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Timing is Everything: A Comparative Study of the Adjustment
Process of Fall and Mid-Year Community College Transfer
Students at a Public Four-Year University

by Scott F. Peska

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The Institute for Community College Research was founded in 1983 to encourage research into questions related to the mission, financing, and outcomes of the community college. Incorporated in the Institute's programs is a Dissertation Prize for graduate students. Dr. Scott F. Peska, at the time a student at The University of Illinois at Urbana-Champaign, is this year's recipient of the prize.

This Working Paper is a brief summary of his dissertation. We have included the full list of the References from the dissertation to give the reader a better understanding of the nature of the larger work.

The \$1000 prize which accompanies this award was presented at the Council for the Study of Community Colleges annual meeting in Seattle, WA in April, 2010.

Richard M. Romano, Director

TIMING IS EVERYTHING: A COMPARATIVE STUDY OF THE
ADJUSTMENT PROCESS OF FALL AND MID-YEAR COMMUNITY COLLEGE
TRANSFER STUDENTS AT A PUBLIC FOUR-YEAR UNIVERSITY

BY

SCOTT F. PESKA

DISSERTATION

University of Illinois at Urbana-Champaign, 2009

Doctoral Committee:

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Background for the Study

With nearly half of the undergraduate population enrolled in two-year institutions (AACC, 2006), the transfer function has proven essential to providing access to the baccalaureate degree. Wellman (2002) has argued that the bachelor's degree is viewed as a necessity in the United States, similar to the high school diploma during the mid-1950s. The U.S. Census Bureau (2009) reported that individuals with a bachelor's degree earn approximately \$20,000 more a year, on average, than those who have a high school diploma only. Over a lifetime, bachelor's degree holders earn over 71% more than high school graduates, and this is important because students who start at a two-year institution and plan to earn a bachelor's degree are 15-20% less likely to do so than students who begin at a four-year institution (Fiske, 2004). Therefore, progression and persistence to the bachelor's degree through transfer from the community college to university is a less predictable academic pathway than four-year university study solely, but, when successful, is a predictor of upward social mobility.

Prior research has established that student persistence is linked to social and academic integration (Astin, 1993, Tinto, 1993) and understanding the adjustment process that leads students to such integration is crucial. The study of the transfer adjustment process is valuable and timely, because two- and four-year institutions contribute to, and need to be held accountable for, helping transfer students persist and successfully earn a baccalaureate degree. Investigating the transfer adjustment process for students who transfer at either fall or mid-year is important to gaining a comprehensive understanding of students' transfer adjustment experiences, particularly because of the increased mobility of students and their predilection to transfer at the time of year that is suitable to them. For most students, transferring to the university happens during the fall semester.

The Problem of Mid-Year Transfer

Fall semester is the predominant time for starting the academic year in the United States, as is evidenced by nearly 77% of all first-time higher education entrants beginning college at that time of year (Tinto, 1993). Despite this historical pattern, numerous four-year universities accept

a sizeable number of community college transfer students who begin mid-year as a means to stabilize decreases in fall enrollments (Cedja, 1994). From the institutional perspective, boosting admission at non-traditional times of the academic year is an important means of enrollment management and, therefore, fiscal management. From the student perspective, however, little is known about how starting at a non-traditional time, such as mid-year, influences their adjustment to a four-year campus. Universities routinely offer college adjustment aiding resources (i.e., orientations, first-year seminars, common reading initiatives, welcome week activities, convocations) to fall entrants (Barefoot, 2000; Upcraft, Gardner, & Associates, 1989), but sporadically offer such resources to mid-year transfer students. This differential in delivery of resources and services may be problematic because, as Pascarella and Terenzini (1991, 2005) suggest, the curriculum is a sequence of learning events, with courses building on preceding courses. Since many second-term courses are sequenced to follow fall courses, mid-year entrants lack prerequisites. Also, as indicated in a *U.S. News and World Report* (February, 22, 2005), students transferring mid-year may not be eligible for grants because fall transfer students consume all of the funds allocated to the campus for the entire academic year. Grant funds are limited and awarded on a first-come basis, providing advantage to fall entrants.

