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ABSTRACT

In November 1989, a study was conducted at Piedmont Virginia Community College (PVCC) to examine retention rates for 1988-89 according to a variety of institutional and student characteristics and to determine whether major differences existed between returning and non-returning students. Data were collected from end-of-term student computer files. Study findings included the following: (1) 51.9% of all students and 84.1% of all full-time students who enrolled in fall 1988 re-enrolled in and completed spring 1989; (2) the retention rate for freshmen was 65.1%, while sophomores had a retention rate of 71.1%; (3) part-time students had a retention rate of 44.3%, with most of the returning students enrolled in on-campus programs leading toward degrees; (4) in 1987-88, full-time, unclassified students had a fall-to-winter retention rate of 79.4% and a winter-to-spring retention rate of 92.3%, while in 1988-89, the retention rate among these students fell to 67.7%; (5) the nursing program had a 100% retention rate in 1988-89; and (6) in 1988-89, the retention rate for full-time black students was 8.4% lower than in 1987-88, and 22.3% lower than that for full-time white students. The Fortran program used to calculate the retention statistics is appended, along with sample tables generated by the program. (JMC)

STUDENT RETENTION AT

PIEDMONT VIRGINIA COMMUNITY COLLEGE

1988-1989

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PVCC Institutional Research Brief

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STUDENT RETENTION AT PIEDMONT VIRGINIA COMMUNITY COLLEGE 1988-89

This brief highlights major findings of a recent study conducted by the Office of Institutional Research and Planning at Piedmont Virginia Community College (PVCC) and reported in *Student Retention at Piedmont Virginia Community College: 1988-1989* by Ronald B. Head (PVCC Institutional Research Report No. 8-89, November 1989). The study is conducted annually to provide retention rates according to a variety of institutional and student characteristics and to determine whether major differences exist between returning and non-returning students according to these characteristics.

The term *retention rate*, as used in the study, refers to the percentage of students enrolled during one term who re-enroll and complete the subsequent term. In other words, the full-time student retention rate for 1988-89 was the percentage of full-time students enrolled during Fall Semester 1988 who returned to PVCC and completed Spring Semester 1989.

One major difference between this and previous retention studies is that quarterly retention rates are no longer used. The academic year 1988-89 marked the conversion within the Virginia Community College System (VCCS) from a quarterly academic calendar to a semester calendar. An important benefit of this conversion is that for all practical purposes student retention rates are now annual. Under the quarter calendar, retention figures were collected twice, once between Fall Quarter and Winter Quarter, and once between Winter Quarter and Spring Quarter. Under the semester calendar, retention figures are collected only once, between Fall Semester and Spring Semester, and these are the annual, as well as semester, retention figures.

Table 1 presents 1987-1988 retention rates for all students, full-time equivalent students (FTES), full-time students, part-time students, curricular students, freshmen, and sophomores.

Retention rates for 1988-89 were similar to fall-to-winter retention rates from previous years. In this respect, many of the same trends reported in previous studies were evident. Slightly over one-half of all students enrolled during one term

(Continued on reverse side)

re-enroll at PVCC and complete the subsequent term. Over 80% of all full-time students enrolled during one term re-enroll at PVCC and complete the subsequent term. Approximately two of every three curricular students return from one term to the next. The retention rate for freshmen exceeds 60%, and for sophomores, it exceeds 70%. Part-time students who return to the college from one term to the next are usually enrolled in programs leading toward degrees and study on the college's main campus. Part-time, non-returning students, on the other hand, are usually non-curricular and study off-campus during the evening.

TABLE 1: PVCC RETENTION RATES (1988-89)

	Fall to Spring		
	No. Returning	No. Not Returning	Retention (Pct.)
Headcount	2179	2019	51.9%
FTES	1161	537	68.4%
Full-Time Students	673	127	84.1%
Part-Time Students	1506	1892	44.3%
Curricular Students	1503	756	66.5%
Freshmen	1121	601	65.1%
Sophomores	382	155	71.1%

SOURCE: VCCS end-of-term AKT tapes. The retention rate refers to the percentage of students returning from one term to the next (returning students divided by both returning and non-returning students).

One trend, reported in last year's study, was reversed in 1988-89. From 1985-86 through 1987-88, retention of full-time, unclassified students increased considerably. In 1987-88, this rate was 79.4% from fall to winter and 92.3% from winter to spring. In 1988-89 the rate was 67.7%. This should not cause any alarm, however, because the overall retention rate of full-time students in 1988-89 (84.1%) was approximately the same as it was in 1987-88 (84.9%).

A second trend reported in last year's study was not reversed. The retention rate for full-time black students was 22.3% lower than that for full-time white students. The rate was also 8.4% lower than the fall-to-winter rate for full-time black students in 1987-88. Quite clearly, the college has not been successful retaining full-time black students after they enroll. Hopefully, the special Task Force on Minority Recruitment and Retention formed in 1989-90 will be able to find a solution to this problem.

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STUDENT RETENTION AT PIEDMONT VIRGINIA COMMUNITY COLLEGE 1988-1989

INTRODUCTION

This is the fourth in a series of reports examining retention statistics at Piedmont Virginia Community College (PVCC) during the previous academic year.[1] Retention rates according to a variety of institutional and student characteristics are presented, and an effort is made to determine whether major differences exist between returning and non-returning students.

The term *retention rate*, as used in this report, refers to the percentage of students during one term who re-enroll during the subsequent term. In other words, the 1988-89 full-time student retention rate was the percentage of full-time students enrolled during Fall Semester 1988 who returned to PVCC and completed Spring Semester 1989.

Multiple retention measures are used because the retention rate for all students at a community college is misleading. At PVCC, over 80% of all students typically study part-time, and approximately 50% enroll as non-curricular students.

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[1]See Ronald B. Head, *Quarterly Student Retention at Piedmont Virginia Community College: 1985-86* (PVCC Institutional Research Report No. 4-86, November 1986); Ronald B. Head, *Quarterly Student Retention at Piedmont Virginia Community College: 1986-1987* (PVCC Institutional Research Report No. 8-87, November 1987); and Ronald B. Head, *Quarterly Student Retention at Piedmont Virginia Community College: 1987-1988* (PVCC Institutional Research Report No. 10-88, November 1988).

Many of these students do not intend to re-enroll at the college during the subsequent term.

Although multiple retention measures are reported, the emphasis in this study is upon full-time students. Full-time students are usually enrolled in degree programs and can be expected to re-enroll at the college each term until they graduate.

One major difference between this and previous retention studies is that quarterly retention rates are no longer used. The academic year 1988-89 marked the conversion within the Virginia Community College System (VCCS) from a quarterly academic calendar to a semester calendar. Instead of four terms per year (Summer Quarter, Fall Quarter, Winter Quarter, and Spring Quarter), there were now only three terms (Summer Semester, Fall Semester, and Spring Semester).

An important benefit of this conversion is that for all practical purposes student retention rates are now annual. Under the quarter calendar, retention figures were collected twice, once between Fall Quarter and Winter Quarter, and once between Winter Quarter and Spring Quarter. Under the semester calendar, retention figures are collected only once, between Fall Semester and Spring Semester, and these are the annual, as well as semester, retention figures.

METHODOLOGY

Data in this report were collected by means of a Fortran program which used data from the STUDAGE file located on end-of-term AKT tapes. Because modifications in the fortran program were required due to the conversion from the quarter to the semester academic calendar, an annotated listing of the program is included in this study as Appendix A, and the actual output, or tables generated by the program, is included as Appendix B.

The advantage of using official end-of-term data is that retention statistics can then be compared to other end-of-term data. The total number of returning and non-returning students by category, as reported here, is the same number as reported in the VCCS Student Enrollment Booklets and used in other PVCC institutional research reports.

Two limitations of both the program and the study should be noted. First, no effort has been made to link retention data to student objectives. Quite simply, data relating to student objectives were not conveniently available. Secondlyy, retention within a semester has not been measured. Students enrolling at the beginning of a semester but withdrawing before the end of the semester are not counted as enrolled students during that term. Similarly, students completing, say, the Fall Semester, re-enrolling during the Spring Semester, and then withdrawing midway through the Spring Semester are counted as non-returning students.

RETENTION RATES

Retention rates for the 1988-89 academic year are presented in Table 1. Included in this table are the retention rates for all students (headcount), full-time equivalent students (FTES), full-time students, curricular students, freshmen, and sophomores.

TABLE 1: PVCC RETENTION RATES (1988-89)

	Fall to Spring		
	No. Returning	No. Not Returning	Retention (Pct.)
Headcount	2179	2019	51.9%
FTES	1161	537	68.4%
Full-Time Students	673	127	84.1%
Part-Time Students	1506	1892	44.3%
Curricular Students	1503	756	66.5%
Freshmen	1121	601	65.1%
Sophomores	382	155	71.1%

SOURCE: VCCS end-of-term AKT tapes. The retention rate refers to the percentage of students returning from one term to the next (returning students divided by both returning and non-returning students).

Over one-half of all students enrolled at PVCC during Fall Semester 1988 returned and completed Spring Semester 1989. Approximately two of every three FTES (full-time equivalent students) returned, as did curricular students and freshmen.[2] The retention rate was slightly higher for sophomores. Over 80% of all full-time students returned to PVCC, as did over 40% of all part-time students.

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[2]One FTES is equivalent to 15 student credit hours. In this respect, the FTES retention rate is calculated as follows: (1) the number of credit hours for both returning and non-returning students are totalled; (2) The FTES figures for both returning and non-returning students are calculated (the credit hour figures are divided by 15); and (3) the retention rate is the percentage of returning FTES.

A full-time student is any student carrying a student load of 12 or more credit hours during any single term. A curricular student is any student actually enrolled in an educational program leading toward a degree, certificate, or diploma.

Generally, retention figures for 1988-89 were similar to figures from previous years between Fall Quarter and Winter Quarter. As can be seen in Table 2, although fall-to-winter retention figures for 1983-84 were slightly higher than those for subsequent years, figures for 1984-85 through 1988-89 have been quite consistent.

