

## DOCUMENT RESUME

ED 135 428

JC 770 157

AUTHOR Roesler, Elmo; Jackson, Shirley  
 TITLE A Profile of Graduates: Virginia Community College System, 1974-75.  
 INSTITUTION Virginia State Dept. of Community Colleges, Richmond.  
 PUB DATE Dec 75  
 NCTE 35p.

EDRS PRICE MF-\$0.83 HC-\$2.06 Plus Postage.  
 DESCRIPTORS Age; \*Associate Degrees; \*College Graduates; \*College Majors; Community Colleges; Demography; \*Junior Colleges; \*Junior College Students; Minority Groups; Program Length; State Surveys; \*Student Characteristics; Transfer Students; Vocational Education

IDENTIFIERS \*Virginia Community College System

## ABSTRACT

This report describes the students who graduated from the Virginia Community College System (VCCS) between July 1974 and June 1975 in terms of demographic characteristics, types of awards granted, curricula, credits earned, and length of time to earn awards. Data for the 6,051 graduates were provided by each of the VCCS community colleges. The data indicated: (1) 58% of the graduates were men; (2) 13% were minority group students; (3) nearly half received the Associate of Applied Science degree while one in three graduates earned an Associate of Arts or Associate of Science degree; (4) occupational-technical graduates accounted for two-thirds and transfer graduates one-third of all awards granted; (5) men and women differed with regard to curricular programs, with men predominantly selecting engineering, public service, and agriculture/natural resources, and women constituting the large majority of graduates in health services, communications/media, and business curricula; (6) a greater proportion of whites than minority graduates selected transfer curricula; (7) overall median age of graduates was 23.5 years; (8) almost half of the graduates fulfilled their program requirements in the traditional two year period while one in four graduates took more than three years to complete their program. Tabular data on graduates' characteristics are appended. (JDS)

\*\*\*\*\*  
 \* Documents acquired by ERIC include many informal unpublished \*  
 \* materials not available from other sources. ERIC makes every effort \*  
 \* to obtain the best copy available. Nevertheless, items of marginal \*  
 \* reproducibility are often encountered and this affects the quality \*  
 \* of the microfiche and hardcopy reproductions ERIC makes available \*  
 \* via the ERIC Document Reproduction Service (EDRS). EDRS is not \*  
 \* responsible for the quality of the original document. Reproductions \*  
 \* supplied by EDRS are the best that can be made from the original. \*  
 \*\*\*\*\*

ED135428

U S DEPARTMENT OF HEALTH,  
EDUCATION & WELFARE  
NATIONAL INSTITUTE OF  
EDUCATION

THIS DOCUMENT HAS BEEN REPRO-  
DUCED EXACTLY AS RECEIVED FROM  
THE PERSON OR ORGANIZATION ORIGIN-  
ATING IT. POINTS OF VIEW OR OPINIONS  
STATED DO NOT NECESSARILY REPRESENT  
OFFICIAL NATIONAL INSTITUTE OF  
EDUCATION POSITION OR POLICY

A PROFILE OF GRADUATES  
VIRGINIA COMMUNITY COLLEGE SYSTEM, 1974-75

by

Elmo Roesler  
Coordinator, Research and Evaluation

Shirley Jackson  
Research Assistant

Virginia Department of Community Colleges  
P. O. Box 1558  
Richmond, Virginia 23212

December, 1975

## TABLE OF CONTENTS

	<u>Page</u>
LIST OF TABLES . . . . .	iii
LIST OF FIGURES . . . . .	iv
INTRODUCTION . . . . .	1
FINDINGS . . . . .	1
Sex, Race, and Age . . . . .	1
Types of Awards Earned . . . . .	2
Curriculum . . . . .	4
Credits Earned . . . . .	8
Length of Time to Complete an Award . . . . .	8
SUMMARY . . . . .	9
APPENDICES	
A. Tables . . . . .	11
B. Procedures for Calculating Median Ages of 1973-74 and 1974-75 Graduates . . . . .	23

LIST OF TABLES

<u>Table</u>		<u>Page</u>
1	Sex and Racial Distribution of Graduates . . . . .	12
2	The Racial Distribution of Graduates by Sex . . . . .	12
3	Sex and Racial Distribution of Graduates by Type of Award . . . . .	15
4	Age Distribution of Graduates by Type of Award . . . . .	14
5	Distribution of Graduates by Curricula . . . . .	15
6	Sex and Racial Distribution of Graduates within Curricular Group . . . . .	18
7	Sex and Racial Distribution of Graduates by Curricular Group . . . . .	19
8	Age Distribution of Graduates by Curriculum . . . . .	20
9	Curricular Distribution of O-T Graduates by Type of Award . . . . .	21
10	Number of Credits Earned by Type of Award, Percent . .	22
11	Number of Years Taken to Complete an Award . . . . .	23

LIST OF FIGURES

<u>Figure</u>		<u>Page</u>
1	Sex and Racial Composition of 1973-74 and 1974-75 Graduates . . . . .	3
2	Age Distribution of Graduates for 1973-74 and 1974-75 . . . . .	3
3	Sex Distribution of 1974-75 Graduates By Type of Award . . . . .	5
4	Types of Awards By Sex and Racial Groups, 1974-75 . . . . .	5
5	The Distribution of Graduates By Occupational-Technical Curricula . . . . .	6

## INTRODUCTION

This is the second annual report on the graduates of the Virginia community colleges. Information about graduates is vital because it provides one measure of the quality and quantity of the colleges' output. By routinely collecting and assessing graduate data, information about graduates is regularly available for institutional program evaluation, statewide planning, and manpower forecasting. Over a number of years, accumulated information on graduates will provide, in part, the basis for comparing successive populations of community college graduates and for tracing their personal and career development.

The major purpose of this and last year's report is to describe the graduates of Virginia's community colleges in terms of demographic characteristics, types of awards granted, curricula upon graduation, credits earned, and length of time to earn awards. This report has an additional purpose involving, in certain instances, the comparison of 1973-74 with 1974-75 graduate data. Comparisons of the graduate data from the two populations have been presented in the narrative and through tabulations and graphs.

