✓ 421

no action

GEORGIA INSTITUTE OF TECHNOLOGY

ENGINEERING EXPERIMENT STATION

PROJECT INITIATION

Date: February 27, 1976

Project Title: A Follow Up Study of 1974 Graduates of Vocational Education Programs

Project No.: A-1797

Project Director: W. C. Howard

Sponsor: Georgia Advisory Council on Vocational Education; Atlanta, GA

Agreement Period: From Dec. 12, 1975 Until June 25, 1976

Type Agreement: Standard Research Agreement dated 12/31/75

Amount: $21,974

Reports Required: Monthly Progress; Interim Status; Final Report and Summary

Sponsor Contact Person:

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State of Georgia
Advisory Council on Vocational Education
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Assigned to: Economic Development Laboratory

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Director, EES
Assistant Director
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Project File
Other Sue Corbin; Jim Donovan

RA—3 (8—75)

GEORGIA INSTITUTE OF TECHNOLOGY
OFFICE OF CONTRACT ADMINISTRATION

SPONSORED PROJECT TERMINATION

No action adj

Date: December 28, 1976

Project Title: A Follow Up Study of 1974 Graduates of Vocational Education Programs

Project No: A-1797

Project Director: Don Lodge

Sponsor: Georgia Advisory Council on Vocational Education; Atlanta, Ga.

Effective Termination Date: 10/31/76

Clearance of Accounting Charges: all clear

Grant/Contract Closeout Actions Remaining:

X Final Invoice ~~XXXXXXXXXXXXXXXX~~
_ Final Fiscal Report
_ Final Report of Inventions
_ Govt. Property Inventory & Related Certificate
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_ Other _____

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CA-4 (3/76)

Project A-1797

A FOLLOW-UP STUDY OF 1974-75 GRADUATES OF GEORGIA VOCATIONAL EDUCATION PROGRAMS

EXECUTIVE SUMMARY

by

Donald E. Lodge
Project Director

and

William C. Howard

Prepared for

State of Georgia
Advisory Council on Vocational Education
Atlanta, Georgia

Economic Development Laboratory
Engineering Experiment Station
GEORGIA INSTITUTE OF TECHNOLOGY
June 1976

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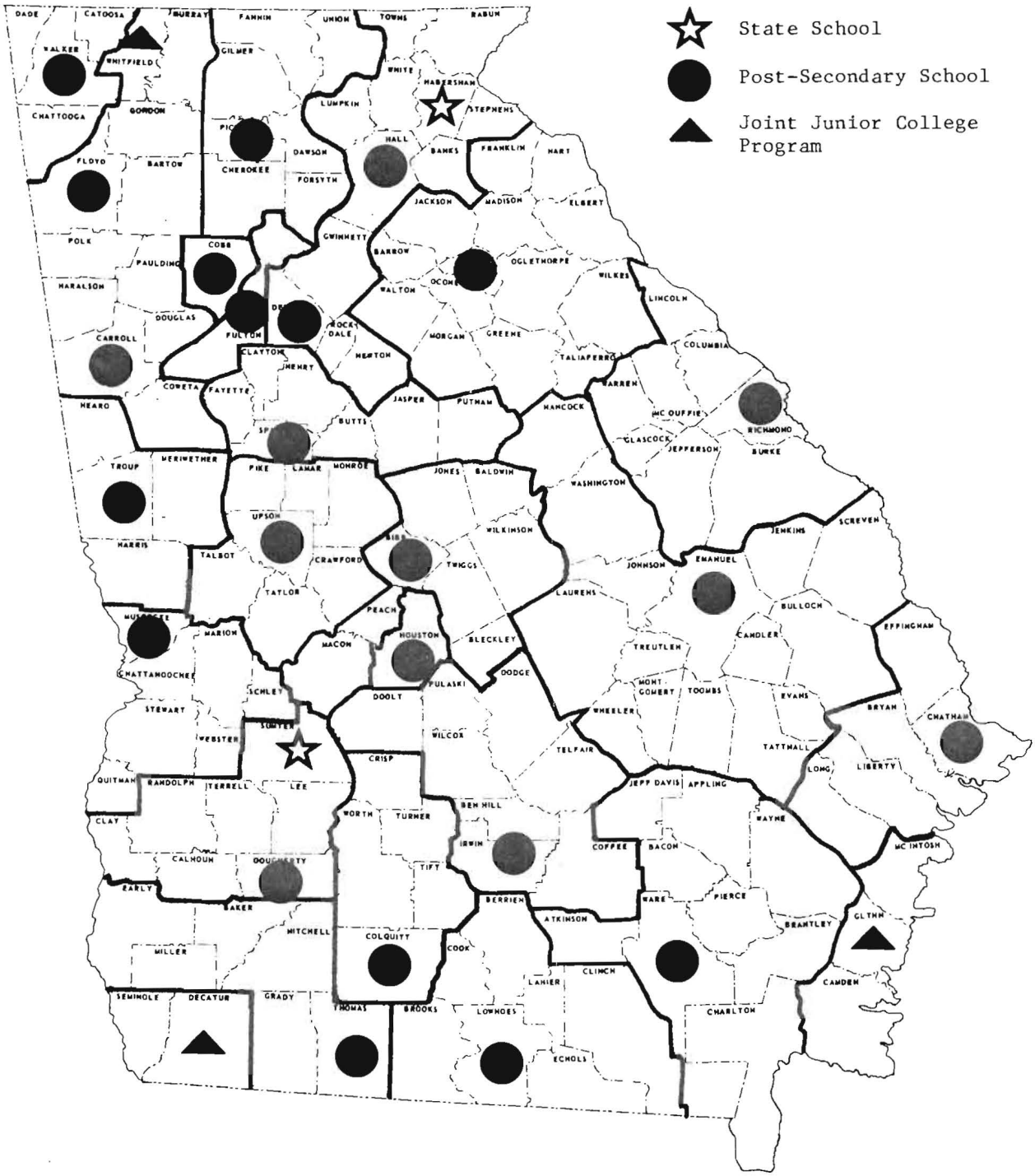
Figure 1

GEORGIA'S POST-SECONDARY VOCATIONAL EDUCATION FACILITIES



INTRODUCTION

The purpose of this study was to provide the Georgia Advisory Council on Vocational Education with information on post-secondary (area vocational-technical school) vocational education programs as viewed by graduates of these programs.

Specifically the objectives of the study were to:

1. Determine how vocational-technical school graduates feel about the education and training they received in terms of technical knowledge and employment orientation based on their experience in finding jobs, performing the jobs for which they were trained, and the rate of pay they received.

2. Determine how vocational-technical school graduates evaluate the services (guidance and counseling, job placement, etc.) provided by Georgia's 26 area vocational schools.

3. Compare the evaluation of vocational education by 1970-71 vocational-technical school graduates with the evaluation of vocational education by 1974-75 graduates.

A similar study had been completed by the Economic Development Laboratory (EDL, which at that time was called the Industrial Development Division) in January of 1973.

At present there are 24 publicly operated area vocational-technical schools and two state vocational-technical schools in Georgia. In addition, EDL was asked to include the three joint junior college programs in this study. (See Figure 1 for the location of these schools by county.)

This report summarizes the results of the study. A Technical Report may be viewed at the office of the Georgia Advisory Council on Vocational Education, Atlanta, Georgia.

SUMMARY OF THE STUDY

The Survey

The data utilized in this study were gathered through a mail survey of graduates and course-certificate recipients for 1974-75 from the 29 schools. A random sample of 4,675 of the state's 8,290 graduates were mailed a questionnaire in February and March of 1976. The response was as follows:

	Number	Percent of Total
Total number of graduates	8,290	100.0
Number selected for sample	4,675	56.4
Number randomly selected for sample	4,675	100.0
Less number who did not receive questionnaire because of change of address, incorrect address, insufficient address, etc.	- 555	11.9
Net number in sample (received questionnaire)	4,120	100.0
Number who responded	2,119	51.4
Number who did not respond	2,001	48.6
Number of usable questionnaires	2,087	
Number of nonusable questionnnaires	32	
Total questionnaires received	2,119	

Of the 4,576 graduates randomly selected for the sample, 2,119 actually responded, resulting in a 51.4% return.

