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## ABSTRACT

Community college and 4-year university students differ in many ways, ranging from career aspirations and intention for pursuing a college degree to the types of experiences they look for in a college. Beyond baseline demographic data, little comparative work has been completed that examines how they differ, particularly in areas such as study behavior and technology use. This initial, exploratory study was conducted in response to questions by scholars visiting the United States who particularly wanted to see how these students differ, and what kinds of implications these differences might have regarding the delivery of services or creation of policy. A survey instrument was distributed at seven geographically disparate community college campuses, and at two geographically disparate university campuses. One hundred and one four-year students and 218 two-year students completed the surveys. The questions relevant to the current discussion pertained to study skills and technology abilities. Findings indicate that community college students, perhaps because they are older and already participating in the work force, show a greater reliance on technology. Neither group indicated they made use of tutors or college skills centers, and both groups indicated that they studied at home and alone. (NB)

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# A Comparison of Two- and Four-Year College Student Use of Study Skills and Technology Use

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RUNNING HEADER: STUDENT COMPARISON

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Abstract

Community college and 4-year university students differ in many ways, ranging from career aspirations, intention for pursuing a college degree, and the types of experiences they look for in a college. Beyond baseline demographic data, little comparative work has been completed to more fully look at how they differ, particularly in areas such as how they might differ in terms of studying behaviors or use of technology. This initial, exploratory study was conducted in response to questions by scholars visiting the United States who particularly wanted to see how students differ, and what kinds of implications these differences might have on delivering different types of services or creating different types of policies.

The heightened national attention to community college transfer policies and practices is one indication that the academic community and public at large are looking for ways to streamline and articulate postsecondary education. In an attempt to cross institutional and institutional-typology boundaries, policy makers have indeed proven their capability to compartmentalize and categorize learning objectives in general education. What most efforts have neglected, though, is any sense of recognition of the differences between the students who choose to enroll in community colleges as compared to four-year universities.

The identification of differences in the trends, habits, practices and abilities of community college and four-year university students can help educational providers improve transfer student retention, recruit students to the most compatible type of institution, and even build progressive programs and services between institutions that can reflect student needs. Generally, students enroll in different types of institutions for a variety of reasons, including cost, discipline offering, and degree objective. Degree objective, in particular has been less of a factor in student choice in recent years, as an increasing number of students begin in community colleges with the intention of transferring.

Community colleges have a tradition of open access for student enrollment, and one dominant result is a greater disparity of entering student abilities. The ability of less well prepared students to enroll in community colleges has a number of residual effects, including the propensity of greater student drop out, a delivery of more remedial education, having to commit more resources to student support, and a need to offer training for viable careers. Four-year universities have moved in a near-opposite direction, making enrollment standards tougher and eliminating remedial education, while at the same time devoting more resources toward student success and retention initiatives.

The primary differences for two- and four-year college students are often attributable to expectations of higher education. Community college student program aspirations are often vocational in nature, with some attending for the pure joy of learning and some attending to transfer, with the majority enrolled in occupational programs. Ironically, four-year college students similarly are often enrolled for vocational (professional) preparation, although the curriculum typically uses a more broadening perspective to fields such as marketing or journalism, relying on a strong general education foundation.

College students as a collective body generally reflect the societal trends that have bred and fostered their behaviors.

The current generation of college students are more adept at technology use than previous generations, are more culturally sensitive, and are more demanding of a curriculum that is reflective of their needs. They have grown up with exposure and participation in organized activities, and expect a high level of refinement or sophistication in organizational offerings. They have had higher levels of parental participation in preceding generations, and are highly focused on what they want out of a college experience (Cawthorn & Miller, 2003). The differences noted between 2-year and 4-year enrolled college students have been sporadically reported, particularly as students have increasingly transferred between the two different types of institutions. Additionally, some students have concurrently enrolled in both 2-year and 4-year institutions in an effort to either bolster grade point averages or acquire credits in particular areas that would otherwise be unavailable due to course availability.

Key differences based on reports in the literature between 2-year and 4-year college students are:

- Community college students tend to be more vocationally oriented, meaning they are in college to get a job, as compared to university students who tend to be more degree oriented and conversant in obtaining a career;

- University students tend to take longer for degree completion relative to the expected length of enrollment;
- Community college students are more non-traditional than their four-year university counterparts, and are more likely to enroll in local institutions;
- University students place more of an emphasis on campus culture rather than the pragmatic nature of program offerings and delivery;
- Both student bodies are changing rapidly, especially in light of transfer trends (from four-year universities to community colleges, vice versa, and dual enrollment).

#### Methods

Data for the current study were collected in two different efforts: the first of which was the distribution of a research-team developed survey instrument at seven geographically disparate community college campuses. The surveys were distributed in general education math and science classes. The surveys distributed to 4-year college undergraduates were also distributed in general education math and science classes at two different geographically disparate universities (both residential research-intensive institutions). The results were the collection of completed surveys in the spring of 2003 from 101 4-year college students and 218 2-year college students.

The questions relevant to the current discussion pertained to study skills and technology abilities. These questions were embedded in a larger survey of nearly 100 characteristics, traits, and trends of college students. The survey was developed by a team of researchers led by Dr. Myron Pope of the University of Oklahoma. The instrument was pilot tested and revised, and considered to be reliable and valid.