The primary users of this report will be the educational planners, administrators, and instructors in the colleges. The report will also be useful to other persons interested in the colleges' operation and output.

Information for this report was submitted by each of Virginia's 23 community colleges on all students who graduated between July 1, 1974 and June 30, 1975. The findings on the 6,051 graduates who were awarded degrees, diplomas, and certificates are presented in the next section. The report concludes with a summary and a complete set of tables located in Appendix A.

## FINDINGS

The findings on 1974-75 graduates are presented in the following order: sex, race, and age; types of awards earned; curriculum; credits earned; and length of time to complete an award.

### Sex, Race, and Age

During the 1974-75 year, 6,051 students graduated from Virginia community colleges (Table 1). Of these graduates, 58 percent were men and 42 percent were women. Overall, there were 87 percent white and 13 percent minority graduates.

For 1974-75, the 6,051 graduates represent an increase of 16 percent over the 5,227 graduates of the previous year. The changes in the sex and racial composition of graduates from 1973-74 to 1974-75 are recorded in Figure 1.

Over the two year period, the proportion of white men decreased somewhat and the proportion of white women rose slightly. Male and female minority proportions also increased slightly. In 1974-75, men comprised 60 percent of whites whereas among minorities, 56 percent were women (Table 2).

Graduates represented a wide range of ages. Figure 2 shows the percentage of graduates within age groups for 1973-74 and 1974-75. Although the largest single age group continued to be 21 years or younger, the percentage of graduates within this age group decreased somewhat over the two year period. In 1974-75, graduates who were 30 years or older comprised more than one quarter of the total population. The median age for all graduates was 23.5 years (see Appendix B for methods to determine median). It is evident that the colleges are serving a diverse population in respect to the ages of graduates.

### Types of Awards Earned<sup>1</sup>

The AAS degree was awarded to almost half of the 1974-75 graduates (Table 3). One in three graduates earned an AA or AS degree. The certificate was awarded to 16 percent of the total group; and the diploma, to two percent of the graduates.<sup>2</sup> During the past two years, the proportions for types of awards distributed to graduates have remained mostly unchanged.

The distribution of awards among men and women is revealed in Figure 3. Nearly half of all men and women earned the AAS degree. More men than women were awarded AS degrees, whereas women more often than men received the AA degree. On a proportional basis, women were more likely to be awarded certificates and men, diplomas.

---

<sup>1</sup>The community colleges in Virginia offer five types of awards. The Associate of Arts (AA) and the Associate of Science (AS) programs are designed to lead to transfer to a baccalaureate program. The Associate of Applied Science (AAS) programs are designed to provide competence for employment in a general occupational field and to include general education. The diploma award normally represents a two-year program which usually includes limited general education and provides employment competence in a specific field. Certificate programs generally require one to less than two years' study and provide competence in a specific job or family of jobs.

<sup>2</sup>Diploma programs are not widely available in the Virginia Community College System.