Data Processing

The returned questionnaires were edited for completeness and consistency and coded for keypunching. The data were entered on punchcards and subsequently transferred to a disk. A Cyber 74 computer and the Statistical Package for the Social Sciences[1/] were utilized in tabulating the data and in running the cross tabulations.

1/ Norman H. Nie, et al., Statistical Package for the Social Sciences, Second Edition, McGraw-Hill Book Company, New York, 1970.

The data utilized for the state portion of this study were weighted to insure that each of the 29 schools was represented in proportion to its share of vo-tech graduates in the state of Georgia. Thus, any school which had been over- or undersampled had its questionnaires weighted by a variable to correct for the imbalance. In effect, the number of returns or cases from each school was mathematically increased or decreased so that each school was represented in proportion to its share of the total number of graduates in the state. In doing so, the number of respondents or cases was reduced by the computer from 2,087 to 2,047. This reduction resulted because there were 18 schools which required a reduction in number of cases and only 11 which required an increase.

Fifty cross tabulations and 31 frequency tabulations were run on the computer. The report presents the significant findings gleaned from these tabulations.

Graduate Profile

The typical 1974-75 graduate from a Georgia area vocational-technical school is a white male or female nonveteran, aged 20-24, who is presently earning $150 to $299 per month.

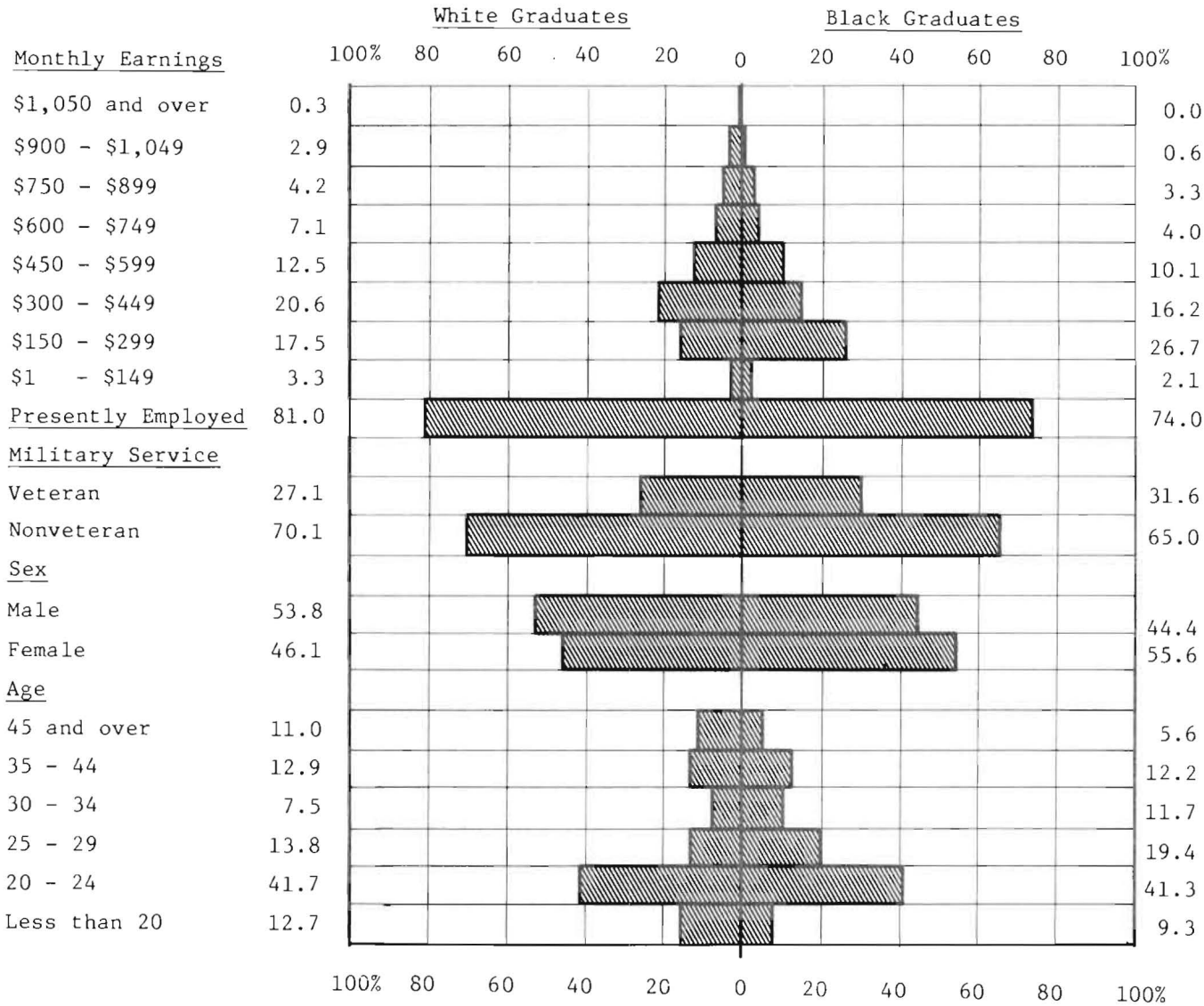
Whites comprise 72.6% of the 1974-75 graduates and are split 54% male to 46% female (see Figure 2.) Twenty-seven percent of the white graduates are veterans. Eighty-one percent of the white graduates are currently employed. The largest group of white graduates presently falls in the $300-$499 monthly-earnings category.

Nonwhite graduates comprise 27% of the 1974-75 graduates, with blacks constituting 26% of the total graduates. (See Figure 2.) The typical black graduate is a female nonveteran, aged 20-24, who is presently earning $150-$299 per month. Veterans constitute 32% of the black graduates. Seventy-four percent of the black graduates are currently employed.

Veterans represent 28% of all graduates. Most of the veterans are male (96%), white (70%), and the largest age group is the 25-29 category (28%). (See Figure 3.) Veterans as a group stay in training longer than their nonveteran counterparts. Seventy-eight percent of the veterans are presently employed, with the largest number showing monthly earnings in the $450-$599 range.