TABLE 2: PVCC RETENTION RATES (1983-84 THROUGH 1988-89)

Category	1983-84 Fall to Winter	1983-84 Winter to Spring	1984-85 Fall to Winter	1984-85 Winter to Spring	1985-86 Fall to Winter	1985-86 Winter to Spring	1986-87 Fall to Winter	1986-87 Winter to Spring	1987-88 Fall to Winter	1987-88 Winter to Spring	1988-89 Fall to Spring
FTES											
No. Returning	1171	1073	1004	918	1036	975	1089	986	1201	1105	1161
No. Not Returning	500	405	520	380	514	417	547	435	570	451	537
Retention	70.1%	72.6%	65.9%	70.7%	66.8%	70.0%	66.6%	69.4%	67.8%	71.0%	68.4%
HEADCOUNT											
No. Returning	2087	1973	1895	1761	1990	1857	2175	1923	2271	2078	2179
No. Not Returning	1683	1460	1773	1454	1857	1524	1964	1722	2090	1646	2019
Retention	55.4%	57.5%	51.7%	54.8%	51.7%	54.9%	52.5%	52.8%	52.1%	55.8%	51.9%
CURRICULAR STUDENTS											
No. Returning	1439	1355	1159	1093	1227	1187	1272	1190	1434	1352	1503
No. Not Returning	771	511	542	423	528	431	581	500	726	540	756
Retention	65.1%	72.6%	68.1%	72.1%	69.9%	73.4%	68.6%	70.4%	66.4%	71.5%	66.5%
FULL-TIME STUDENTS											
No. Returning	703	632	551	508	553	534	562	532	678	600	673
No. Not Returning	123	84	133	72	103	84	113	65	121	81	127
Retention	85.1%	88.3%	80.6%	87.6%	84.3%	86.4%	83.3%	89.1%	84.9%	88.1%	84.1%
FRESHMEN											
No. Returning	1079	928	837	701	942	767	947	789	1087	934	1121
No. Not Returning	668	438	443	343	437	351	462	403	573	437	601
Retention	61.8%	67.9%	65.4%	67.1%	68.3%	68.6%	67.2%	66.2%	65.5%	68.1%	65.1%
SOPHOMORES											
No. Returning	360	427	322	392	285	420	325	401	347	418	382
No. Not Returning	103	73	99	80	91	80	119	97	153	103	155
Retention	77.8%	85.4%	76.5%	83.1%	75.8%	84.0%	73.2%	80.5%	69.4%	80.2%	71.1%

SOURCE: VCCS end-of-term AKT tapes. The retention rate refers to the percentage of students returning from one term to the next (returning students divided by both returning and non-returning students).

Table 3 presents 1988-89 retention rates for PVCC full-time students by demographic characteristics. The retention rates for men and women were the same. For the second consecutive year, the retention rates for full-time white students were higher than those for full-time black students. In fact, the retention rate for full-time black students was considerably lower than the rates for either full-time white students or full-time minority students other than black, a fact which invites further investigation.

Although the mean and median ages of returning and non-returning students were approximately the same, retention rates generally were slightly higher for older students, especially those over the age of 25. There seems to be little, if any, relationship between distance from PVCC and retention. The only locality within the service region where this was not true was Buck-

TABLE 3: PVCC FULL-TIME STUDENT RETENTION RATES BY DEMOGRAPHIC CHARACTERISTICS (1988-89)

Category	No. Returning	No. Not Returning	Retention (Pct.)
SEX			
Male	292	55	84.1%
Female	381	72	84.1%
RACE			
White	610	100	85.9%
Black	42	24	63.6%
Amer. Indian	0	0	--
Asian/Pacific	12	2	85.7%
Hispanic	7	1	87.5%
Other	2	0	100.0%
AGE			
Under 18	5	1	83.3%
18-21	427	82	83.9%
22-24	74	18	80.4%
25-34	127	20	86.4%
35-44	29	5	85.3%
45-59	9	1	90.0%
Over 60	2	0	100.0%
Mean	23	22	--
Median	20	20	--
RESIDENCE			
Albemarle	241	48	83.4%
Buckingham	9	2	81.8%
Charlottesville	200	37	84.4%
Fluvanna	28	6	82.4%
Greene	31	2	93.9%
Louisa	27	6	81.8%
Nelson	25	5	83.3%
IN-DISTRICT	561	106	84.1%
Out-of-District	94	18	83.9%
Out-of-State	18	3	85.7%
TOTAL	673	127	84.1%

SOURCE: VCCS end-of-term AKT tapes. The retention rate refers to the percentage of students returning from one term to the next (returning students divided by both returning and non-returning students).

ingham County. It should be noted, however, that the number of full-time students from Buckingham was so small that statistically meaningful conclusions cannot be drawn. It should also be noted that Buckingham County is within the service regions of two community colleges, PVCC and Southside Virginia Community College.

Table 4 presents 1988-89 retention rates of PVCC full-time students by selected enrollment characteristics. As might be expected, the retention rate for returning students was higher than that for new students. The retention rate for curricular students was also considerably higher than the rate for non-curricular (unclassified) students.

Retention rates according to demographic and enrollment characteristics were similar to fall-to-winter rates reported for previous years. There were differences, however. The discrepancy in rates between white and black students was much greater in 1988-89 than it was in 1987-88. The rate for

TABLE 4: PVCC FULL-TIME STUDENT RETENTION RATES BY ENROLLMENT CHARACTERISTICS (1988-89)

Category	No. Returning	No. Not Returning	Retention (Pct.)
New	256	56	82.1%
Returning	417	71	85.5%
Day	671	127	84.1%
Evening	2	0	100.0%
On-Campus	673	127	84.1%
Off-Campus	0	0	--
College Transfer	497	86	85.2%
Occup./Technical	149	30	83.2%
Developmental	6	1	85.7%
Unclassified	21	10	67.7%
A.A./A.S.	497	86	85.2%
A.A.S.	145	30	82.9%
Diploma	1	0	100.0%
Certificate	3	0	100.0%
Developmental	6	1	85.7%
Unclassified	21	10	67.7%
TOTAL	673	127	84.1%

SOURCE: VCCS end-of-term AKT tapes. The retention rate refers to the percentage of students returning from one term to the next (returning students divided by both returning and non-returning students).

students from within the PVCC service region in 1988-89 was approximately the same as that for students from outside the region; in 1987-88, the retention rate for students from within the service region was higher than that for students from outside the region. There was less of a difference in rates between new and returning students in 1988-89 than in 1987-88. On the other hand, the difference in rates between curricular and non-curricular students was greater in 1988-89 than in 1987-88.

TABLE 5: PVCC FULL-TIME STUDENT RETENTION RATES BY ACADEMIC PROGRAM (1988-89)

Program	No. Returning	No. Not Returning	Retention (Pct.)
Business Admin.	156	24	86.7%
Education	28	5	84.8%
Fine Arts	21	4	84.0%
General Studies	79	20	79.8%
Liberal Arts	162	25	86.6%
Science	51	8	86.4%
A.A./A.S. TOTALS	497	86	85.2%
Accounting	9	4	69.2%
Computer Info. Systems	21	5	80.8%
Drafting & Design	9	1	90.0%
Electronics	11	4	73.3%
Management	18	5	78.3%
Marketing	9	2	81.8%
Nursing	38	0	100.0%
Office Systems	13	4	76.5%
Police Scienc	11	2	84.6%
Respira.	4	2	66.7%
Science Laborato:	2	1	66.7%
A.A.S. TOTALS	145	30	82.9%
Arts & Crafts	1	0	100.0%
Career Studies	1	0	100.0%
Clerical Studies	0	0	--
Drafting	0	0	--
Draft Design	1	0	100.0%
Elec./Electronics	0	0	--
Elec. Servicing	0	0	--
Health Technology	1	0	100.0%
Law Enforcement	0	0	--
DIPLOMA/CERT. TOTALS	4	0	100.0%
TOTAL	646	116	84.8%

SOURCE: VCCS end-of-term AKT tapes. The retention rate refers to the percentage of students returning from one term to the next (returning students divided by both returning and non-returning students).

Full-time student retention rates by academic program for 1988-89 are presented in Table 5. Retention rates for programs leading toward the A.A. (Associate of Arts) or A.S. (Associate of Science) degrees were on the whole slightly higher than those for programs leading toward the A.A.S. (Associate of Applied Science) degree. All students

enrolled in programs leading toward certificates or diplomas during Fall Semester 1988 returned to PVCC and completed Spring Semester 1989. The retention rate for all certificate programs was 100%. However, the actual numbers of returning and non-returning students within programs leading toward certificates or diplomas were so small that meaningful conclusions cannot be safely drawn.

Full-time student retention rates by academic program for the six-year period 1983-84 through 1988-89 are presented in Table 6. As can be seen, 1988-89 rates are similar to fall-to-winter rates for previous years, and these rates have been fairly consistent during the six-year period. In the few instances where the figures have not been consistent, the inconsistencies have been largely due to small numbers of students in individual, academic programs.