For most regions of the United States, the mid-year term begins when the temperature is cold and inclement weather conditions are peaking. Inclement weather can make travel conditions hazardous for students commuting to campus and reduce or deter their social activities (e.g., less outdoor activities, less sidewalk chalk advertising). Mid-year transfer students may also find limited recruiting by campus employers or student organizations since many organizations select their leaders during the prior academic year or the fall term. Mid-year transfer students may also be disadvantaged relative to their fall counterparts when it comes to leadership opportunities since many clubs and organizations elect officers and appoint

committees at the beginning of the academic year. Lastly, mid-year transfer students who choose to live in residence halls may discover that they need to make decisions regarding their rooming assignments for the following academic year a few weeks into their first semester (Britt & Hirt, 1999) before they have spent sufficient time in the residence halls to know if they are suitable to their living preferences.

These potential challenges unique to mid-year transfer students have not been the foci of scholarly research, as most empirical work on the adjustment process of community college transfer students at four-year institutions is based on the experiences of students who transfer in the fall semester. Understanding the adjustment process of students that transfer at a non-traditional time is important because adjustment is regarded as the first step to students becoming integrated, which in turn, positively correlates with student persistence (Tinto, 1993). According to Pascarella and Terenzini (2005), the adjustment after entering college can be similar to a cultural adjustment, and Tinto observed, “Persistence to college requires individuals to adjust, both socially and intellectually to the new and sometimes quite strange world of college” (1993, p. 45).

As transfer students move from a community college to a four-year institution, often they experience a number of academic and social adjustment challenges (Berger & Malaney, 2003; Britt & Hirt 1999; Cejda, 1994, 1997; Diaz, 1992; Graham & Hughes, 1994; House 1989; Keeley & House 1993; Laanan 1996, 1998, 2001, 2004; Owens, 2009; Richie, 2004; Townsend, 1993, 1995; Townsend & Wilson, 2006). Quantitative studies of the transfer adjustment process have examined integration from the standpoint of using grade point average (GPA) and graduation rates (Davies & Dickmann, 1998; Townsend & Wilson, 2006). In addition to academic performance, studies have found that transfer students experience various personal and social adjustment challenges (Britt & Hirt, 1999; Laanan, 1998, 2004; Richie, 2004; Townsend,

1995; Townsend & Wilson 2006). Social adjustment is important because, as Braxton, Hirshy, and McClendon (2004) found in their meta-analysis, social integration plays a larger role in predicting student persistence than academic integration, in some cases. Gumm (2006) contends that officials of most four-year colleges and universities address the adjustment needs of transfer students with the same programs designed for incoming freshmen. Such a one-size-fits-all perspective is of concern because community college transfer students face a host of unique challenges in adjusting to a four-year institution.

Purpose and Research Questions

This sequential mixed method study (Creswell, 2003) compared the adjustment process of community college transfer students who began in the fall to those who began mid-year, beginning with a quantitative phase and extending to a qualitative phase of data collection in the fall semester and repeating this same sequence of data gathering with transfer students enrolling in the spring term. The central question guiding the quantitative phase was whether there are differences in the adjustment of fall and mid-year community college transfer students in the semester they first transfer to a public, four-year institution. The second phase explored the community college transfer students' adjustment experiences during the fall and mid-year through the use of small group interviews. The central question guiding the qualitative inquiry was how mid-year community college transfer student adjustment differs from fall transfer student adjustment, focusing this qualitative inquiry on the mid-year transfer students and comparing and interpreting their results to those of fall transfer students.

The following research questions guided the quantitative phase of this study:

1. Do fall and mid-year community college transfer students attending a public, four-year institution differ on demographic and situational variables?

