THESIS TITLE: Social and Academic Integration of Beginning Post Secondary Public Associates College Students

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DATE OF SUCCESSFUL DEFENSE: April 30, 2003

THE THESIS HAS BEEN ACCEPTED BY THE THESIS COMMITTEE IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS IN SOCIOLOGICAL PRACTICE

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SOCIAL AND ACADEMIC INTERGRATION OF BEGINNING POST SECONDARY PUBLIC ASSOCIATES COLLEGE STUDENTS

by

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A thesis submitted in partial fulfillment of the requirements for the degree of

Master of Arts in Sociological Practice

California State University San Marcos

April 30, 2003
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Thesis Abstract

This study has two foci. First it explores the possible impact of gender, race, SES, presence of risk factors, and social integration to predict academic integration. Second, it seeks to understand if student financial disadvantage is inversely related to feelings of academic integration and if students who experience a higher level of social integration are more likely to report a higher level of academic integration. The results are both promising and disturbing. While academic integration does not appear to be negatively associated with economic disadvantage, those who experience the presence of risk factors that are typically associated with a non-traditional educational path appear to suffer from both a low level of social and academic integration.
Statement of the Problem

In the mid-1990s, the National Center for Education Statistics (NCES, Nov. 2002), estimated that nearly a quarter of public junior college students will drop out during their first year and not return within three years. According to their report: “[t]he percentage of public 2-year college students who left school within the first year was larger than that from any other type of institution” (iii). Table 1 illustrates, the proportion of students who began post-secondary education in 1995-95, quit before the year was out, and then stayed away at least three years was highest for public 2-year colleges.

Theories of student retention in higher education suggest that these patterns of “dropping out” reflect larger social processes. Among the more important social processes are those related to students’ “integration” into the collegiate environment. The rationale is that greater levels of involvement, comfort and connection promote higher levels of retention. Numerous intramural retention programs have been instituted based on this model of the retention process. Although there is evidence to suggest these programs are successful, very little research has examined the process in the public, two-year college environment. In addition, few studies have explored the various ways in which the process and outcomes of integration operate differentially for different groups of students.

The purpose of this research is to explore differences in integration outcomes among entering students in public 2-year colleges. I am particularly interested in understanding how gender, race, SES, and the risk factors non-traditional students
face, affect social and academic integration. My focus on social and academic integration is inspired by a wave of research showing that social and academic integration serve to increase persistence and retention in post secondary student populations (Tinto, 1993, 1998; Pascarella and Terenzini, 1979; Pascarella, Duby and Iverson, 1983; Loo and Rolison, 1986).

Table 1

<table>
<thead>
<tr>
<th>Students who left without a credential and did not return by spring 1998</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
</tr>
<tr>
<td><strong>Left 1997-98</strong></td>
</tr>
<tr>
<td><strong>Left 1996-97</strong></td>
</tr>
<tr>
<td><strong>Left 1995-96</strong></td>
</tr>
</tbody>
</table>

Theoretical Foundation

Status Attainment

The question of why and how societies become stratified along lines of wealth, power, and prestige has long interested sociologists. Many theorists have focused on the role that education plays in affecting one's ultimate placement in these social hierarchies. In short, the focus is on the role education plays in the social mobility process in the United States. At a more fundamental level, the research served as a test of the American educational system that eschewed ascriptive characteristics in favor of achieved ones.

During the mid-20th Century, a number of social researchers developed theoretical models of what they termed the “status attainment process,” of which educational attainment was a key component. One of the earlier pioneers in this effort, James Coleman, was particularly interested in the relationship between educational attainment and social status. Using panel data McDill and Coleman (1963) worked to understand the relationship between social status in high school, college plans, and interest in academic achievement. They found that social status in high school has a positive influence on college plans, and that college plans have a positive influence on social status. However, negative interest in academic achievement also was positively associated with social status; an unexpected finding.

Coleman moved to explain the apparent anomaly of the above findings. Especially the counter-intuitive finding that negative attitude toward high school academic achievement was tied to higher social status. In Family and Peer Influences
in College Plans of High School Students McDill, and Coleman (1965) explained that the belief that socioeconomic status was directly related to educational achievement had erroneously become popularized. Peers had considerable amount of influence on college ambitions, and could ameliorate the effects of SES, yet, more often than not they did not, perpetuating the demise of the lower class. The link between socioeconomic status and educational attainment was socially conditioned, and not determinate, as had been implied.