TABLE 6: PVCC FULL-TIME STUDENT RETENTION RATES BY ACADEMIC PROGRAM (1983-84 THROUGH 1988-89)

Program	Fall to Winter					Winter to Spring					Fall to Spring	1988-1989
	1983-1984	1984-1985	1985-1986	1986-1987	1987-1988	1983-1984	1984-1985	1985-1986	1986-1987	1987-1988		
Bus. Adm.	85%	80%	87%	87%	87%	90%	86%	90%	86%	91%		87%
Education	81%	79%	87%	93%	81%	93%	89%	93%	90%	81%		85%
Fine Arts	100%	78%	93%	83%	86%	100%	100%	75%	83%	94%		84%
Gen. Stud.	79%	79%	81%	80%	83%	83%	86%	83%	89%	85%		80%
Lib. Arts	91%	85%	89%	82%	87%	91%	94%	89%	86%	89%		87%
Science	86%	84%	93%	82%	85%	91%	84%	86%	90%	85%		86%
A.A./A.S.	84%	81%	88%	84%	86%	89%	88%	87%	87%	88%		85%
Accounting	92%	92%	100%	85%	79%	100%	100%	100%	100%	100%		69%
Comp. Prg.	--	--	67%	89%	77%	--	--	83%	94%	94%		81%
Data Proc.	82%	83%	100%	--	--	85%	82%	80%	--	--		
Draft & Des.	--	--	--	--	94%	--	--	--	--	69%		90%
Elec.	76%	76%	84%	69%	88%	93%	83%	94%	89%	89%		73%
Management	83%	80%	74%	86%	79%	76%	91%	78%	93%	95%		78%
Marketing	--	--	--	88%	89%	--	--	--	86%	100%		82%
Nursing	97%	100%	89%	100%	97%	100%	95%	90%	94%	90%		100%
Office Sys.	--	--	--	--	--	--	--	--	--	--		77%
Police Sc.	75%	53%	100%	84%	95%	90%	79%	94%	94%	79%		85%
Resp. Th.	95%	96%	94%	87%	82%	100%	100%	100%	92%	100%		67%
Secretary	92%	100%	77%	85%	77%	92%	88%	93%	85%	85%		--
Science Lab.	--	--	--	--	50%	--	--	--	--	100%		67%
A.A.S.	86%	84%	81%	86%	85%	90%	89%	89%	93%	89%		83%
Art/Craft	100%	100%	--	100%	--	100%	50%	--	100%	--		100%
Career St.	--	--	75%	100%	89%	--	100%	100%	100%	50%		100%
Child Care	--	0%	--	--	--	--	--	--	--	--		--
Cler. St.	67%	100%	--	--	--	100%	--	--	--	100%		--
Drafting	--	--	100%	100%	--	--	50%	100%	100%	0%		--
Draft Des.	83%	80%	86%	100%	100%	100%	100%	100%	100%	--		100%
Elec./Elec.	90%	--	--	--	--	100%	75%	--	--	--		--
Elec. Svc.	0%	--	0%	--	--	100%	--	--	100%	50%		--
Health	100%	100%	100%	100%	--	100%	100%	50%	100%	--		100%
Law Enf.	--	--	--	--	--	--	--	100%	100%	--		--
DIP./CERT.	85%	82%	79%	100%	90%	100%	79%	93%	100%	50%		100%
TOTAL	85%	81%	86%	85%	86%	88%	88%	88%	89%	88%		85%

SOURCE: VCCS end-of-term AKT tapes. The retention rate refers to the percentage of students returning from one term to the next (returning students divided by both returning and non-returning students).

TABLE 7: PVCC CURRICULAR STUDENT RETENTION RATES BY ACADEMIC PROGRAM (1988-89)

Program	No. Returning	No. Not Returning	Retention (Pct.)
Business Admin.	267	94	74.0%
Education	59	29	67.0%
Fine Arts	43	14	75.4%
General Studies	285	221	56.3%
Liberal Arts	246	79	75.7%
Science	105	27	79.5%
A.A./A.S. TOTALS	1005	464	68.4%
Accounting	38	34	52.8%
Computer Info. Systems	69	49	58.5%
Drafting & Design	19	8	70.4%
Electronics	35	26	57.4%
Management	103	60	63.2%
Marketing	29	12	70.7%
Nursing	111	29	79.3%
Office Systems	24	18	57.1%
Police Science	29	16	64.4%
Respiratory Therapy	8	2	80.0%
Science Laboratory	2	2	50.0%
A.A.S. TOTALS	467	256	64.6%
Arts & Crafts	1	1	50.0%
Career Studies	20	24	45.5%
Clerical Studies	1	1	50.0%
Drafting	1	3	25.0%
Draft Design	2	3	40.0%
Elec./Electronics	0	0	--
Elec. Servicing	3	1	75.0%
Health Technology	1	1	50.0%
Law Enforcement	2	2	50.0%
DIPLOMA/CERT. TOTALS	31	36	46.3%
TOTAL	1503	756	66.5%

SOURCE: VCCS end-of-term AKT tapes. The retention rate refers to the percentage of students returning from one term to the next (returning students divided by both returning and non-returning students).

Retention rates by academic program for 1988-89 are shown for curricular students in Table 7, for freshmen in Table 8, and for sophomores in Table 9. As can be seen, the retention rates for curricular students enrolled in programs leading toward the A.A. or A.S. degree were slightly higher than the rates for students enrolled in programs leading toward the A.A.S. degree and much higher than the rates for those enrolled in certificate or diploma programs. The same was true with respect to freshman and sophomore retention rates, though A.A.S. retention rates for freshmen were nearly the same as A.A./A.S. rates. It should be noted that retention rates for certificate or diploma programs may be misleading due to the small numbers or returning and non-returning students involved.

TABLE 8: PVCC FRESHMAN RETENTION RATES BY ACADEMIC PROGRAM (1988-89)

Program	No. Returning	No. Not Returning	Retention (Pct.)
Business Admin.	182	77	70.3%
Education	45	22	67.2%
Fine Arts	37	9	80.4%
General Studies	241	197	55.0%
Liberal Arts	186	67	73.5%
Science	78	22	78.0%
A.A./A.S. TOTALS	769	394	66.1%
Accounting	31	26	54.4%
Computer Info. Systems	58	38	60.4%
Drafting & Design	14	5	73.7%
Electronics	28	22	56.0%
Management	56	36	60.9%
Marketing	21	10	67.7%
Nursing	63	10	86.3%
Office Systems	20	14	58.8%
Police Science	25	9	73.5%
Respiratory Therapy	5	2	71.4%
Science Laboratory	2	2	50.0%
A.A.S. TOTALS	323	174	65.0%
Arts & Crafts	1	1	50.0%
Career Studies	20	24	45.5%
Clerical Studies	1	1	50.0%
Drafting	1	3	25.0%
Draft Design	0	0	--
Elec./Electronics	0	0	--
Elec. Servicing	3	1	75.0%
Health Technology	1	1	50.0%
Law Enforcement	2	2	50.0%
DIPLOMA/CERT. TOTALS	29	33	46.8%
TOTAL	1121	601	65.1%

SOURCE: VCCS end-of-term AKT tapes. The retention rate refers to the percentage of students returning from one term to the next (returning students divided by both returning and non-returning students).

TABLE 9: PVCC SOPHOMORE RETENTION RATES BY ACADEMIC PROGRAM (1988-89)

Program	No. Returning	No. Not Returning	Retention (Pct.)
Business Admin.	85	17	83.3%
Education	14	7	66.7%
Fine Arts	6	5	54.5%
General Studies	44	24	64.7%
Liberal Arts	60	12	83.3%
Science	27	5	84.4%
A.A./A.S. TOTALS	236	70	77.1%
Accounting	7	8	46.7%
Computer Info. Systems	11	11	50.0%
Drafting & Design	5	3	62.5%
Electronics	7	4	63.6%
Management	47	24	66.2%
Marketing	8	2	80.0%
Nursing	48	19	71.6%
Office Systems	4	4	50.0%
Police Science	4	7	36.4%
Respiratory Therapy	3	0	100.0%
Science Laboratory	0	0	--
A.A.S. TOTALS	144	82	63.7%
Arts & Crafts	0	0	--
Career Studies	0	0	--
Clerical Studies	0	0	--
Drafting	0	0	--
Draft Design	2	3	40.0%
Elec./Electronics	0	0	--
Elec. Servicing	0	0	--
Health Technology	0	0	--
Law Enforcement	0	0	--
DIPLOMA/CERT. TOTALS	2	3	40.0%
TOTAL	382	155	71.1%

SOURCE: VCCS end-of-term AKT tapes. The retention rate refers to the percentage of students returning from one term to the next (returning students divided by both returning and non-returning students).

DEMOGRAPHIC AND ENROLLMENT CHARACTERISTICS OF RETURNING AND NON-RETURNING STUDENTS

Tables 10 and 11 present distributions of both full-time and part-time returning and non-returning students by demographic and enrollment characteristics. Percentages in these tables are by column by group.

TABLE 10: PVCC RETURNING AND NON-RETURNING STUDENTS BY DEMOGRAPHIC CHARACTERISTICS AND FULL-TIME/PART-TIME STATUS (1988-89)

	Full-Time Students				Part-Time Students			
	Returning		Non-Returning		Returning		Non-Returning	
Category	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
SEX								
Male	292	43.4%	55	43.3%	553	36.7%	642	33.9%
Female	381	56.6%	72	56.7%	953	63.3%	1250	66.1%
RACE								
White	610	90.6%	100	78.7%	1350	89.6%	1670	88.3%
Black	42	6.2%	24	18.9%	128	8.5%	186	9.8%
Amer. Indian	0	0.0%	0	0.0%	3	0.2%	4	0.2%
Asian/Pacific	12	1.8%	2	1.6%	14	0.9%	18	1.0%
Hispanic	7	1.0%	1	0.8%	7	0.5%	10	0.5%
Other	2	0.3%	0	0.0%	4	0.3%	4	0.2%
AGE								
Under 18	5	0.7%	1	0.8%	21	1.4%	12	0.6%
18-21	427	63.4%	82	64.6%	232	15.4%	216	11.4%
22-24	74	11.0%	18	14.2%	163	10.8%	229	12.1%
25-34	127	18.9%	20	15.7%	549	36.5%	679	35.9%
35-44	29	4.3%	5	3.9%	341	22.6%	473	25.0%
45-59	9	1.3%	1	0.8%	170	11.3%	246	13.0%
Over 60	2	0.3%	0	0.0%	30	2.0%	37	2.0%
Mean	23	--	22	--	32	--	33	--
Median	20	--	20	--	31	--	31	--
RESIDENCE								
Albemarle	241	35.8%	48	37.8%	575	38.2%	743	39.3%
Buckingham	9	1.3%	2	1.6%	24	1.6%	20	1.1%
Charlottesville	200	29.7%	37	29.1%	448	29.7%	508	26.8%
Fluvanna	28	4.2%	6	4.7%	78	5.2%	104	5.5%
Greene	31	4.6%	2	1.6%	79	5.2%	97	5.1%
Louisa	27	4.0%	6	4.7%	53	3.5%	79	4.2%
Nelson	25	3.7%	5	3.9%	55	3.7%	82	4.3%
IN-DISTRICT	561	83.4%	106	83.5%	1312	87.1%	1633	86.3%
Out-of-District	94	14.0%	18	14.2%	164	10.9%	222	11.7%
Out-of-State	18	2.7%	3	2.4%	30	2.0%	37	2.0%
TOTAL	673	100.0%	127	100.0%	1506	100.0%	1892	100.0%

SOURCE: VCCS end-of-term AKT tapes.

