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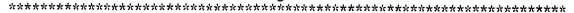
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ABSTRACT

This facilitator's guide provides materials for an interactive program for guidance counselors and teachers to use in presenting the tech prep concept and related career information to students at the middle, junior, and senior high school level. Introductory materials include the rationale and purpose of the program, suggestions for use, and description of the format. The program is divided into five units that may be presented during class-length sessions or independently as time and need dictate. Unit titles are as follows: The Changing Workplace, Mid-Level Technology Careers, Student Expectations, PREParation for TECHnologies, and Planning for the Future. Each unit is divided into the following components: major concept, equipment and materials needed, topics, student behavioral objectives, and presentation. The following support materials for each unit are provided in appendixes: numbered activities, numbered transparencies and transparency masters. handouts, reference materials, including source articles, supplemental literature, a list of works cited, and a list of materials and publications available through the Partnership for Academic and Career Education office; and a glossary of terms. Suggestions for using these materials appear in bold type within the presentation text to direct facilitators to the appropriate appendix. (YLB)

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Planning for the Future:

A Student Awareness Program for Tech Prep and Mid-Level Technology Careers

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Partnership for Academic and **Career Education** P. O. Box 587 Pendleton, SC 29670 (803) 646-8361, ext. 2107



A Student Awareness Program for Tech Prep & Mid-Level Technology Careers

FACILITATOR'S GUIDE

Funding for this publication was made possible by a Carl Perkins Grant awarded to PACE by the South Carolina Department of Education and the State Board for Technical and Comprehensive Education. The opinions and information presented herein do not necessarily reflect the positions or policies of these entities, and no official endorsement by them should be inferred.

June 1992





Partnership for Academic and Career Education

Anderson, Oconee, Pickens County School Districts The Career Center Business/Industry Partners Anderson County Business & Education Partnership National Dropout Prevention Center Clemson University Tri-County Technical College

Dear Colleague:

Thank you for your interest in our new program, "Planning for the Future: A Student Awareness Program for Tech Prep and Mid-Level Technology Careers." The program material was designed to be used by teachers and counselors to assist students in career exploration and course planning. Enclosed is a copy of the Facilitator's Guide.

When we disseminated this material locally, we assembled each Guide into a 2" binder complete with transparencies, transparency masters, handouts and supplemental materials. Because of the time and cost of assembling these Guides, we have provided you with copies of most of the material (except items that are protected by copyright) so that you can create your own binder. Listed below are directions to help you assemble the final product.

DIRECTIONS TO ASSEMBLE THE "PLANNING FOR THE FUTURE" PROGRAM

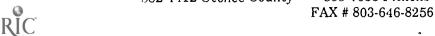
- 1. Purchase a 2" Panorama binder and insert the cover sheet and side panel.
- Purchase transparency film in a variety of colors and make transparencies of all the masters provided in Appendix B. (Insert paper copies after the color transparencies.)

Among other companies, color transparency film may be purchased from:

Labelon Corporation 10 Chapin Street Canandaigua, NY 14424-1589 (1-800-428-5566, or in New York, 1-800-523-1009)

- Purchase flip-frame holders for the transparencies and insert completed copies in the holders. "Flip-Frame Transparency Protectors" are usually available from any office supply store.
- 4. Purchase clear plastic sleeves. (These are often called "top loading sheet protectors.") Plastic sleeves should be available from any office supply store.

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5. Make divider pages/tabs for each of the following:

Unit I
Unit II
Unit IV
Unit V
Appendix A
Appendix B
Appendix C
Appendix D
Appendix E

6. Obtain the following articles/materials from original sources:

"Education: The Decreasing Pyramid," from <u>Career Opportunities</u>
News, Garrett Park Press, Garrett, MD, October 1991. (Garrett
Park Press, Garrett Park, MD 20896, [301] 946-2553.)

"The Value of College," from Newsweek, August 31, 1992, p. 75.

"Status of 4-Year College Graduates/Class of 1986 One Year After Graduation," from U.S. Bureau of Labor Statistics as reported in Occupational Outlook Quarterly, Summer, 1990. (Occupational Outlook Quarterly is available by contacting the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 [202] 275-3054.)

"Future Workplace is Shocking," from North Carolina Education, November/December, 1990, p. 2-9. (North Carolina Education is published by the North Carolina Association of Educators, P.O. Box 27347, Raleigh, NC 27611, (919) 832-3000, ext. 212.)

"The New Economics of High Technology," from Harper's Magazine, March 1992, p. 15-17.

"A Day at the Box Factory," as described in: Waltner, Jean C.,
"Learning from Scientists at Work," Educational Leadership, March
1992, p. 48-52. (Educational Leadership is published by the
Association for Supervision and Curriculum Development, 1250 N.
Pitt St., Alexandria, VA 22314-1403 [703] 549-9110.]

"South Carolina: In Pursuit of Total Quality," <u>South Carolina Business</u>, vol. 11, 1991, p. 12-17. (<u>South Carolina Business</u> is published by the South Carolina Chamber of Commerce, P.O. Box 11278. Columbia, SC 29211 [803] 799-4601.)

"Compensation Potential," from Tooling & Manufacturing Association's brochure, "How Valuable is Your Future?," 1989. (Tooling & Manufacturing Association, 1177 South Dee Road, Park Ridge, IL 60068-9809, [708] 825-1120.)