Figure 2

A PROFILE OF WHITE AND BLACK
VOCATIONAL-TECHNICAL GRADUATES

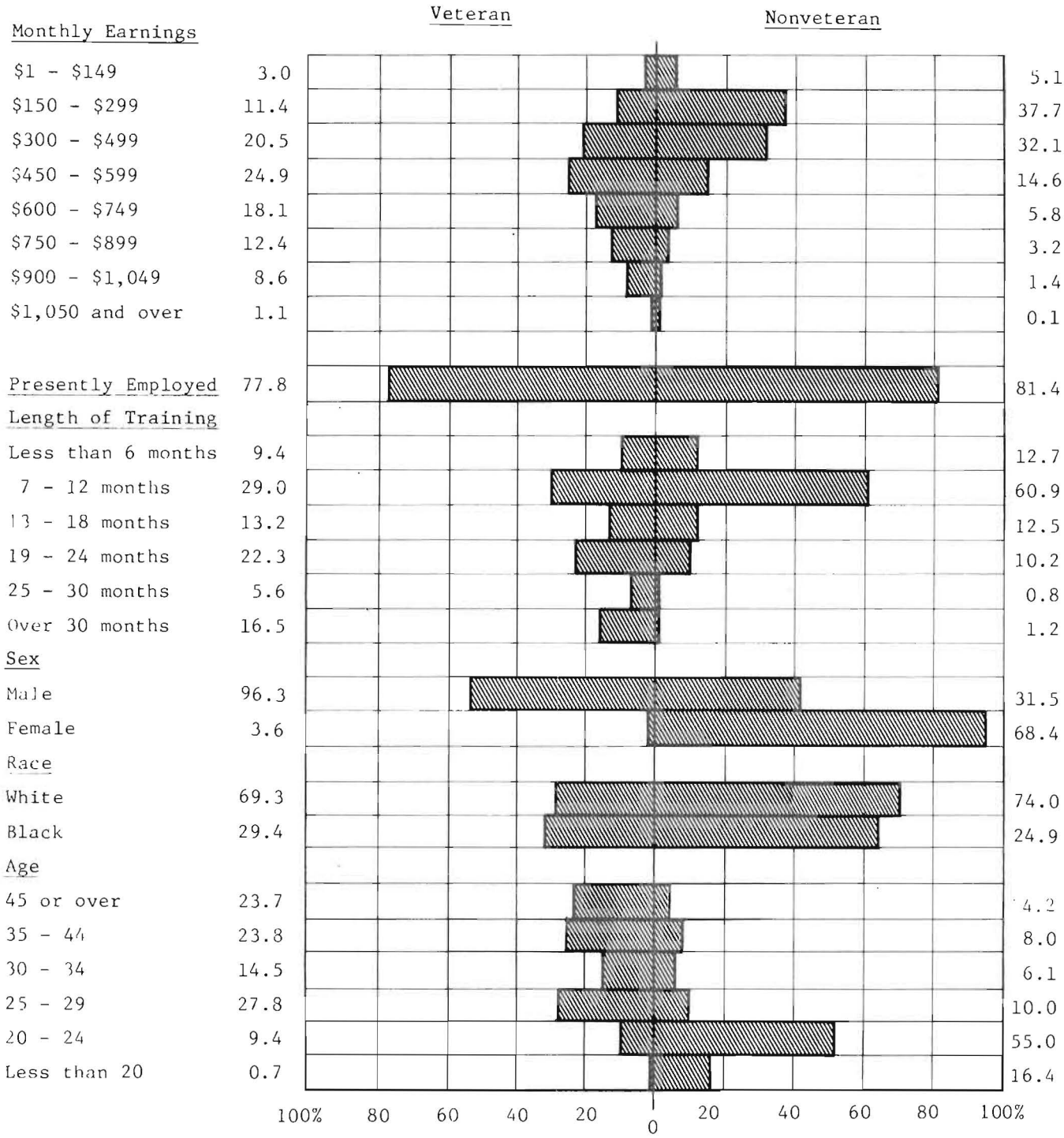


Note: Items may not total 100% because some graduates declined to answer these questions.

On monthly earnings, the unemployed and those who are in the military service or have continued their education have no income. These plus the "no answers" constitute the difference between the figures shown and 100%.

Figure 3

A PROFILE OF VETERAN AND NONVETERAN
VOCATIONAL-TECHNICAL GRADUATES



Note: Items may not total 100% because some graduates declined to answer these questions.

On monthly earnings, the unemployed and those who are in the military service or have continued their education have no income. These plus the "no answers" constitute the difference between the figures shown and 100%.

Satisfaction with Training

On the whole, the graduates expressed a high level of satisfaction with their training. (See Figure 4.) Sixty-two percent of the respondents indicated that their vo-ed schooling had done an exceptional job of preparing them for their occupations. An additional 28% replied that their training had left them well prepared, and only 4% answered that their training had left them poorly prepared for a job.

The graduates were also asked to rate their training on 12 separate items. Each of these items has been put on a scale from 10 to 40, with 10 equal to Poor, 20 equal to Satisfactory, 30 equal to Good, and 40 equal to Excellent. (See Figure 5.) Ten of the 12 items fell in the 29 to 32 (or Good) range; however, job placement services and guidance and counseling services fell below 29.

Job placement services received only 22.3 points. On another question concerning how the graduates found their present jobs, only 17% indicated that they had found their present jobs through a vo-tech faculty or staff member. Based on these two questions, it appears that job placement should receive further attention.

Guidance and counseling services also fell below the Good range, receiving 26.8 points. On another question, "Were there any guidance or counseling services available to you at your vocational-technical school?", 13% of the graduates answered "No" and an additional 4% gave no answer. Guidance and counseling services might also profit from further attention from the Council.

Skill or Trade for Which Trained

The skill or trade category with the largest number of responding graduates was Trade and Industry with 43% of the total. (See Figure 6.) Office skills was second largest with 26%, followed by Health with 18%. All the other categories are much smaller, falling in the 0.4%-5.2% range.

The skill or trade category employing the largest number of responding graduates was Trade and Industry with 29.7%. Office followed with 16.4%, and Health was third with 15.4%. The other categories fell in the 1.2%-5.5% range.

Success in Gaining Employment

Seventy-nine percent of the responding 1974-75 graduates are employed. (See Figure 7.) Thirty-nine percent are employed in the skill or trade in