Demographically, the most striking difference between full-time returning and non-returning students was with respect to race. As can be seen in Table 10, a higher

proportion of full-time returning students were white than were full-time non-returning students. This would seem to indicate a retention problem with respect to blacks, and indeed, as was pointed out earlier, the retention rate of blacks was over 20% lower than that for whites (see Table 3).

TABLE 11: PVCC RETURNING AND NON-RETURNING STUDENTS BY DEMOGRAPHIC CHARACTERISTICS AND FULL-TIME/PART-TIME STATUS (1988-89)

	Full-Time Students				Part-Time Students			
	Returning		Non-Returning		Returning		Non-Returning	
Category	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
New	256	38.0%	56	44.1%	381	25.3%	757	40.0%
Returning	417	62.0%	71	55.9%	1125	74.7%	1135	60.0%
Day	671	99.7%	127	100.0%	916	60.8%	827	43.7%
Evening	2	0.3%	0	0.0%	590	39.2%	1065	56.3%
On-Campus	673	100.0%	127	100.0%	1204	79.9%	1282	67.8%
Off-Campus	0	0.0%	0	0.0%	302	20.1%	610	32.2%
Transfer	497	73.8%	86	67.7%	508	33.7%	378	20.0%
Occup./Tech.	149	22.1%	30	23.6%	349	23.2%	262	13.8%
Developmental	6	0.9%	1	0.8%	15	1.0%	18	1.0%
Unclassified	21	3.1%	10	7.9%	634	42.1%	1234	65.2%
A.A./A.S.	497	73.8%	86	67.7%	508	33.7%	378	20.0%
A.A.S.	145	21.5%	30	23.6%	322	21.4%	226	11.9%
Diploma	1	0.1%	0	0.0%	1	0.1%	3	0.2%
Certificate	3	0.4%	0	0.0%	26	1.7%	33	1.7%
Developmental	6	0.9%	1	0.8%	15	1.0%	18	1.0%
Unclassified	21	3.1%	10	7.9%	634	42.1%	1234	65.2%
TOTAL	673	100.0%	127	100.0%	1506	100.0%	1892	100.0%

SOURCE: VCCS end-of-term AKT tapes.

Demographically, part-time returning and non-returning students were quite similar. The proportion of whites to blacks for part-time returning students was only slightly higher than that for non-returning students.

With respect to enrollment characteristics, returning and non-returning students differed most significantly according to new/returning status. As can be seen in Table 11, the proportion of new to returning students was much higher among non-returning students than among returning students. This is hardly

surprising, however, as it has already been shown that retention rates for new students were lower than those for returning students (see Table 4).

Differences also existed in the degree programs in which returning and non-returning students were enrolled. A higher percentage of returning students were enrolled in college transfer programs than were non-returning students, and a lower percentage of returning students were unclassified.

Although both full-time returning and non-returning students primarily studied during the day at the college's main campus, differences existed between part-time returning and non-returning students. A much larger percentage of part-time, non-returning students were classified as evening and off-campus students.

CONCLUSIONS

Retention rates for 1988-89 were similar to fall-to-winter retention rates from previous years. In this respect, many of the conclusions drawn in previous studies can be drawn in this one as well. Slightly over one-half of all students enrolled during one term re-enroll at PVCC and complete the subsequent term. Over 80% of all full-time students enrolled during one term re-enroll at PVCC and complete the subsequent term. Approximately two of every three curricular students return from one term to the next. The retention rate for freshmen exceeds 60%, and for sophomores, it exceeds 70%. Part-time students who return to the college from one term to the next are usually enrolled in programs leading toward degrees and study on

the college's main campus. Part-time, non-returning students, on the other hand, are usually non-curricular and study off-campus during the evening.

One trend, reported in last year's study, was reversed in 1988-89. From 1985-86 through 1987-88, retention of full-time, unclassified students increased considerably. In 1987-88, this rate was 79.4% from fall to winter and 92.3% from winter to spring. In 1988-89 the rate was 67.7%. This should not cause any alarm, however, because the overall retention rate of full-time students in 1988-89 (84.1%) was approximately the same as it was in 1987-88 (84.9%).

A second trend reported in last year's study was not reversed. The retention rate for full-time black students was 22.3% lower than that for full-time white students. The rate was also 8.4% lower than the fall-to-winter rate for full-time black students in 1987-88. Quite clearly, the college has not been successful retaining full-time black students after they enroll. Hopefully, the special Task Force on Minority Recruitment and Retention formed in 1989-90 will be able to find a solution to this problem.