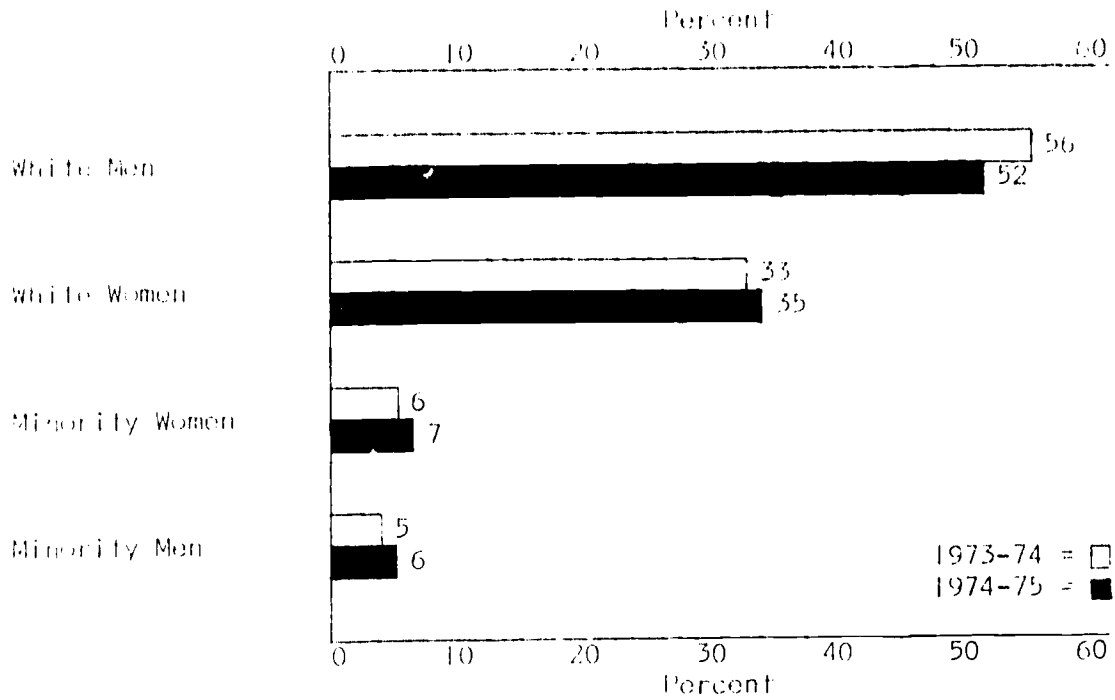


Figure 1. Sex and Racial Composition of 1973-74 and 1974-75 Graduates

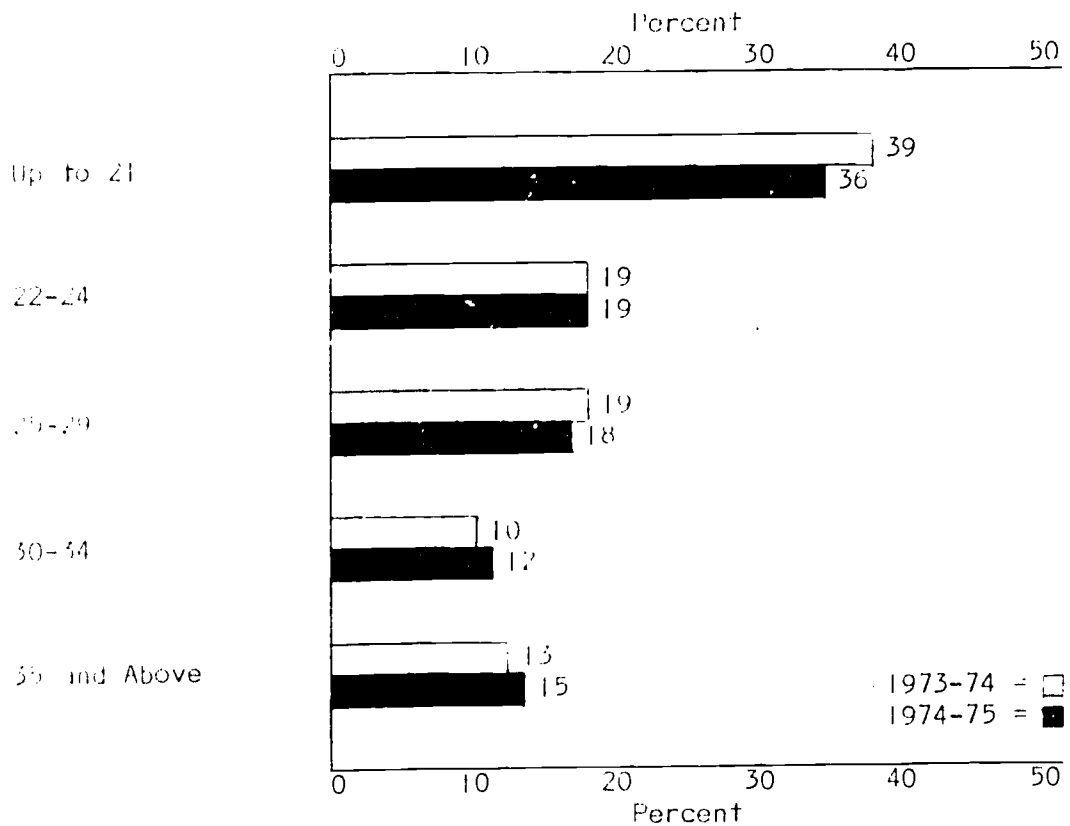


Figure 2. Age Distribution of Graduates for 1973-74 and 1974-75



Some differences appear when types of awards are examined by race (Table 3). A greater proportion of whites than minorities received AAS, AS, and diploma awards. Equal percentages of whites and minorities earned the AA degree. More minority graduates than whites received certificates.

Figure 4 presents types of awards as earned by each sex and racial group. Greater proportions of white men and women were granted AA and AS degrees than their minority counterparts. The AA and AS degrees were earned, in fact, by about percent more white men than minority men and by 15 percent more white than minority women. Almost equal percentages of all groups earned the AAS degree, with the exception of minority women, who received a smaller proportion of AAS degrees. No white women and only one percent of the minority women were awarded the diploma. The largest percentage of certificate graduates were minority women. White men earned the fewest certificates on a proportional basis.

In examining the distribution of awards by sex and race, the findings indicate that more minorities, especially women, than whites chose programs which were designed for fast entry into the job market. More whites were enrolled in programs which allowed for formal education beyond the community college.

The following tabulation presents the distribution of awards across age groups (Table 4).

	<u>Up to 21</u>	<u>22-24</u>	<u>25-29</u>	<u>30-34</u>	<u>35 and Above</u>	<u>Total</u>
AA	46%	19%	15%	8%	12%	100%
AS	32	18	19	15	16	100
AAS	35	20	19	11	15	100
Diploma	46	24	16	5	9	100
Certificate	41	15	17	9	18	100

The tabulation shows that AS and AAS graduates are distributed across all age groups. AA and diploma graduates tend to be younger than the average graduate age. Certificate graduates tend to include more of the very young, up to 21, and the oldest, 35 and above. The 1974-75 data, like those of 1973-74, support the conclusion that the community colleges serve citizens of all ages, in many types of programs.

### Curriculum

On the section above, the graduate population was assessed by types of awards earned. This section examines graduates according to their curricular program preferences. In 1974-75, occupational-technical graduates accounted for two-thirds of all awards granted and college transfer, one-third. The two-to-one ratio of awards distributed to occupational-technical and college transfer graduates for 1973-74 and 1974-75 was identical.

In the Virginia Community College System, 151 different occupational-technical curricula were offered (Table 5). Figure 5 shows the percentages of graduates by curricular groups.