Figure 4

GRADUATE EVALUATION OF
VOCATIONAL-TECHNICAL TRAINING

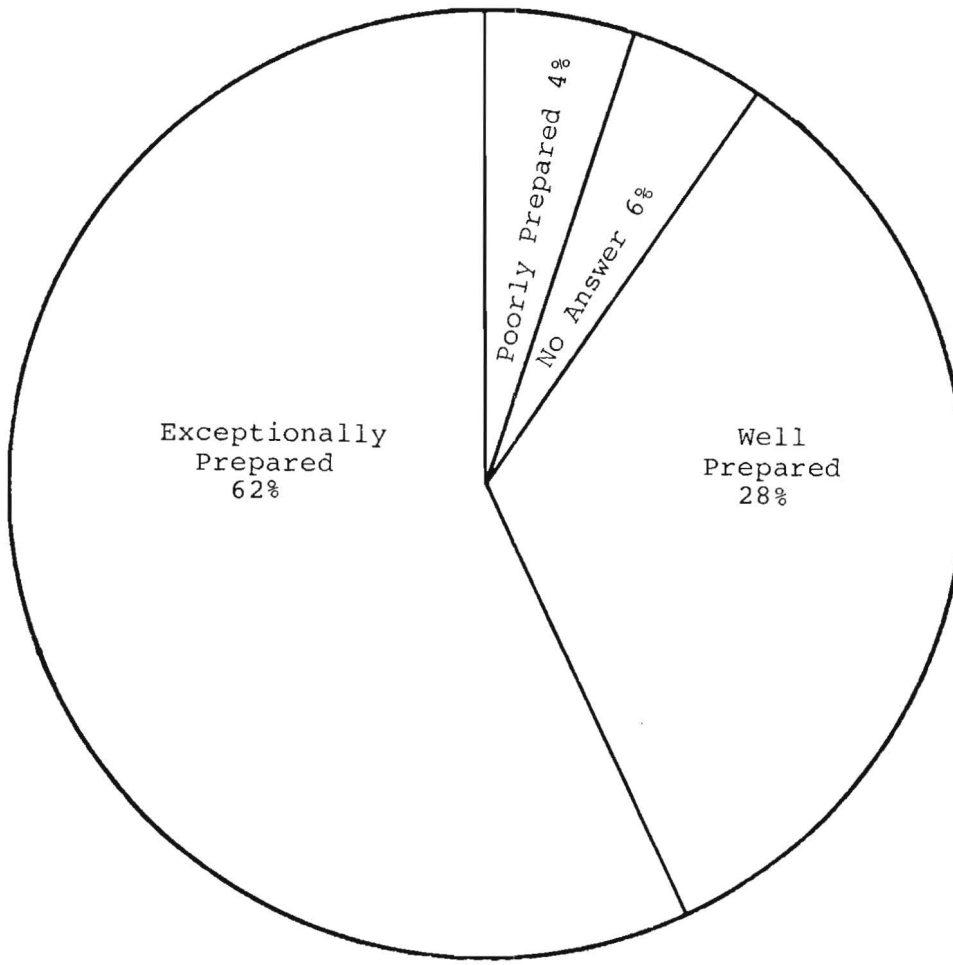


Figure 5

GRADUATES' EVALUATION OF VARIOUS FACTORS
OF VOCATIONAL-TECHNICAL TRAINING

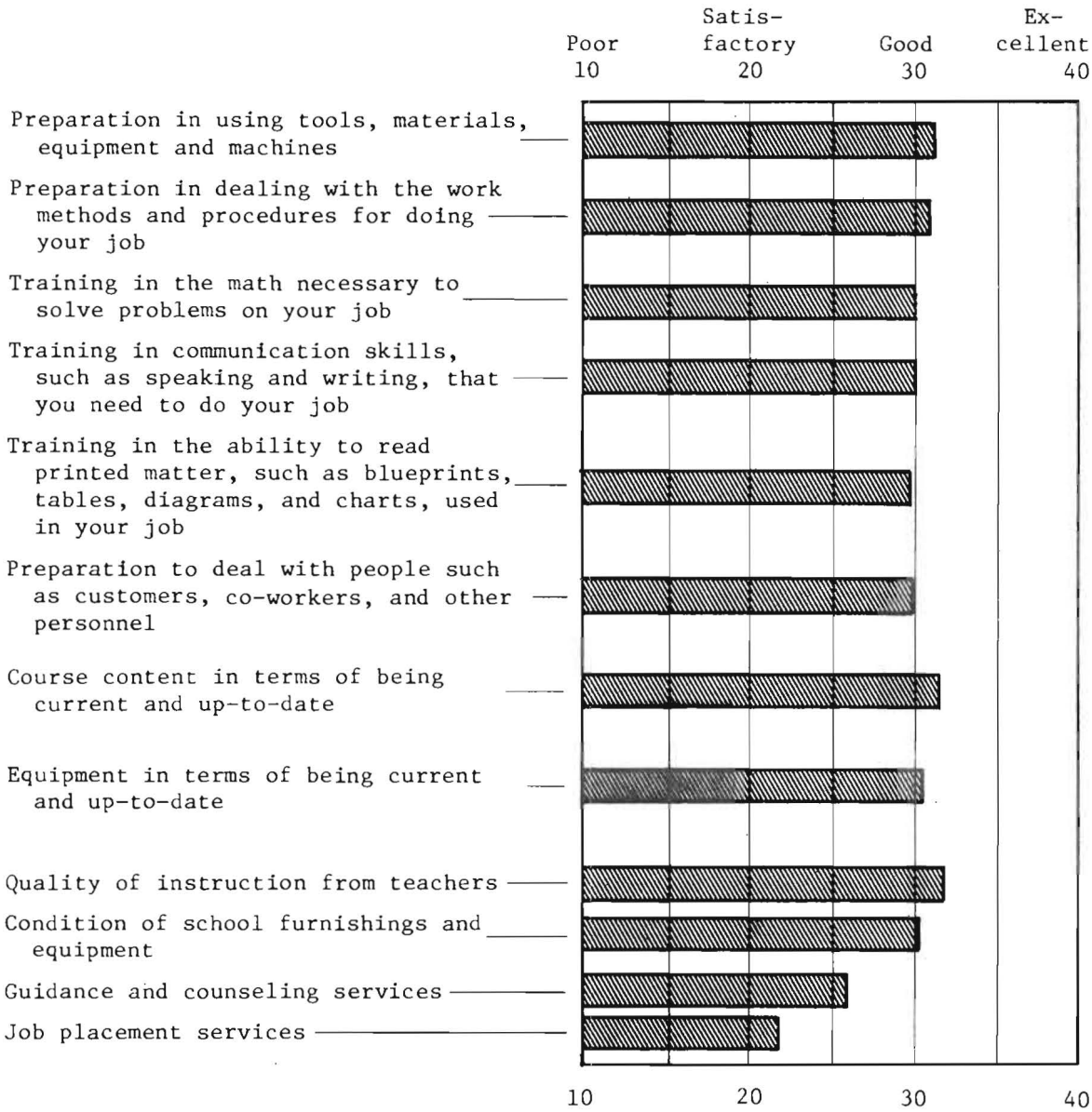


Figure 6

THE RELATIONSHIP BETWEEN THE PERCENT OF GRADUATES TRAINED AND THE PERCENT EMPLOYED IN EACH TRADE OR SKILL

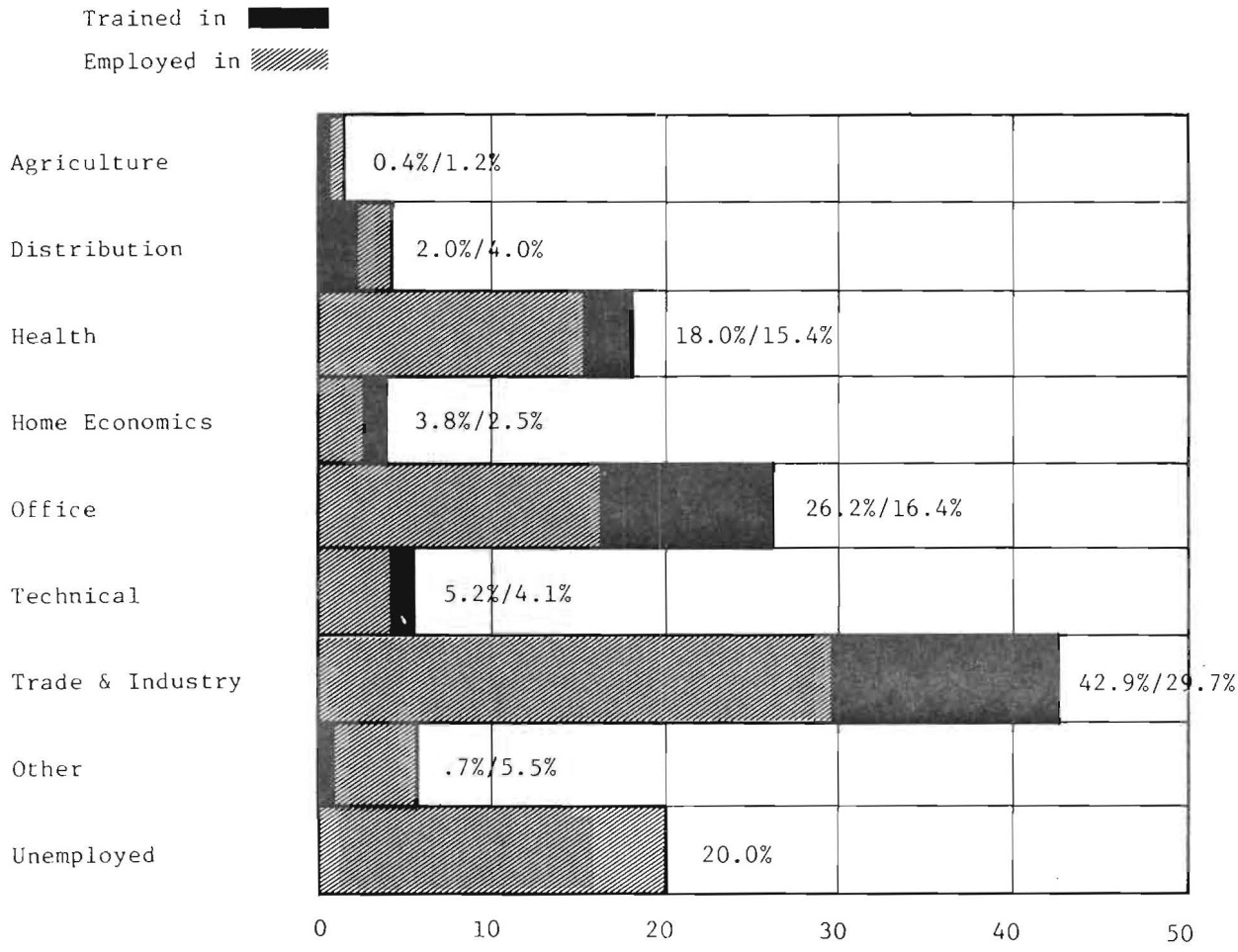
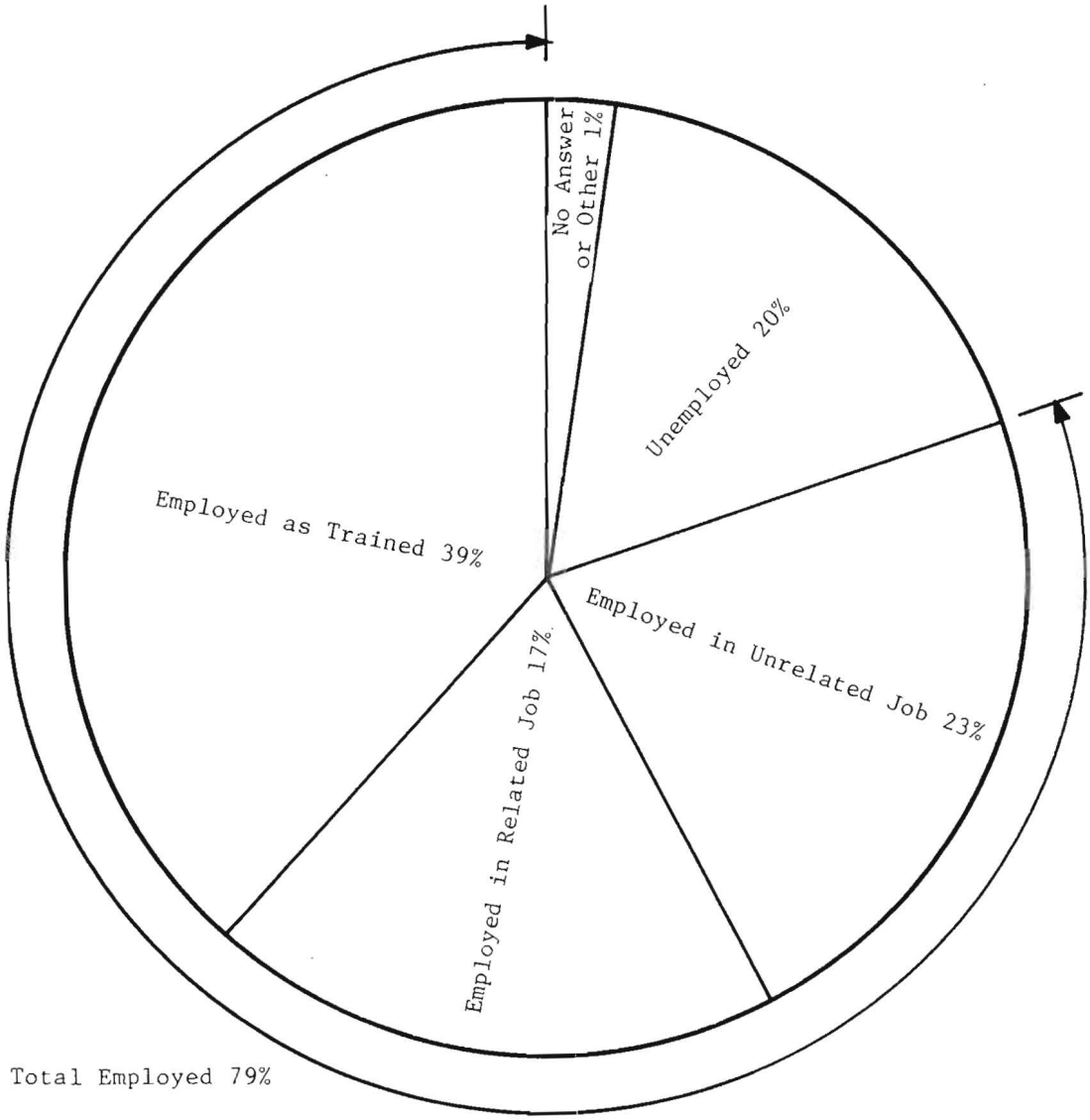