APPENDIX A

FORTRAN PROGRAM FOR GENERATING RETENTION STATISTICS

```
//PVRETURN JOB (1000,V003,9,50),HEAD,REGION=4096K,CLASS=F,
//   PRTY=3,MSGCLASS=A,MSGLEVEL=(1,1),NOTIFY=PVHEADR
***ROUTE PRINT PVCC1
***ROUTE XEQ HOST
***SETUP MOUNT TAPE CALLED FOR NO RING PLEASE
***SETUP MOUNT TAPE CALLED FOR NO RING PLEASE
// EXEC FORTVCG,PARM=FIXED
C  PROGRAM NAME . . . RETAIN.
C
C  AUTHOR:  R. HEAD              DATE WRITTEN: SEPTEMBER 1986
C
C  SIS VERSION: 4.6              REVISION DATE:  OCTOBER 1989
C
C  THIS PROGRAM READS TWO CONSECUTIVE END-OF-TERM AKT TAPES AND
C  MATCHES STUDENTS BY SOCIAL SECURITY NUMBER TO DETERMINE RETURNING
C  AND NON-RETURNING STUDENTS.  DESCRIPTIVE DATA ON RETURNING AND
C  NON-RETURNING STUDENTS IS THEN COLLECTED IN TABLES (ARRAYS) AND
C  PRINTED.  DATA INCLUDES RETURNING AND NON-RETURNING STUDENTS BY
C  RACE, SEX, AGE, JURISDICTION, CURRICULUM, DEGREE PROGRAM, FRESHMAN
C  OR SOPHOMORE STATUS, FULL- OR PART-TIME STATUS, FIRST-TIME, TRANSFER,
C  OR RETURNING STATUS, AND ON- OR OFF-CAMPUS STATUS.  THIS PROGRAM
C  CAN BE USED FOR BOTH QUARTER AND SEMESTER ACADEMIC YEARS.
C
C  THE FOLLOWING VARIABLES ARE READ FROM THE 1ST TERM STUDAGE FILE:
C
C  SSN1 . . . . (INTEGER) STUDENT'S SOCIAL SECURITY NUMBER.
C  COLLEG . . . (INTEGER) VCCS INSTITUTION CODE. PVCC=282.
C  CAMPUS . . . (CHAR)    ON-CAMPUS='A' OFF-CAMPUS='1','2',ETC.
C  SEX  . . . . (INTEGER) 1=MALE 2=FEMALE.
C  PLACE  . . . (CHAR)    PVCC SERVICE REGION LOCALITY.
C  AWARD  . . . (INTEGER) LEVEL (FR., SOPH., ETC.) AND DEGREE.
C  CURRIC . . . (INTEGER) CURRICULUM.
C  RACE . . . . (INTEGER) 1=WHITE 2=BLACK 3=ASIAN/PACIFIC ISLANDER
C                         4=HISPANIC 5=OTHER.
C  STATUS . . . (INTEGER) 1=FIRST-TIME 2=RE-ADMIT 3=TRANSFER 4=RETURNING
C  FPA  . . . . (CHAR)    FULL-TIME='F' PART-TIME='P'.
C  HRS  . . . . (INTEGER) TOTAL STUDENT CREDIT HOURS.
C  QTR1 . . . . (CHAR)    1ST TERM (FA=FALL; WI=WINTER; SP=SPRING).
C  QYR1YR . . . (INTEGER) 1ST TERM YEAR.
C  MONTH  . . . (INTEGER) STUDENT'S BIRTH MONTH.
C  YEAR . . . . (INTEGER) STUDENT'S BIRTH YEAR.
C  DAY  . . . . (CHAR)    E=EVENING   D=DAY.
C
C  THE FOLLOWING VARIABLES ARE READ FROM THE 2ND TERM STUDAGE FILE:
C
C  COLLEG   . . (INTEGER) VCCS INSTITUTION CODE. PVCC=282.
C  SSN2 . . . . (INTEGER) STUDENT'S SOCIAL SECURITY NUMBER.
C
C  THE FOLLOWING VARIABLES ARE USED IN THE PROGRAM:
C
C  SSAN(4000) . (INTEGER) ARRAY OF SORTED SECOND TERM SOCIAL
C                         SECURITY NUMBERS.
C  RETFLG . . . (LOGICAL) RETURNING STUDENT (TRUE OR FALSE).
C  REGION(7)  . (CHAR)    PVCC SERVICE REGION LOCALITY CODES.
C  CODE(30) . . (INTEGER) CURRICULUM CODES.
C  LABEL1(29) . (CHAR)    CATEGORY LABELS FOR TABLE 1.
C  TABLE1(29,4) (INTEGER) TABLE 1 (DEMOGRAPHICS) ARRAY.
C  LABEL2(17) . (CHAR)    CATEGORY LABELS FOR TABLE 2.
C  TABLE2(17,4) (INTEGER) TABLE 2 (ENROLLMENT) ARRAY.
C  LABEL3(32) . (CHAR)    CATEGORY LABELS FOR TABLES 3 AND 4.
C  TABLE3(32,4) (INTEGER) TABLE 3 (CURRICULUM BY FULL-TIME/PART-TIME
C                         STATUS) ARRAY.
C  TABLE4(32,4) (INTEGER) TABLE 4 (CURRICULUM BY FRESMAN/SOPHPOMORE
C                         STATUS) ARRAY.
C  RETURN . . . (INTEGER) NUMBER OF RETURNING STUDENTS.
```

```
C  NORET  . . . (INTEGER) NUMBER OF NON-RETURNING STUDENTS.
C  SSN2SZ . . . (INTEGER) NUMBER OF 2D TERM SOCIAL SECURITY NOS.
C  COUNT  . . . (INTEGER) NUMBER OF 1ST TERM STUDENTS.
C  AGE  . . . . (INTEGER) AGE OF STUDENT.
C  AGE1(1000) . (INTEGER) AGES OF RETURNING FULL-TIME STUDENTS.
C  AGE2(2000) . (INTEGER) AGES OF RETURNING PART-TIME STUDENTS.
C  AGE3(1000) . (INTEGER) AGES OF NON-RETURNING FULL-TIME STUDENTS.
C  AGE4(3000) . (INTEGER) AGES OF NON-RETURNING PART-TIME STUDENTS.
C  AGE1K,AGE2K,
C  AGE3K,AGE4K  (INTEGER) NUMBER OF STUDENTS IN EACH AGE CATEGORY.
C  QTR2 . . . . (CHAR)    2ND TERM HEADER (FALL,WINTER,SPRING).
C  RETHRS . . . (INTEGER) TOTAL CREDIT HOURS (RETURNING STUDENTS).
C  NRHRS  . . . (INTEGER) TOTAL CREDIT HOURS (NON-RETURNING STUDENTS).
C  RFTES  . . . (INTEGER) NO. OF FTES (RETURNING STUDENTS).
C  NRFTES . . . (INTEGER) NO. OF FTES (NON-RETURNING STUDENTS).
C  QTR1A  . . . (CHAR)    1ST QUARTER HEADER (FALL,WINTER,SPRING).
C  QTR2YR . . . (INTEGER) 2ND QUARTER YEAR.
C  SUM  . . . . (REAL)    TEMPORARY SUMMING VARIABLE.
C  J, K . . . . (INTEGER) LOOP CONTROL VARIABLES.
C
C
C  DECLARATIONS:
C
      CHARACTER CAMPUS,FPA,DAY
      CHARACTER*2 QTR1
      CHARACTER*3 REGION(7),PLACE
      CHARACTER*6 QTR1A,QTR2
      CHARACTER*23 LABEL1(29),LABEL2(17),LABEL3(32)
      INTEGER SSN1,SSN2,SEX,AWARD,CURRIC,RACE,STATUS,MONTH,YEAR
      INTEGER TABLE1(29,4),TABLE2(17,4),TABLE3(32,4),TABLE4(32,4)
      INTEGER RETURN,NORET,SSAN(4000),SSN2SZ,CODE(30),COLLEG
      INTEGER AGE1(1000),AGE2(3000),AGE3(1000),AGE4(3000),COUNT,AGE
      INTEGER AGE1K,AGE2K,AGE3K,AGE4K,J,K,QTR1YR,QTR2YR
      INTEGER HRS,RETHRS,NRHRS,RFTES,NRFTES
      REAL SUM
      LOGICAL RETFLG
C
C  DATA:
C
      DATA REGION(1),REGION(2),REGION(3),REGION(4),REGION(5),REGION(6),
     1REGION(7)/
     2'002','015','180','032','039','054','062'/
C       002=ALBEMARLE  180=CHARLOTTESVILLE  032=FLUVANNA  062=NELSON
C       054=LOUISA     015=BUCKINGHAM       039=GREENE
C
      DATA CODE(1),CODE(2),CODE(3),CODE(4),CODE(5),CODE(6),CODE(7),
     1CODE(8),CODE(9),CODE(10),CODE(11),CODE(12),CODE(13),CODE(14),
     2CODE(15),CODE(16),CODE(17),CODE(18),CODE(19),CODE(20),CODE(21),
     3CODE(22),CODE(23),CODE(24),CODE(25),CODE(26),CODE(27),CODE(28),
     4CODE(29),CODE(30)/
     5213,625,529,699,648,880,203,176,217,234,981,212,251,156,464,181,
     6276,597,294,838,221,921,218,922,927,940,948,190,991,463/
C       213=BUS. ADMIN.      981=ELECTRONICS      221=CAREER STUDIES
C       625=EDUCATION        212=MANAGEMENT       921=DRAFT & DESIGN
C       529=FINE ARTS        251=MARKETING        218=CLERICAL STUDIES
C       699=GEN. STUDIES     156=NURSING          922=DRAFTING
C       648=LIB. ARTS        464=POLICE SCIENCE   927=DRAFT DESIGN
C       880=SCIENCE          181=RESP. THERAPY    940=ELEC./ELECTRONICS
C       203=ACCOUNTING       276=SECR. SCIENCE    948=ELEC. SERVICING
C       176=COMM. SOC. SVC.  597=ARTS & CRAFTS    190=HEALTH TECHNOLOGY
C       217=COMP. PROG.      294=OFFICE SYS/TECH  991=INDUSTRIAL MGT.
C       234=COMPUTER INFO.   838=SCIENCE LAB.     463=LAW ENFORCEMENT
C       BE CERTAIN ALL CURRICULA ARE INCLUDED IN THESE CODES!
C
      DATA LABEL1(1),LABEL1(2),LABEL1(3),LABEL1(4),LABEL1(5),LABEL1(6),
```

```
     1LABEL1(7),LABEL1(8),LABEL1(9),LABEL1(10)/
     2'MALE                    ','FEMALE                  ',
     3'WHITE                   ','BLACK                   ',
     4'AMERICAN INDIAN         ','ASIAN/PACIFIC           ',
     5'HISPANIC                ','OTHER                   ',
     6'MEDIAN AGE              ','MEAN AGE                '/
      DATA LABEL1(11),LABEL1(12),LABEL1(13),LABEL1(14),LABEL1(15),
     1LABEL1(16),LABEL1(17),LABEL1(18),LABEL1(19),LABEL1(20)/
     2'MODE AGE                ','UNDER 18                ',
     3'18-21                   ','22-24                   ',
     4'25-34                   ','35-44                   ',
     5'45-59                   ','OVER 60                 ',
     6'ALBEMARLE               ','BUCKINGHAM              '/
      DATA LABEL1(21),LABEL1(22),LABEL1(23),LABEL1(24),LABEL1(25),
     1LABEL1(26),LABEL1(27),LABEL1(28),LABEL1(29)/
     2'CHARLOTTESVILLE         ','FLUVANNA                ',
     3'GREENE                  ','LOUISA                  ',
     4'NELSON                  ','TOTAL IN-DISTRICT       ',
     5'OUT-OF-DISTRICT         ','OUT-OF-STATE            ',
     6'TOTAL                   '/
C
      DATA LABEL2(1),LABEL2(2),LABEL2(3),LABEL2(4),LABEL2(5),LABEL2(6),
     1LABEL2(7),LABEL2(8),LABEL2(9),LABEL2(10)/
     2'NEW                     ','RETURNING               ',
     3'DAY                     ','EVENING                 ',
     4'ON-CAMPUS               ','OFF-CAMPUS              ',
     5'COLLEGE TRANSFER        ','OCCUP./TECHNICAL        ',
     6'DEVELOPMENTAL           ','UNCLASSIFIED            '/
      DATA LABEL2(11),LABEL2(12),LABEL2(13),LABEL2(14),LABEL2(15),