Page 3

7. Assemble the binder in the order as described on the attached handout, "Order of Program Contents."



ORDER OF PROGRAM CONTENTS

"PLANNING FOR THE FUTURE: A STUDENT AWARENESS PROGRAM FOR TECH PREP AND MID-LEVEL TECHNOLOGY CAREERS"

PARTNERSHIP FOR ACADEMIC AND CAREER EDUCATION (PACE)

P.O. Box 587, Highway 76 Pendleton, SC 29670 (803) 646-8361, ext. 2107

Cover Sheet Table of Contents Introduction sheet Rationale, Purpose, Suggestions for Use, Format Content Unit I - Text Unit II - Text Unit III - Text Unit IV - Text Unit V - Text APPENDIX A Student Activity I/Unit I Cover Sheet (Pink) Student Activity I-A - text Applicant Cards (Green, Yellow, Pink) Empty Plastic Sleeve Job Ad Cards (White Coverstock) Empty Plastic Sleeve Facilitator's Key to Qualified Applicants (Applicant Number/ Job Title) Facilitator's Key to Qualified Applicants (Alphabetical by Job Title) Student Activity I-B - text Student Activity I-C - text Work Situation Cards Empty Plastic Sleeve Student Activity I-D - text Student Activity II/Unit II Cover Sheet (Pink) Student Activity II-A - text Job Title Cards (white coverstock) Empty Plastic Sleeve Facilitator's Key Student Activity III/Unit III Cover Sheet (Pink) Student Activity III-A - text Job Prof le Sheets Student Activity III-B - text Student Profile Cards Empty Plastic Sleeve



Student Activity III-C - text Personal Inventory Sheet Student Activity IV/Unit IV Cover Sheet (Pink) Student Activity IV-A - text Student Activity IV-B - text Student Activity IV-C - text Student Activity IV-D - text Student Activity IV-E - text Student Activity IV-F - text Student Activity V/Unit V Cover Sheet (Pink) Student Activity V-A - text Where Do I Stand Today? (Career Planning Checklist) Student Activity V-B - text Real World Profile Sheets: Dawn Tabor Dr. Marshall Welch Ron Talley Lynn Rochester Teresa Holt Dr. Bill Darnell Lew Holton

APPENDIX B

Transparencies and Masters 5 Blank Transparencies in Flip Frames

APPENDIX C

Status of 4-year college Graduates
Introduction to Careers Quiz/Answers
Fastest Growing Occupations: Mid-Level Technologies
Average Salaries for Mid-Level Technology Careers
Compensation Potential: Toll & Die Maker vs. Mechanical Engineer
What the Things you want Will Cost
What Success Means
Internationally Owned Companies

APPENDIX D

The Value of College
Future Workplace is Shocking
The New Economics of High Technology
South Carolina: In Pursuit of Total Quality
A Day at the Box Factory
Tech Prep and Admission to 4-Year Colleges brochure
Associate Degree brochure
Special Tuition Assistance
Career in the Technologies brochure
List of Works Cited
Sources for "Will we be Ready for Tomorrow's Workforce?" transparency
Source Documents for Intro to Careers Quiz
PACE Career Materials Collection List
PACE Career Awareness Mini-Grant List



APPENDIX E
Glossary
PACE & Tech Prep General Info Sheet
Tech Prep Quotes

(1/6/93)

Planning for the Future: A Student Awareness Program for Tech Prep & Mid-Level Technology Careers

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Appendix B - Transparencies & Transparency Masters

Appendix C - Handouts

Appendix D - Reference Materials

Appendix E - Glossary of Terms

This facilitator's guide as written by Charlotte Holt, career advancement/evaluation specialist for the Partnership for Academic and Career Education (PACE) and Diana Walter, PACE Executive Director. Other contributors who provided invaluable input to the development of this guide included Wayne Pendergrass, Director of Guidance at Liberty High School, Doris Bigby, Guidance Counselor at Liberty High School, Doris Shabazz, At-Risk Coordinator for Anderson School District Four, members of the PACE Counseling Committee and the PACE administrative staff. PACE is a business and education consortium involving the school districts of Anderson, Oconee and Pickens counties, local businesses and industries, Tri-County Technical College, the Career Center, Clemson University/College of Education, the Anderson County Business and Education Partnership, the Bosch Apprenticeship Program and the national Dropout Prevention Center.

June 1992







"Planning for the Future: A Student Awareness Program" is an interactive program for guidance counselors and teachers to use in presenting the Tech Prep concept and related career information to students at the middle, junior, and senior high school level.

Students often give greater credence to what they "discover" for themselves than to what they are "told"; therefore, in addition to supplying facts and figures about employment and education trends and about Tech Prep, this presentation provides opportunities for student inquiry, self-examination, and discussion. It is designed not only to provide students with information, but to elicit questions, research, thought, and action on their parts.





"Planning for the Future: A Student Awareness Program for Tech Prep and Mid-Leve, Technology Careers"

FACILITATOR'S GUIDE

RATIONALE

Technology is changing the face of the American workplace. It is projected that mid-level technologies will soon provide more career opportunities than there are American workers qualified to fill them. These jobs will require some occupational training in high school up to an associate degree for entry or advancement.

A general high school education will not adequately prepare graduates to qualify for these new mid-level technology careers; therefore, students must begin planning for the future at the middle, junior high, and high school levels. Tech Prep can help students identify career interests and achieve educational preparation for these careers.

PURPOSE

The purpose of this program is to provide guidance counselors and teachers with information, materials, and activities they can use to teach students about the changing workplace, the levels of education and the skills required by employers, the new career opportunities provided by mid-level technologies, and the ways that Tech Prep can help students prepare to take advantage of these new opportunities.

This presentation is designed to meet the following goals:

- 1. to give students a brief historical perspective on the changing workplace—past, present, and future;
- to counteract stereotypical ideas or misconceptions about various education levels, occupational training, skills, and experience required to enter and advance in the new workplace;
- 3. to identify and emphasize the opportunities presented by mid-level technology careers:
- 4. to explain how Tech Prep can prepare students for future employment, for an associate degree, and for education opportunities beyond the two-year degree; and
- 5. to help students examine their own personal skills, aptitudes, interests, and goals for the future.





Suggestions for Use

This program is a framework for guidance counselors and teachers to use in presenting information about Tech Prep and mid-level technology careers to students. Facilitators are encouraged to individualize the presentation and supplement these materials with their own experience and resources.

The topics and corresponding activities in this program may be selected and adapted according to the needs of each specific audience. Student age, grade level, and possible prior experience with Tech Prep should be considered before selecting materials and topics to emphasize.

Facilitators are advised to read through each unit and activity before use in order to choose and prepare handouts and other materials suitable for a specific student audience.

Activities found in ACPENDIX A include instructions for xeroxing handouts and preparing other materials.