2. Controlling for demographic and situational variables, are there differences in the adjustment (social, academic, personal) of fall and mid-year community college transfer students at a public, four-year institution?
3. Controlling for demographic and situational variables, are there differences in awareness of institutional resources (programs, services, activities, and staff) available to assist in the adjustment of fall and mid-year community college transfer students at a public, four-year institution?
4. Controlling for demographic and situational variables, are there differences in the usage of institutional resources (programs, services, faculty and staff) available to assist in the adjustment of fall and mid-year community college transfer students at a public, four-year institution?
5. Controlling for demographic and situational variables, does the awareness or use of institutional resources influence the adjustment (social, academic, personal) of fall and mid-year community college transfer students at a public, four-year institution?

The research question that was posed to guide the qualitative phase of this study was:

What factors are perceived to influence the adjustment of community college transfer students entering in the fall compared to those entering mid-year at a public, four-year institution?

The study was conducted during fall 2008 and spring 2009 at a large, public, Midwestern university that is noted for its extensive community college transfer enrollment. At this institution, the percentage of mid-year community college transfer students has remained constant at approximately 25% for many years (see table 1).

Table 1

Community College New Transfer Enrollments Fall 2004 to Fall 2008

Term	2004	2005	2006	2007	2008
Spring semester	527	491	415	458	436
Fall semester	1,414	1377	1,408	1349	1345
Total	1941	1868	1823	1807	1781
Percentage of mid-year transfers	27%	26%	23%	25%	24.5%

Conceptual Framework

This study elaborated on theoretical frameworks of Tinto's (1993) Interactionalist theory on college student departure and Astin's (1993) I-E-O model (see figure 1). Theory elaboration allows researchers to hone in on a particular aspect of a theory and apply concepts from other theoretical perspectives to gain a greater insight (Braxton, Milem, & Sullivan, 2000) into community college-to-university transfer and student adjustment. Both frameworks center on the fundamental principle that college affects or impacts students (Pascarella & Terenzini, 1991, 2005). Although both were developed for the traditional four-year college student population, many researchers have applied them to the study of transfer students (Gumm, 2006; Harrison, 1999; Laanan, 1998, 2004; Townsend, 1993, 1995; Townsend & Wilson, 2006).