     1LABEL2(16),LABEL2(17)/
     2'A.A./A.S.               ','A.A.S.                  ',
     3'DIPLOMA                 ','CERTIFICATE             ',
     4'DEVELOPMENTAL           ','UNCLASSIFIED            ',
     5'TOTAL                   '/
C
C    LABELS MUST MATCH CURRICULA--LABEL3(X)=CODE(X)!
      DATA LABEL3(1),LABEL3(2),LABEL3(3),LABEL3(4),LABEL3(5),LABEL3(6),
     1LABEL3(7),LABEL3(8),LABEL3(9),LABEL3(10),LABEL3(11)/
     2'BUSINESS ADMIN.         ','EDUCATION               ',
     3'FINE ARTS               ','GENERAL STUDIES         ',
     4'LIBERAL ARTS            ','SCIENCE                 ',
     5'ACCOUNTING              ','COMM. SOCIAL SERVICES   ',
     6'COMPUTER PROG.          ','COMPUTER INFO. SYS.     ',
     7'ELECTRONICS             '/
      DATA LABEL3(12),LABEL3(13),LABEL3(14),LABEL3(15),LABEL3(16),
     1LABEL3(17),LABEL3(18),LABEL3(19),LABEL3(20),LABEL3(21)/
     2'MANAGEMENT              ','MARKETING               ',
     3'NURSING                 ','POLICE SCIENCE          ',
     4'RESP. THERAPY           ','SECR. SCIENCE           ',
     5'ARTS/CRAFTS             ','OFFICE SYS/TECH         ',
     6'SCIENCE LAB.            ','CAREER STUDIES          '/
      DATA LABEL3(22),LABEL3(23),LABEL3(24),LABEL3(25),LABEL3(26),
     1LABEL3(27),LABEL3(28),LABEL3(29),LABEL3(30),LABEL3(31),
     2LABEL3(32)/
     3'DRAFT & DESIGN          ','CLERICAL STUDIES        ',
     4'DRAFTING                ','DRAFT DESIGN            ',
     5'ELEC./ELEC.             ','ELEC. SERVICING         ',
     6'HEALTH TECHNOLOGY       ','INDUSTRIAL MGT.         ',
     7'LAW ENFORCEMENT         ','OTHER                   ',
     8'TOTAL                   '/
C
C
C  INITIALIZE VARIABLES:
C
      RETURN=0
```

```
      NORET=0
      AGE1K=0
      AGE2K=0
      AGE3K=0
      AGE4K=0
      RETHRS=0
      NRHRS=0
      DO 10 K=1 [illegible]
       DO 10 J=1 [illegible]
        TABLE1(K,J)=0
   10 CONTINUE
      DO 15 K=1,17
       DO 15 J=1,4
        TABLE2(K,J)=0
   15 CONTINUE
      DO 20 K=1,29
       DO 20 J=1,4
        TABLE3(K,J)=0
        TABLE4(K,J)=0
   20 CONTINUE
      DO 25 K=1,4000
       SSAN(K)=0
       IF (K.LE.1000) THEN
        AGE1(K)=0
        AGE3(K)=0
       ENDIF
       IF (K.LE.3000) THEN
        AGE2(K)=0
        AGE4(K)=0
       ENDIF
   25 CONTINUE
C
C  READ ALL STUDENT SOCIAL SECURITY NUMBERS FOR SECOND TERM:
C
      K=1
      OPEN(9)
   30 READ(9,800,END=35) SSN2,COLLEG
      IF (COLLEG.NE.282) GO TO 30
       SSAN(K)=SSN2
       K=K+1
       GO TO 30
   35 CONTINUE
      CLOSE(9)
C
C  SORT ALL SECOND TERM SOCIAL SECURITY NUMBERS (SHELL SHORT):
C
      SSN2SZ=K-1
      CALL SORT(SSN2SZ,SSAN)
C
C  READ A STUDENT RECORD FROM FIRST TERM.
C
      COUNT=0
      OPEN(8)
   40 READ(8,805,END=95) SSN1,COLLEG,CAMPUS,SEX,PLACE,AWARD,
     1CURRIC,RACE,STATUS,FPA,HRS,QTR1,QTR1YR,MONTH,YEAR,DAY
      IF (COLLEG.NE.282) GO TO 40
      COUNT=COUNT+1
C
C  DETERMINE QUARTER AND YEAR:
C
      IF (QTR1YR.LT.88) THEN
       IF (QTR1.EQ.'FA') THEN
        QTR1A = '  FALL'
        QTR2 = 'WINTER'
        QTR2YR = QTR1YR+1
```

```
       ELSE
        QTR1A = 'WINTER'
        QTR2 = 'SPRING'
        QTR2YR = QTR1YR
       ENDIF
      IF (QTR1YR.GE.88) THEN
       IF (QTR1.EQ.'FA') THEN
        QTR1A = '  FALL'
        QTR2 = 'SPRING'
        QTR2YR = QTR1YR+1
       ELSE
        QTR1A = 'SPRING'
        QTR2 = '  FALL'
        QTR2YR = QTR1YR
       ENDIF

C
C  USE BINARY SEARCH TO MATCH SOCIAL SECURITY NUMBERS FROM FIRST AND
C  SECOND TERMS TO DETERMINE RETURNING/NON-RETURNING STATUS:
C
      CALL SEARCH(RETFLG,SSN2SZ,SSN1,SSAN)
C
C  DETERMINE STUDENT'S AGE (AS OF JANUARY 1ST OF CURRENT YEAR):
C
      AGE=QTR2YR-YEAR-1
      IF (RETFLG.AND.FPA.EQ.'F') THEN
       AGE1K=AGE1K+1
       AGE1(AGE1K)=AGE
      ELSE IF (RETFLG.AND.FPA.EQ.'P') THEN
       AGE2K=AGE2K+1
       AGE2(AGE2K)=AGE
      ELSE IF ((FPA.EQ.'F').AND. .NOT.RETFLG) THEN
       AGE3K=AGE3K+1
       AGE3(AGE3K)=AGE
      ELSE IF ((FPA.EQ.'P').AND. .NOT.RETFLG) THEN
       AGE4K=AGE4K+1
       AGE4(AGE4K)=AGE
      ELSE
      ENDIF
C
C  ADD THIS TO TOTAL NUMBER OF RETURNING AND NON-RETURNING STUDENTS
C  AND DETERMINE STUDENT CREDIT HOURS
C
      IF (RETFLG) THEN
       RETURN = RETURN +1
       RETHRS = RETHRS + HRS
      ELSE
       NORET = NORET +1
       NRHRS = NRHRS + HRS
      ENDIF
C
C  BEGIN CONSTRUCTING TABLE 1.  START BY ASSIGNING COLUMN INDEX:
C    K=1  (RETURNING FULL-TIME)    K=3  (NON-RETURNING FULL-TIME)
C    K=2  (RETURNING PART-TIME)    K=4  (NON-RETURNING PART-TIME)
C
      IF (RETFLG) THEN
       IF (FPA.EQ.'F') THEN
        K=1
       ELSE
        K=2
       ENDIF
      ELSE
       IF (FPA.EQ.'F') THEN
        K=3
       ELSE
```

```
        K=4
       ENDIF
      ENDIF
C
C  SEX:
C
       IF (SEX.EQ.1) THEN
        TABLE1(1,K) = TABLE1(1,K) +1
       ELSE
        TABLE1(2,K) = TABLE1(2,K) +1
       ENDIF
C
C  RACE:
C
      DO 50 J=1,6
        IF (RACE.EQ.J) TABLE1(J+2,K) = TABLE1(J+2,K) +1
   50 CONTINUE
C
C  AGE:
C
      IF (AGE.LT.18) TABLE1(12,K) = TABLE1(12,K) +1
      IF (AGE.GE.18.AND.AGE.LT.22) TABLE1(13,K) = TABLE1(13,K) +1
      IF (AGE.GE.22.AND.AGE.LT.25) TABLE1(14,K) = TABLE1(14,K) +1
      IF (AGE.GE.25.AND.AGE.LT.35) TABLE1(15,K) = TABLE1(15,K) +1
      IF (AGE.GE.35.AND.AGE.LT.45) TABLE1(16,K) = TABLE1(16,K) +1
      IF (AGE.GE.45.AND.AGE.LT.60) TABLE1(17,K) = TABLE1(17,K) +1
      IF (AGE.GE.60) TABLE1(18,K) = TABLE1(18,K) +1
C
C  LOCALITY:
C
      DO 60 J=1,7
       IF (PLACE.EQ.REGION(J)) THEN
        TABLE1(J+18,K) = TABLE1(J+18,K) +1
        GO TO 65
       ENDIF
   60 CONTINUE
      IF (PLACE.GT.'000'.AND.PLACE.LT.'900') THEN
       TABLE1(27,K) = TABLE1(27,K) +1
      ELSE
       TABLE1(28,K) = TABLE1(28,K) +1
      ENDIF
   65 CONTINUE
C
C  START CONSTRUCTING TABLE 2.  COLUMN INDEX IS THE SAME AS TABLE 1.
C
C  NEW OR RETURNING STUDENT:
C
      IF (STATUS.EQ.1.OR.STATUS.EQ.3) THEN
       TABLE2(1,K) = TABLE2(1,K) +1
      ELSE
       TABLE2(2,K) = TABLE2(2,K) +1
      ENDIF
C
C  DAY OR EVENING STUDENT:
C
      IF (DAY.EQ.'E') THEN
       TABLE2(4,K) = TABLE2(4,K) +1
      ELSE
       TABLE2(3,K) = TABLE2(3,K) +1
      ENDIF
C
C  ON- OR OFF-CAMPUS:
C
      IF (CAMPUS.EQ.'A') THEN
       TABLE2(5,K) = TABLE2(5,K) +1
```

```
      ELSE
       TABLE2(6,K) = TABLE2(6,K) +1
      ENDIF
C
C  TYPE OF PROGRAM:
C
      IF (AWARD.EQ.1.OR.AWARD.EQ.7) THEN
       TABLE2(7,K) = TABLE2(7,K) +1
      ELSE IF (AWARD.EQ.2) THEN
       TABLE2(9,K) = TABLE2(9,K) +1
      ELSE IF (AWARD.EQ.5) THEN
       TABLE2(10,K) = TABLE2(10,K) +1
      ELSE
       TABLE2(8,K) = TABLE2(8,K) +1
      ENDIF
C
C  TYPE OF DEGREE:
C
      IF (AWARD.EQ.1.OR.AWARD.EQ.7) THEN
       TABLE2(11,K) = TABLE2(11,K) +1
      ELSE IF (AWARD.EQ.2) THEN
       TABLE2(15,K) = TABLE2(15,K) +1
      ELSE IF (AWARD.EQ.5) THEN
       TABLE2(16,K) = TABLE2(16,K) +1
      ELSE IF (AWARD.EQ.6.OR.AWARD.EQ.9) THEN
       TABLE2(12,K) = TABLE2(12,K) +1
      ELSE IF (AWARD.EQ.3.OR.AWARD.EQ.8) THEN
       TABLE2(13,K) = TABLE2(13,K) +1
      ELSE
       TABLE2(14,K) = TABLE2(14,K) +1
      ENDIF
C
C  START CONSTRUCTING TABLE 3.  COLUMN INDEX IS SAME AS TABLES 1-2.
C
      IF (AWARD.NE.2.AND.AWARD.NE.5) THEN
       DO 70, J=1,30
        IF (CURRIC.EQ.CODE(J)) THEN
         TABLE3(J,K) = TABLE3(J,K) +1
         GO TO 75
        ENDIF
   70  CONTINUE
       TABLE3(31,K) = TABLE3(31,K) +1
   75  CONTINUE
      ENDIF
C
C  BEGIN CONSTRUCTING TABLE 4.  START BY ASSIGNING COLUMN INDEX:
C    K=1 (RETURNING FRESHMAN)     K=3 (NON-RETURNING FRESHMAN)
C    K=2 (RETURNING SOPHOMORE)    K=4 (NON-RETURNING SOPHOMORE).
C
       IF (RETFLG) THEN
        IF (AWARD.EQ.1.OR.AWARD.EQ.3.OR.AWARD.EQ.4.OR.AWARD.EQ.6) THEN
         K=1
        ELSE IF (AWARD.GE.7) THEN
         K=2
        ENDIF
       ELSE
        IF (AWARD.EQ.1.OR.AWARD.EQ.3.OR.AWARD.EQ.4.OR.AWARD.EQ.6) THEN
         K=3
        ELSE IF (AWARD.GE.7) THEN
         K=4
        ENDIF
       ENDIF
C
C  MATCH STUDENT'S CURRICULUM WITH CODE LIST:
C
```

```
      IF (AWARD.NE.2.AND.AWARD.NE.5) THEN
       DO 80 J=1,30
