
AIRLINE FLIGHT OPERATIONS INTERNSHIPS: PERSPECTIVES

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ABSTRACT

The purpose of this study was to identify the manner in which former interns from multiple airlines perceived their airline flight operations internship experience and its value in the pursuit of career goals. The population was composed of former interns from the Southern Illinois University Carbondale (SIUC) Aviation Management and Flight (AVMAF) program. A Likert scale questionnaire was used in the study. Descriptive statistical methods and Kruskal-Wallis tests were used to analyze the data. Results of the study indicate that respondents perceived their airline flight operations internship to be a positive experience with significant value in the pursuit of career goals. There were no statistically significant differences ($p < .05$) in the manner in which respondents from different airlines perceived their airline flight operations internship experience.

INTRODUCTION

Collegiate aviation flight programs prepare students for careers as professional pilots. Curricula vary, but the majority of collegiate aviation flight programs require students to possess at least a commercial pilot certificate and an instrument rating prior to graduation. Graduates are qualified for employment as commercial pilots; however, many students choose to participate in an airline flight operations internship program in an attempt to gain experience and added leverage in a difficult employment market.

Collegiate aviation institutions throughout the U.S. have been involved in airline flight operations internship programs for over 20 years. "Major U.S. airlines and aviation-oriented universities have worked together on flight-oriented internship programs for over 15 years. For example, the

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FedEx internship program dates back to the early 1980s” (NewMyer, Ruiz & Rogers, 2000, p. 1).

The advantages associated with internships are well documented. A study conducted by Kiteley (1997) mentions several of the advantages students and employers can expect to realize through participation in an internship program. “Employers gain access to committed, knowledgeable, temporary, and low-cost help, plus an opportunity to groom potential full-time employees. The participating students get a unique opportunity to experience the real world in their chosen profession” (p. 1).

Recognizing the potential benefits associated with these industry partnerships, many collegiate aviation programs throughout the country maintain internship agreements with at least one U.S. domestic air carrier. “According to the University Aviation Association, students can choose [an airline flight operations internship] from among more than 270 two- or four-year accredited aviation colleges or universities” (Phillips, 1996, p. 43).

This study explores the manner in which students from one university airline flight operations internship program perceived the internship experience.

Southern Illinois University Carbondale

The Aviation Management and Flight (AVMAF) Department of Southern Illinois University Carbondale (SIUC) has administered an airline flight operations internship program since 1987. At the time of this study, the SIUC AVMAF department maintained formal airline flight operations internship agreements with six U.S. major domestic air carriers: American Airlines, Delta Air Lines, Northwest Airlines, Trans World Airlines LLC, United Airlines, and United Parcel Service. A formal airline flight operations internship agreement also existed between the SIUC AVMAF department and Chicago Express Airlines, a U.S. regional carrier serving the Midwest.

PURPOSE OF THE STUDY

The purpose of this study was to identify the manner in which former interns from multiple airlines perceived the airline flight operations internship experience and the internship’s value in the pursuit of career goals.

METHODOLOGY

The population for this study included SIUC AVMAF students who completed airline flight operations internships from July 1987 through May 2002 with at least one of seven U.S. air carriers that maintained a formal airline flight operations internship agreement with SIUC. The SIUC

AVMAF department and airline internship partners performed a records review and identified 224 students who met the population criteria. Of these, 23 interns served with American Airlines, 9 with Chicago Express Airlines, 20 with Delta Air Lines, 8 with Northwest Airlines, 23 with Trans World Airlines, 136 with United Airlines, and 13 with United Parcel Service. Eight interns served on multiple (two) internships.

A total of 218 intern addresses were obtained from the SIUC Alumni Association and SIUC AVMAF internship records. Addresses for six former interns who served at United Airlines were not available. A total of 226 survey questionnaires were mailed to 218 former interns. Eight of the former interns attended multiple (two) internships and, therefore, received two questionnaires. Two mailings of the survey questionnaire were conducted over a three-month period. The first and second mailings of the survey questionnaire resulted in the receipt of 150 survey questionnaire responses, a response rate of 66.4 percent.