Prepared transparencies and masters are provided in APPENDIX B; however, facilitators may choose to customize or create their own visual aids. (Blank transparency film and empty flip-frame transparency protectors are included.) Please note that while some numbered transparencies may be referred to more than once, duplicates have not been provided.

APPENDIX C contains handout masters which may be xeroxed as necessary. These handouts correspond to the presentation text and may provide additional information to supplement the facilitator's remarks.

Reference materials are provided in **APPEN- DIX D**, including source articles, supplemental literature, a list of works cited, and a list of materials and publications available through the PACE office.

Format

This program is divided into five units which may be presented during class-length sessions or independently as time and need dictate. Each unit is divided into the following components:

- major concept.
- equipment and materials needed
- topics
- student behavioral objectives
- presentation

The following support materials for each unit are provided in appendices which follow the text:

Appendix A - numbered activities

Appendix B - numbered transparencies and transparency masters; blank transparencies for customized use

Appendix C - handouts

Appendix D - reference materials

Appendix E - a glossary of terms

Suggestions for using these materials appear in bold type within the presentation text to direct facilitators to the appropriate appendix.





CONTENT

This Facilitator's Guide includes the following five units:

UNIT I

The Changing Workplace

An overview of the past, present, and future trends in employment, including discussion of the skills expected of future employees, levels of training, education and experience required, and mid-level technology career opportunities available.

UNIT II

Mid-level Technology Careers

An explanation of the new career opportunities in mid-level technology positions, including job titles, job descriptions, education requirements, and salaries, with emphasis upon mid-level technology opportunities available locally and regionally.

UNIT III

Student Expectations

An exploration of each student's dreams and goals; a discussion of student ideas of "success" and what is involved in earning a comfortable living and achieving job satisfaction; a personal inventory of student likes, dislikes, aptitudes, and interests.

UNIT IV

Tech Prep: PREParation for TECHnologies

A description of the Tech Prep program in Anderson, Oconee, and Pickens Counties which explains academic course options including applied academics courses, advanced standing opportunities in postsecondary programs, and career/educational advancement potential.

UNIT V

Planning for the Future

An assessment of where the student stands today and what steps need to be taken next; a follow-up checklist of each student's progress to be used as a planning tool for high school and post-secondary education; activities involving "real life" profiles of professionals.





Insert "Unit I" divider page and tab here



The Changing Workplace





The Changing Workplace

Major Concept:

Technology has changed the way we work.

Equipment and Materials Needed:

- Overhead projector
- Color-coded education/experience cards
- Job ad cards
- (optional) Simulated Workplace Activity supplies

Topics:

- 1. the influence of technology on jobs of the past, present, and future
- 2. employment trends of the 90's and into the 21st century
- 3. changing education requirements for employment
- 4. skills and abilities required of future employees
- 5. new opportunities in mid-level technology careers

Student Behavioral Objectives:

At the conclusion of this unit, students will be able to:

- illustrate advances in technology that are changing the workplace.
- describe employment trends which indicate declines in low-level technology and traditional "middle management" jobs, but increased opportunities in mid-level technology careers.
- explain the need for more than a general high school education to achieve success in the new workplace.
- 4. identify the skills and abilities required in the workplace.
- 5. explain the importance of choosing career goals and planning education paths designed to help reach them.





1.

One dramatic way to begin this unit on the changing workplace is with an activity which will catch students' attention and, at the same time, begin to dispel stereotypes about the educational levels required in the new job market. The suggested employment agency activity graphically illustrates the changing educational requirements for employment and the many new career opportunities available to two-year college graduates. (STUDENT ACTIVITY I-A: "Color-Coded Employment Agency Applicants"—APPENDIX A)

Outcomes of this activity include a new awareness of the following concepts:

- There are many jobs in the upstate which require some occupational training or education beyond a general high school diploma.
- The four-year college degree is not always necessary to enter or advance in a career.
- Many employers are looking for applicants with work experience.
- Salaries for jobs requiring two-year degrees are competitive with salaries for jobs requiring four-year degrees.
- Salaries are often determined by the amount of education and experience the applicant brings to the job.

2

Discuss student response to the employment agency activity, leading students to draw the conclusion that they need to begin to plan for their futures before and during high school. (USE TRANSPARENCY I-1: "Will we be ready for tomorrow's workplace"—APPENDIX B)

Emphasize the following points:

- •While a high school dropout has little chance of finding a good job, the high school graduate without some career-related (vocational) training is not much more qualified to enter the workplace today. Even so, by the year 2000, most jobs will require 14 years of formal education.
- Because a high school education without some career-related training is no longer sufficient preparation for employment, students must investigate and select career goals during middle, junior high and senior high school years. Then they can design their high school coursework to prepare them for life after graduation.





- Student career interests should guide their education decisions. They must begin
 to question whether they will seek meaningful employment immediately after high
 school. If so, how can they prepare for the workplace during high school? Will
 their careers require some post-secondary education or training? Do they need to
 aim for a two-year technical college degree or a four-year college degree? (These
 questions will be considered in greater detail in subsequent units.)
- Students who require remediation during their first years at colleges or universities
 are delayed in attending career-related classes. Avoiding the need for remediation
 will save time and money, so students should use the high school years to obtain
 the education and basic skills they will need in the workplace or in post-secondary
 education programs.
- Most employers are going to require work experience of their new employees; therefore, students must obtain some occupational experience during their high school or college years. Opportunities for gaining work experience may be found in class research projects, internship and apprenticeship programs, summer or part-time employment, and volunteer programs.

3.