Figure 7

EMPLOYMENT STATUS OF
1974-75 VOCATIONAL-TECHNICAL GRADUATES,
FEBRUARY-MARCH, 1976



which they were trained, while 17% have jobs in a field related to their training. An additional 23% have found jobs in an unrelated field. The unemployed constitute 20%, but one half of these graduates are continuing their education. Thus, only 10% are actually unemployed, a high figure but not unrealistically so in light of the recession and considering that many of these graduates may have found jobs in construction or industry upon leaving school, only to be subsequently laid off.

Figure 8 shows the percentage of graduates trained in each broad trade or skill who work in that or a related trade or skill. It also shows the percentage of graduates trained in each broad trade or skill category who are unemployed. Thus, this chart gives us some measure of how well the graduates of each category fared in their job hunting. Health was the most successful both in placing its graduates in their field of training and in percentage of graduates presently employed. Two factors must be remembered here, however. Most health jobs require an accredited training program for entrance, whereas most other types of jobs do not. The L.P.N. is a good example of this. Also, jobs in the health field are much less susceptible to the vagaries of our economy than are any of the other categories.

Home Economics showed the second best percentage of graduates working in that field, but ranked only fourth best in terms of percentage of graduates who are presently employed.

Technical was third best in percentage of graduates working in that field, but ranked only sixth highest in terms of percentage of graduates who are employed.

Office ranked fourth in percentage of graduates employed in that field and second in percentage of graduates employed in any job type.

Agriculture, while fifth in terms of percentage of graduates working in their field of training, ranked third in percentage of those gainfully employed in some field.

Reason for Not Being Employed as Trained

Of the graduates who are not presently employed as trained or in a related field, 31% gave no jobs available in their field of training as their reason. (See Figure 9.) Twenty-two percent chose to continue their education. Another sizable group -- 16% -- found that they preferred another type of job. Lack

Figure 8

PERCENT OF TOTAL GRADUATES TRAINED IN A SKILL OR TRADE WHO WORK IN THAT OR RELATED FIELD OR ARE UNEMPLOYED

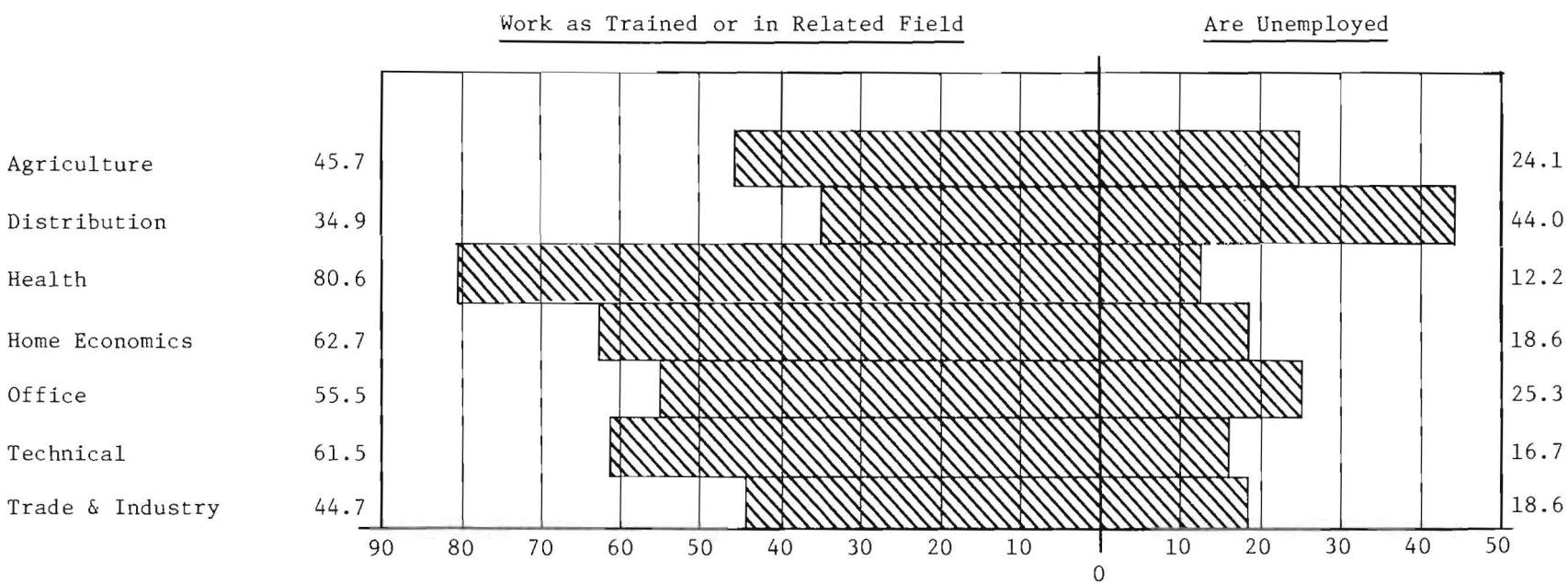
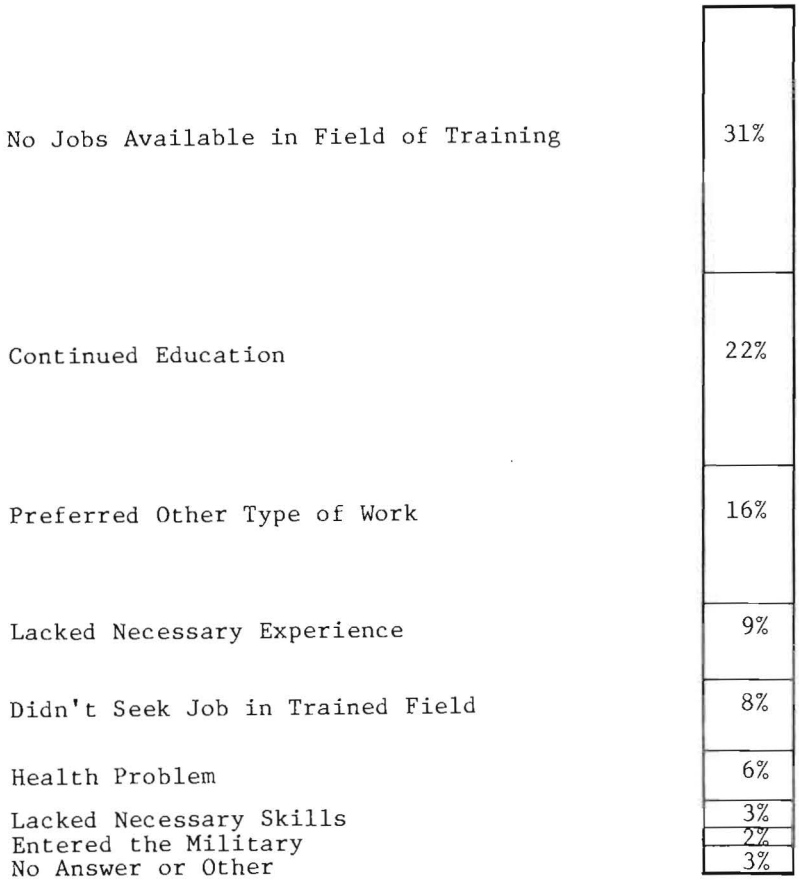