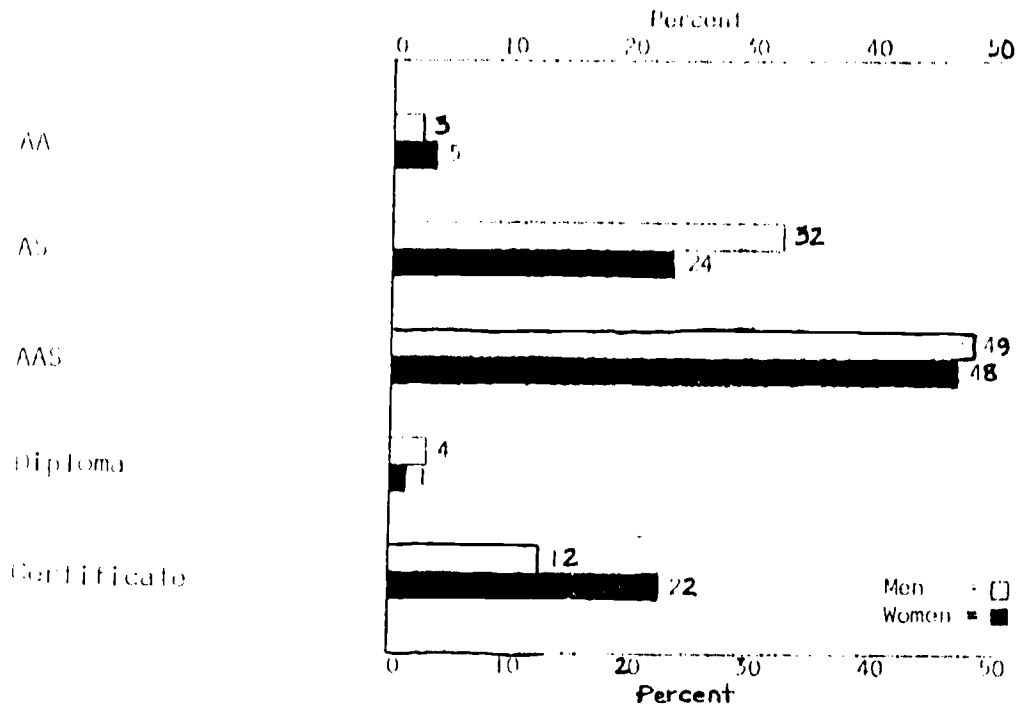


Figure 3. Sex Distribution of 1974-75 Graduates By Type of Award

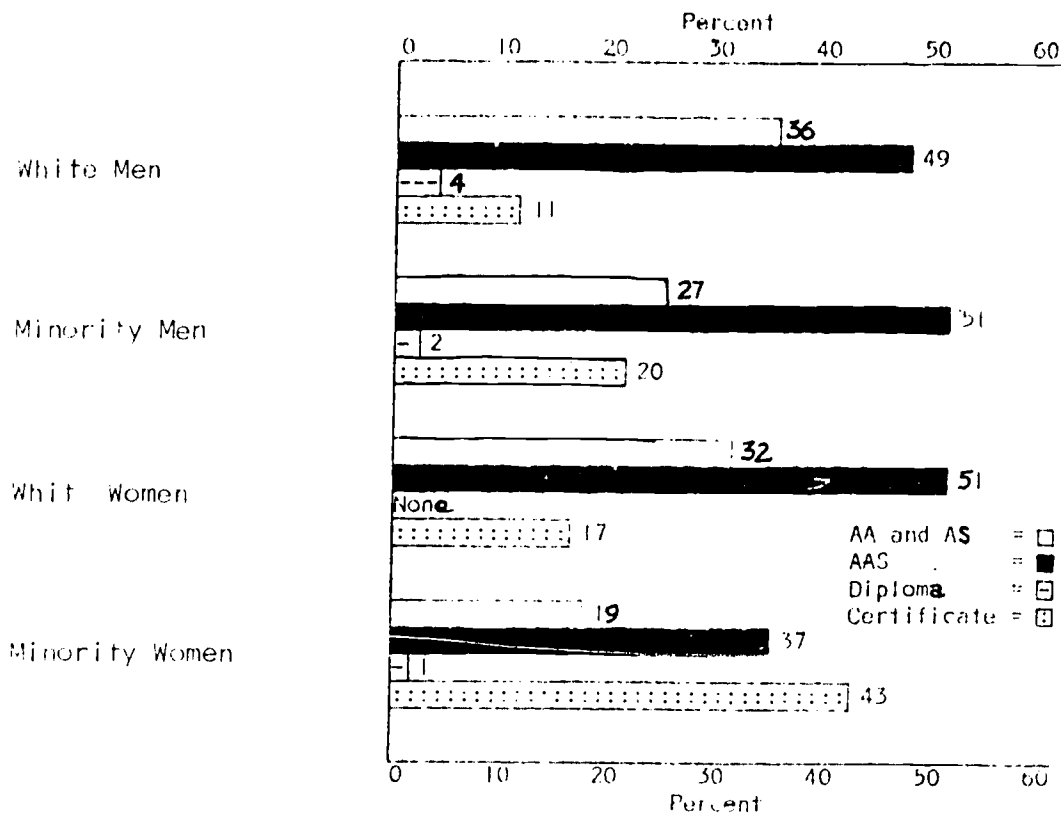


Figure 4. Types of Awards By Sex and Racial Groups, 1974-75

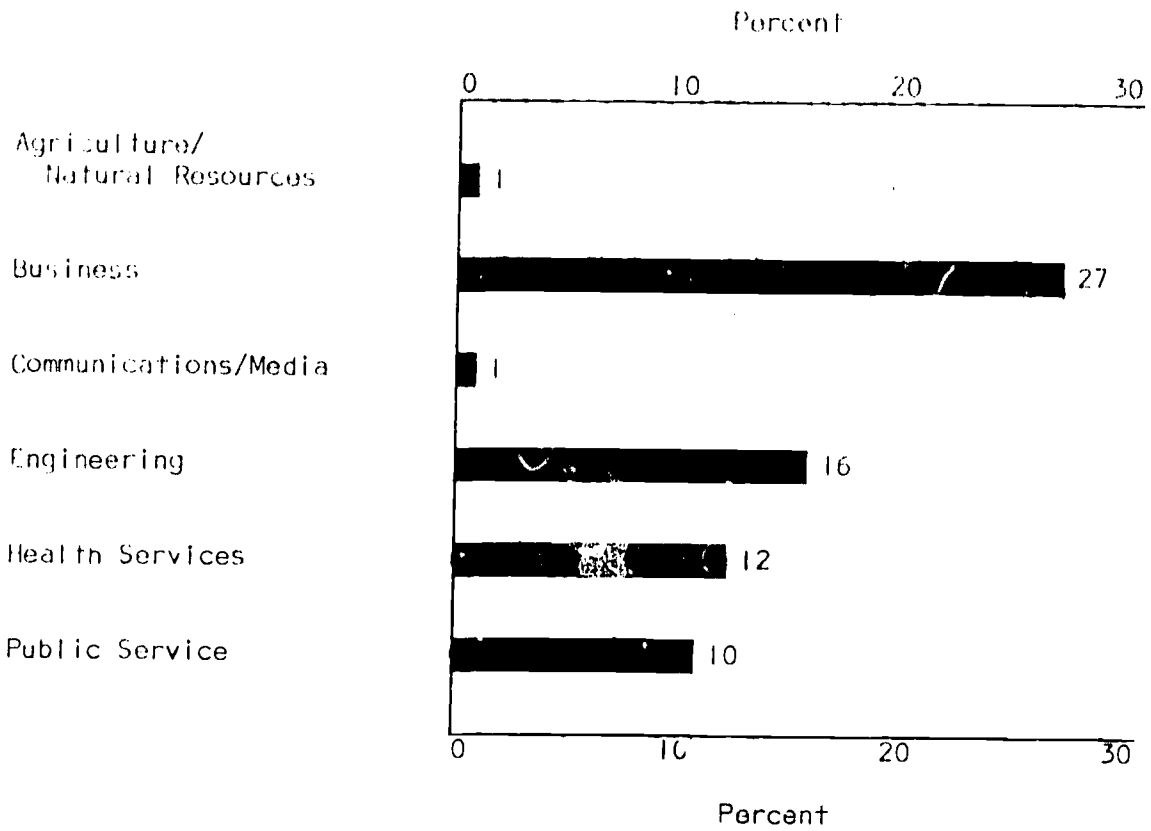


Figure 5. The Distribution of Graduates By Occupational-Technical Curricula

As noted previously, two-thirds of all graduates had taken occupational-technical programs. Of the 67 graduates, the largest percentage were in business, followed by engineering, health services, and public service. The agriculture/natural resources program and the communications/media program were each represented by one percent of the graduates.

Men and women tended to select different curricular programs (Table 6). The distribution of curricular choices by sex are displayed in the following tabulation:

<u>Curricular Group</u>	<u>Men</u>	<u>Women</u>	<u>Total</u>
Occupational-Technical	66%	44%	100%
Agriculture/Natural Resources	6%	5%	100
Business	15	57	100
Communications/Media	19	61	100
Engineering	92	5	100
Health Services	15	87	100
Public Service	77	25	100
College Transfer	6	58	100

Men represented the majority in both occupational-technical and college transfer programs, and they comprised the larger majority in college transfer. Engineering was predominately selected by men, as were public service and agriculture/natural resources. Women were the large majority of graduates in health services, communications/media, and business curricula.

Curricular preferences differed by race (Table 7). A greater proportion of white than minority graduates selected college transfer curricula. More minority graduates chose occupational-technical curricula. Whites were more frequently represented in engineering and agriculture/natural resources programs, while minorities were more prevalent in business and public service. Equal proportions of whites and minorities selected communications/media and health services programs.

The following tabulation presents the median age of graduates by curricular groups:

<u>Curricular Group</u>	<u>Median Age</u>
Occupational-Technical	23.3
Agriculture/Natural Resources	21.4
Business	22.2
Communications/Media	22.0
Engineering	25.0
Health Services	25.9
Public Service	28.5
College Transfer	24.1
Overall Median	23.5

College transfer graduates were almost a year older than occupational-technical graduates.

Among occupational-technical programs, public service graduates were the oldest group by far, and agriculture/natural resources graduates were the youngest (Table 8).

Graduates who were enrolled in occupational-technical curricula received either AAS, diploma, or certificate awards (Table 9). Of the AAS graduates, 42 percent were in business, 20 percent were in engineering, 19 percent in health services, and 15 percent in public service. Two percent of the AAS graduates were distributed into each of the agriculture/natural resources and communications/media programs. Most of the diploma graduates, 86 percent, had been enrolled in engineering programs, while eight percent or less of the diploma graduates completed communications/media, business, agriculture/natural resources, and public service programs. No diploma graduates were in health services. Certificates were distributed across occupational-technical programs with 42 percent of these awards accruing to graduates of business, 28 percent to engineering, 16 percent to health services, and 14 percent to public service programs. No certificates were awarded to agriculture/natural resources graduates, and only one graduate earned a certificate in communications/media.

