Expenditures of college-age students and nonstudents

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As the U.S. workforce comes to rely increasingly on computer technology, including the Internet, higher levels of education are becoming necessary to produce efficient users, programmers, and inventors of new systems. The importance of higher education in this "new economy" is underscored by the tremendous increase in college enrollments over the last 10 years, despite a shrinking college-age population: in 1987, there were about 18.8 million persons between the ages of 20 and 24 in the United States; by 1997, that figure dropped to less than 17.5 million. Yet, college enrollments for this age group increased from 4.1 million in 1987 to 5.2 million in 1997. In other words, college participation among members of this age group increased from less than 22 percent to nearly 30 percent in those 10 years.[1]

While these changes have been occurring, the cost of a college education has been rising. From 1987 to 1997, the Consumer Price Index for college tuition and fees rose 111 percent, compared with 41 percent for all other goods and services. Undoubtedly, this increase in prices has made it more difficult for some potential students to attend college on a traditional, consecutive 4-year basis. This group of young people may choose to join the labor force for a period of time in order to save money toward their continued education. Still other potential students may be forced off the college path altogether.

This report examines the group of college students termed "traditional" (that is, those aged 18 to 22 who are enrolled in school full-time) and compares them with persons in that same age group who work full-time but do not attend school. Using data from the Interview component of the 1996–98 Consumer Expenditure Surveys, demographics and expenditure patterns are analyzed. These data should be of interest to students (and to their parents) who either are in college or are college-bound, and also to those who are making the important decision of whether to attend college or seek employment for a period of time.

The sample. Students and nonstudents included in this study shared certain characteristics. In addition to the age requirement already noted, they must have been members of single-person consumer units, and must never have been married.[2] This was done because when a student (or student-age person) lives "at home" (that is, in the consumer unit with the immediate family), it is impossible to separate out expenditures made exclusively for or by the student (or student-age person). Additionally, all persons in the sample had to be qualified to attend college, meaning, they held at least a high school degree, but did not yet hold a baccalaureate degree. To qualify as students, the participants must have been enrolled at college full-time at the time of the interview. Nonstudents had to work full-time: that is, at least 35 hours during a usual week.[3] Also, in order to eliminate recent entrants into the workforce, nonstudents had to have worked at least 39 weeks (or three-quarters of the year) prior to the survey. Additionally, nonstudents could not be enrolled in college at all during the interview time period, not even on a part-time basis. This was done to facilitate a clear-cut comparison of groups. Finally, for consistency, all persons included in the sample rented their homes.[4] Eliminating homeowners was expected to reduce the variation in expenditures across the groups without a large reduction in sample size for either group.
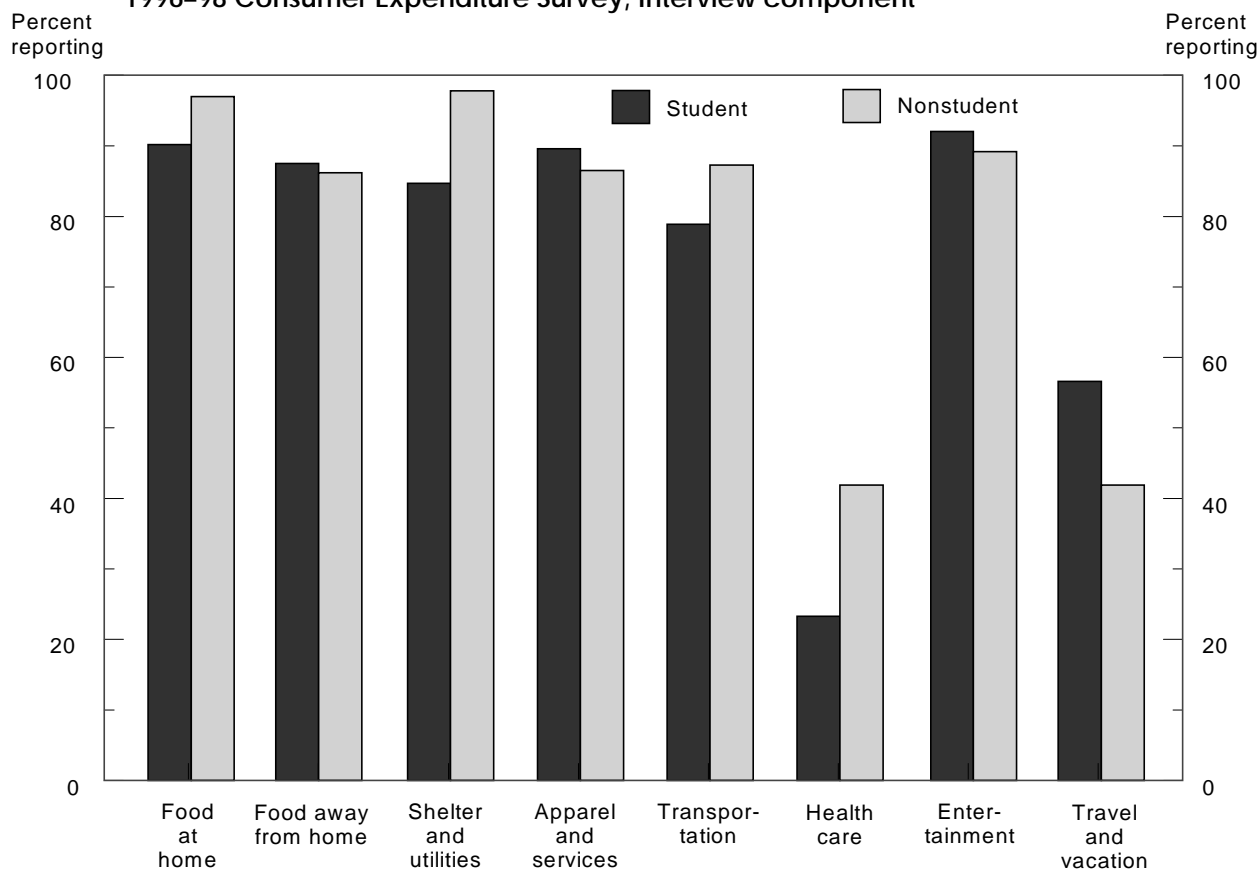
Demographics. Demographic and expenditure information for students and nonstudents are shown in table 1. The sample selected is weighted to reflect the population. There are about 2.5 million students represented in these data. Although many more students are represented than nonstudents, the latter group is still not small in number—more than a quarter of a million persons are included in this category.