Figure 9

REASON FOR NOT BEING EMPLOYED AS TRAINED
OR IN A RELATED FIELD



of experience kept 9% from going into their field of training or a related field. Eight percent did not seek a job in their field of training. Health problems stopped 6% from being gainfully employed.

Earnings

There is relatively little difference between the monthly earnings of those graduates who are employed as trained, those who are employed in a related field, and those who are employed in an unrelated job. (See Figure 10.) This is particularly true from the $675 point upwards.

The best way to graphically compare earnings by field of employment is to view them cumulatively from highest to lowest dollars. (See Figure 11.) Viewed in this way, Technical is clearly the highest paid, followed by Trade and Industry. The poorest paid field is Home Economics, followed by Health and Office. Bear in mind, however, that these figures are for recent graduates and do not reflect earning potential in later years within each field.

The cumulative approach also can be used in viewing earnings by field of training. (See Figure 12.) Again the graduates in the Technical category showed the best monthly earnings, followed by Trade and Industry. The poorest paid field is once again very clearly Home Economics, followed by Agriculture. Health and Office are also below the average for all graduates.

Graduate Comments

The graduates were given two places on the questionnaire in which to comment on their education. Twenty-seven percent of the students who gave comments made positive statements. The negative comments were tabulated by subject matter and by field of training.

Training Gaps. The most frequent negative comment was related to gaps in training, which was mentioned by 23% of the graduates who included a comment on their questionnaires. (See Figure 13.) Health had the highest percentage of these comments (15%), followed by Trade and Industry (13%), Technical (11%), Home Economics (11%), Office (9%), and Agriculture (7.6%). Distribution had the lowest proportion of negative remarks on this point -- 5%.

The number of comments concerning gaps in training were found with surprising consistency among the four employment categories, as follows:

Figure 10

MONTHLY EARNINGS BY EMPLOYMENT STATUS

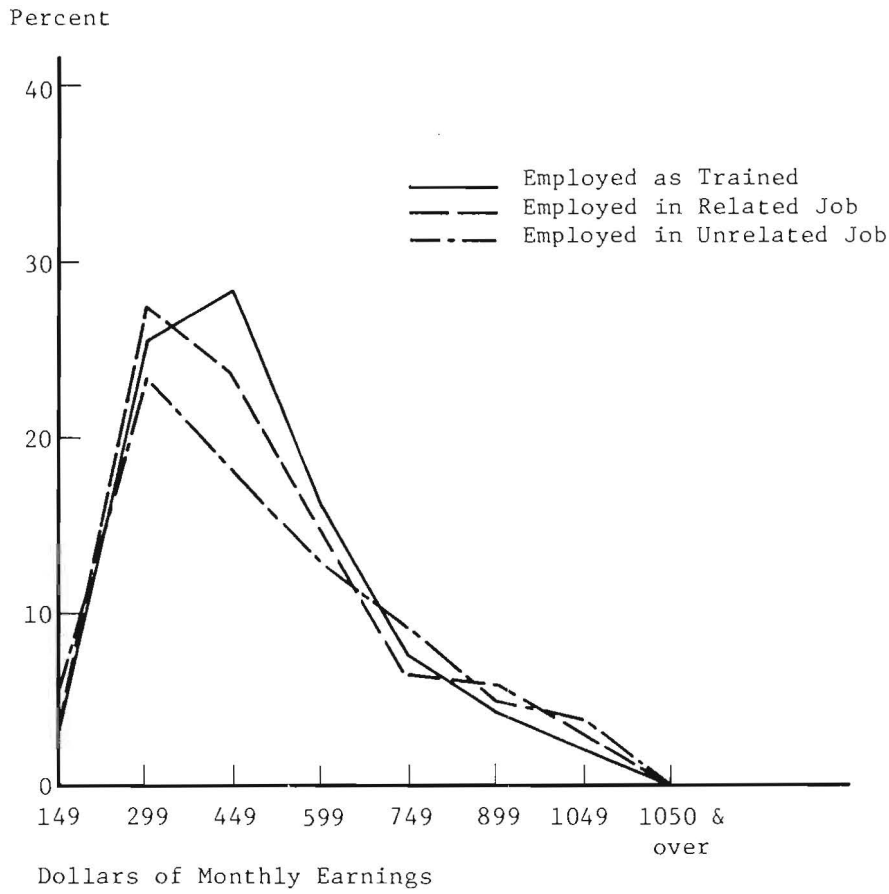


Figure 11

PERCENT OF GRADUATES BY FIELD OF EMPLOYMENT
BY CUMULATIVE MONTHLY INCOME

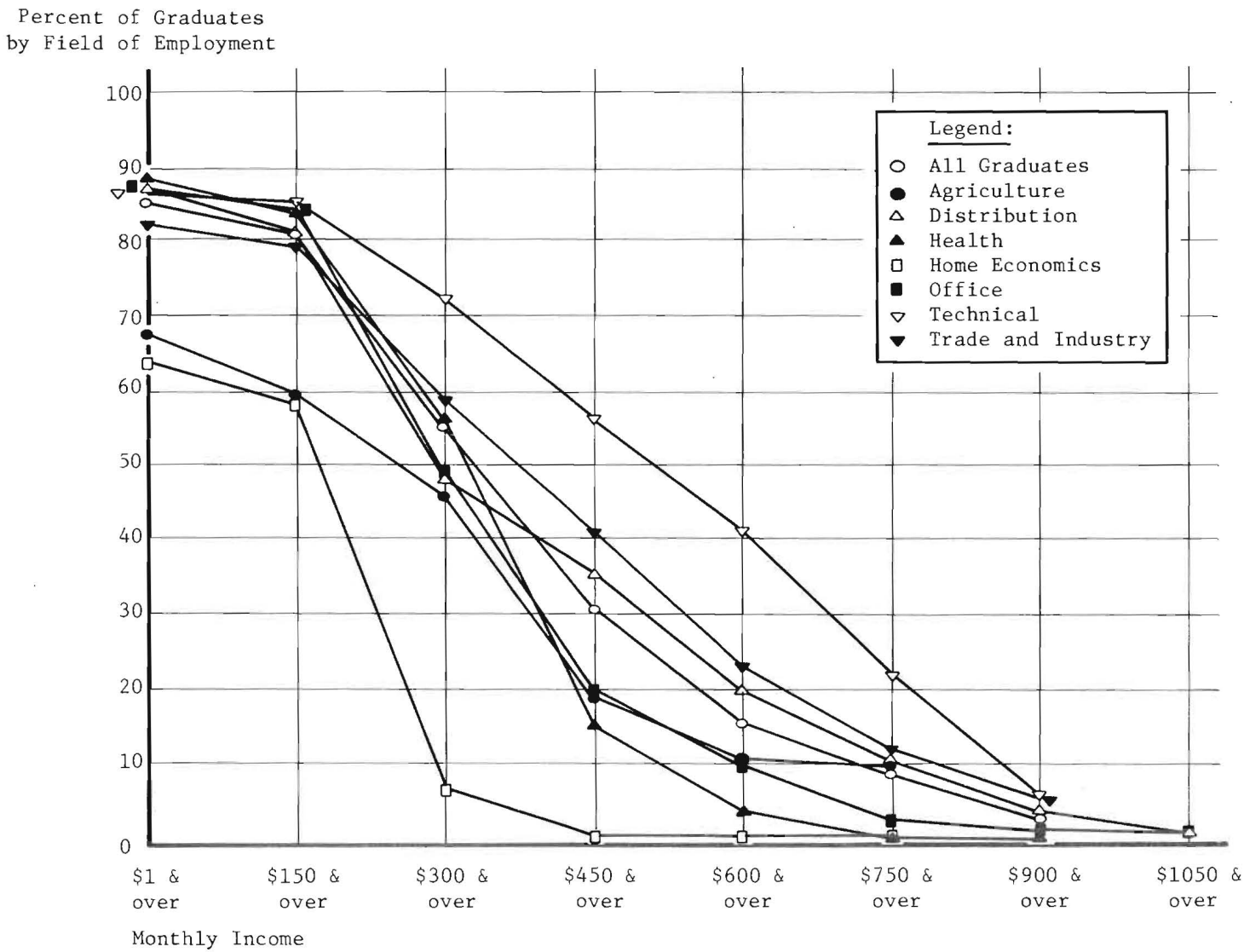


Figure 12

PERCENT OF GRADUATES BY FIELD OF TRAINING BY CUMULATIVE MONTHLY INCOME

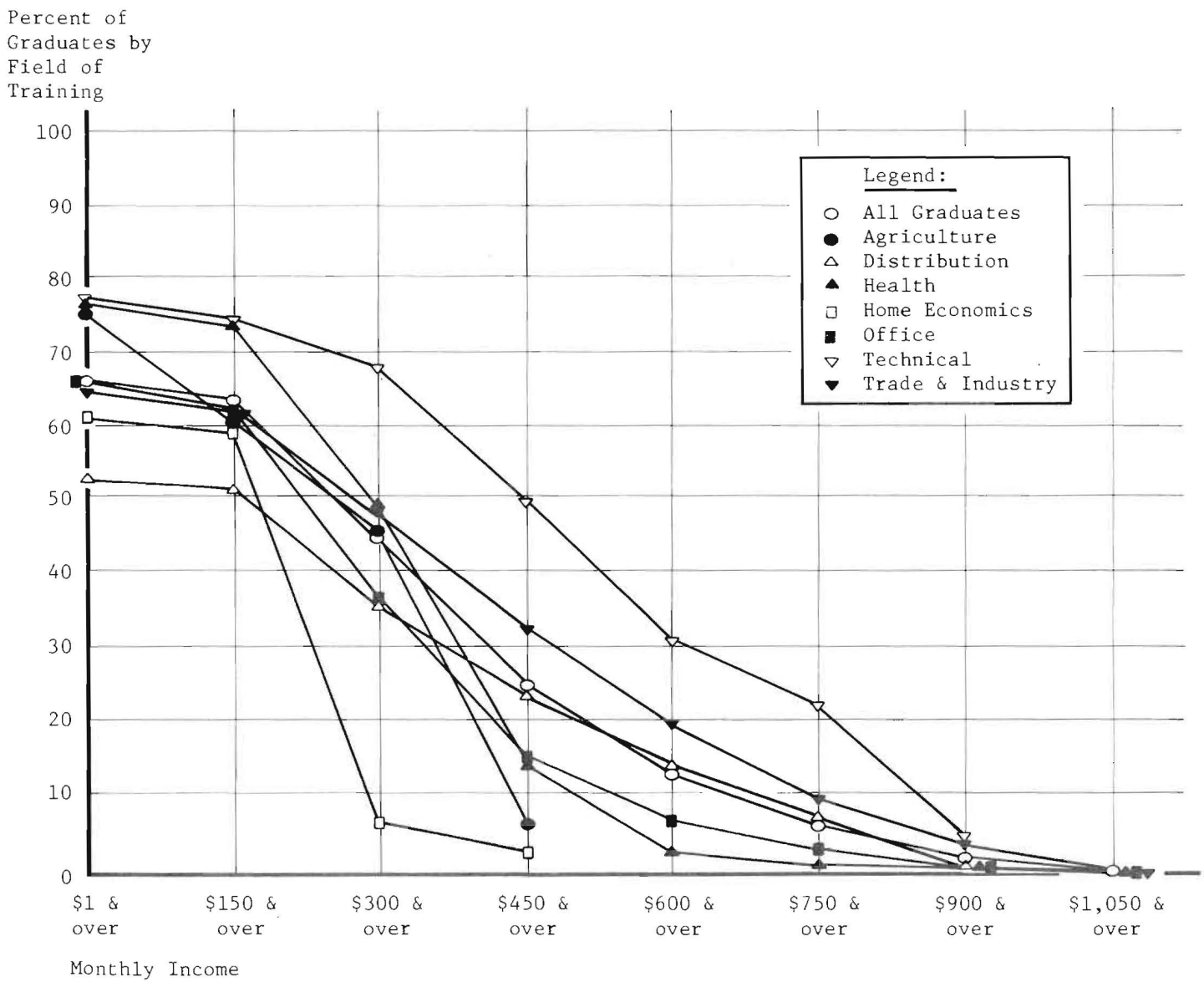
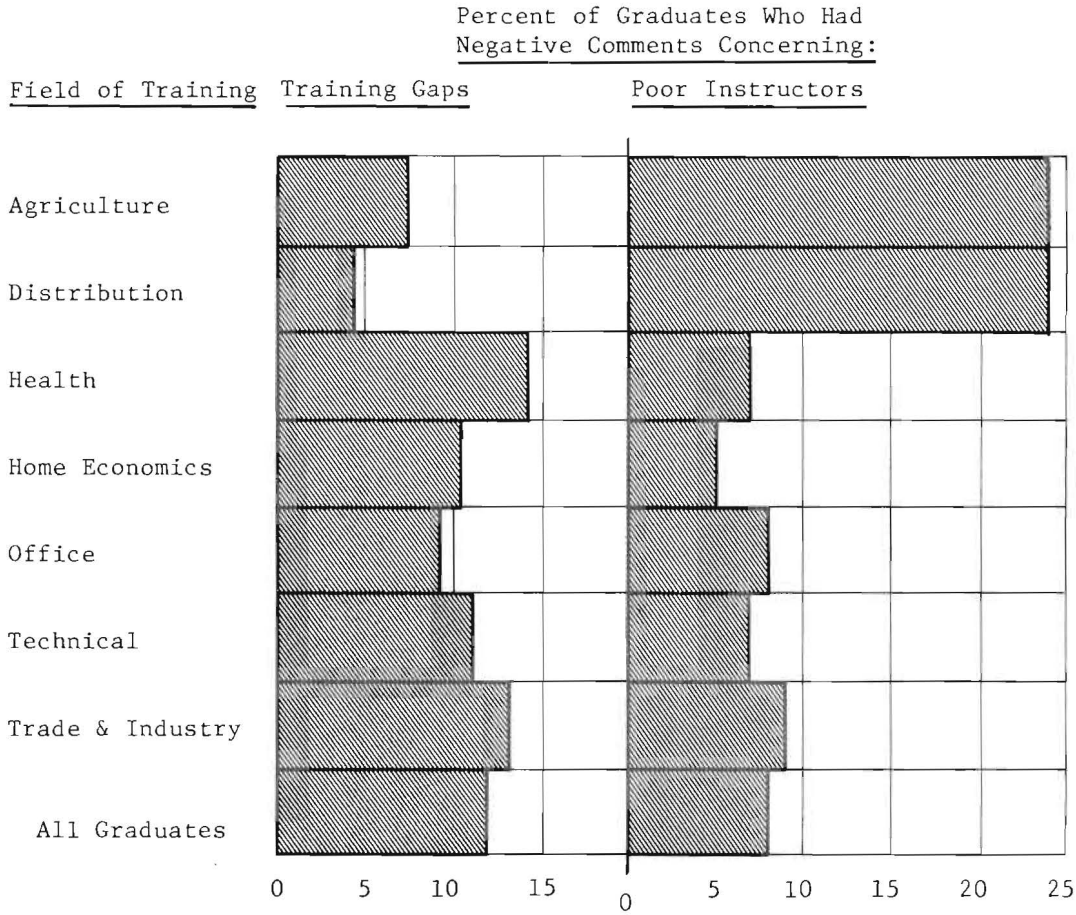