#### Credits Earned

For the 1973-74 and 1974-75 years, the number of credits that graduates earned varied considerably by type of award (Table 10). Almost all of the AA/AS and AAS graduates earned more than 96 credits. This corresponds closely to the minimum of 97 credits required for these awards. Credit requirements for diplomas and certificates differed according to the program and the college. Seventy-two percent or nearly three-fourths of the diploma graduates earned more than 110 credit hours. A majority of certificate graduates, 58 percent, compiled between 46 and 95 credits.

These data should be interpreted carefully. Often the number of credits a student compiles in earning a specific award may be greater or fewer than the VCCS requires for the award. For example, students who change programs may accumulate more credits than are required for an award, while students who transfer to the community college may have fewer credits reported for them than were actually earned. Other reporting disparities are known to distort the relationship between the number of credits earned and those required for an award.

#### Length of Time to Complete an Award

The time required for 1973-74 and 1974-75 graduates to complete their awards varied according to program credit hour requirements and student persistence (Table 11). The following tabulation compares AA/AS, AAS, and diploma graduates with certificate graduates, in terms of length of time taken to complete an award:

<u>Length of Time</u>	<u>Percent of AA/AS, AAS, and Diploma Graduates</u>	<u>Percent of Certificate Graduates</u>
Through 1 Year	2	20
Over 1 to 2 Years	46	50
Over 2 to 3 Years	27	20
Over 3 to 4 Years	11	5
Over 4 to 5 Years	7	2
Over 5 Years	7	3

Almost half of the AA/AS, AAS, and diploma graduates fulfilled their program requirements in the traditional two year period. About one-fourth took an additional year, and the remaining fourth took more than three years.

Certificate graduates generally took less time to complete their programs. One in five finished in a year or less, and three-fourths finished by the end of the second year. One in four graduates took more than two years to complete their programs.

These data should also be interpreted cautiously. It is not unusual for a certificate program at one college to have the same or similar requirements as a diploma program at another college, the major difference being nomenclature.

It appears that students at Virginia's community colleges take more than the minimal -- and traditional -- time required for a full-time student to earn an award. Separate data on full-time and part-time students who graduated were not available and therefore prevent further interpretation.