To facilitate discussion of post-secondary education plans, ask students how many are planning to go to "college." (Do not specify what kind of college.) Praise the intentions of students who express a desire to pursue higher education, but share the following facts:

- Although many students plan to go to a four-year college or university, most do
 not complete a bachelor degree. (Refer to final item on Transparency I-1,
 then USE TRANSPARENCY I-2: "Education: the Decreasing Pyramid"—APPENDIX B) item on the pyramid.
- Even completion of a two-year or four-year degree cannot guarantee a job after graduation—a degree is an opportunity, not a promise. For example, Clemson University's Career Center has seen a 65% decline in the number of company recruiting visits which resulted in job offers from 1990 to 1992. Although the state of the economy can obviously influence the availability of jobs for college graduates, the degree alone may not be enough to guarantee employment. (USE TRANSPARENCY I-3: "Job Prospects for 1991 College Graduates"—APPENDIX B)
- OPTIONAL POINT: Despite four years of preparation, many university graduates do not enter jobs related to their major. (SEE SOURCE ARTICLE: "The Value of College" Newsweek—APPENDIX D.) Students who prepare for a career in one field often end up working in an unrelated profession after graduation. (SEE HANDOUT: "Percentage of Graduates"—APPENDIX





- **C.)** Allow students to look for specific majors on graphs. Also point out what is indicated by the bars: the percent who are not working and the percent who are not working in their selected fields. [NOTE: This discussion should not guide students to the conclusion that a bachelor's degree is undesirable but that the sterotypic idea that a four-year degree guarantees automatic employment at high salary levels is unrealistic.]
- Figuring out your career interests and goals should be the first step in planning
 your future. Then your education path can be designed to give you the best chance
 of finding employment in the field of your choice. Understanding the changing
 workplace is essential to setting realistic career goals.

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To help students comprehend the changes taking place in the American workplace—and how those changes affect their employment futures—lead them in a discussion of the impact of technology on American society in general. (STUDENT ACTIVITY I-B: "Changing Times"—APPENDIX A)

In discussion of student observations, emphasize the following points:

- Technology has changed the structure of our society, the way we work, play, travel, communicate, and learn. These changes affect where and how you will work when you leave school.
- The history of work in the South has been strongly affected by the advance of technology in the agriculture and manufacturing industries. Once our economy was based largely upon agriculture. According to Willard Daggett, Director of Occupational Education Instruction for the state of New York, "[In] 1900, 85 percent of the American work force was in agriculture production. In 1989, however, only about 3 percent of the population is employed in agriculture." (SEE SOURCE ARTICLE: "Future Workplace is Shocking" North Carolina Education—APPENDIX D)
- Although agriculture is still a central part of our nation's economy, automation has
 caused the decline in agricultural employment. The same trend is taking place in
 the production and manufacturing sector. "In 1950, 73 percent of the American
 workers were employed in production and manufacturing." By 1989, approximately 18 percent worked in production and manufacturing (Daggett). Advances in
 technology have caused these changes in our economy.
- In the past, American firms have focused on developing new products, while other nations have concentrated on developing new processes for producing those products. American firms have focused upon research, development, discovery





and invention. Other countries, including Japan and Germany, have then developed new technologies to mass-produce these American inventions efficiently and inexpensively. An illustration of this trend includes the history of the VCR and the FAX. Both were invented in America, and both have become Japanese products, manufactured almost exclusively in Japan.

Today, "success depends on being the cheapest and best producer of products," so
it is essential that we train and educate the American workers who will use the new
technologies. (SEE SQURCE ARTICLE: "The New Economics of High
Technology," <u>Harper's Magazine</u>— APPENDIX D)

5.

To illustrate the changes currently taking place in American production, share the story of QR Industries as related by Willard Daggett ("Future Workplace is Shocking," APPENDIX D) QR Industries uses robots to make steel clamps, box them, and label the boxes with bar codes. Then they are shipped to General Motors where a robot reads the bar code, unloads the truck, unpacks the clamps, places them on an assembly line, and checks the quality of each one before use. QR Industries has gone from 300 workers to 17 employees. Other jobs at General Motors have also changed because the information contained in each bar code goes directly to the computerized accounting and inventory control system. (USE TRANSPARENCY I-4: "Robots and Bar Codes"—APPENDIX B)

Discuss this example, making the observation that advances in electronics technology have affected the labor force in the following ways:

- Robotics have changed the manufacturing and receiving assembly lines.
- Optical scanners and bar codes do many accounting and inventory tasks.
- New technology has changed the job responsibilities of almost all workers.

B.

To counter the grim example of employee reductions in QR Industries, emphasize the new career opportunities that technology has created by relating the example of Citibank and the ATM system of banking. ("Future Workplace is Shocking"—APPENDIX D). Lead students to discover how computer technology has changed the banking industry by asking them to consider the following:

- How old were you in 1982?
- What is an ATM? How many of you have used one or seen your parents use one?
 (USE TRANSPARENCY I-5: "Automated Teller"—APPENDIX B)





- In 1988, 55% of banking transactions were done using automatic tellers. What
 percentage of banking transactions would you guess were done using ATM's in
 1982? (Answer: Almost none, because few ATM's existed.)
- As the number of ATM's increased, the public use of them also increased, leading to a 40% decline in the number of human tellers and cashiers needed in the banking industry between 1982 and 1988. By the year 1993, that number will drop an additional 40%.
- But what happens when an ATM system is out of service? As banking has become
 automated, the number of cashiers and tellers has declined; however, a new need
 has developed. The banking industry now needs technicians to keep the ATM's and
 their electronic systems in top running condition. (Where have these trained
 technicians come from? Citibank claims to have hired 1,800 technicians from other
 countries in 1990 because of a shortage of American workers trained to run their
 ATM system.)
- While advances in technology have eliminated some jobs, they have also created many new career opportunities. Trained and skilled technicians are needed in many industries. What are some other areas which require new types of technicians? (Help students list some examples from health care, service industries, etc.)

7.

Lead students from this discussion of the impact of technology on the American workplace into a discussion of the skills required of today's workers. Summarize, using the information provided by students, to point out:

- Traditionally, the American workplace was composed of a small number of educated decision-makers who directed the efforts of a large number of less educated laborers.
- According to <u>The Report of the Committee on Human Resource Development</u>, in the
 past, our Southern economy relied upon the "physical strengths of its labor force,
 depending heavily on its human resources—which were relatively unskilled but
 able, hardworking, and reliable."
- Today, the workplace relies more upon the mental abilities of employees than upon their physical strengths. Skills in reading, computing, reasoning, problem-solving, communicating, and working in groups are as important as job-specific skills; therefore, employees need more education and training for careers in the new workplace.