Figure 13

SELECTED GRADUATE COMMENTS



12.3% of the graduates who are employed as trained

13.2% of the graduates who are employed in a related job

10.2% of the graduates who are employed in an unrelated job

13.1% of the graduates who are unemployed

Poor Instructors. Poor instructors was the second most frequent criticism, being given by 16% of the graduates who included a comment on their questionnaires. (See Figure 13.) Agriculture and Distribution tied with 24% each. All the others were much lower, ranging between Trade and Industry at 9% down to Home Economics at 5%.

Comparison of Results of the 1970-71 and 1974-75 Studies

The study of 1970-71 graduates[1/] included returns from 1,879 graduates of the 23 area vocational-technical schools and the two state vocational-technical schools which were in operation at that time. Tables 1 and 2 present a comparison of those items from the two studies which could be compared. Changes in questionnaire design precluded meaningful comparisons of any other items.

The 1974-75 study showed a slightly higher percentage of graduates who rated their training as making them exceptionally well prepared (61.6% compared to 58.7%). (See Table 1.) However, the difference -- 2.9% -- is too small to be considered satistically significant. The same is true of the minor deviations shown for "well prepared" and for "no answer."

A comparison of the item by item evaluations from the two surveys is shown in Table 2. Based on a comparison of the average ratings, the 1974-75 graduates were only slightly less pleased (a one-tenth point difference on a scale of one to four for seven of the 12 items) with their training than were their 1970-71 counterparts. This deviation may well have resulted from the difficulty the 1974-75 graduates had in finding employment because of the recession.

It is significant that the two items showing the largest deviation (three-tenths of one point) are the same items which scored lowest in the 1974-75 survey. These items were guidance and counseling services and job placement services. Two other items would bear watching -- the modernness of the

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1/ David S. Clifton and William C. Howard, A Graduate-Employer Evaluation of Georgia's Vocational-Technical School Program, Industrial Development Division, Engineering Experiment Station, Georgia Institute of Technology, Atlanta, Georgia, January 1973.

Table 1

GRADUATES' OVERALL EVALUATION OF TRAINING, 1970-71 AND 1974-75

	1970-71 Graduates		1974-75 Graduates	
	No.	%	No.	%
Exceptionally well prepared; training covered all required essentials	1,103	58.7	1,262	61.6
Well prepared on the whole, but there were some important gaps in the training	612	32.5	591	28.9
Poorly prepared; much you needed to know was not covered	69	3.7	76	3.7
No answer	95	5.1	118	5.8
Total	1,879	100.0	2,047	100.0

equipment used in the schools and the condition of the school furnishings and equipment. These are really variations on one factor: the amount, currency, and operability of training equipment available to the students. Is the equipment up-to-date, in operating condition, and in the classrooms when it is needed? Both of these items showed a two-tenths of a point decrease in 1975 as compared with 1971.

Table 2

GEORGIA'S VOCATIONAL-TECHNICAL SCHOOL GRADUATE EVALUATION:
COMPARISON OF 1970-71 WITH 1974-75 GRADUATES

	Percent of Graduates Indicating:											
	No Answer or Does Not Apply		Poor (1 point)		Satisfactory (2 points)		Good (3 points)		Excellent (4 points)		Average Rating (in points)	
Item	1971	1975	1971	1975	1971	1975	1971	1975	1971	1975	1971	1975
Preparation for Using Equipment	5.5	5.3	2.0	2.9	11.2	14.0	39.5	40.0	41.8	37.8	3.3	3.2
Preparation in Work Methods and Procedures	4.4	4.7	3.4	3.2	13.8	15.3	43.9	43.6	34.5	33.3	3.1	3.1
Training in Job-Related Mathematics	10.5	14.9	4.0	5.7	16.0	15.0	37.0	35.7	32.5	28.8	3.1	3.0
Training in Communications Skills	10.4	13.9	4.4	5.3	16.2	18.2	37.7	34.3	31.4	28.3	3.1	3.0
Training in Reading Job-Related Printed Matter	31.3	33.4	5.3	6.8	12.3	12.6	27.6	26.6	23.5	20.6	3.0	2.9
Preparation in Dealing with People	5.4	9.0	5.5	7.5	13.6	18.1	37.8	33.8	37.8	31.6	3.1	3.0
Course Content Up-to-Date	1.7	1.5	3.2	3.8	12.9	14.7	35.6	37.6	46.7	42.5	3.3	3.2
Equipment Up-to-Date	2.2	2.8	3.2	7.5	14.1	16.8	33.7	33.5	46.8	39.5	3.3	3.1
Quality of Instruction	2.0	1.7	3.8	6.0	10.8	12.8	31.3	32.4	52.1	47.1	3.3	3.2
Condition of School Furnishings and Equipment	1.5	2.3	3.0	6.7	13.3	16.8	38.7	42.7	43.5	31.5	3.2	3.0
Counseling Services	4.4	8.5	7.6	13.0	17.2	23.8	36.7	33.7	34.1	20.9	3.0	2.7
Job Placement Services	11.5	17.1	21.0	26.8	19.4	22.1	28.2	22.1	19.9	11.9	2.5	2.2

Note: Percentages may not total 100% because of rounding of figures.

APPENDIX

Appendix

STUDY DATA NOT COVERED IN THE SUMMARY

The following five questions were not dealt with or were not totally covered in the summary of this report.

HOW DID YOU FIND PRESENT JOB?

	No.	%
No answer	16	1
Through friend	422	26
Through vo-tech	279	17
Newspaper ad	67	4
Employment agency	70	4
Own contacts	677	41
Worked while training	52	3
Other	61	4
TOTAL	1,644	100

ATTENDED SCHOOL SERVING YOUR COMMUNITY?

No answer	3	0.2
Yes	1,905	93.1
No	139	6.7
TOTAL	2,047	100.0

WHY DID YOU ATTEND SCHOOL ELSEWHERE?

No answer	15	11.0
Better transportation	39	27.5
Better school	46	32.5
Course not offered	41	29.0
TOTAL	141	100.0

DID SCHOOL TRAIN YOU FOR A JOB IN YOUR COMMUNITY?

No answer	51	2.5
Yes	1,880	91.9
No	116	5.6
TOTAL	2,047	100.0

COMMENTS REGARDING YOUR TRAINING

	No.	%
Poor instructors	171	16
Need on-the-job training	79	7
Need more or better equipment	97	9
Better placement service	116	11
Training gaps	246	23
Poor screening of students	5	*
Veteran problems	21	2
Positive comments	283	27
Dislike individual training	57	5
TOTAL	1,075	100

* Less than 1%.