Sewell and Shah, (1967) noted "that both socioeconomic status and intelligence are related to planning on college, college attendance, and college graduation" (p.22) but added yet another detail. They found that the direct and indirect effects that had been identified differed significantly for males and females. Kerckhoff (1977) controlled for gender when he looked at The Realism of Educational Ambitions in England and the United States by focusing on adolescent males. He found that although the expectations students in the United States had of future educational attainment could not be attributed to either their social origin or ability when they were young, by their senior year in high school that had, with predictability, changed. "[E]xpectations are related to ability and social origin in a manner that is very similar to the relationship between these antecedents and actual educational attainments" (570-1) Kerckhoff declared. Although we claim to have a system that is egalitarian based, it was clear that a de facto system of ascription is in place.
Alexander and Eckland (1975) found that students from low ability groups that attended high status schools were more likely to have a higher level of academic achievement than high ability students from low-status schools, corroborating the absence of a positive link between academic ability and peer influence to attend college that had previously been implied. Underscoring the complexity of cross-level influences when describing the link between status, ability, and educational achievement, Alexander, Eckland, and Griffin (1975), published *The Wisconsin Model of Socioeconomic Achievement: A Replication*, in which they worked to confirm that educational attainment was not affected merely by intelligence, but by the way that we are socialized. In *Basic Attainment Processes: A Replication and Extension*, Alexander, and Eckland (1975) emphasized that a complex dimensional process was at work, and that it was still to be identified however, the link between social origin and ability could be mediated, as the previous research had implied. Illuminating the path to academic achievement became a goal that captured education researchers’ attention.

From the above work, in particular, the affect of the peer group on academic achievement and social status, other researchers began searching outside of the status attainment model to consider that academic achievement and social status originate from two separate yet intertwined sources. In particular, these researchers focused attention on processes of integration in the school environment separating out dimensions of academic and social integration while acknowledging that the two are interrelated in student success (Tinto, 1993).
To a large measure, these latter researchers came to this understanding rather serendipitously. These researchers were more concerned with processes of persistence and drop-out behavior than immediately concerned with academic performance and later social mobility. In short, the theories that they developed were more of what Merton has termed middle-range theory than grand theory. In other words, these theories are specific in their application to the immediate subject under scrutiny not the implications that it has for a larger theoretical framework, although a larger theoretical framework underlies the theory-building of this position.

Integrationist Perspective

Drawing on Durkheim’s theorization that strong social relationships work to mitigate against suicide, Tinto first uses the concepts of social and academic integration in the college environment. As mentioned, Tinto (1993) describes a theory of student departure that recognizes that students who experienced a high level of social integration (evidenced by their relationship with student friends) and academic integration (evidenced by their non-classroom interaction with the faculty) were less likely to leave college.

Tinto and colleagues drew from their framework and findings, that in order to prevent students from dropping-out, higher education policy should support programs that are designed to foster both academic and social integration (Tinto, 1998; Tinto, 1995; Tinto and Russo, 1994). Other researchers followed Tinto’s lead.

Pascarella, Duby, and Iverson (1983) worked to apply Tinto’s model on a non-residential student population in an attempt to understand if the effects of social
and academic integration on persistence would apply to the commuter college student experience as well. They found that background characteristics continued to have a significant and direct effect on persistence and withdrawal behavior and that the effect of academic integration did not substantially subside. However, they discovered that "[t]he corresponding influence of social integration...was negative" (p.94), something that they had not expected to find. As mentioned previously this was the finding that led status attainment researchers of a different generation to reconsider their work on high school students. They answered that question by looking more closely at the peer group and how they influenced social status. Hence, they posit that social integration can be a two-edged sword depending on who is accepting the student socially. However, the finding of significant effects with respect to background variables goes contrary to the research of the status attainment model as it suggests that factors other than achievement factors also play a role in the academic attainment process. Entwisle and Alexander’s research is a good example of this shift in orientation.