Ask students to contribute examples from their personal experience or observation to illustrate the following skill requirements:

- All employees must be able to use computers, even in areas where you would not expect to find them, from agriculture to retail sales. (SEE SOURCE ARTICLE:
 "The New Economics of High Technology," <u>Harper's Magazine</u>—Appendix D)
- They must be able to carry out instructions which may be presented in a variety of ways—orally, written, through diagrams, etc.
- They need to have excellent writing and speaking skills.
- They must be able to use mathematics at levels beyond basic arithmetic; algebra and geometry skills will be the minimum required.
- Employees must be able to work well with others to solve problems which may not
 have standard solutions. Assign an activity which illustrates the necessity for
 working well in groups. (STUDENT ACTIVITY I-C: "A Simulated Workplace"—APPENDIX A)

OPTIONAL POINT: From discussion of the skills required in the new workplace, you may wish to introduce the idea of Total Quality Management to illustrate how changes in management practices are combining with changing technologies to alter the kinds of career opportunities available. (SEE SOURCE ARTICLE: "South Carolina: In Pursuit of Total Quality"—APPENDIX D) This article provides information on the principles of TQM as they apply to the classroom.

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Summarize Unit I by reviewing the changes taking place in the workplace and in the educational levels required to enter and advance in these new mid-level technology careers. (USE TRANSPARENCY I-6: "The Workplace in South Carolina is Changing"—APPENDIX B)





Emphasize the following points about the changing workplace:

- Jobs involving only unskilled labor will become rare as more jobs require both "hand" and "head" work. Workers will need more than physical strength, they will also need to be able to reason, solve problems, follow complex instructions, and communicate well.
- Employees will need to be able to work well in groups as more jobs become teamoriented. Tasks will be performed by groups of workers rather than single individuals.
- Workers will be called upon to use a variety of skills to accomplish tasks and solve problems which will not always have standard solutions.
- Low-skilled jobs will become scarce. Robotics and computer technology will handle many low-skilled tasks, while other jobs will go to foreign countries where labor is less expensive.
- Mid-level technology careers will offer more job opportunities which require some occupational training at the high school level up to a two-year, occupational associate degree for entry or advancement.

11.

To conclude this unit on the changing workplace, introduce the concept of Mid-Level Technology Careers as those careers which require more than a general high school education but do not require a four-year degree. (USE TRANSPARENCY I-7: "Mid-Level Technology Careers Overview"—APPENDIX B) Remind students that information on mid-level technology careers is upcoming in Unit II.





Insert "Unit II" divider page and tab here

Mid-Level Technology Careers





UNIT II Mid-Level Technology Careers

Major concept:

Advances in technology have created a whole new level of career opportunities in jobs which require some occupational training at the high school level up to an occupational associate degree for entry or advancement.

Equipment and Materials Needed:

- Overhead projector
- Handout: "Introduction to Careers: A Matching Quiz"
- Handout: "Average Salaries"
- Handout: "Fastest Growing Occupations"
- Handout: "Compensation Potential"
- Job Titles cards

Topics:

- 1. definition of mid-level technology careers
- 2. fastest-growing occupations in the four general areas of mid-level technology careers
- 3. salary ranges of mid-level technology careers
- 4. education and training required to enter or advance in mid-level technology careers
- 5. comparisons of mid-level technology careers with careers requiring no post-secondary education and those requiring four-year or professional degrees

Student Behavioral Objectives:

At the conclusion of this unit, students will be able to

- 1. define mid-level technology careers.
- 2. identify career opportunities in the four areas: industrial/engineering technologies, health technologies, business technologies, and public service technologies.
- 3. describe salary ranges for a variety of jobs in mid-level technology.
- 4. define and discuss changing educational requirements for careers of the future.
- 5. identify and discuss career choices in mid-level technology and the educational paths that will lead to these careers.





1.

Introduce this unit on Mid-Level Technology Careers by reminding students that technological advances are creating new career opportunities for them. (USE TRANSPARENCY II-1: "General Characteristics of Mid-Level Technology Careers"—APPENDIX B)

 Discuss the definition of mid-level technology careers: Mid-level technology careers require more than a general high school diploma but do not require a fouryear college degree. To enter or advance in these careers requires some occupational training at the high school level up to an occupational associate degree from a two-year college.

2.

Before engaging in a detailed discussion of these careers and the education required to enter and advance in them, some student audiences may need help with basic terms and concepts, including the following:

- What is meant by "entry" and "advancement?" Explain that entry involves obtaining a job in a career area for the first time. Describe how an employee may advance within a job and within a career by earning raises and receiving promotions which involve greater responsibility and more desirable working conditions.
- What are the differences between "field," "career," and "job." Ask students for their own definitions, then help them agree upon the best interpretation of each term. They should understand that a field is a broad area of related work opportunities; a career is a chosen pursuit, a path or course which may involve several different or related jobs over a period of time; a job is a specific position in which one is employed. (USE TRANSPARENCY II-2: "Average number of job and career changes"—APPENDIX B)
- What is meant by the different kinds of degrees? Discuss how many years of
 education may be required for some occupational training certificates and for an
 associate, bachelor, master, and doctorate degrees. Make sure students understand the distinctions between two-year and four-year degrees.





Because many students share common misconceptions about careers and the education levels they require and salaries they command, you may choose to assign a career quiz which will reveal to students just how little they know about careers, salaries, and commensurate education. (SEE HANDOUT: "Introduction to Careers - A Matching Quiz"—APPENDIX C)

Discuss the correct answers to the careers quiz, responding to student questions and observations. Emphasize the following points:

- A "passing" grade on this quiz requires 11 correct answers. Note that many people
 do not pass this quiz because of the misconceptions they have about the education
 levels required and the salaries provided in these representative jobs.
- Many of the careers listed require less than a four-year degree. These are considered mid-level technology careers.
- Competitive salaries are available for some careers which require fewer years of education than it takes to earn a bachelor's degree—and you get to go to work sooner!
- Mid-level technology careers offer opportunities in four areas including industrial/ engineering technology, business technology, health technology, and human and public service technology

4

Help students understand that by the time they are ready to join the workforce in 199___ (specify for the age group addressed), the following facts about employment opportunities in South Carolina will apply:

- More jobs will be available for technicians in industrial/engineering technology areas and in other service technologies than for any other major occupational group.
- So many new mid-level technology positions are expected that local employers may have to hire workers from outside South Carolina if there are not enough trained, skilled workers in our area to fill these new jobs.
- The fastest-growing career opportunities today include those in the industrial/ engineering technologies, business technologies, human and public service technologies, and health technologies. (SEE HANDO'JT: "Fastest-growing Occupations"—APPENDIX C)





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To help students discover the facts behind the job titles, you may choose to assign an activity which will prompt discussion of mid-level technology positions. (STUDENT ACTIVITY II-A: "Job Titles in Mid-Level Technologies"—APPENDIX A)

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Summarize the information covered in Unit II, emphasizing the following points:

- Many new mid-level technology career opportunities exist in our community.
- Throughout your working years, you may hold several jobs during a career and more than one career—which may or may not be in the same field.
- Salaries and advancement opportunities in mid-level technology careers are competitive with those in several professions requiring a four-year degree.
- Occupational training in high school up to and including an associate degree from a two-year/technical college will be required for entry into most new mid-level technology careers.



Explain to students that many careers in mid-level technologies offer financial opportunities that rival those offered by careers requiring four years of college or more.

Emphasize the following points:

- Salaries for jobs in mid-level technology career areas will be competitive with the salaries of many jobs which require four or more years of college education. (SEE HANDOUT: "Average Salaries for Mid-Level Technology Careers"— APPENDIX C)
- Associate degree graduates can earn more than double what a high school graduate without any occupational training can earn.
- Persons with some vocational/technical education—particularly at the associate degree level—often earn as much or more than graduates of many four-year programs, and their earnings can increase more quickly than those of some professionals. One example of this potential is seen in the career of a tool and die maker. (SEE HANDOUT: "Compensation Potential"—APPENDIX C)
- Some on-the-job training may also occur in many mid-level technology positions.
 As the technology continues to develop, workers will have to learn new skills, techniques, and practices.
- While salary is important, the main reason for selecting a mid-level technology career, or any career, should be interest in the career field.

6.

Many modern job titles may be unfamiliar to students. (USE TRANSPARENCY II-3: "You want to be a what?"—APPENDIX B) Allow students to speculate about the job titles listed on the transparency and to contribute other titles they may have heard or read. Let them examine a job advertisement from Mitsubishi and discuss the information contained in the ad. (USE TRANSPARENCY II-4: "Mitsubishi Semiconductor America, Inc."—APPENDIX B)

Students should consider the following:

 What in the world is a Wafer Fabrication Process Technician? Trying to guess by looking at the fields of study listed does not help you figure out what the job involves. (Answer: There are various technician positions involved in the "wafer fabrication" process of creating silicon computer chips from raw materials.)





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Student Expectations

Major concept:

Your personal interests, beliefs, abilities, and goals should guide your choice of career and the education path you select to prepare you for the workplace.

Equipment or Materials Needed:

- overhead projector
- blank transparencies/pens
- Job Profile cards
- Student Profile cards
- Handout: "What do I want?"
- = Handout: "What the Things You'll Want Will Cost"

Topics:

- 1. definitions of "success"
- 2. criteria for a "good" job
- 3. personal prices paid for high-salary jobs
- 4. each individual student's expectations/goals
- 5. each individual student's strengths, interests, skills

Student Behavioral Objectives:

At the conclusion of this unit, students will be able to

- 1. stipulate their own definitions of "success," "a comfortable living," "job satisfaction."
- 2. list their own criteria for a "good job."
- 3. define and discuss the price of success.
- 4. identify their own life goals.
- 5. describe their personal strengths, interests, abilities, and skills as they relate to career goals.



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To begin this unit on student goals and expectations, remind students that while many people are available to help them research their career and education interests, no one (teacher, guidance counselor, parent) can make their career and education decisions for them. (USE TRANSPARENCY III-1: "Guidance Counselor Cartoon"—APPENDIX B) Students will have to determine for themselves what will satisfy their individual criteria for success and happiness.

2.

Lead students through a discussion of their definitions of "success" and what is meant by a "successful life." Ask students to answer the questions: What is success? What do you think it takes to live a successful life?

- In this initial discussion, students will probably come up with a stereotypical definition. Have students work in groups to determine their criteria for this definition. Then list these criteria and discuss, revise, and refine the list using the overhead projector or a chalkboard.
- Based on their contributions, ask follow-up questions, such as: What is "a lot of money?" What is a "comfortable living?" What is "job satisfaction" and how important is it?
- Finalize the list of criteria for a "successful life" and summarize student opinions using an overhead to list student contributions. Findings may include the following:
 - a. earning a comfortable living;
 - b. achieving personal fulfillment/satisfaction; and
 - c. being involved in one's environment/family.

3.

Help students discover that the stereotypical concept of success is not without its price, that nothing is free, by discussing the personal price one may have to pay for a "successful" career. You may wish to assign an activity in which students consider examples of job situations. (STUDENT ACTIVITY III-A: "Job Profiles"—APPENDIX A)



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After students have discussed the choices of individuals featured in the job profile activity, they may want to consider how some fictional teenagers make their decisions about education and career paths. (STUDENT ACTIVITY III-B: "Student Profiles"—APPENDIX A)

5.

After students have discussed what it takes to be "successful," and they have evaluated the profiles of various working people and fictional high school students, it is time for them to look more closely at their own goals and expectations. Ask students to consider how each one plans to live a "successful" life by assigning a personal inventory which will require them to examine the following:

- their own material goals and expectations;
- their goals for a personal and social life;
- the motives and reasoning behind education and career choices they may have made so far; and
- how their choice of career—their professional and personal goals—should relate
 to the decisions they make about education paths. (ACTIVITY III-C: "What Do
 I Want?"—APPENDIX A)

6.

Some students' plans for the future may be unrealistic. In discussion of their salary and purchasing goals, you may determine that they are not aware of what things actually cost. (SEE HANDOUT: "What the Things You'll Want Will Cost"—APPENDIX C) Discuss current and rising costs of such items as cars, homes, meals, etc. to make students think about how much money they will need to meet their future expectations and goals.