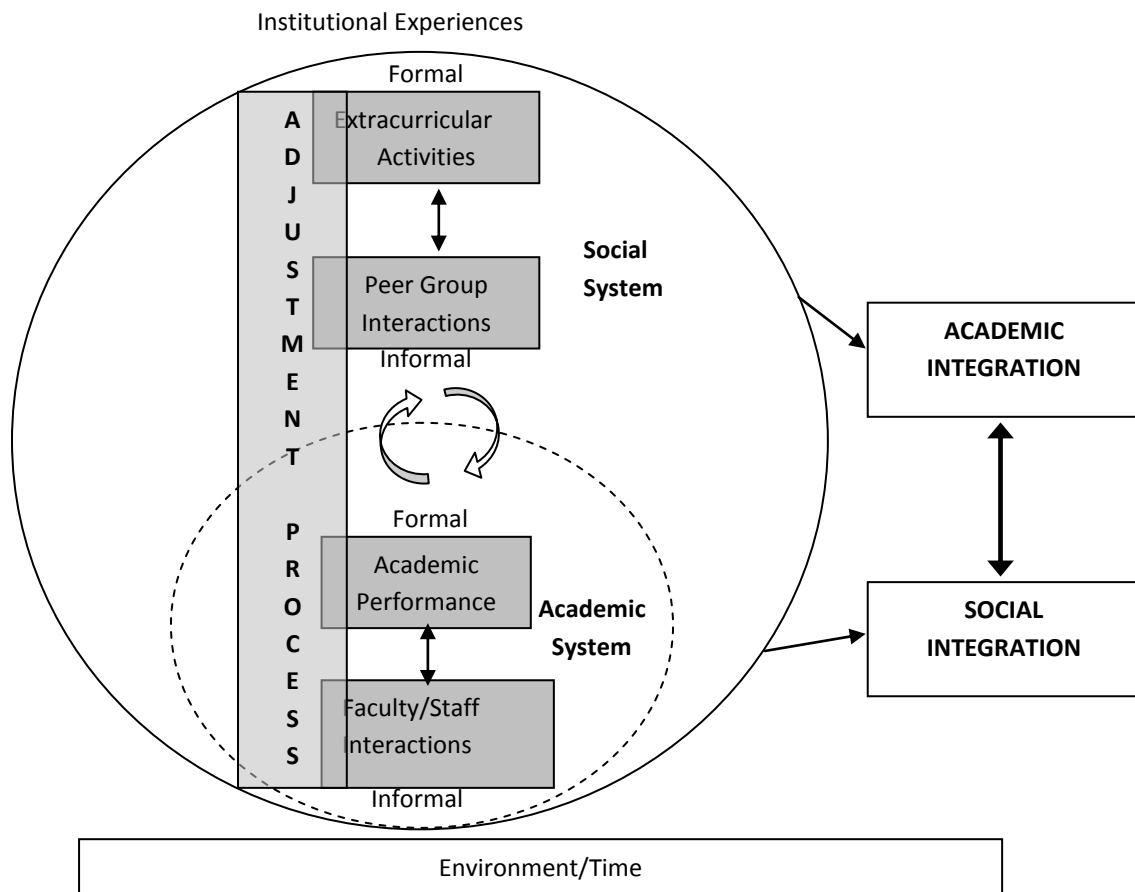


Figure 1. Elaboration of Tinto's (1993) model of institutional departure.

Tinto's Interactionalist theory has been widely used, as evidenced by the writing of Braxton, Sullivan, and Johnson (1997) who found nearly 700 citations using Tinto's conceptual framework to investigate student persistence. Tinto's work builds on earlier studies by Spady (1970, 1971) and Durkheim (1951), who related a student's leave of college to that of suicidal tendencies increasing when individuals are not socially and normatively integrated. Spady (1970) thought that similar characteristics and variables could account for student attrition, such as lack of friendship, support, intellectual development differences, grade performance, and normative congruence. Tinto (1987) expanded on Spady's research by including interaction between variables, from pre-entry attributes (background characteristics, skills and abilities, and prior school experience) and goals and commitment (intentions, commitment to the institution, and academic goals). These, in turn, shape the formal and informal experiences that students have at an institution. These experiences influence the student's level of integration (academic or social), which shapes their goals and commitments (intentions, academic goals, and commitment to the institution) and has an impact on a student's decision to stay or leave the institution.

Although Tinto's model has been widely used, it has received a fair amount of criticism. Critics have identified shortcomings of the social integration aspects of Tinto's model with specific populations, such as non-traditional students (Bean & Metzner, 1985; Rendón, 1994), and with minority student (Hurtado & Carter, 1997; Kraemer, 1997; Rendón, Jalamo, & Nora 2002; Tierney, 1992). Additionally, Baird (2000) suggested that Tinto's (1993) model may be ambiguous and limited in the operational definitions of the constructs.

In addition to Tinto's theory on student departure, Astin's I-E-O model on student involvement (1984, 1993) has been used widely to understand input variables (i.e., demographic characteristics) and environmental variables (i.e., experiences at college) that shape outputs (i.e., satisfaction, attitudes, degree attainment, or persistence). Astin investigated 146 possible input

variables, 192 environmental factors, and 82 output variables (Ishler & Upcraft, 2005). Astin's (1993) model compliments Tinto's (1993) model, as it allows researchers to control input variables using regression analysis to determine how the experiences at college may shape outcomes. Where Tinto's (1993) model implies the investment of students, Astin's (1984, 1993) model explicitly links student effort in the equation to becoming involved. Braxton (2000) contends that Astin's (1993) model is an excellent theory to elaborate on Tinto's (1993) academic and social factors that influence student departure. Therefore, Astin's (1993) model can help investigate and elaborate specific constructs implicit to Tinto's model (1993). A criticism of Astin's (1993) I-E-O model, similar to Tinto's (1993) theory, is that the burden to become involved rests on the student solely. Thus, student-initiated activity rather than institutional-initiated activity impacts students' likelihood to persist. Astin's model, just as Tinto's (1993) model, clearly acknowledges that institutions play a vital role in the type of environmental variables experienced by students, but the burden of initiating these experiences falls on students' efforts to become involved.