Entwisle and Alexander (1993) look at structural constraints to educational attainment by focusing on the role of social inequalities as opposed to academic abilities. They find that at a very young age children were already heading down a pathway that makes it possible to predict their educational achievement with a level of certainty that an open system of academic achievement would not imply. They cautioned that developing an understanding of "socially structured sorting mechanisms" (p.418) should become something upon which we prioritize. Hanson
(1994) noted that class played a significant role in predicting educational attainment and that the effects of SES were fairly consistent throughout a person’s life, however, factors such as gender and race had different effects at different times, bringing questions of stability and change into light.

Alexander, Entwisle, and Horsey (1997) worked to refine a model of educational attainment, applying a life course perspective to the project. "Race, gender, and social class locate individuals and families in society's stratification system and the conditions surrounding these statuses and roles help determine exactly how the slate is filled in…" (p.98) they acknowledge. Moreover, these factors "...begin to shape children's academic prospects long before school enters the picture and they continue to weigh on children's development throughout their schooling" (p.98) they note with disdain. Although "[t]o some extent, individuals direct their own development (the idea of personal agency); development occurs in a social matrix and is shaped by experiences in the major institutional settings that individuals pass-through over the life course" (p.98) they explain. Although previous research had indicated that schools themselves could work to equalize opportunity if they were so inclined. Entwisle and Alexander (1995) underscored that very little had changed; students’ pathways, trajectories, and turning points had remained prescriptively defined. The current study aims to expound on their findings and address the unanswered question that were raised; I seek to better understand how factors such as gender, race, disadvantage, and the presence of risk factors affect social and academic integration in current student populations.
From the above discussion, it is clear that previous research has attempted to account for persistence among culturally diverse students. For the most part, Tinto's work has been central to this research agenda. His concepts of academic integration and social integration in particular have been used in this research. Indeed, this research follows in this tradition with one major exception. I extend the model to consider economic status as predictive of academic ability. This stems both from the work of status attainment researchers and life-course researchers who have emphasized a social class effect with respect to educational attainment (McDill and Coleman, 1963; McDill and Coleman, 1965; Sewell and Shah, 1967; Alexander and Eckland, 1975; Alexander and Eckland, 1975; Alexander, Eckland, and Griffin, 1975; Kerckhoff, 1977).

This research also asks whether economic status affects the academic integration of students at the community college level after controlling for the effect of social integration. This is done because of my belief that earlier social integration partially masks the effect of social class as high school students tend to congregate with other students of the same socio-economic status. However, given that there is a close relationship between both social and academic integration it is also reasonable to test the link between both types of integration. Given my earlier reasoning with the effect of social integration possibly concealing some of the effect of social class, I test a model in which social integration is predictive of academic integration. As mentioned, this study explores the effect of gender, race, SES, presence of risk factors, and social integration to predict academic integration.
I test the following hypotheses:

Hypothesis 1) Is student financial disadvantage inversely related to their feeling of academic integration?

Hypothesis 2) Are students who experience a higher level of social integration more likely to report a higher level of feeling academically integrated?

Data

Sample

The data I analyze is the 1996 Beginning Postsecondary Students Longitudinal Study (BPS:96/01) conducted on behalf of the National Center for Education Statistics (NCES). Students selected to participate in the BPS had participated in the National Postsecondary Student Aid Study (NPSAS), which focused on a nationally representative sample of students enrolled at all postsecondary institutions in the country. From this pool of NPSAS respondents, those who were enrolled in postsecondary education for the first time during the 1995-96 school year were selected to participate in the BPS follow-up study and serve as the dataset for this research. It is worth noting that BPS participants were interviewed in 1996, 1998, and 2001 regardless of their enrollment status. The analysis that follows aims to understand the first year student experiences, and therefore centers on the 1996 responses.

While the Beginning Postsecondary Students Longitudinal Study sampled students from a variety of range of doctoral, masters, baccalaureate, associates, and professional or vocational institutions, I am particularly interested in students who
entered through a 2-year college, as they have the largest non-return rate. I have chosen to limit my sample to Associates Degree granting intuitions based on the Carnegie Classification of the school as determined by their degree granting activities during the 1995-96 and 1997-98 school years.