        IF (CURRIC.EQ.CODE(J)) THEN
         TABLE4(J,K) = TABLE4(J,K) +1
         GO TO 85
       ENDIF
   80  CONTINUE
        TABLE4(31,K) = TABLE4(31,K) +1
   85  CONTINUE
      ENDIF
C
C  READ THE NEXT STUDENT RECORD
C
      GO TO 40
C
C  ALL STUDENT RECORDS HAVE BEEN READ.
C
   95 CONTINUE
      CLOSE(8)
C
C  SORT THE AGE LISTS:
C
      CALL SORT(AGE1K,AGE1)
      CALL SORT(AGE2K,AGE2)
      CALL SORT(AGE3K,AGE3)
      CALL SORT(AGE4K,AGE4)
C
C  DETERMINE MEAN, MEDIAN, AND MODE AGES:
C
      TABLE1(9,1)=MEDIAN(AGE1,AGE1K)
      TABLE1(9,2)=MEDIAN(AGE2,AGE2K)
      TABLE1(9,3)=MEDIAN(AGE3,AGE3K)
      TABLE1(9,4)=MEDIAN(AGE4,AGE4K)
      TABLE1(10,1)=MEAN(AGE1,AGE1K)
      TABLE1(10,2)=MEAN(AGE2,AGE2K)
      TABLE1(10,3)=MEAN(AGE3,AGE3K)
      TABLE1(10,4)=MEAN(AGE4,AGE4K)
      TABLE1(11,1)=MODE(AGE1,AGE1K)
      TABLE1(11,2)=MODE(AGE2,AGE2K)
      TABLE1(11,3)=MODE(AGE3,AGE3K)
      TABLE1(11,4)=MODE(AGE4,AGE4K)
C
C  DETERMINE FTES FOR RETURNING AND NON-RETURNING STUDENTS
C
      SUM = RETHRS/15
      RFTES = NINT(SUM)
      SUM = NRHRS/15
      NRFTES = NINT(SUM)
C
C  DETERMINE TABLE TOTALS AND SUBTOTALS:
C
      DO 100 K=19,25
       DO 100 J=1,4
        TABLE1(26,J)=TABLE1(26,J)+TABLE1(K,J)
  100 CONTINUE
      DO 105 K=1,4
       TABLE1(29,K)=TABLE1(1,K)+TABLE1(2,K)
       TABLE2(17,K)=TABLE2(1,K)+TABLE2(2,K)
  105 CONTINUE
      DO 110 K=1,31
       DO 110 J=1,4
        TABLE3(32,J)=TABLE3(32,J)+TABLE3(K,J)
        TABLE4(32,J)=TABLE4(32,J)+TABLE4(K,J)
  110 CONTINUE
C
```

```
C  PRINT TABLE 1:
C
      WRITE(6,810) 1
      WRITE(6,840) QTR1A,QTR1YR,QTR2,QTR2YR
      WRITE(6,815)
      WRITE(6,820)
      WRITE(6,825)
      DO 115 K=1,29
       WRITE(6,830) LABEL1(K),(TABLE1(K,J),J=1,4)
  115 CONTINUE
C
C  PRINT TABLE 2:
C
      WRITE(6,810) 2
      WRITE(6,840) QTR1A,QTR1YR,QTR2,QTR2YR
      WRITE(6,815)
      WRITE(6,820)
      WRITE(6,825)
      DO 120 K=1,17
       WRITE(6,830) LABEL2(K),(TABLE2(K,J),J=1,4)
  120 CONTINUE
      WRITE(6,845) RFTES,NRFTES
C
C  PRINT TABLE 3:
C
      WRITE(6,810) 3
      WRITE(6,840) QTR1A,QTR1YR,QTR2,QTR2YR
      WRITE(6,815)
      WRITE(6,820)
      WRITE(6,825)
      DO 125 K=1,32
       WRITE(6,830) LABEL3(K),(TABLE3(K,J),J=1,4)
  125 CONTINUE
C
C  PRINT TABLE 4:
C
      WRITE(6,810) 4
      WRITE(6,840) QTR1A,QTR1YR,QTR2,QTR2YR
      WRITE(6,815)
      WRITE(6,835)
      WRITE(6,825)
      DO 130 K=1,32
       WRITE(6,830) LABEL3(K),(TABLE4(K,J),J=1,4)
  130 CONTINUE
C
C  FORMAT SPECIFICATIONS
C
  800 FORMAT(I9,I3)
  805 FORMAT(I9,I3,A1,T29,I1,A3,I1,I3,T43,I1,I1,A1,I2,T138,
     1A2,I2,T51,I2,T55,I2,T59,A1)
  810 FORMAT('1',42X,'TABLE ',I1)
  815 FORMAT(28X,'RETURNING                NON-RETURNING')
  820 FORMAT(22X,2('FULL-TIME  PART-TIME',6X))
  825 FORMAT(21X,2(2('       NO.',1X),4X)/)
  830 FORMAT(1X,A19,4(2I11,4X))
  835 FORMAT(22X,2(' FRESHMAN   SOPHMORE',6X))
  840 FORMAT(32X,A6,1X,'19',I2,' TO ',A6,1X,'19',I2//)
  845 FORMAT('0','FTES',26X,I5,21X,I5)
C
      END
C
```

```
C  ***********************************************************************
C
      SUBROUTINE SORT(TOTAL,LIST)
C
C     SHELL SORT FOR INTEGERS
C
C     THE FOLLOWING VARIABLES ARE PASSED TO THE SUBROUTINE FROM THE
C     MAIN PROGRAM:
C
C     TOTAL . . . TOTAL NUMBER OF ITEMS IN THE LIST.
C     LIST  . . . THE LIST (ARRAY) TO BE SORTEED.
C
C     THE FOLLOWING LOCAL VARIABLES ARE USED IN THE SUBROUTINE:
C
C     TMP . . . . NUMBER OF PASSES STILL TO BE PERFORMED.
C     H . . . . . HOLDING VARIABLE FOR CELL EXCHANGE.
C     T . . . . . INDEX FOR EXCHANGING CELL CONTENTS.
C     J,K . . . . LOOP CONTROL VARIABLES.
C
      INTEGER TOTAL,LIST(TOTAL),TMP,J,K,H,T
      TMP=TOTAL
C     LOOP TO PERFORM PASSES UNTIL TMP=0.
  100 TMP=TMP/2
       IF (TMP.EQ.0) GO TO 125
C      NESTED LOOP TO PERFORM PASS FOR CURRENT VALUE OF TMP.
       DO 120 K=1,TMP
        DO 115 J=K,TOTAL-TMP,TMP
         T=J
         H=LIST(J+TMP)
  105    IF (H.GE.LIST(T)) GO TO 110
C        SHIFT CONTENTS OF LIST(T) WITH ALL PREVIOUS MEMORY CELLS.
         LIST(T+TMP)=LIST(T)
         T=T-TMP
         IF (T.GE.1) GO TO 105
  110    LIST(T+TMP)=H
  115   CONTINUE
  120  CONTINUE
       GO TO 100
  125 CONTINUE
      END
C
C
      SUBROUTINE SEARCH(FOUND,TOTAL,ITEM,LIST)
C
C     BINARY SEARCH FOR A SORTED LIST OF INTEGERS.
C
      THE FOLLOWING VARIABLES ARE PASSED TO THE SUBROUTINE FROM THE
C     MAIN PROGRAM:
C
C     FOUND . . . BOOLEAN VARIABLE INDICATING ITEM IS IN THE LIST.
C     TOTAL . . . TOTAL NUMBER OF ITEMS IN THE LIST TO BE SEARCHED.
C     ITEM  . . . ITEM BEING SEARCHED FOR IN THE LIST.
C     LIST  . . . THE LIST (ARRAY) TO BE SEARCHED.
C
C     THE FOLLOWING LOCAL VARIABLES ARE USED IN THE SUBROUTINE:
C
C     FIRST . . . INDEX FOR LOWER LIMIT OF THE SEARCH RANGE.
C     MIDDLE  . . INDEX FOR MIDDLE ITEM IN THE SEARCH RANGE.
C     LAST  . . . INDEX FOR UPPER LIMIT OF THE SEARCH RANGE.
C
      INTEGER TOTAL,ITEM,LIST(TOTAL),FIRST,LAST,MIDDLE
      LOGICAL FOUND
      FOUND=.FALSE.
      FIRST=1
      LAST=TOTAL
```

```
  100  IF ((FIRST.LE.LAST).AND. .NOT.FOUND) THEN
        MIDDLE=(FIRST+LAST)/2
        IF (ITEM.EQ.LIST(MIDDLE)) THEN
         FOUND=.TRUE.
        ELSE IF (ITEM.LT.LIST(MIDDLE)) THEN
         LAST=MIDDLE-1
        ELSE
         FIRST=MIDDLE+1
        ENDIF
        GO TO 100
       ENDIF
      END
C
C
      FUNCTION MEDIAN(LIST,COUNT)
C
C     DETERMINES MEDIAN AGE FROM A GIVEN LIST. THE AGE LIST MUST BE
C     SORTED BEFORE USING THIS FUNCTION.
C
C     THE FOLLOWING VARIABLES ARE PASSED TO THE FUNCTION FROM THE MAIN
C     PROGRAM:
C
C     LIST  . . THE LIST (ARRAY) OF AGES.
C     COUNT . . THE NUMBER OF ITEMS (AGES) IN THE AGE LIST.
C
C     THE FOLLOWING LOCAL VARIABLES ARE USED IN THE FUNCTION:
C
C     SUM . . . SUM OF ALL AGES (REAL).
C     X,Y . . . TEMPORARY VARIABLES (REAL).
C
      INTEGER COUNT,LIST(COUNT)
      REAL X,Y
C
      IF (MOD(COUNT,2).EQ.0) THEN
       X=LIST(COUNT/2)
       Y=LIST(COUNT/2+1)
       MEDIAN=NINT((X+Y)/2)
      ELSE
       MEDIAN=LIST(COUNT/2+1)
      ENDIF
C
C
      FUNCTION MEAN(LIST,COUNT)
C
C     DETERMINES MEAN AGE FROM A GIVEN LIST.
C
C     THE FOLLOWING VARIABLES ARE PASSED TO THE FUNCTION FROM THE MAIN
C     PROGRAM:
C
C     LIST  . . THE LIST (ARRAY) OF AGES.
C     COUNT . . THE NUMBER OF ITEMS (AGES) IN THE AGE LIST.
C
C     THE FOLLOWING LOCAL VARIABLES ARE USED IN THE FUNCTION:
C
C     SUM . . . SUM OF ALL AGES (REAL).
C     K . . . . LOOP CONTROL VARIABLE.
C
      INTEGER COUNT,LIST(COUNT),K
      REAL SUM
C
      IF (COUNT.EQ.0) THEN
       MEAN=0
       GO TO 110
      ENDIF
      SUM=0
```

```
      DO 100 K=1,COUNT
       SUM=SUM+LIST(K)
  100 CONTINUE
      SUM=SUM/COUNT
      MEAN=NINT(SUM)
  110 CONTINUE
     END
C
C
      FUNCTION MODE(LIST,COUNT)
C
C     DETERMINES MODE AGE FROM A GIVEN LIST. IF THERE IS MORE THAN
C     ONE MODE AGE, THE YOUNGEST WILL BE REPORTED AS THE MODE AGE.
C     THE AGE LIST MUST BE SORTED BEFORE USING THIS FUNCTION.
C
C     THE FOLLOWING VARIABLES ARE PASSED TO THE FUNCTION FROM THE MAIN
C     PROGRAM:
C
C     LIST  . . THE LIST (ARRAY) OF AGES.
C     COUNT . . THE NUMBER OF ITEMS (AGES) IN THE AGE LIST.
C
C     THE FOLLOWING LOCAL VARIABLES ARE USED IN THE FUNCTION:
C
C     CNT . . . COUNT OF THE NUMBER OF SAME AGES.
C     TCOUNT  . TEMPORARY COUNT OF LARGEST NUMBER OF SAME AGES.
C     TMODE . . TEMPORARY MODE AGE.
C     K . . . . LOOP CONTROL VARIABLE.
C
      INTEGER COUNT,LIST(COUNT),TCOUNT,TMODE,CNT,K
C
      TMODE=LIST(1)
      TCOUNT=0
      K=0
      CNT=1
  940 CONTINUE
      K=K+1
      IF (K.GE.COUNT) GO TO 950
      IF (LIST(K).EQ.LIST(K+1)) THEN
       CNT=CNT+1
       GO TO 940
      ELSE
       IF (CNT.GT.TCOUNT) THEN
        TCOUNT=CNT
        CNT=1
        TMODE=LIST(K)
       ENDIF
       GO TO 940
      ENDIF
  950 CONTINUE
      MODE=TMODE
     END
//GO.FT08F001 DD DSN=SOAD.ASC.MSTR.AKT.Y1988FAE.STUD,
//      DISP=(OLD,KEEP),UNIT=TAPE,LABEL=(1,SL,,IN),
//      DCB=(RECFM=FB,LRECL=150,BLKSIZE=32700)
//GO.FT09F001 DD DSN=SOAD.ASC.MSTR.AKT.Y1989SPE.STUD,
//      DISP=(OLD,KEEP),UNIT=TAPE,LABEL=(1,SL,IN),
//      DCB=(RECFM=FB,LRECL=150,BLKSIZE=32700)
```