Methods

A sequential, mixed method study was used to provide holistic understanding of the research problem by triangulating data and reducing biases associated with only one type of data collection (Greene, Caracelli, & Graham, 1989). Specifically, a sequential explanatory strategy was employed, where survey data and small group interview data were collected (Creswell, 2003; Tashakkori & Teddlie, 1998). The primary independent variable was term of entry (fall or mid-year), and the primary dependent variables were associated with the three constructs of adjustment (social, academic, and personal). Awareness and usage of institutional resources served as variables in some analyses. The research site was a public four-year university located

in the Midwest, and the first-year persistence rates for community college transfer students was 83.1% for fall 2008 entrants and 77.1% for spring 2009 entrants (institutional data, 2010), documenting a disparity in retention for the population of transfer students in this study.

The first phase of this research relied on collecting data using an online survey. The Transfer Student Adjustment Survey (TSAS) instrument was created based on existing transfer student adjustment surveys (Gumm, 2006; Keup, 2006; Laanan 1998; 2004) and qualitative studies on transfer student adjustment. Once developed, the instrument was reviewed by a panel of four national experts on the transfer student population and pilot-tested to improve item clarity. The TSAS consisted of 39 adjustment items, three open-ended questions, and 16 demographic items. The samples for this phase were limited to in-state community college transfer students that entered the research site in fall 2008 and spring 2009 with 12 or more credit hours to help reduce extraneous variables. The fall 2008 sample (n=700) was randomly selected from the 1,338 in-state community college transfer students who transferred in the fall and the entire spring 2009 population (n=428) were surveyed. The survey was administered in the tenth and eleventh week of the sample's first semester followed by a second and third notice each week afterwards. The fall sample produced a 41% (n=288) return and the spring sample's return was 33% (n=141). Duplicate, incomplete, and responses that did not meet the criteria (i.e., out-of-state transfers, less than 12 credit hours) were removed. The fall 2008 sample had 258 usable responses compared to the spring 2009 sample with 115.

A final survey question asked participants to share contact information if they were interested in volunteering to partake in a small group interview. There were 82 fall 2008 sample respondents and 40 spring 2009 sample respondents who disclosed contact information for the small group interview process. Three group interviews were conducted for fall 2008 participants with two groups consisting of five students and one group with two students. For the spring 2009

participant interviews, three groups were conducted with a group of four students, a group of five students, and a single student interview due to other group participants not showing up for the interview. Interviews took place near the end of the students' first semester after transferring.

The survey data was initially analyzed using an exploratory factor analysis to determine the validity of the adjustment constructs (academic, social, and personal) and to identify valid subscales. A principal components extraction method with a varimax rotation of the 39 adjustment items was conducted and resulted in 11 components with Eigen values greater than one and accounted for 64.2% of the total variance. Three subscales were identified for each construct and two were removed from the personal adjustment construct for having only one item or a factor loading less than .400 (Costello & Osborne, 2005). The subscales were used primarily to modify the construct scales and to provide a thorough investigation of adjustment. Internal consistency was measured using Cronbach's alpha, which produced 0.846 for all items. Each construct and subscale produced a score above 0.60, as recommended by Devellis (2003).

For the demographic variables crosstabulations, frequency distributions, chi-square analysis, and t-tests were used. For research questions two through five, regression analyses were primarily used to identify the relationships between term of entry, awareness, usage, and social, academic, and personal adjustment while controlling for the same demographic variables. Qualitative data was audio recorded, transcribed and then read through by the researcher thoroughly before analyzing the data. Once familiar with the text, the data was reduced by searching for patterns and a total of 569 statements were coded thematically into personal, academic, or social adjustment categories. Secondly, each of these statements was clustered with like items using a cluster coding technique (Miles & Huberman, 1994). A third analysis of these data determined the positive or negative direction of each statement.