Survey Questionnaire

The survey questionnaire was designed to elicit opinions related to two themes with two separate underlying constructs. The first theme dealt with identifying the role an airline flight operations internship was perceived to play in the pursuit of career goals. Ten of the 16 statements were designed to gather data needed to make that determination. This set of statements was referred to as the *career goals* set of statements. The second theme dealt with assessing overall impressions former interns had toward their internship experience. Six of the 16 statements were designed to gather data needed to make that determination. This set of statements was referred to as the *perceptions* set of statements. The 16 questionnaire statements were composed of 8 positively phrased statements and 8 opposing, negatively phrased statements. A Likert scale was used to determine the level of agreement or disagreement former interns had with both sets of statements. Values used in the survey questionnaire were: "Strongly Agree" = 5, "Agree" = 4, "Undecided" = 3, "Disagree" = 2, and "Strongly Disagree" = 1 for positively phrased statements; and "Strongly Agree" = 1, "Agree" = 2, "Undecided" = 3, "Disagree" = 4, and "Strongly Disagree" = 5 for opposing, negatively phrased statements.

A panel of experts was formed to assist in gauging survey validity. A pilot study of the survey questionnaire was also conducted by 20 former interns to increase the survey's content validity. The incorporation of suggestions provided by the panel of experts and former interns who participated in the pilot study led to the development of the final survey questionnaire. As stated by Best & Kahn (1998) "In general, a test is valid if it measures what it claims to measure" (p. 281).

A Cronbach Alpha coefficient was calculated for both sets of statements in the survey questionnaire, involving all 150 respondents, to gauge survey questionnaire reliability. A Cronbach Alpha reliability coefficient of $r = 0.84$ was calculated for the 10 career goals statements. A Cronbach Alpha reliability coefficient of $r = 0.80$ was calculated for the six perceptions statements. “The higher the score, the more reliable the generated scale is. Nunnally (1978) has indicated .70 to be an acceptable reliability coefficient but lower thresholds are sometimes used in the literature” (Santos, 1999, p. 2).

Experiential Learning

The introduction of work experience (experiential learning) in post-secondary education is credited to Herman Schneider. He instituted the first cooperative education program at the University of Cincinnati in 1906 (Wilkins, 1987) as an experiment to “extend the college laboratory” (Van der Vorm & Jones, 1985, p. 1). This educational concept tripled in size in one decade and is currently offered at approximately 900 junior and community colleges, senior colleges, and graduate schools in the U.S.

In *Shaping the College Experience*, Scannell and Simpson (1996) cite John Dewey’s attitudes toward experiential learning. “Dewey noted that building on the interest of students, relating what is done in school to what is done outside and attaining constant interaction with the wider community, brings value and purpose to what goes on in the classroom” (p. 13).

Throughout the book *Internship Success*, Green (1997) discussed the inherent value associated with internships and the positive influence they can have on career success. Green exclaimed, “The word is out that internships offer high school and college students a foolproof way to get a head start in the search for employment and career success” (p. xi).

Green also discusses the characteristics of cooperative education and internships in a detailed, comprehensive manner.

1. Internship: This term is often used generically to refer to any temporary work experience, in a for-profit or nonprofit setting, with the dual purpose of learning while working. Internships can be integrated with the student’s regular school schedule, or take place during a semester away from school, or during the summer break. They can involve academic credit or remuneration. Some internships have an academic component and a faculty sponsor. Internship models may vary from school to school and even among departments on campus. Terminology may also vary: *Internship* may be used interchangeably with *field experience* or *co-op* to describe programs that look similar, or strikingly different (p. 10-11).

2. Cooperative Education (co-op): Derived from a relationship of cooperation between school and employer, co-op can refer to an institutional mandatory program or to a departmental elective program. In the majority of co-op programs, students work full-time for pay in business or industry partnerships for one or more semesters, alternating with full-time classroom study. Other types of co-op programs run parallel to regular academic schedules and carry academic credit. In some cases, college graduation must be extended beyond the typical four years to accommodate time spent on the job. Historically, only departments of engineering, business, and science sponsored co-op programs, but today co-op has become a popular option in many other departments as well (p. 11-12).

In *Shaping the College Experience*, Scannell and Simpson (1996) expressed their views on the relative worth of internships, as well as, citing characteristics associated with successful internships.