While the Beginning Postsecondary Students Longitudinal Study sampled students from a variety of public, private non-profit, or private for-profit institutions, the rate of those who left school without a credential and did not return by spring of 1998 was highest for students at public schools. Because I am particularly interested in increasing educational attainment in disparaged populations, I focus on community college student who begin their post-secondary education at a public institution.

The data, available through the NCES website, must be accessed through the Data Analysis Systems (DAS) that is provided; an effort by the NCES to assure that a high level of respondent confidently is maintained. The DAS may be used to develop a variety of percentage, means, and correlation coefficient tables; it may also be used to recreate or modify tables that the NCES has provided. The DAS can be used to produce a correlation matrix of selected variables that then can be transferred into a variety of statistical programs so that additional analysis techniques may be applied. The DAS can calculate standard errors, and can apply a variety of available sample weights; however, it is only able to process a pairwise treatment of missing values. In this case a pairwise treatment of variables is preferable to listwise, because substantially more than 5 percent of the cases had missing data.
Measures

The variables, identified and processed through the DAS, were selected as follows:

**Dependent Variable**

The dependent variable for this study is the measure of academic integration provided by the NCES. The measure is continuous and based on an NCES produced scale designed to measure the level of academic integration that the student has experienced based self-report data on the following factors: how often they had participated in study groups, had social contact with faculty, met with an academic advisor, and talked with faculty about academic matters outside of class. The response total was then multiplied by 100 to create the scale. Non-missing values for these items were averaged and then multiplied by 100 to complete the scale for all respondents; the score then determines the student's placement on the scale.

**Independent Variables**

**Social Integration**

I also use a measure of social integration provided by the NCES as a hybrid between both a dependent and control variable. As a dependent variable I gauge the impact of socio-economic status on it which later, as a control variable, in the analysis allows comparison of the socio-economic status independent variable purged of the correlation between social and academic integration. Like the academic integration measure, it is a continuous variable based on these items: how often had they attended fine arts activities, participated in intramural or non-varsity sports, participated in varsity or intercollegiate sports, participated in school clubs, or gone places with
friends from school. Again, these responses were multiplied by 100 to create the student’s score. Additionally, as with the academic integration measure, non-missing values for these items were averaged and then multiplied by 100.

**Demographic Variables**

I use dummy variables to represent respondent’s gender and race. Gender is dummy coded so that male = 0 and female = 1. As such, the reference category is male and the dummy will test rather the mean for males and females are the same with respect to academic integration.

I code the race measure into five separate dummy variables ‘Black’, ‘Hispanic’, ‘Asian/Pacific Islander’, ‘American Indian/Alaska Native’, and ‘Other’; as the substantive categories and ‘White’ as the reference category by which the others are compared.

**Risk**

The first of my substantive independent variables is another NCES variable. That variable is named ‘Risk’ and is comprised of seven factors. These seven risk factors that have been known to negatively affect persistence and attainment and, for my purpose, academic integration. The seven indicators are: delayed enrollment, no high school diploma (including GED recipients), part-time enrollment, financial independence, having dependents other than spouse, single parent status, and working more than 35 hours while in college. If 3 or more indicators were missing, the variable was set to missing by the NCES. The variable is coded as “1” for the presence of one or more risk factors and “0” for no presence of risk factors.
Disadvantage

My second and most important independent variable that is an indicator of 'Disadvantage', which is another variable comprised of a NCES produced scale. The scale is based on three indicators: total family income as a percentage of the 1994 federal poverty level, the highest educational level completed by either parent, and the proportion of the student body in the student's high school eligible for the free or reduced-price lunch program in 1994-95. If more than one indicator was missing, the variable was set to missing. The scale was then trichotomized. Students were classified as 'not disadvantaged', 'minimally disadvantaged', or 'moderately or highly disadvantaged'. I dummy coded each of the response categories; 'not disadvantaged' is the reference category.

Analytic Strategy

Multiple linear regression is the primary method of data analysis. It is a simple regression model of the following form: y = a + bx₁ + bx₂+n + .....+bx_i+n + e. Descriptive statistics are presented in Table 2 while the multiple linear regression results are presented in Table 3. In the first equation presented in Table 3 social integration is regressed upon race, gender, disadvantage, and the presence of risk factors. In the second equation, academic integration is regressed upon race, gender, disadvantage, the presence of risk factors, and social integration.