On average, nonstudents are older than students. Nearly two-thirds of nonstudents are at least 21 years old, compared with a bit more than one-third of college students. This may be a consequence of how the sample was defined. There are probably more opportunities for persons 21 and older to find full-time, full-year employment than for persons aged 18 to 20. This may help explain why some persons in the 18- to 20-year-age category stay in school rather than seek employment. Those who do not seek a traditional 4-year degree may still be earning a degree such as an Associate of Arts, which they believe will enhance their opportunities for employment at 21 as well.

A large proportion of nonstudents work long hours—44 hours per week on average. Again, the sample was selected to include only those who work at least 35 hours per week, but obviously most work many more hours than this minimum: 31 percent work 45 or more hours a week, and 12 percent report working at least 55 hours per week. At the same time, 10 percent work 39 hours or less; 57 percent work 40 hours exactly. Similarly, most nonstudents work all year—51 weeks on average. (See table 1.) But students work a substantial number of hours as well. About 30 percent of full-time students report working 40 or more hours per week. More than half of full-time students (53 percent) report working 25 hours or

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Chart 1. Percent of students and nonstudents reporting selected expenditures, 1996–98 Consumer Expenditure Survey, Interview component

Percent reporting

Percent reporting

[Bar chart comparing Student and Nonstudent percent reporting across categories: Food at home, Food away from home, Shelter and utilities, Apparel and services, Transportation, Health care, Entertainment, Travel and vacation. Y-axis ranges from 0 to 100.]

more per week. On average, they work 26 weeks, or one-half of the year. This means that even if the average student works all summer, he or she also works during a significant part of the school year.

Most students and nonstudents work for a wage or salary. About 38 percent of both students and nonstudents are employed as either service workers or sales persons. Nonstudents are most likely to be employed as laborers, technicians, or skilled workers (42 percent). Students are most likely to be employed in administrative or professional positions (25 percent). Only about one in six students had not worked in the reference time period.