Educational benefits of internships have long been noted to encourage more understanding, interests and participation in government and other civic-minded activities; to observe knowledge of relationships between theory and practice. Successful internships are often based in and administered by academic departments, strongly supported centrally with requirements linked to the academic enterprise (p. 18).

Scannell and Simpson also stated that the primary shortcoming related to experiential education cited by traditional academicians is the lack of scientific data associated with experiential learning and the manner in which it benefits student learning.

In order for experiential education to pass the traditional academic muster of the faculty, substantiation of its intellectual benefit is a must. One of the ongoing criticisms of experiential education has been the paucity of any scientifically documented outcomes of the benefits of these opportunities as enhancements to student learning (p.14).

Airline Flight Operations Internships

Airline flight operations internship programs provide students the opportunity to experience the airline environment for a pre-determined period of time (typically one academic semester) at an off-campus location for academic credit. Qualifications vary, but the majority of airline flight operations internship programs require students to possess at least a private pilot certificate. While on the internship, students are expected to perform a variety of administrative support functions. However, interns are also exposed to the varied operational and support functions associated with an airline.

Phillips (1996) discussed airline internship programs at United, Delta, TWA, USAir, and FEDEX. The article mentioned numerous benefits associated with these internships, including: a) full-time employment at United and FEDEX; b) potential for being hired at Delta; c) aircraft simulator time; d) travel benefits; and e) jump seat flights or Additional Crewmember (ACM) privileges.

Simply stated, an internship or cooperative education program (co-op) is an opportunity for a college student to combine traditional on-campus academic learning with professional work experience in a chosen field. These programs allow students in a large number of collegiate aviation programs to bridge the gap between the classroom and the real world. (p. 44)

Bradley (1997) noted, "One of the keys for bridging the experience gap among young pilots is to develop closer cooperation between industry and schools, including establishing internship and work/educational cooperatives" (p. 80).

In an article by NewMyer (1991), he reported that three airlines—United, Northwest and Eastern—had a total of six university or community college partners including three airline-university intern agreements. It was noted that these partnerships were a response to "...the airline industry's search for an answer to the need for qualified, quality pilots..." (p. 16).

In a presentation that addressed airline flight operations internship benefits conducted at Concordia University Ruiz (2001) quoted a statement made by the United Airlines flight operations internship program director at that time.

Internships are a phenomenal opportunity for a job interview. Interns are not competing with the other 9000 applicants—they can move into the flight deck five years earlier than non-interns, resulting in an additional \$7 - \$7.5 million in career earnings (p.22).

Airline Perceptions of Internships

In a study conducted by NewMyer, Ruiz & Rogers (2000), 12 major airline flight operations internship coordinators were asked to summarize their attitudes toward internships.

As far as the value of the internship to the airline, it was interesting that 7 of the 12 airlines [contacted] mentioned "enthusiasm" as one of the things that interns bring to the airline. Several airlines put it this way: "They bring enthusiasm! A shot of energy! Enthusiasm and hard work—it's a trade off, we (the airline) get some hard work and fresh ideas in exchange for what we give to the interns." Another airline mentioned that in addition to enthusiasm, interns are a "morale booster" to regular airline employees (p. 122).

One of the strongest statements in support of airline flight operations internships is the opening statement in the internship program guidelines for Southwest Airlines.

Southwest Airlines recognizes the importance and benefits of an official, company-wide internship program. By having young, talented and educated people from the aviation community come work for us; Southwest will be more efficient and productive than ever. In return, the interns will gain hands-on experience in the day-to-day operations of an airline (Self, 1996, p. 1).

In a series of telephone interviews conducted by the researcher, key airline representatives involved in managing or participating in the flight operations internship program at their respective airline were asked to summarize their thoughts related to the value of an airline flight operations internship.

A. Ballon (personal communications, March 8, 2002), U.S. Airways Human Resources, Flight Operations Internship Coordinator, felt very strongly of the value associated with a flight operations internship.

Interns are extremely valuable to our operation at U.S. Airways. We have a great rapport with our interns; they are dedicated, competent-invaluable! While at U.S. Airways, students have access to our full-motion simulators; they network with seasoned pilots and perform cutting-edge projects for the airline. Interns become familiar with the dynamic of an airline. This is a small industry, if an intern establishes a good reputation with an airline, that reputation will follow them throughout the industry, increasing the likelihood that they will be employed by an airline.