Major Findings

The first research question inquired about differences in demographic variables between the fall 2008 (n=258) and spring 2009 (n=115) samples. The conceptual framework suggested that student demographic factors shaped institutional experiences and collegiate outcomes, such as adjustment. A major finding was that the mid-year sample had significantly more students than the fall sample who identified as male ($p < .05$), non-white ($p < .001$), commuters ($p < .05$), having a parent (father) with no prior college experience ($p < .05$), and part-time attendees ($p < .001$) as indicated in table 2. A significant $\chi^2(8, N = 373) = 24.75, p = .002$ difference between these two samples also was found on the age variable, but when collapsed into traditional and non-traditional age groups the difference was no longer significant. The average age for both samples was approximately 22 years of age (fall 2008 $M=21.74, SD = 4.77$; spring 2009 $M=22.37, SD = 4.46$) with the mid-year sample being slightly older. The percentage of 20-year-olds (40%) in the fall 2008 sample was nearly double the spring 2009 percentage (21%). A plausible reason for this observation is that 20-years of age correspond with students who attend community college for two years non-stop when entering directly after completing high school. Following a traditional 2+2 path is expected to yield more 20-year olds in the fall in comparison to mid-year because most students complete high school at age 18 (Townsend, 2001).

No prior research on transfer students helps to explain why entering at different terms would account for such disparity among demographic variables. However, the demographic variables associated with mid-year transfer students have been identified in previous research as persistence risk factors (Horn, 1996; Pascarella & Terenzini, 2005) in that transfer students who enter mid-year are more likely than fall transfer students to have one or more characteristics that are negatively associated with persisting to graduation. Besides raising the issue of persistence,

these results point to the importance of controlling for demographic variables when investigating adjustment of fall and mid-year transfers.

Table 2

Demographic Comparison Between Fall 2008 and Mid-Year 2009 cohorts

Control Variables	Fall		Spring		Total	χ^2	df	P.
	2008	%	2009	%				
Male	95	36.8%	55	47.8%	150	4.01	1	.045
Female	163	63.2%	60	52.2%	223			
White	241	93.0%	95	83.0%	336	10.39	1	.001
Non-white	17	7.0%	20	17.0%	37			
Traditional age (18-24)	227	88.0%	96	83.0%	323	.139	1	.238
Nontraditional age (25 +)	31	12.0%	19	17.0%	50			
On campus	69	27.0%	30	26.0%	99	.018	1	.894
Off campus	189	73.0%	85	74.0%	274			
Commuter	124	48.1%	71	61.7%	195	5.96	1	.015
Non-commuter	134	51.9%	44	38.3%	178			
Full-time student	245	95.0%	95	82.6%	340	15.05	1	.000
Part-time student	13	5.0%	20	17.4%	33			
Employed	121	46.9%	57	49.6%	178	.227	1	.634
Not employed	137	53.1%	58	50.4%	195			
Earned associate's	159	61.6%	73	63.5%	232	.116	1	.734
No associate's	99	38.4%	42	36.5%	141			
Total	258	100.0%	115	100.0%	373			

The second research question inquired about differences in the adjustment constructs (academic, social, and personal) and the term entered, while controlling for demographic variables. A significant relationship ($p < .05$) was found between social adjustment and the term of entry regression coefficient after controlling for other demographic variables, which indicates that fall transfer students had a more positive social adjustment [$R^2 = .055$, $F(12, 356) = 1.71$, $p < .05$]. Of the three social adjustment subscales, the campus activities subscale was the only one significantly related ($p < .001$) with term of entry [$R^2 = .137$, $F(12, 356) = 4.73$, $p < .001$], suggesting that mid-year transfer students, in comparison to fall transfer students, attended fewer campus activities and did not find campus activities they attended as helpful in building connections with other students socially as fall transfer students. The academic adjustment construct and the personal adjustment construct were not significantly related with term of entry. However, term of entry was significantly related ($p < .001$) to the personal adjustment subscale, registration/advising [$R^2 = .074$, $F(12, 356) = 2.38$, $p < .01$], which suggests that mid-year entrants had a more positive experience with advising and registering for courses than the fall sample.