Looking at educational attainment, about 14 percent of nonstudents have earned, at a minimum, an Associate of

Arts degree, compared with 3 percent of continuing students. A substantial minority—41 percent—of nonstudents have not attended college at all. The survey data do not reveal why this is true; however, other data may be better suited to show whether or not these nonstudents are at considerable risk of never attending college and, therefore, missing out on the rewards that are expected to accrue to recipients of higher education in the "new economy."

The data also show that black and Hispanic consumers are underrepresented both in the student and nonstudent populations. It may be that members of these groups are disproportionately represented in the groups omitted from the study—for example, the unemployed, and the part-time students who may work during the day and at-

tend school at night. However, students are overrepresented in urban areas, while nonstudents are found in urban areas in about the same proportion as the general population. This is undoubtedly because so many colleges and universities are located in urban areas as opposed to rural areas.

Income. Table 1 also shows the composition of incomes before taxes for students and nonstudents. Because some persons are more likely to report their income than others, only data for complete income reporters are shown. In general, complete income reporters provide a value for a least one major source of income, such as wages and salaries. However, even complete reporters do not necessarily provide a full accounting of all sources of income received.

Table 1.	Mean demographic characteristics of students and nonstudents, 1996–98 Consumer Expenditure Survey, Interview component		
Demographic		Student	Nonstudent
Total (estimated)		2,510,530	256,364
Income before taxes (annual)[1]		$6,014	$16,425
Wages and salaries		4,113	16,156
Self-employment		81	121
Regular support from other persons[2]		852	37
Scholarship, fellowship, and other stipends (not working)[3]		661	3
Interest, dividends, and other sources[4]		307	107
Hours per week worked		25	44
Weeks per year worked		26	51
Percent:			
Age			
18 years		17.5	3.3
19 years		24.8	9.7
20 years		22.8	24.0
21 years		22.2	25.5
22 years		12.8	37.5
Female		51.4	41.3
At least one vehicle owned		47.9	68.2
Occupation type:			
Self-employed		.7	.4
Working for wage or salary		82.9	99.6
Administrative/professional		24.7	20.4
Laborer/technician/skilled worker		20.1	41.7
Services		17.5	19.0
Sales		20.6	18.5
Not working		16.5	–
Educational attainment:			
High school graduate[5]		17.7	40.8
Attended college		79.1	45.6
Associate of Arts degree (A.A.)		3.2	13.5
Race/ethnicity:			
Hispanic		3.7	5.4
White, not Hispanic		86.4	83.1
Black, not Hispanic		5.8	10.5
Other race, not Hispanic		4.1	1.2
Residing in urban areas		97.2	91.9

[1] Includes complete income reporters only.

[2] Includes income received from persons outside the consumer unit, such as parents or other relatives.

[3] Also includes other miscellaneous sources of money income.

[4] Includes government assistance, such as welfare and food stamps, and other sources, such as unemployment insurance and workers' compensation, and other sources where applicable.

[5] Includes high school diploma or the equivalent (for example, GED).

NOTE: Dash indicates not applicable.

As expected, nonstudents receive more total income, on average, than students. However, the composition of income is more diverse for students than for nonstudents. For example, nearly 70 percent of student income is labor income, that is, wages and salaries or self-employment. Still, income from parents or other relatives constitutes 14 percent (or nearly one in every seven dollars of incomes), followed by scholarships, fellowships, and related income at 11 percent. Income from interest, dividends, and other sources accounts for 5 percent of student incomes. For nonstudents, however, labor income accounts for 98 percent of their total income before taxes.

Expenditures. Given that nonstudents earn quite a bit more than students, it is not surprising that they spend more on most item categories than students each quarter.[5] (See table 2.) Additionally, some items may be purchased for students; for example, parents may pay the school directly for meals, shelter, or other items.[6] More interesting to study, then, are expenditure shares themselves (how each group allocates its total expenditures) and the percent of people reporting expenditures (how many students or nonstudents report purchasing certain goods or services).