Student career and education plans may have changed or solidified as they have progressed through the activities in Unit III. Ask them to re-evaluate their current status to determine how far along they are in planning their futures. Suggest that students who are still uncertain about career and education interests need to continue examining their likes, dislikes, abilities, and experiences as they explore career areas. As they attempt to clarify their expectations and plans, remind students of the following facts:

- Although choosing a career goal is the best first step in planning your education path, your choice should be based on sound reasoning, research, and personal interests.
- You should continue to examine your goals and the paths you might take to reach them as you select your secondary and post-secondary education options.
- If your career goals will require you to obtain some occupational education during high school, and/or some post-secondary education or training—but not necessarily a four-year degree—you are considering a career in the mid-level technologies. Those students whose career plans may include some college education but not a four-year program of study can consider themselves Tech Prep students.

8.

Illustrate the importance of finding out what you want to do for a career and then designing your education to prepare you for that career by suggesting that students think of something they really **HATE** to do (a chore, homework, a job, baby-sitting, etc.). Then ask them to think about what life would be like if they had to perform that despised activity every day for the next twenty-five years. (SEE TRANSPARENCY III-2: "Guess what I want to be when I grow up"—APPENDIX B) This should prompt discussion of the following:

- what it might be like to work in a career you don't enjoy or are not interested in;
- what might result from years of such work; and
- how planning for the future can help you avoid ending up in the wrong career for you.

9_

Summarize information found in Unit III, including student "discoveries" about careers, personalities, and education choices.

- Ask them to retain their inventories in a file or folder of career planning materials.
- Ask them to continue to consider the career choices they may wish to pursue.
- Remind them that information on Tech Prep is available from their guidance counselor (or is forthcoming in the next unit).
- Share the handout; "What Success Means" (APPENDIX C) and briefly discuss students' reaction to the material.





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Tech Prep: PREParation for TECHnologies





Tech Prep/PREParation for TECHnologies

Major Concept:

Tech Prep provides academic and occupational preparation for careers in mid-level technology fields.

Equipment or Materials Needed:

- Overhead projector
- VCR (OPTIONAL)
- current catalogs from Tri-County Technical College, Greenville Technical College and Piedmont Technical College (NOTE: Catalogs from each college will be needed for each small group to complete the student activity.)
- copies of the brochure entitled, "Tech Prep and Admission to Four-Year Colleges" (See sample in APPENDIX D.)
- multiple copies of your school's Tech Prep brochure, if appropriate, and the current Career Planning Guide
- one or more copies of the Technical Advanced Placement Handbook from Tri-County
 Technical College and similar materials, if available, from other technical colleges (OPTIONAL FOR PRESENTATION SECTION 3: promotional videos on applied academic courses available from your school's math, science or English Departments or from the PACE Office.)

Topics:

- 1. PREParation for the TECHnologies title and basic program definition
- 2. definition of associate degree and different types of degree programs
- 3. curriculum options at the high school and definition of "applied academics."
- 4. advanced standing opportunities into two-year/technical college programs
- 5. options for Tech Prep students to earn a bachelor's degree
- 6. making college study affordable
- 7. positioning for increased employability concurrently with associate degree study



Student Behavioral Objectives:

At the conclusion of this unit, students will be able to:

- 1. define Tech Prep and state correctly the major components involved in the program.
- define an associate degree and describe the differences between occupational and transfer associate degrees.
- 3. describe the types of academic and occupational courses that should be taken in high school to meet their career goals.
- 4. identify four ways that taking and completing occupational courses in high school will help them achieve future career and educational goals.
- 5. describe the similarities and differences between applied academics and traditional, college-prep academic courses.
- define Technical Advanced Placement and other advanced standing opportunities associated with Tech Prep and identify high school courses which could qualify them for TAP credit.
- 7. describe the four options available to Tech Prep students to earn a bachelor's degree.
- 8. define and discuss the seven ways that Tech Prep students can make an associate degree education more affordable.
- 9. define and discuss the five ways that Tech Prep students can achieve even greater market competitiveness and employability during their associate degree programs.

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Give students an overview of Tech Prep as a program which links high school and two-year/technical college curricula to prepare students for mid-level technology careers. (USE TRANSPARENCY IV-1: "What is Tech Prep?"—APPENDIX B) Emphasize the following:

 A general high school diploma is no longer enough—EVERY student must be prepared to begin meaningful employment after high school or to continue his/her education. (It's important to note that entering the military in many respects is a combination of beginning a job and continuing your education—all military positions require training and many opportunities do exist through the military to earn a college degree.)





- The "Tech" in Tech Prep is not an abbreviation for <u>Technical College</u>, it stands for
 "TECHnologies." Tech Prep means PREParation for TECHnologies—in other words, the
 education needed for mid-level technology careers that require some vocational training in
 high school up to and including an occupational associate degree, either to get in to the
 career field or to qualify for advancement.
- Because most jobs of the future will require education beyond high school, Tech Prep is
 designed to link with occupational associate degree programs at technical colleges. By
 completing the right courses in high school (and by reaching high standards in those
 courses), students can avoid taking basic, or remedial, courses in college and should be
 able to earn advanced standing. (Advanced standing means that the student completes
 certain procedures before entering college in order to earn credit for required or elective
 courses in the degree program.)
- Help students understand that Tech Prep programs are now being developed all across the United States. These types of programs are not only important in our area but throughout the country because more education, and a stronger education, is needed to prepare students for a workplace that is becoming more demanding and more technical.

2.

Define an associate degree, discuss the types of associate degree programs available in our area and the relationship between an associate and a baccalaureate degree. (SEE SUPPLE-MENTAL PUBLICATION ON THE ASSOCIATE DEGREE: —APPENDIX D) Emphasize the following:

- An associate degree is a recognized college degree awarded for successful completion of approximately two years of study in general education courses (math/science, English, social sciences and humanities) and related coursework in an approved major. In South Carolina, two-year/technical colleges are fully-accredited by the same association that accredits the four-year colleges and universities.
- There are two types of associate degrees: transfer degrees and occupational, or applied, degrees. Transfer degrees are usually called Associate of Arts or Associate of Science. Occupational degrees are usually called Associate of Applied Sciences, or they may be titled according to the specific technology area such as an Associate in Engineering Technology Degree.
- Occupational associate degree programs are designed to prepare an individual to enter the
 workforce in a career field which offers challenging responsibilities, good salaries and
 opportunities for advancement. These degrees are not intended specifically to transfer to
 four-year colleges although many of them do! (Or specific courses within the degree
 program will transfer.) Because Tech Prep targets career fields which do not require a
 bachelor's degree, it is the occupational degree programs which are part of Tech Prep.