Results

Information describing the distribution of the sample on each of the variables used in the study is presented in Table 2. Just over half of the respondents
were female. People who identified as either ‘Black’, ‘Hispanic’, or ‘Asian/Pacific Islander’ constituted eleven, fourteen, and four percent of the sample, respectively. Nearly half of the sample reported minimal levels of disadvantage; fifteen percent were reported to be moderately or highly disadvantaged. Finally, 74 percent of the sample is reported to have at least one risk factor known to negatively affect persistence and attainment.

Table 2

Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>Mean / Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social integration 1995-96</td>
<td>135.6687 36.9025</td>
<td>1126</td>
</tr>
<tr>
<td>Academic integration 1995-96</td>
<td>157.4033 45.9938</td>
<td>1126</td>
</tr>
<tr>
<td>Female</td>
<td>(51%) .5001</td>
<td>1252</td>
</tr>
<tr>
<td>Black</td>
<td>(11%) .3138</td>
<td>1252</td>
</tr>
<tr>
<td>Hispanic</td>
<td>(14%) .3445</td>
<td>1252</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>(4%) .1980</td>
<td>1252</td>
</tr>
<tr>
<td>American Indian/Alaska Native</td>
<td>(&lt;1%) .0905</td>
<td>1252</td>
</tr>
<tr>
<td>Other</td>
<td>(&lt;1%) .0498</td>
<td>1252</td>
</tr>
<tr>
<td>Minimally disadvantaged</td>
<td>(47%) .4995</td>
<td>1241</td>
</tr>
<tr>
<td>Modestely or highly disadvantaged</td>
<td>(15%) .3562</td>
<td>1241</td>
</tr>
<tr>
<td>Risk Factors Present</td>
<td>(74%) .4398</td>
<td>1224</td>
</tr>
</tbody>
</table>
The multiple liner regression results are presented in Table 3. The results of the model predicting social integration regressed upon the independent variables; gender, race, disadvantage, and the presence of risk factors, are presented in the first column in Table 3. Results of the multiple regression equation predicting academic integration, and having social integration as additional predictor in the model, are presented in the second column. From column 1 in Table 3, being female appears to account for approximately a 7.9 point decrease in feelings of social integration while being minimally disadvantaged appears to account for approximately a 10.63 point decrease in feelings of social integration. Moreover, the presence of risk factors appears to account for a 21.7 point decrease in social integration. The model with all predictors, including background and disadvantage measures, accounts for approximately 11 percent of the variance in social integration.

Most importantly, the presence of risk factors explained a significant portion of this variance and was the strongest predictor of a lack of social integration. Specifically, students whose lives and academic pathways did not resemble that of traditional students were found to experience a lower level of social integration. In sum, equation one indicates that women, students who are minimally disadvantaged, and those who are not on a traditional student pathway are likely to experience a lower level of social integration.

The second equation predicting academic integration is regressed on the independent variables; race, gender, disadvantage, the presence of risk factors and
social integration. The equation indicates that being moderately or highly disadvantaged appears to account for approximately a 12.7 point increase in academic integration. The presence of risk factors appears to account for a 9.7 point decrease in academic integration. Social integration is associated with approximately a .53 point increase in academic integration. The combination of the predictors accounted for approximately 22 percent of the variance in academic integration.

In sum, the regression results show that the minimally disadvantaged measure is negatively related to social integration, as is having a risk factor for dropping out, and being female. This indicates that women and those defined as "at-risk" either financially or otherwise, probably have a harder time fitting into the college environment. The highest predictor among the three is the risk measure ($B = -0.259$).

The second column of Table 3 shows the results of the model’s prediction of academic integration. The results show that social integration is far and away the greatest predictor ($B = 0.424$). This confirms earlier research and my hypothesis 2 that social and academic integration will be highly correlated. However, there seems to be a positive relationship between moderate and heavy financial hardship and academic integration. Nonetheless, those evidencing one or more risk factors are less likely than other students to feel academically integrated.