D. Parker (personal communications, March 8, 2002), United Parcel Service (UPS) 727 Ground School Supervisor felt that the internship program was valuable for both the student and the airline.

We have the opportunity to work with the brightest students in [collegiate] aviation. Our interns are trained and qualified to develop sophisticated training aids. We invest quite a bit of money in our interns, but we receive a great return on our investment. We may not guarantee our interns an interview like other airline do, but if an intern does a good job for me – when he's ready, I will personally go to Human Resources and tell them that we need to interview this guy! Now that's an advantage toward achieving your career goals!

Respondent Employment Data

Of the total 150 responses, 144 respondents (96.0%) indicated that they are employed in aviation professions, while 6 (4%) indicated that they are employed in non-aviation professions.

Of the total 150 respondents, 137 (91.0%) are employed as pilots by a regional airline (36.7%), a major airline (33.3%), a corporate entity (9.5%), a flight school (17.7%), or the military (2.8%).

United Airlines employs 37 of the 49 respondents (75.5%) flying for a major airline. Other major airlines combined employ 12 respondents (24.4%). Of the 37 respondents hired as pilots by United, 36 of the respondents (97.2%) interned with United. Of the remaining 12 respondents hired as pilots by various other major airlines, 1 interned with UPS, 2 interned with TWA, 3 interned with Delta, and 6 interned with United.

RESULTS OF THE STUDY

Career Goals Statements

The following analysis of the ten career goals statements was conducted to identify the role an airline flight operations internship was perceived to play in the pursuit of career goals. The data are discussed in sets of positively worded and opposing, negatively worded statements. The descriptive statistical analysis data are presented in Table 1.

Positively worded statements

There were 128 respondents (85.3%) who agreed or strongly agreed with the statement, "My airline internship experience has proven to be a valuable asset in pursuing my career goals." This statement had a mean of 4.31, approaching strong agreement with the statement. It also had a standard deviation of 1.00, indicating that responses to this statement were not widely dispersed.

There were 128 respondents (80.0%) who agreed or strongly agreed with the statement, "My airline internship experience allowed me to network and form professional relationships that have assisted me in pursuing my career goals." This statement had a mean of 4.05, indicating agreement with the statement. It also had a standard deviation of 1.01, indicating that responses to this statement were not widely dispersed.

There were 118 respondents (78.6%) who agreed or strongly agreed with the statement, "My airline experience assisted me in formulating my career goals." This statement had a mean of 4.02, indicating agreement with the statement. It also had a standard deviation of 1.01, indicating that responses to this statement were not widely dispersed.

There were 90 respondents (60.0%) who agreed or strongly agreed with the statement, "My airline internship experience aided me in acquiring my initial employment." This statement had a mean of 3.62, indicating that respondents approached agreement with the statement. It also had a standard deviation of 1.45, indicating that responses to this statement varied more

than responses to other statements. Notably, 42 respondents (28.0%) also disagreed or strongly disagreed with this statement, indicating some measure of dissention related to the role an airline internship is perceived to play in the acquisition of initial employment.

There were 81 respondents (54.0%) who agreed or strongly agreed with the statement, "My airline internship experience aided me in acquiring my current employment." This statement had a mean of 3.39, indicating that respondents' perceptions varied between being undecided and approaching agreement with the statement. It also had a standard deviation of 1.53, indicating that responses to this statement varied more than responses to other statements. Notably, 55 respondents (36.6%) also disagreed or strongly disagreed with this statement, indicating some measure of dissention related to the role an airline internship is perceived to play in the acquisition of current employment.

Negatively worded statements

There were 129 respondents (86.0%) who disagreed or strongly disagreed with the statement, "My airline internship experience has proven to be of little value in the pursuit of my career goals." This statement had a mean of 4.39, approaching strong disagreement with the statement, indicating that an airline internship is considered valuable in the pursuit of career goals. It also had a standard deviation of 1.05, indicating that responses to this statement were not widely dispersed. There were 128 respondents (85.4%) who disagreed or strongly disagreed with the statement, "My airline internship experience had little to do with the formulation of my career goals." This statement had a mean of 4.17, approaching strong disagreement with the statement, indicating that an airline internship is considered valuable in the pursuit of career goals. It also had a standard deviation of 0.96, indicating that responses to this statement were not widely dispersed.

