testimonial advertising and teaser campaigns; direct tactics generally include rewards or incentives to engage the school's word of mouth efforts (Lang & Hyde, 2013).

Moreover, it was found that international student pilots rated the influence of media-based marketing approaches (i.e., school's website, other internet sources, social media, and conventional media) significantly higher than their domestic counterparts. Alfattal's (2017) study also had similar findings. Considering the geographic and cultural barriers, it is reasonable that international students may need to rely upon media-based marketing approaches to collect school information to compare their options. Therefore, flight school recruiters may benefit from investing in informative media platforms when recruiting international student pilots.

Relevant People

As can be seen, school flight instructors were found to influence both groups of student pilots' choice decisions the most. Many studies found that family members/parents were rated as the top group who influenced students' selections of their higher education institutions (Meece, 2013; Melvin, 2003; Meyer, 2019; Rocca, 2013; Walton, 2014). In this present study, the influence of family members was ranked fifth by the international participants and was ranked second by the domestic participants. Students seeking the initial pilot training stage for the private pilot program involve a unique learning relationship with the instructor. Generally, the

time they spend together is mostly in the air rather than in the classroom and simulators, and the student relies on the flight instructor for safety. The instructors are not only responsible for training the students to safely and proficiently operate the aircraft but they also play an important role in encouraging and motivating students in pursuing their career goals. Hence, the Aircraft Owners and Pilots Association (AOPA, 2012) suggested that flight schools introduce instructors' "qualifications, personality, and teaching style" to potential students and assist students in choosing instructors that match their learning style (p. 28).

Moreover, the findings that international participants included current trainees/students (ranked 2nd in Table 2) and graduates (ranked 3rd in Table 2) as key influencing people were aligned with Abdolalizadeh's (2014) findings which were based on an examination of a cohort of international students' choice decisions of a regional university in Kentucky. Also, this present study showed that current trainees' influence was emphasized by the domestic participants, ranked third, in their flight school selection process. Current trainees may share their school choice and flight learning experiences according to their actual practices which may be applicable for prospective student pilots. Hence, it seems that prospective student pilots' decisions in choosing a flight school could be affected by how current trainees assess their schooling experiences.

Therefore, it may be worthwhile for flight schools to evaluate current trainees' satisfaction feedback regularly and adjust the management and services accordingly to maintain their satisfactory educational experience. With a satisfactory school life, current trainees may be more likely to refer their schools to potential students (Abdolalizadeh, 2014; Alves & Raposo, 2007). Additionally, to attract new students, it might be useful to incorporate the voices of

current trainees and graduates sharing their experiences with high quality education and services and their successful pilot career stories in the school's promotional media.

Regarding the significant differences in the influence that relevant people had on school selections between the two groups, the findings suggest that school flight instructors, current trainee pilots, graduates, friends, school executive committee (e.g., school leadership), and school sales personnel had a greater influence on international student pilots' school selections than on domestic student pilots. Among these relevant people who international participants perceived as having a significant influence on their school selections, excluding friends and graduates, are school members. One implication could be that school members play an important role in prospective international student pilots' school choice decisions. Such an implication could be supported by Guo and Chase's (2011) research in which they investigated factors contributing to international students' integration into host institutions for their best transnational education experiences. Guo and Chase's (2011) findings affirmed the effectiveness of the involvement of school members including school leaders, all faculty members, staff, and current students aiming to cultivate and provide a friendly cross-cultural learning atmosphere. This is because, within such an atmosphere, international students would be able to achieve a sense of belonging, feel valued, and be able to effectively communicate for optimal education (Ryan & Viete, 2009).