#### SUMMARY

During the 1974-75 year, 6,051 students graduated from Virginia community colleges, an increase of 16 percent over the previous year. Of the 1974-75 graduates, 58 percent were men and 42 percent were women. Racial minorities comprised 13 percent of the graduates. Half the graduates were under age 23.5 (median), and of the total group, 36 percent were age 21 or younger.

In regard to sex, race, and age characteristics, some differences were noted between the 1973-74 and 1974-75 graduate populations. Women and minorities comprised a slightly larger proportion of graduates in 1974-75 than in 1973-74. The percentage of graduates 30 years of age or older rose from 23 percent in 1973-74 to 25 percent in 1974-75.

The Associate of Applied Science degree, which is an occupational-technical award, was earned by nearly half of the 1974-75 graduates. Two-thirds of the graduates were in occupational-technical programs.

Some differences appeared in the male and female selection of types of degrees. Almost equal proportions of men and women were awarded the AAS degree. More men than women earned diplomas while women received a larger proportion of certificates. For graduates of college transfer programs, women were more frequently granted the AA degree; and men, the AS degree.

An examination of types of degrees granted to white and minority graduates revealed that large percentages of both groups earned the AAS degree. More whites than minorities were granted college transfer degrees, while minorities earned a larger proportion of certificates. A small proportion of both white and minority graduates received diplomas. Graduates among all age groups were granted substantial numbers of each type of award.

Among occupational-technical programs, business was the curriculum most often selected by graduates, followed by engineering, health services, and public service. The agriculture/natural resources program and the communications/media program were each represented by one percent of the graduates.

When occupational-technical programs were examined according to male and female graduate preferences, it was found that men predominated in the engineering, public service, and the agriculture/natural resources curricula. Health services, communications/media and business programs were primarily selected by women.

Differences were found in the curricular preferences of white and minority graduates. Whites were more frequently represented in engineering and agriculture/natural resources, while minorities were more prevalent in business and public service. Equal proportions of whites and minorities selected communications/media and health services programs.

Graduates generally took more time than the traditional two years to fulfill their program requirements. Half of the associate degree and diploma graduates completed their programs within a two year period. One-fourth took an extra year, and the remainder took more than three years.

APPENDIX A

TABLES



TABLE 1  
SEX AND RACIAL DISTRIBUTION OF GRADUATES

	RACE					
	White		Minority		Total	
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
Male	3,171	90	347	10	3,518	58
Female	2,084	82	449	18	2,533	42
TOTAL	5,255	87	796	13	6,051	100

TABLE 2  
THE RACIAL DISTRIBUTION OF GRADUATES BY SEX

	RACE			
	White		Minority	
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
Male	3,171	60	347	44
Female	2,084	40	449	56
TOTAL	5,255	100	796	100

TABLE 3

## SEX AND RACIAL DISTRIBUTION OF GRADUATES BY TYPE OF AWARD

	SEX						RACE			
	Total		Men		Women		White		Minority	
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
Associate of Arts	226	4	98	3	128	5	197	4	29	4
Associate of Science	1,747	29	1,126	32	621	24	1,597	30	150	19
Associate of Applied Science	2,963	49	1,738	49	1,225	48	2,616	50	347	43
Diploma	148	2	134	4	14	1	138	3	10	1
Certificate	967	16	422	12	545	22	707	13	260	33
TOTAL	6,051	100	3,518	100	2,533	100	5,255	100	796	100

TABLE 4

## AGE DISTRIBUTION OF GRADUATES BY TYPE OF AWARD

	<u>Median</u>	<u>Up to 21</u>		<u>22-24</u>		<u>25-29</u>		<u>30-34</u>		<u>35 and Above</u>		<u>Total</u>	
		<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
Associate of Arts	21.9	105	46	43	19	33	15	19	8	26	12	226	100
Associate of Science	24.6	557	32	312	18	323	19	267	15	288	16	1,747	100
Associate of Applied Science	23.5	1,029	35	586	20	567	19	341	11	440	15	2,963	100
Diploma	21.8	68	46	35	24	24	16	8	5	13	9	148	100
Certificate	22.9	394	41	147	15	163	17	87	9	176	18	967	100
TOTAL	23.5	2,153	36	1,123	19	1,110	18	722	12	943	15	6,051	100

TABLE 5  
DISTRIBUTION OF GRADUATES BY CURRICULA

	<u>All Graduates</u>			<u>All Graduates</u>	
	<u>N</u>	<u>Pct</u>		<u>N</u>	<u>Pct</u>
<u>Agriculture/ Natural Resources</u>			<u>Business &amp; Related (cont'd)</u>		
Animal Husband	3	4.8	Stenography	81	4.9
Horse Live Mgt			Sec Science	331	20.1
Animal Science	22	35.5	Educ Sec	5	.3
Ag Business	17	27.4	Traffic/Trans	8	.5
Wildlife			Transportation	3	.2
Forestry	15	24.2	Avlation-Admin	9	.5
Rec/Ground Mgt			Flight Att		
Nat Res Mgt	5	8.1			
Sub-Total	62	100.0	Sub-Total	1649	100.0
			<u>Communications/ Media</u>		
<u>Business &amp; Related</u>			Commercial Art	50	72.5
Records Mgt	8	.5	Media Ad Arts	4	5.8
Accounting	193	11.7	Crafts	3	4.3
Bookkeeping	4	.2	Printing	12	17.4
Data Processing	118	7.2			
Comp/Mach Opr	7	.4	Sub-Total	69	100.0
Banking/Finance	3	.2			
Management	462	28.1	<u>Engineering &amp; Related</u>		
Gen Business	2	.1	Architecture	31	3.2
Data Processing	4	.2	Auto Analysis	47	4.8
Perip Equip Opr	5	.3	Air Con Refrig	66	6.7
Clerical Stud	221	13.4	Air T C	9	.9
Bus Ind Super	39	2.4	Appli Repair		
HRI Mgt	43	2.6	Auto Body	4	.4
Insurance			Automotive	45	4.6
Hotel Mot Mgt	5	.3	Auto Diagnosis	5	.5
Food Ser Mgt	28	1.7	Cabinet Making	1	.1
Institu Mgt			Chemical		
Travel Tourism	1	.1	Civil	34	3.5
Merchandising	55	3.3	Broadcast Engr	3	.3
Gen Merchand	2	.1			
Food Marketing					
Real Estate	12	.7			