On the one hand, the finding of higher academic integration and greater financial hardship could be artifactual, due to collinearity, note the sign shift for this measure and the minimal measure in column one. However, on the assumption that the data is correct, the finding may suggest that college retention programs that target
students with financial hardship may be working. Additionally, this finding may also suggest developing policy that specifically targets students with at-risk characteristics independent of income level.

The above results do not support the position that financial disadvantage affects later academic achievement. Indeed, the results suggest that it works in an opposite pattern. However, the minimal financial hardship measure works in the hypothesized direction with respect to feelings of social integration and could indicate that its total effect is negative in a non-recursive path model. Although a quick check of the relevant beta weights makes it unlikely. Of course, the finding may reflect the oft noted finding that students from poorer backgrounds do better academically and feel academically at home at the university because they try harder as they can see the benefits more directly than other students. Whatever is the case, this unexpected finding might also be serendipitous in rethinking the academic integrative process among poor students.

However, one must keep in mind that some risk factors directly adversely affect academic integration while they may also have an indirect effect which in turn means a higher total effect of risk on feelings of academic integration. For example, women and/or those with at least one risk factor present, have significantly lower levels of social integration. This group then are thus at somewhat greater risk for low academic integration not only because of the risk factor alone, but how that and other risk factors work first by lowering feelings of social integration and therefore, of academic integration as well.
Table 3
Social and Academic Integration of Beginning Post Secondary Public Associates College Students

<table>
<thead>
<tr>
<th>Social Integration</th>
<th>Academic Integration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
</tr>
<tr>
<td>Female^a</td>
<td>-7.871***</td>
</tr>
<tr>
<td></td>
<td>(2.123)</td>
</tr>
<tr>
<td>Black^b</td>
<td>-8.31</td>
</tr>
<tr>
<td></td>
<td>(3.446)</td>
</tr>
<tr>
<td>Hispanic^b</td>
<td>-1.707</td>
</tr>
<tr>
<td></td>
<td>(3.160)</td>
</tr>
<tr>
<td>Asian/Pacific Islander^b</td>
<td>1.416</td>
</tr>
<tr>
<td></td>
<td>(5.389)</td>
</tr>
<tr>
<td>American</td>
<td>17.789</td>
</tr>
<tr>
<td></td>
<td>(11.660)</td>
</tr>
<tr>
<td>Indian/Alaska Native^b</td>
<td>5.227</td>
</tr>
<tr>
<td></td>
<td>(21.102)</td>
</tr>
<tr>
<td>Minimally Disadvantaged^c</td>
<td>-10.633***</td>
</tr>
<tr>
<td></td>
<td>(2.351)</td>
</tr>
<tr>
<td>Moderately or Highly Disadvantaged^c</td>
<td>-3.696</td>
</tr>
<tr>
<td></td>
<td>(3.307)</td>
</tr>
<tr>
<td></td>
<td>(2.448)</td>
</tr>
<tr>
<td>Social Integration</td>
<td>.528***</td>
</tr>
<tr>
<td></td>
<td>(.035)</td>
</tr>
</tbody>
</table>

R^2 = .115  R^2 = .220

NOTE: N = 1126; b = unstandardized regression coefficient with standard error in parentheses; Beta = standardized regression coefficient.

a. compared to male.
b. compared to white
c. compared to not disadvantaged.

*p<.05; **p<.01; ***p<.001
Discussion

In this study I investigate the effect of gender, race, disadvantage, and the presence of risk factors, on social integration and academic integration. The findings indicate that women in the sample experience a lower level of social integration than do men, and that this pattern holds even when the effects of race, disadvantage, and the presence of risk factors, are held constant. Being minimally disadvantaged is associated with a lower level of social integration; this pattern holds even when the effects of gender, race, and the presence of risk factors are held constant. In addition, the presence of risk factors is negatively associated with social integration even when the effects of gender, race, and disadvantage are held constant.

Being moderately or highly disadvantaged is positively associated with a high level of academic integration even after the effects of gender, race, and the presence of risk factors have been controlled. The presence of risk factors is negatively associated with both social and academic integration even when the effects of gender, race, and disadvantage are held constant. Social integration however, is positively related to academic integration, even when the effects of gender, race, disadvantage, and the presence of risk factors are held constant.