The third and fourth research question investigated awareness and usage of institutional resources designed to aid in adjusting to campus. A significant relationship ($p < .001$) was found with awareness of resources and term of entry [$R^2 = .095$, $F(12, 356) = 2.86$, $p < .001$], meaning mid-year transfers were aware of fewer resources than fall transfers. In addition, white students and students who lived in a residence hall were more aware of these resources than their counterparts, regardless of term of transfer entry. Usage of resources, when isolated, did not differ significantly for these samples.

The fifth research question added awareness and usage to the control variables when investigating differences between the two groups on the adjustment constructs. When these variables were added to the equation, social adjustment was no longer statistically significant

between mid-year and fall transfer students, suggesting when awareness and usage are controlled, there is no difference between the groups on socially adjust. The academic adjustment construct was also not related to term of entry when awareness and usage were included. However, the personal adjustment construct was related to term of entry when awareness and usage were controlled [$R^2 = .152$, $F(13, 355) = 4.522$, $p < .001$]. This finding is somewhat surprising, because these variables were not related before controlling for awareness and usage. Thus, when awareness and usage are controlled for both samples mid-year transfers had a more positive personal adjustment than fall transfers. One explanation for why mid-year transfer students might have an easier personal adjustment, when awareness and usage are controlled, is because they enter during a term when there are smaller numbers of new students.

The qualitative phase elucidated the quantitative results. Cluster coding analysis revealed 32 clusters, 12 within the social adjustment category, 8 within the academic adjustment category, and 11 within the personal adjustment category. These findings also indicated that statements ($n=569$) were 18% positive, 80% negative, and 2% without direction, which was similar to Britt and Hirt's (1999) research that discovered that 20% of their sample's statements were coded as a promotion of adjustment and 65% were indicated as impeding adjustment.

The most prevailing social adjustment difference between these two cohorts was that mid-year transfer students perceived pre-existing social networks as roadblocks to feeling a sense of belonging and fitting in. In stark contrast, fall transfer students perceived pre-existing social networks more as gateways to making friends. As one fall transfer said, "Mainly knowing people or friends that were already here was the best way to adjust to campus," and dissimilarly a mid-year transfer student shared, "It seems like everyone has their own friends and aren't interested in making new friends." Mid-year transfer students used phrases such as, "I did feel alone and a little isolated," and "I felt like an outcast," when describing trying to connect socially with other

groups. Joining social organizations and groups was another area that differed as mid-year transfer students expressed greater difficulty than fall transfer students. One mid-year transfer student stated, “Perhaps they weren't well advertised, or perhaps they focused more on the fall semester. It took a long time to find groups outside of class to associate with.” This comment was reflective of others and may explain how awareness is linked to the social adjustment differences between the two groups that were discovered by the survey results.

There were many differences found between these two samples which mirror the quantitative results on academic adjustment. Themes that represented challenges to both samples' academic adjustment were adjusting to the lecture hall format, faculty expectations, and the amount of out-of-class coursework. As for personal adjustment, the two samples differed in a number of ways. The most prominent was their outlook on employment. Fall transfer students observed being employed hindered their adjustment, and mid-year transfer students perceived that employment promoted their adjustment. A mid-year transfer student offered an important perspective, “Finding jobs is difficult on campus. I would have adjusted better if I had a job.” A fall transfer student attributed her inability to socially adjust to having a job that required her to work almost every weekend. As a group, the adjustment statements showed mid-year transfers perceived their transition as more difficult than fall transfers. For example, representative of many statements, one mid-year student said, “Being a spring transfer makes it twice as hard to make friends, especially in your major program, because everybody knows each other, and I feel like the odd man out a lot of the time.” A different mid-year transfer student added perspective on social adjustment, saying, “I transferred in the spring semester of 2009 and live[d] in the dorms. I felt that coming in at semester made it harder for me to adapt and make friends.”