APPENDIX B

SAMPLE OUTPUT FROM FORTRAN PROGRAM FOR RETENTION

TABLE 1
FALL 1988 TO SPRING 1989

	RETURNING		NON-RETURNING	
	FULL-TIME NO.	PART-TIME NO.	FULL-TIME NO.	PART-TIME NO.
MALE	292	553	55	642
FEMALE	381	953	72	1250
WHITE	610	1350	100	1670
BLACK	42	128	24	186
AMERICAN INDIAN	0	3	0	4
ASIAN/PACIFIC	12	14	2	18
HISPANIC	7	7	1	10
OTHER	2	4	0	4
MEDIAN AGE	20	31	20	31
MEAN AGE	23	32	22	33
MODE AGE	34	42	20	46
UNDER 18	5	21	1	12
18-21	427	232	82	216
22-24	74	163	18	229
25-34	127	549	20	679
35-44	29	341	5	473
45-59	9	170	1	246
OVER 60	2	30	0	37
ALBEMARLE	241	575	48	743
BUCKINGHAM	9	24	2	20
CHARLOTTESVILLE	200	448	37	508
FLUVANNA	28	78	6	104
GREENE	31	79	2	97
LOUISA	27	53	6	79
NELSON	25	55	5	82
TOTAL IN-DISTRICT	561	1506	106	1633
OUT-OF-DISTRICT	94	144	18	222
OUT-OF-STATE	18	37	3	37
TOTAL	673	1478	127	1892

TABLE 2
FALL 1988 TO SPRING 1989

	RETURNING		NON-RETURNING	
	FULL-TIME NO.	PART-TIME NO.	FULL-TIME NO.	PART-TIME NO.
NEW	256	381	56	757
RETURNING	417	1125	71	1135
DAY	671	916	127	827
EVENING	2	590	0	1065
ON-CAMPUS	673	1204	127	1282
OFF-CAMPUS	0	302	0	610
COLLEGE TRANSFER	497	508	86	378
OCCUP./TECHNICAL	149	349	30	262
DEVELOPMENTAL	6	15	1	18
UNCLASSIFIED	21	634	10	1234
A.A./A.S.	497	508	86	378
A.A.S.	145	322	30	226
DIPLOMA	1	1	0	3
CERTIFICATE	3	26	0	33
DEVELOPMENTAL	6	15	1	18
UNCLASSIFIED	21	634	10	1234
TOTAL	673	1506	127	1892
FTES	1161		537	

TABLE 3
FALL 1988 TO SPRING 1989

	RETURNING		NON-RETURNING	
	FULL-TIME NO.	PART-TIME NO.	FULL-TIME NO.	PART-TIME NO.
BUSINESS ADMIN.	156	111	24	70
EDUCATION	28	31	5	24
FINE ARTS	21	22	4	10
GENERAL STUDIES	79	206	20	201
LIBERAL ARTS	162	84	25	54
SCIENCE	51	54	8	19
ACCOUNTING	9	29	4	30
COMM. SOCIAL SERVIC	0	0	0	0
COMPUTER PROG.	0	0	0	0
COMPUTER INFO. SYS.	21	48	5	44
ELECTRONICS	11	24	4	22
MANAGEMENT	18	85	5	55
MARKETING	9	20	2	10
NURSING	38	73	0	29
POLICE SCIENCE	11	18	2	14
RESP. THERAPY	4	4	2	0
SECR. SCIENCE	0	0	0	0
ARTS/CRAFTS	1	0	0	1
OFFICE SYS/TECH	13	11	4	14
SCIENCE LAB.	2	0	1	1
CAREER STUDIES	1	19	0	24
DRAFT & DESIGN	9	10	1	7
CLERICAL STUDIES	0	1	0	1
DRAFTING	0	1	0	3
DRAFT DESIGN	1	1	0	3
ELEC./ELEC.	0	0	0	0
ELEC. SERVICING	0	3	0	1
HEALTH TECHNOLOGY	1	0	0	1
INDUSTRIAL MGT.	0	0	0	0
LAW ENFORCEMENT	0	2	0	2
OTHER	0	0	0	0
TOTAL	665	857	116	640

TABLE 4
FALL 1988 TO SPRING 1989

	RETURNING		NON-RETURNING	
	FRESHMAN NO.	SOPHMORE NO.	FRESHMAN NO.	SOPHMORE NO.
BUSINESS ADMIN.	182	85	77	17
EDUCATION	45	14	22	7
FINE ARTS	37	6	9	5
GENERAL STUDIES	241	44	197	24
LIBERAL ARTS	186	60	67	12
SCIENCE	78	27	22	5
ACCOUNTING	31	7	26	8
COMM. SOCIAL SERVIC	0	0	0	0
COMPUTER PROG.	0	0	0	0
COMPUTER INFO. SYS.	58	11	38	11
ELECTRONICS	28	7	22	4
MANAGEMENT	56	47	36	24
MARKETING	21	8	10	2
NURSING	63	48	10	19
POLICE SCIENCE	25	4	9	7
RESP. THERAPY	5	3	2	0
SECR. SCIENCE	0	0	0	0
ARTS/CRAFTS	1	0	1	0
OFFICE SYS/TECH	20	4	14	4
SCIENCE LAB.	2	0	2	0
CAREER STUDIES	20	0	24	0
DRAFT & DESIGN	14	5	5	3
CLERICAL STUDIES	1	0	1	0
DRAFTING	1	0	3	0
DRAFT DESIGN	0	2	0	3
ELEC./ELEC.	0	0	0	0
ELEC. SERVICING	3	0	1	0
HEALTH TECHNOLOGY	1	0	1	0
INDUSTRIAL MGT.	0	0	0	0
LAW ENFORCEMENT	2	0	2	0
OTHER	0	0	0	0
TOTAL	1121	382	601	155