Students allocate a larger share of their expenditures (13 percent) to food at home expenditures than nonstudents (9 percent), but students are less likely to report expenditures for food at home (90 percent) than nonstudents (97 percent).[7] This may mean that students purchase more restaurant food than do nonstudents, but that it is more likely to be from carry-out or other lower-priced establishments. Also, restaurants near campus often provide student discounts, as an incentive to increase their business among students. By contrast, both groups allocate about the same shares for food away from home[8] (5 percent) and other food[9] (less than 1 percent); the percent reporting these foods is also similar for each group (about 7 out of 8 for food away from home, and about 1 out of 20 for other food).

Both students and nonstudents allocate about one-fourth of their expenditures to basic housing (shelter and utilities), but while this expenditure is nearly universally reported by nonstudents (98 percent), far fewer students (85 percent) report such an expenditure. This may be because of parental expenditures for housing fees, or because of

Table 2.	Expenditures of students and nonstudents for selected items, 1996–98 Consumer Expenditure Survey, Interview component			
Characteristic	**Total expenditure**		**Expenditure share (in percent)**	
	Student	Nonstudent	Student	Nonstudent
Total expenditures (quarterly)	$2,584	$4,365	100.0	100.0
Food, total (less on trips)	459	648	17.8	14.8
Food at home	333	409	12.9	9.4
Food away from home	115	226	4.5	5.2
Other food	11	13	.4	.3
Housing	689	1,243	26.7	28.5
Shelter and utilities	592	1,133	22.9	26.0
House furnishings/operations	97	110	3.8	2.5
Apparel and services	174	193	6.7	4.4
Transportation	297	1,157	11.5	26.5
Vehicle purchases	109	710	4.2	16.3
Vehicle expenses[1]	97	296	3.8	6.8
Gasoline/motor oil	84	141	3.3	3.2
Public transportation	7	10	.3	.2
Health care	25	83	1.0	1.9
Health insurance	5	43	.2	1.0
Medical services	12	31	.5	.7
Prescription drugs	5	5	.2	.1
Medical supplies	4	4	.2	.1
Entertainment	168	231	6.5	5.3
Education	416	37	16.1	.8
Personal insurance/pensions[2]	72	317	2.8	7.3
Travel and vacation	122	120	4.7	2.7
Other expenditures	161	336	6.2	7.7

[1] Includes vehicle finance charges, maintenance and repairs; insurance; and vehicle rentals and licensing fees.

[2] Includes Social Security taxes.

special arrangements students may have with their schools, such as, when some schools waive housing fees to entice certain students to attend, or provide free housing as a reward for service to the school. Students (73 percent) are also more likely to live with roommates in an apartment, group house, or another arrangement than are nonstudents (35 percent), which also may reduce housing expenditures for students.

Students and nonstudents have very similar expenditure patterns for apparel and services. Despite lower incomes, students spend only $19 less per quarter than do nonstudents, and have a slightly higher percent reporting (90 percent) than do nonstudents (87 percent). This may be the result of a gender effect. Males, whether students (86 percent) or not (85 percent) have a lower percent reporting than females, whether students (93 percent) or not (89 percent). Although females are proportionately represented in the student population (51 percent), nonstudents are disproportionately male (59 percent). Given that female students are the most likely to report expenditures for apparel and services (93 percent), they are responsible for raising the overall percent reporting among students; the

higher proportion of males among nonstudents, then, holds down the percent reporting for that group. Together, these effects result in the near-equality of percent reporting for students and nonstudents.

Students allocate only one-fourth the share of their expenditures to vehicle purchases (4 percent) that nonstudents allocate (16 percent). Fewer than half of students own vehicles, compared with more than two-thirds of nonstudents. This is probably because students can fulfill most of their demands for food, entertainment, and other activities near their campuses, while nonstudents presumably have to commute to work, and may not live in neighborhoods where amenities are convenient to access. Despite these factors, each group still allocates about the same share of its expenditures to gasoline and oil (3 percent), and about 1 in 8 persons studied (students and nonstudents) report expenditures for public transportation.