Institutional Factors

It was found that training quality was considered the most important institutional factor for both domestic and international student pilots. The importance of training quality and quality of instruction in students' choice decisions for their higher education institutions was identified in Hoyt and Brown's (2003) research findings which were based on a review of 22 relevant

studies. Therefore, this present study's findings, regarding training quality, may be applicable for both vocational flight schools and collegiate aviation institutions. According to AOPA's (2010) survey research on student flight training experience, several key components for quality training were proposed, including instructor support (e.g., demonstrating commitments to assist trainees to achieve their learning goals), instructor effectiveness (e.g., providing personalized classes that meet trainees' learning style), well-structured classes (e.g., planning different flight routes in the classes), test preparation (e.g., assisting trainees to meet the Practical Test Standards for the check rides), and supplementary resources (e.g., introducing trainees to relevant websites and flight planner platforms). Given that training quality in this study was found to be of the utmost importance, flight schools are suggested to highlight such key components that reflect schools' efforts on quality training in their marketing and recruitment procedures.

Marketing and recruitment procedures can also stress the following institutional factors that both groups of student pilots deemed substantially more important: availability of flying opportunities, costs, safety records of the programs, the overall reputation, length of time to complete program, reputation of flight instructors, scheduling flexibility, and training capacity. Moreover, since the study participants emphasized the importance of costs which may be a factor causing fewer people to attend flight schools for training (GAO, 2014), it seems that flight schools would remain competitive if they maintain a reasonable price for the programs. Additionally, flight schools providing a realistic estimated training timeframe, utilizing a flexible scheduling system, and accommodating well-structured classes for efficient training to assist trainees to obtain pilot certificates under their budget can also be highlighted.

With respect to significant differences, the results revealed that international participants rated training capacity (student to training aircraft and flight instructor ratio) as the second most

important factor which was significantly higher than their domestic counterparts. The finding that international student pilots stressed training capacity as a key factor may be unique to flight schools. According to Padwal's (2011) study of choice factors influencing international graduate students' selections of U.S. universities for their pharmaceutical programs and Abdolalizadeh's (2014) study of international students' choice decisions of a regional university, they found that small class size was rated below the average ranking and was considered as a less important factor. As for pilot training, it requires individualized and practice-based instructions. Reasonably, international student pilots were more appreciative that a flight school would provide a proper class size—student to instructor and training aircraft ratio—for effective training since the students would have less flexibility in changing a flight school and/or an instructor. The lack of flexibility is often due to the requirements that international flight students must update their immigration documents with the Student and Exchange Visa Information Service (SEVIS) program (except for those who are under certain valid resident statuses) and the Transportation Security Administration Alien Flight Student Program.

In addition, comparing with domestic student pilots, international student pilots seemed to have greater expectations for campus life since they rated the importance of mechanics on staff, campus technology and facilities, availability of extra tutoring, appeal of the campus, and school social life significantly higher than their domestic counterparts. Alfattal's (2017) comparative study also revealed a similar implication. Considering international students' family members, friends, and associates may not be accompanying them to the new environment (Alfattal, 2017), they generally tend to engage in campus activities and school social life to aid in the transition to another country (Alfattal, 2017; Guo & Chase, 2011). Therefore, when targeting the diverse markets, flight school administrators and recruiters should be aware of the value of

various campus experiences in impacting different student pilot groups' school selections and tailor strategies accordingly to maximize the recruitment efforts.

Conclusion and Future Studies

This study investigated how various school choice factors influenced U.S. domestic student pilots' selections of vocational, non-collegiate flight schools in comparison to international student pilots. Except for the findings on key influential choice factors, the study also revealed some discrepancies in the influence of factors on school selections between the two groups. The study results may be applicable for flight school administrators and recruiters to develop and tailor strategies when targeting diverse markets for successful recruitment. Furthermore, student pilot school choice information provided in this study may also be utilized as a reference for prospective students. However, two main limitations of this study must be noted. Since this study design was limited to participants who chose a vocational flight school for the private pilot training programs and specifically for California flight schools, the findings and implications may apply only to this context. To comprehensively understand students' decision-making in selecting their flight schools, it is recommended that future studies examine factors influencing students' enrollment for higher-level pilot training programs. Additionally, choice factors influencing students' flight school selections might differ in other states and regions; therefore, future studies are recommended to conduct similar survey research in other states.

Author Note

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