I began this study with two specific hypotheses in mind. I expected to find that student financial disadvantage would be inversely related to their feeling of academic integration. In addition, I expected that students who experience a higher level of social integration would be more likely to report a higher level of academic
integration. Only one of the hypotheses was supported by the findings. Although I expected to find that student financial disadvantage would be inversely related to a student’s feeling of academic integration, the assumption is without merit. The strong positive relationship between being moderately or highly disadvantaged, and academic integration, is one of the most promising findings in this study. This may indicate a high level of success in attempts by the faculty to engage disadvantaged students and employ pedagogical techniques aimed to increase student integration. The hypothesis that student financial disadvantage would be inversely related to academic integration is therefore rejected.

My second research question looked to address the link between social and academic integration; I hypothesized that social and academic integration would be positively correlated. Based on the findings in this study this hypothesis is supported. Social and academic integration appear to be significantly correlated.

In addition to the questions poised prior to the study, this study has revealed another significant finding. According to Pascarella and Terenzini (1979) a high level of academic integration can compensate for a low level of social integration. However, this study shows that students with risk factors appear to experience both a low level of social integration, and a low level of academic integration; this news is particularly disturbing.
Recommendations

Research has shown that students who experience a high level of social and academic integration are less likely to leave college (Tinto, 1993). In addition, a high level of academic integration may compensate for a low level of social integration (Pascarella, Terenzini, 1979). A number of efforts to increase the level of integration in the student population have been designed to increase student and faculty relationships and build community (Tinto, 1998, 1995; Tinto and Russo 1994). The current study shows that although some student groups appear to experience a low level of social integration, they may conversely experience a high level of academic integration, as appears to be the case for students who experience socioeconomic disadvantage. For them these integrative programs appear to have worked quite well. For others, particularly students who are deemed to be at "risk", the plan may be playing out a little differently. Students at "risk" appear to continue to experience a low level of both social and academic integration; this is the worst of our fears. We must work to increase the level of social and academic integration in students who are continuing their education on a non-traditional basis, as 74% of those who participated in the BPS study and began at a public 2-year college students were found to be.

In addition to programs that focus on economic disadvantage, we should focus upon programs that work to increase levels of integration for students with different
life experiences. Students may work full-time, attend school part-time, have children or other dependents, they may not have received a traditional high school degree, they may be older having delayed their post secondary education, they may or may not have come for a degree, however once they enter the collegiate environment we must strive to integrate them. We must work to alleviate rather than perpetuate the risk factors that are negatively associated with student social and academic integration.

One might hypothesize given the positive relationship between economic disadvantage and academic integration, that programs that have been implemented to better serve disadvantaged students are doing just that. This study suggests we should expand these programs to serve students who are not on the traditional education pathways. We must work to increase the social and academic integration of students who, because of their non-traditional standing, are deemed to be at “risk”. Pallas (1993) reminds us that the path of education is no longer paralleled by a transition to adulthood, but is "juxtaposed with other events in the life course" (p.415).

**Limitations and Implications for Further Research**

The current study attempts to provide a cross-sectional glimpse at the relationship of selected variables as measured during the first year that students entered the two-year Associates College public education system. It is particularly important to emphasize that there are limitations inherent to this cross-sectional method; questions surrounding non-static relationships and reciprocal effects are
beyond the scope of this study. In addition, in using an existing data set and NCES produced scales, the research was restricted to NCES produced constructs; a limitation inherent to secondary data analysis.

While this study focused on two year public institutions, further research should examine four year institutions and private universities wherein the same issues are likely faced. In light of the new lifelong learning paradigm, and successful attempts to expand opportunities for postsecondary education, we must continue to assess our integration techniques to find what has worked and what has failed. Additional research aimed at exploring the social and academic integration of various groups may be helpful; do all students benefit from participating in programs aimed to increase social and academic integration in the classroom environment? In addition, some important insight may be gleaned by further exploring “risk factors” in student’s lives. In this study the presence of risk factors has served to separate traditional from non-traditional student populations, now a majority whose numbers hover at about 74%.
Appendix
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<th>Academic integration</th>
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Works Cited