TABLE 5 (CONT'D)

	<u>All Graduates</u>			<u>All Graduates</u>	
	<u>N</u>	<u>Pct</u>		<u>N</u>	<u>Pct</u>
<u>Engineering &amp; Related (cont'd)</u>			<u>Engineering &amp; Related (cont'd)</u>		
Constructor	1	.1	Mining	2	.2
Constr Insp			Water Well Dr	3	.3
Diesel Mech	1	.1	Sub-Total	980	100.0
Draft Design	148	15.1			
Drafting	45	4.6	<u>Health Services</u>		
Tech Illustra	2	.2	Dent Lab	15	2.1
Electronics	4	.4	Dent Hygiene		
Arch Draft	2	.2	Dietetics	3	.4
Nuclear			Dent Assist	46	6.3
Instrumentation	19	1.9	Dent Lab Asst	10	1.4
Elec/Elec	231	23.8	Med Lab Asst		
Electricity	52	5.3	Medical Lab	31	4.3
Elec/Elec	34	3.5	Medical Records	13	1.8
Electromechan	2	.2	Mental Health	36	5.0
Ind Electro Rp	1	.1	Mortuary Sci	27	3.7
Electron Serv	30	3.1	Nursing	392	53.9
Machine	11	1.1	Pract Nursing	46	6.3
Machine Tool Op	16	1.6	Nursing Asst	34	4.7
Machine Science	3	.3	Opticianry		
Masonry			Radiology	24	3.3
Mechanical	47	4.8	Phys Thera	12	1.7
Machine Opr	19	1.9	Resp Therapy	17	2.3
Machine Shop	11	1.1	Resp Ther Tech	16	2.2
Toolmaking			Livestock	4	.6
Plumbing	16	1.6	Sub-Total	726	100.0
Industrial	4	.4			
Engr Tech Asst	1	.1	<u>Public Services</u>		
Rad/TV Mfg Ser	3	.3	Comm Soc Serv	35	5.9
Textile Mgt			Comm S S Asst		
Auto Machinist	5	.5	Industrial F S		
Parts Merchand			Fire Science	65	11.0
Motorcycle Main					
Bldg Constr					
Industrial Main	6	.6			
Industrial Mgt	2	.2			
Welding	12	1.2			
Production					
Carpentry					
Mine Mach Main	2	.2			

TABLE 5 (CONT'D)

	<u>All Graduates</u>			<u>All Graduates</u>	
	<u>N</u>	<u>Pct</u>		<u>N</u>	<u>Pct</u>
<u>Public Services (cont'd)</u>			<u>College Transfer (cont'd)</u>		
Firefighting	3	.5	Engineering	65	3.3
Rec Parks	17	2.9	Science	237	12.0
Corrections	33	5.6			
Corrections Sc	10	1.7	Sub-Total	1973	100.0
Law Enforce	47	7.9			
Police Science	291	49.1	Grand Total	6051	100.0
Public Admin	1	.2			
Coop Career Den	14	2.4			
Citizen Devel					
Human Services	7	1.2			
Inst Security					
Admin Security					
Occup Safety	3	.5			
Applied Music					
Educ Services	9	1.5			
Te/Inst Aide	12	2.0			
Erl Chld Devel	4	.7			
Child Care	13	2.2			
Envir Con Opr	4	.7			
Sc Tech Aid					
Envir Science	2	.3			
Science Tech	3	.5			
Radio/TV Prod	19	3.2			
Sub-Total	592	100.0			
<u>College Transfer</u>					
Business Admin	537	27.2			
Art	16	.8			
Fine Arts	2	.1			
Music	7	.4			
Theatre Arts	1	.1			
Education	662	33.5			
Liberal Arts	194	9.8			
Art Education	6	.3			
General Studies	246	12.5			

TABLE 6

## SEX AND RACIAL DISTRIBUTION OF GRADUATES WITHIN CURRICULAR GROUP

	SEX						RACE			
	Total		Men		Women		White		Minority	
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
Occupational-Technical	4,078	67	2,294	65	1,784	70	3,461	66	617	78
Agriculture/Natural Resources	62	1	43	1	19	1	60	1	2	-
Business Related Programs	1,649	27	713	20	936	37	1,311	25	338	43
Communications/Media	69	1	27	1	42	1	60	1	9	1
Engineering/Related Programs	980	16	955	27	25	1	890	17	90	11
Health Services	726	12	98	3	628	25	630	12	96	12
Public Service	592	10	458	13	134	5	510	10	82	11
College Transfer	1,973	33	1,224	35	749	30	1,794	34	179	22
TOTAL	6,051	100	3,518	100	2,533	100	5,255	100	796	100

TABLE 7

## SEX AND RACIAL DISTRIBUTION OF GRADUATES BY CURRICULAR GROUP

	SEX						RACE					
	Men		Women		Total		White		Minority		Total	
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
Occupational-Technical	294	56	1,784	44	4,078	100	3,461	85	617	15	4,078	100
Agriculture/Natural Resources	43	69	19	31	62	100	60	97	2	3	62	100
Business Related Programs	713	43	936	57	1,649	100	1,311	80	338	20	1,649	100
Communications/Media	27	39	42	61	69	100	60	87	9	13	69	100
Engineering/Related Programs	955	97	25	3	980	100	890	91	90	9	980	100
Health Services	98	13	628	87	726	100	630	87	96	13	726	100
Public Service	458	77	134	23	592	100	510	86	82	14	592	100
College Transfer	1,224	62	749	38	1,973	100	1,794	91	179	9	1,973	100
TOTAL	3,518	58	2,533	42	6,051	100	5,255	87	796	13	6,051	100