Conclusion and Implications for Research, Policy, and Practice

This study adds to the literature on transfer student adjustment, specifically on community college transfer students who begin at irregular start times, such as mid-year. With many four-year institutions enrolling sizeable populations of transfer students during the mid-year, understanding differences in the adjustment of these students can help two- and four-year institutions improve services to enhance this transition.

Based on this study, mid-year transfer students had significantly more demographic and situational characteristics (i.e., older, non-white, commuters, part-time enrolled) that are empirically identified persistence risk factors. Also of interest, substantially more mid-year transfer students, in comparison to fall transfer students, reported commuting and living at home with their parents/families. Fewer mid-year transfer students reported living in an apartment, house, or room with roommates compared to fall transfer students. This is believed to be due to the unavailability of off-campus apartments during mid-year. Both Tinto (1993) and Astin (1993) indicate that demographic and situational variables contribute to educational outcomes, suggesting the importance of accounting for student level variables in understanding the experiences of fall versus mid-year transfers. With mid-year transfer students having numerous background characteristics associated with lower retention, it is important for future research to examine the impact of these variables on the retention of transfer students, especially mid-year transfers, and it is also important to control for demographic variables to account for their influence on outcomes.

Another area for future research is to expand the use of the subscales identified by this study. The subscales provided a useful understanding of the types of adjustment experienced by students and are recommended to be used in further studies of the three constructs of adjustment. Using a cluster technique suggested by Miles and Huberman (1994), the qualitative data

clustered into categories similar to many of the identified subscales, enriching understanding of the differences in the adjustment experiences of fall and mid-year transfer students.

This study cast light on how mid-year and fall transfer students differ on social, academic, and personal adjustment. Future research is needed to explore these adjustment findings and compare them to academic outcomes, such as performance at the community college, engagement at the community college, first-semester GPA at the transfer institution, first-year persistence at the transfer institution, and graduation. Although these two groups differ on aspects of adjustment, future research should tie these aspects of adjustment to desired educational outcomes and attempt to determine how important these differences are to the success of students transferring to four-year institutions at different times. [As noted in methods section, the fall 2008 community college transfers had a 6% higher first-year persistence rate at 83.1% than mid-year 2009 transfers at 77.1% (institutional data, 2010).]

Results of this mixed method study strengthen recommendations of previous research to encourage four-year institutions to increase services to help transfer students (Gumm, 2006; Laanan, 1998, 2004; Townsend & Wilson, 2006). Furthermore, these findings can be beneficial to two-year institutions to help prepare students who transfer to four-year campuses in the fall or mid-year term. Community colleges should inform students who are planning to transfer to four-year universities at mid-year to prepare them for some of the challenges they may experience. This could be done through one-on-one advising appointments, transfer preparation courses, etc. Additionally, four-year universities should heed a recommendation based on both the quantitative and qualitative data to enhance the orientation services provided to fall and mid-year transfer students. Specifically, mid-year transfer students should receive more transfer specific opportunities to socially connect with other transfer students. They especially needed social transfer student programs to allow them to connect with other mid-year transfers as part of the

initial orientation to campus. These results support Moore (1981), who reported that transfer student orientations should be separate from orientations provided to entering freshmen.

In summary, this study supports this author's contention that community college students who transfer mid-year have different experiences with college adjustment than their fall counterparts. As one mid-year transfer student observed, "Since many students do this [graduate from community college in December and transfer], I think there should be a little more emphasis on students transferring in the spring." Results of this study begin to provide a useful picture of mid-year transfer students, but more research is needed. Investigations of programs and services that two-year and four-year institutions can offer to help mid-year transfer students adjust to college, persist in college, and earn a baccalaureate degree are needed.

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