Both groups allocate very small shares of expenditures to health care. However, the percent reporting is much smaller for students (23 percent) than nonstudents (42 percent). Although there is some difference in the percent reporting expenditures for medical services (12 percent for students, compared with 20 percent for nonstudents), the real difference is in reports of insurance payments: only 3 percent of students report health insurance expenditures, compared with 27 percent of nonstudents. This could be for a variety of reasons. For example, students may still be covered under parents' policies. Also, many schools have student health centers that charge low fees for medications and services, thus reducing the need for student insurance.

At $416 per quarter, expenditures for education for students may appear to be low. But it should be remembered that these, like all expenditures described thus far, are "out-of-pocket" expenditures for the students. That is,

these are costs the students pay directly themselves. Parents or other agents may pay a substantial amount of the remaining cost. Additionally, students who receive full (or sizable) scholarships would not report expenditures for education. Still, more than half—57 percent—of students report an expenditure for education. Thus, for students who report education expenditures, the average value reported is about $730 per quarter.[10]

Finally, despite the near-equality in dollars spent on travel and vacation, students are much more likely to report these expenditures (57 percent) than are nonstudents (42 percent). This is probably because students incur expenditures to visit family and friends during holidays or other break periods. Also, one cannot discount the role of a quintessential college experience: the "road trip."

THIS REPORT HAS EXAMINED and compared differences in demographics and expenditure patterns for full-time college students and those persons of similar age, who work full-time instead of attending college. Some of the differences found are expected *a priori*—nonstudents work more hours and earn more income than do students; additionally, nonstudents are far more likely to be at least 21 years old. Also, students spend far more in both average dollars and as a share of total expenditures on education than do nonstudents. Some differences are less easily anticipated. For example, one might expect that nonstudents would spend more on transportation than students. However, the magnitude—nonstudents spend about $3.90 for transportation for every $1.00 spent by students—is more interesting. This may be because students often live near

their school, either on campus itself, or in the immediately adjacent neighborhoods. And finally, in some cases, it is the similarities that are noteworthy. For example, students and nonstudents spend virtually the same amount on average (about $120 per quarter) for travel and vacation.

The decision to attend college or to work instead is one that can have profound effects throughout one's life. An important question the potential student might ask is this: is it better to acquire knowledge through traditional education or via on-the-job training? While the analysis here cannot provide the answer to this critical query, the data presented may provide at least some basic information for a better understanding of some of the costs associated with following either the education path or the direct work path. □

Notes

[1] Data derived from U.S. Census Bureau, *Statistical Abstract of the United States: 1999,* 119th edition (Washington, DC, 1999), p. 202, table 326. The age group described (20 to 24) is the closest in the tables to the one used in this report (18 to 22).

[2] A consumer unit consists of members of a particular household who are related by blood, marriage, adoption, or other legal arrangements; a person living alone or sharing a household with others, but who is financially independent; or two or more persons living together who share responsibility for two of the three following major expenses: food, housing, and other living expenses. Students living away from their families are also considered separate consumer units.

[3] Based on the *Current Population Survey* definition. See **http://www.bls.census.gov/ cps/bconcept.htm** (visited July 27, 2000).

[4] The Consumer Expenditure Survey definition of a "renter" includes those who receive rent as pay, and those who live in university-sponsored housing.

[5] Although incomes are collected annually in the Consumer Expenditure Survey, expenditures are collected quarterly. Because students may cease to be separate consumer units for at least part of the year (that is, they may return "home" during the summer), no attempt to "annualize" expenditures is made. This facilitates comparison of expenditures for students while they are "students" compared with nonstudents.

[6] Students at college are considered to be distinct consumer units, even though they may receive outside support from their parents. If a parent pays the school directly for a student's food, housing, or health care, the expenditure is recorded for the parent, but not

for the student. However, if the parent gives the student money to pay school expenses, the student reports the money received as "income" and the expenses paid to the school are "expenditures" for the student's consumer unit.

[7] For students who eat primarily in various campus eating establishments, "food at home" consists of food and nonalcoholic beverages purchased at grocery stores and convenience stores, and board at school.

[8] Food and nonalcoholic beverages purchased at restaurant, cafeterias, drive-ins, and so forth.

[9] Catered affairs; school meals for preschool and school age children; and meals as pay.

[10] This number is calculated by dividing the average reported for all students ($416) by the percent reporting (0.57).