There were 113 respondents (86.0%) who disagreed or strongly disagreed with the statement, "My airline internship experience resulted in few professional networking opportunities." This statement had a mean of 3.91, approaching disagreement with the statement, indicating that an airline internship is considered valuable in the pursuit of career goals. It also had a standard deviation of 1.12, indicating that responses to this statement were not widely dispersed.

There were 74 respondents (49.4%) who disagreed or strongly disagreed with the statement, "My airline internship experience played an insignificant role in acquiring my current employment." This statement had a mean of 3.17, indicating that respondents' perceptions varied between being undecided and approaching disagreement with the statement. It also had a

standard deviation of 1.52, indicating that responses to this statement varied more than responses to other statements. Notably, 66 respondents (44.0%) also agreed or strongly agreed with this statement, indicating some measure of dissention related to the role an airline internship is perceived to play in the acquisition of current employment.

There were 70 respondents (46.7%) who disagreed or strongly disagreed with the statement, "My airline internship experience played an insignificant role in acquiring my initial employment." This statement had a mean of 3.15, indicating that respondents' perceptions varied between being undecided and approaching disagreement with the statement. It also had a standard deviation of 1.54, indicating that responses to this statement varied more than responses to other statements. Notably, 64 respondents (42.6%) also agreed or strongly agreed with this statement, indicating some measure of dissention related to the role an airline internship is perceived to play in the acquisition of initial employment.

Perceptions Statements

The following analysis of the six perceptions statements was conducted to assess the overall manner in which former interns perceived their airline flight operations internship experience. The data are discussed in sets of positively worded and opposing, negatively worded statements. The data are presented in Table 1.

Positively worded statements

There were 141 respondents (94.0%) who agreed or strongly agreed with the statement, "My airline internship experience was very educational." This statement had a mean of 4.47, approaching strong agreement with the statement. It also had a standard deviation of 0.72, indicating that responses to this statement were not widely dispersed.

There were 145 respondents (96.7%) who agreed or strongly agreed with the statement, "I would recommend participating in an airline internship to someone else." This statement had a mean of 4.73, approaching strong agreement with the statement. It also had a standard deviation of 0.56, indicating that responses to this statement were not widely dispersed.

Table 1. Perceptions of airline flight operations internship experiences and their value in the pursuit of career goals

<i>Questionnaire Statement</i>	<i>Mean</i>	<i>SD</i>	<i>#</i>	<i>%</i>
Positively worded career goal statements				
My airline internship experience has proven to be a valuable asset in pursuing my career goals	4.31	1.00	128*	85.3
My airline internship experience allowed me to network and form professional relationships that have assisted me in pursuing my career goals	4.05	1.01	12.*	80.0
My airline internship experience assisted me in formulating my career goals	4.02	1.01	118*	78.6
My airline internship experience aided me in acquiring my initial employment	3.62	1.456	90*	60.0
My airline internship experience aided me in acquiring my current employment	3.39	1.53	81*	54.0
Negatively worded career goal statements				
My airline internship experience has proven to be of little value in the pursuit of my career goals	4.39	1.05	129**	86.00
My airline internship experience had little to do with the formulation of my career goals.	4.17	0.96	128**	85.4
My airline internship experience resulted in a few professional networking opportunities.	3.91	1.12	113**	86.0
My airline internship experience played an insignificant role in acquiring my current employment.	3.17	1.52	74**	49.4
My airline internship experience played an insignificant role in acquiring my initial employment	31.5	1.54	70**	46.7
Positively worded perceptions statements				
My airline internship experience was very educational.	4.47	0.72	141*	94.0
I would recommend participating in an airline internship to someone else.	4.73	0.56	145*	96.7
My airline internship experience significantly increased my knowledge of the airline industry.	4.27	0.87	131*	96.7
Negatively worded perceptions statements				
My airline internship experience was less educational that I had hoped.	4.17	0.93	130**	86.7
My knowledge of the airline industry was less extensive than I thought it would be after having completed an airline internship.	4.02	0.99	119**	79.3
I am unwilling to recommend participating in an airline internship to someone else.	4.52	0.93	138**	92.0

N = 150 for each statement

*Respondents who indicated they "Agree" or "Strongly Agree" with the statement.