The survey instrument made use of a 1-to-6 Likert-type scale where 1 represented "strong disagreement" that the study skill or technology use was used, and 6 represented "strong agreement" that the skill or technology use was used regularly. The instrument was based on a number of pre-existing instruments and their categories of questions and formats for asking questions. These included the Chronicle of Higher Education (Chronicle of Higher Education, 2002), Pat Murrell's work with the College Student Experience Questionnaire (Davis & Murrell, 1993; Murrell & Glover, 1996), and Cohen and Brawer's (1997) descriptions of community college students.

### Findings

As shown in Table 1, of the over 100 college students participating in the study, they agreed to strongly agreed that they studied at home (mean 5.19, SD .91) and that they studied alone (mean 5.09, SD 1.05). These same students reported some



neutral to agreement level perceptions about participating in group project work outside of class (mean 3.82, SD 1.35).

Community college students similarly reported that they studied at home (mean 4.97, SD 1.14) and that they studied alone (4.74, SD 1.22), and also they agreed that they visited their college's library (3.97, SD 1.49) and that they worked on group projects outside of class (mean 3.77, SD 1.52). Community college respondents also agreed that they were likely to complete a course by independent study (mean 4.31, SD 1.54), perhaps in place of taking an incomplete for the course or perhaps due to faculty perceptions about how to make up for coursework that might otherwise go incomplete.

Neither group of students indicated that they made use of tutors (4-year students mean 1.17, SD .46; 2-year college students 1.72, SD 1.20). The students from the two universities similarly provided ratings of disagreement that they made use of a college skill center (1.32, SD .69), peer tutors (1.28, SD .79), or study assistance away from the college (1.90, SD 1.53; see Table 1).

As shown in Table 2, community college students reported that they agreed more with their use of technology. Specifically, they agreed to strongly agreed that they typed schoolwork on a computer (mean 5.08), used a computer for school reasons (mean 4.99), for personal reasons (mean 4.85), used the

internet (mean 4.89) and email (mean 4.50), and they also reported doing research online (mean 4.43, as compared to a 1.69 mean for university students). University students, conversely, agreed to strongly agreed with two technology uses, those of using a computer for school reasons (mean 4.32) and for personal reasons (mean 4.01). Neither group of students reported much agreement with writing computer programs or using personal data assistants, and community college students were more likely to shop online (mean 3.11 as compared to university students at 1.86).

#### Discussion

Community college and four-year college and university students certainly have some level of similarity in their behaviors related to technology and how they go about studying. The greater reliance on technology, though, does work to reinforce the idea that many in the community college might be non-traditional students who have more experience in the workforce or who have used technology to a greater extent than their four-year university counterparts. These community college students might be returning non-traditional students, or conversely, they might be students who expect to be part of the workforce in a matter of months. University students, those who reported that they are more likely to go to the library and that

they are less likely to use email to communicate with friends, seem to reinforce the residential college notion through their responses.

College administrators will need to pay special attention to the possible differences between these two bodies of students, particularly as they increasingly blend due to the easy of inter-institutional transfer. Additionally, as they do transfer, institutions need to be aware that there may be different needs and skill sets that must be addressed in order for the students to be successful in their studies.

Finally, observers to US higher education must be willing to recognize differences between institutional demands of students as they look to replicate pieces of the US higher education industry in their respective countries. A broad elective system, for example, may not prove to be helpful in a very narrow vocational training field, for instance, and similarly, broad professional preparation may require something much more similar to an elective system.

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Table 1.

Self-Reported Study Skills of 2- and 4-Year College Students		
Skill	4-yr st mean n=101	2-yr st mean n=218
Study alone	5.09 (1.05)	4.74 (1.22)
Study in a small group	2.45 (1.14)	3.08 (1.63)
Worked on a group project in or out of class	3.82 (1.35)	3.77 (1.52)
Study at home	5.19 (.91)	4.97 (1.14)
Meet your instructor(s) outside of class	2.43 (1.03)	2.36 (1.34)
Make use of a college skill center	1.32 (.69)	2.23 (1.40)
Make use of a peer tutor	1.28 (.79)	2.02 (1.47)
Make use of other tutors	1.17 (.46)	1.72 (1.20)
Use study resources on a computer	2.82 (1.77)	2.58 (1.66)
Use study assistance away from the college	1.90 (1.53)	2.15 (1.45)
Visit college library	2.58 (1.43)	3.97 (1.49)
Missed class due to work	2.23 (1.35)	2.22 (1.57)
Completed a course by independent study	1.96 (1.25)	4.31 (1.54)

Table 2.  
Self-Reported Technology Abilities and Use of 2- and 4-Year  
College Students

Skill	4-yr st mean n=101	2-yr st mean n=218
Use the internet	3.30 (1.55)	4.89 (1.16)
Use a computer for personal reasons	4.01 (1.67)	4.85 (1.27)
Use a computer for academic/school reasons	4.32 (1.33)	4.99 (1.12)
Use a personal data assistant	2.39 (1.33)	2.15 (1.80)
Type schoolwork on a computer	2.43 (1.38)	5.08 (1.24)
Design artwork on a computer	2.45 (1.28)	1.92 (1.46)
Write computer programs	1.97 (1.51)	1.47 (1.11)
Do research on-line	1.69 (1.08)	4.43 (1.60)
Host a web-page	1.97 (1.28)	1.89 (1.49)
Shop on-line	1.86 (1.38)	3.11 (1.72)
Communicate with a friend using email	2.14 (1.33)	4.50 (1.61)



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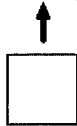
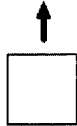
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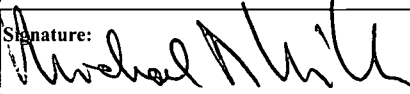
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