TABLE 8

## AGE DISTRIBUTION OF GRADUATES BY CURRICULUM

	Median	Up to 21		22-24		25-29		30-34		35 and Above		Total	
		<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
Occupational-Technical	23.3	1,491	37	768	19	754	18	436	11	629	15	4,078	100
Agriculture/Natural Resources	21.4	32	52	12	19	13	21	4	6	1	2	62	100
Business Related Programs	22.2	732	44	271	17	247	15	153	9	246	15	1,649	100
Communications/Media	22.0	26	38	25	36	12	18	3	4	3	4	69	100
Engineering/Related Programs	23.0	352	36	211	22	227	23	103	10	87	9	980	100
Health Services	23.9	222	31	166	23	142	19	67	9	129	18	726	100
Public Service	28.3	127	21	83	14	113	19	106	18	163	28	592	100
College Transfer	24.1	662	34	355	18	356	18	286	14	314	16	1,973	100
TOTAL	23.5	2,153	36	1,123	19	1,110	18	722	12	943	15	6,051	100

TABLE 9

## CURRICULAR DISTRIBUTION OF O-T GRADUATES BY TYPE OF AWARD

	Total	AAS		Diploma		Certificate	
		<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
Occupational-Technical	4,078	2,963	100	148	100	967	100
Agriculture/Natural Resources	62	59	2	3	2	-	-
Business Related Programs	1,649	1,234	42	5	3	410	42
Communications/Media	69	57	2	11	8	1	-
Engineering/Related Programs	980	585	20	127	86	268	28
Health Services	726	574	19	-	-	152	16
Public Service	592	454	15	2	1	136	14

TABLE 10  
 NUMBER OF CREDITS EARNED BY TYPE OF AWARD, PERCENT

<u>Number of Credits</u>	<u>AA/AS</u>	<u>AAS</u>	<u>Diploma</u>	<u>Certificate</u>
45 or Under	-	-	-	12
46-95	1*	2*	12	58
96-100	35	30	12	1
101-110	27	33	4	2
111 or More	37	35	72	27
TOTAL	100	100	100	100

\* These represent students transferring to the community colleges, who did not always have their transfer credits reported.

TABLE 11  
 NUMBER OF YEARS TAKEN TO COMPLETE AN AWARD

	<u>Total</u>		<u>AA/AS</u>		<u>AAS</u>		<u>Diploma</u>		<u>Certificate</u>	
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
0 to One Year	300	5	52	3	51	2	-	-	197	20
More Than One to Two Years	2830	47	986	50	1289	44	75	51	480	50
More Than Two to Three Years	1567	26	472	24	852	29	52	35	191	20
More Than Three to Four Years	612	10	204	10	341	11	14	10	53	5
More Than Four to Five Years	347	6	118	6	207	7	2	1	20	2
More Than Five Years	398	6	141	7	226	7	5	3	26	3

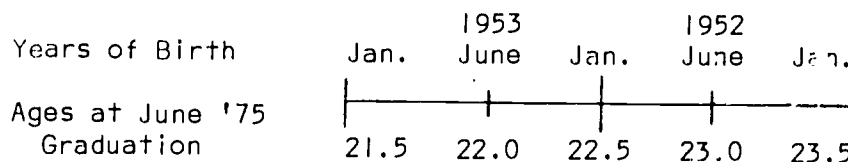
## APPENDIX B

### PROCEDURES FOR CALCULATING MEDIAN AGES OF 1973-74 AND 1974-75 GRADUATES

In 1973-74 and 1974-75, the Research and Evaluation staff obtained comparable results from different sets of procedures used in calculating graduates' median ages. The difference in procedures arose from computing medians from uneven interval data in 1973-74 and even interval data in 1974-75.

Each approach in calculating medians assumes that the large majority of community college students graduate in June of each academic year. It is further assumed that 1974-75 graduates born in 1953 would not be just 22 years of age but would range in ages from 21.5 to 22.5 years. This relationship between student year of birth and age at graduation is represented in the table below:

Relationship Between Years of Birth  
and Ages at June 1975 Graduation



Both approaches utilize the standard statistical method for determining medians.

#### Determining Medians from Uneven Interval Data

The median ages of 1973-74 graduates were interpolated from graduate data grouped into five age categories: up to 21, 22-24, 25-29, 30-34, 35 and above. This method is shown in the steps below:

Determine the number of graduates within each age group.

<u>Age Groups</u>	<u>No.</u>	<u>Cumulative</u>
Up to 21	2153	2153
22-24	1123	3276
25-29	1110	4386
30-34	722	5108
35 and Above	943	6051
	<u>6051</u>	

Divide the total number of graduates by 2 to locate the median class interval.

Apply the formula for determining medians.

$$\text{Median} = \frac{\frac{n}{2} - \sum_{j=0}^{m-1} f_j}{f_m} (U-L) + L$$

where  $n$  = total number of graduates  
 $\sum_{j=0}^{m-1} f_j$  = sum of graduates up to the median class  
 $f_m$  = number of graduates in median class  
 $U$  = upper boundary of median class  
 $L$  = lower boundary of median class

$$\text{Median} = \frac{\frac{6051}{2} - 2153}{1123} (24.5 - 21.5) + 21.5$$

The median is 23.8 years.

#### Determining Medians from Even Interval Data

The median ages of 1974-75 graduates were interpolated from graduate data by year of birth. The calculations involved in this procedure are presented below:

Determine graduates' years of birth.

<u>Year of Birth</u>	<u>No.</u>	<u>Cumulative</u>
1959	2	2
1958	-	2
1957	7	9
1956	106	115
1955	1129	1244
1954	910	2154
1953	547	2701
1952	325	3026
.	.	.
.	.	.
1900	.	6051
	<u>6051</u>	

Divide the total number of graduates by 2 to locate the median class interval.

Apply the same formula for determining medians.

$$\text{Median} = \frac{\frac{6051}{2} - 2701}{325} (23.5 - 22.5) + 22.5$$

The median is 23.5 years.