**Respondents who indicated they "Disagree" or "Strongly Disagree" with the statement.

There were 136 respondents (87.3%) who agreed or strongly agreed with the statement, “My airline internship experience significantly increased my knowledge of the airline industry.” This statement had a mean of 4.27, approaching strong agreement with the statement. It also had a standard deviation of 0.87, indicating that responses to this statement were not widely dispersed.

Negatively worded statements

There were 136 respondents (86.7%) who disagreed or strongly disagreed with the statement, “My airline internship experience was less educational than I had hoped.” This statement had a mean of 4.17, approaching strong disagreement with the statement, indicating that respondents’ perceived an airline internship as educational. It also had a standard deviation of 0.93, indicating that responses to this statement were not widely dispersed.

There were 119 respondents (79.3%) who disagreed or strongly disagreed with the statement, “My knowledge of the airline industry was less extensive than I thought it would be after having completed an airline internship.” This statement had a mean of 4.02, indicating disagreement with the statement and signifying that respondents’ perceived an airline internship as serving to enhance an intern’s knowledge of the airline industry. It also had a standard deviation of 0.99, indicating that responses to this statement were not widely dispersed. There were 16 respondents (10.7%) who agreed or disagreed with the statement and 15 respondents (10.9%) were undecided with the statement.

There were 138 respondents (92.0%) who disagreed or strongly disagreed with the statement, “I am unwilling to recommend participating in an airline internship to someone else.” This statement had a mean of 4.52, approaching strong disagreement with the statement, and indicating that respondents would recommend an airline internship to someone else. It also had a standard deviation of 0.93, indicating that responses to this statement were not widely dispersed.

Statistically Significant Differences

A Kruskal-Wallis test was conducted to identify statistically significant differences in the manner in which respondents from different airlines perceived the role an airline flight operations internship played in the pursuit of career goals. After applying a Kruskal-Wallis test of significance, no statistically significant difference in responses were found among airlines at the $p < .05$ level, [$X^2 (6, N = 150) = 7.70, p = .26$].

A Kruskal-Wallis test was conducted to identify statistically significant differences in the manner in which respondents from different airlines

perceived their airline flight operations internship experience. After applying a Kruskal-Wallis test of significance, no statistically significant difference in responses were found among airlines at the $p < .05$ level, [$X^2 (6, N = 150) = 3.88, p = .69$].

CONCLUSIONS

Generally, respondents held a positive view of their internship experience. The majority of respondents (94.0%) felt that the internship experience was educational. The majority of respondents (87.3%) indicated that the internship experience significantly increased their knowledge of the airline industry. The majority of respondents (96.7%) expressed that they would recommend an airline internship to someone else.

An airline flight operations internship was perceived to play a significant role in the pursuit of career goals. The majority of respondents (85.3%) perceived the internship experience to be a valuable asset in the pursuit of their career goals. The majority of respondents (78.6%) believed the internship experience assisted them in the formulation of their career goals. The majority of respondents (80.0%) also reported that their internship experience allowed them the opportunity to form professional relationships that had assisted them in pursuing their career goals.

The majority of respondents (60.0%) reported that their internship experience aided in acquiring initial employment. However, respondents (40.0%) also reported that they were undecided or did not believe their internship experience aided them in acquiring initial employment. The majority of respondents (54.0%) reported that their internship experience aided in acquiring current employment. However, respondents (46.0%) also reported that they were undecided or did not believe their internship experience aided them in acquiring current employment.

There were no statistically significant differences ($p < .05$) in the manner in which respondents from different airlines perceived the role an airline flight operations internship played in the pursuit of career goals ($p = .26$).

There were no statistically significant differences ($p < .05$) in the manner in which respondents from different airlines perceived their airline flight operations internship experience ($p = .69$).

This study has served to report the manner in which former interns perceive the airline flight operations experience. Generally, the experience was perceived to be positive and valuable in the pursuit of career goals. There were no significant differences in the manner in which the internship experience was perceived among respondents from different airlines.

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