- Transfer associate degrees are designed to transfer to four-year colleges and universities.
 Students in transfer programs do not have to stay at the two-year college for two years before they transfer but many stay to complete their associate degree. Transfer programs at two-year colleges will provide students with the liberal arts coursework, and some of the major coursework, required for any type of baccalaureate degree program.
- Most technical colleges also offer occupational diploma and certificate programs which range
 in length from one term to one year. These programs, in such areas as Practical Nursing and
 Early Childhood Development, offer excellent preparation for a variety of career fields (STUDENT ACTIVITY IV-A: "Exploring occupational/transfer degree programs at area
 technical colleges"—APPENDIX A)

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Using your school's registration and/or Tech Prep materials, discuss the available curriculum options; define, in particular, the courses and options available in the Tech Prep program. Add or delete from the following emphasis points, as appropriate for your school:

- Tech Prep students should ALWAYS take the highest level of academic coursework* they are capable of handling successfully. Therefore, it is perfectly acceptable for capable Tech Prep students to take all college prep academic courses, or a combination of CP and applied academics. (Remember, Tech Prep is intended to prepare students for a specific career level and should not be defined solely by the academic components of the program.)
- Tech Prep students should be encouraged to take 4 units of math, 3 units of science and at
 least one computer class. Discuss the importance of foreign language to Tech Prep students,
 emphasizing the fact that we now have 20 companies in the three counties that are internationally owned. Skills in any foreign language can provide a boost in the job market. (SEE
 HANDOUT-"List of Internationally Owned Companies in Anderson, Oconee and
 Pickens Counties"—APPENDIX C)
- Discuss the importance of occupational coursework to Tech Prep students; define the
 occupational specialties available at your school/career center. Also, help students understand what occupational coursework can do for them during and after high school, such as:
 - 1) provide higher-paying jobs, either part-time or full-time, which can help students earn money to pay for an associate degree education; 2) qualify them for tuition reimbursement programs available through local employers to help offset the costs of a two-year degree; 3) qualify them for advanced standing at area technical colleges; 4) help them explore career options and gain important skills, whether or not they want to make that area their life's work (e.g., skills in automotive mechanics can be useful for many reasons, even if the person doesn't earn his living as an automotive technician!).

[&]quot;Highest level" of academic coursework is defined by the options open to students as a result of satisfactorily completing these courses, rather than the competencies contained within the courses. Because college preparatory courses (including honors/AP) are recognized as adequate for entry-level job preparation, four-year college admission and two-year/technical college preparation, these courses are typically considered to be the "highest level."





- Help students identify which occupational courses they should include in their four-year plan for high school studies. (Emphasize the following: 1) choose courses or specialities that match career goals; 2) choose business or computer classes if the student is undecided or interested in an associate degree major for which your school does not offer a speciality, such as Radio & TV Broadcasting.)
- Discuss the postsecondary options for occupational specialities that are normally considered "terminal." For example, a student interested in masonry or cosmetology should be encouraged to pursue an associate degree in business. Having this type of background would enable the student to pursue owning his/her own business, to better prepare/qualify for a managerial position within a business or would help provide additional employment opportunities. (OPTIONAL STUDENT ACTIVITY IV-B: Learning from the voice of experience—APPENDIX A.)

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(OPTIONAL) Depending upon the familiarity of your student audience with applied academics, discuss your high school's applied academic offerings; help students understand the difference between applied courses and "traditional" academic courses. (STUDENT ACTIVITY IV-C: "Understanding Applied Academics"—APPENDIX A.)

Emphasize the following:

- Applied academics are courses where academic content is taught using techniques and activities which are not typically used in traditional academic courses.
- Techniques and activities used in applied academics include cooperative learning groups
 which build teamworking skills (needed in all careers!); video-based lessons or components
 to lessons; word problems or situations using examples from the "real world;" student
 projects involving career-related applications or research assignments, among other activities. (Include examples of other techniques/activities that teachers are using at your high
 school.)
- (OPTIONAL STUDENT ACTIVITY IV-D: "Exploring Applied Academics at Our School"—APPENDIX A.)





Discuss the concept of advanced standing as it relates to Tech Prep and describe ways students can plan to take advantage of these opportunities. Also describe the options Tech Prep students have for earning a bachelor's degree. Emphasize the following:

- Part of the Tech Prep program includes the opportunity for high school students to earn
 credit at area technical colleges when they reach certain standards and complete specific
 procedures. At Tri-County Technical College, this opportunity is called Technical Advanced
 Placement (TAP). (USE TRANSPARENCY IV-2: "What is Technical Advanced
 Placement?"—APPENDIX B)
- Define Technical Advanced Placement. TAP is similar to "AP" in that it enables a student to
 earn credit, to have that credit appear on the college transcript and to be exempt from paying
 tuition for that course. TAP is different from "AP" in that it is ONLY for students who plan to
 enter and graduate from one of Tri-County Technical College's occupational degree programs. (Students who wish to enter another institution should contact the technical college
 of their choice to see what opportunities exist that are similar to TAP.)
- If appropriate, discuss options open to your students through programs similar to TAP at
 other technical colleges. (Contact your vocational/career center director if you're not sure
 what opportunities exist with other technical colleges.) (STUDENT ACTIVITY IV-E:
 "Exploring Advanced Standing Options Through Technical Advanced Placement."—APPENDIX A)
- (OPTIONAL) If your school offers a Technical Advanced Study (TAS) option to Tech
 Prep, discuss this opportunity and define the procedures used to select participants. Explain
 how TAS also provides advanced standing by allowing students to take courses in their
 senior year that can be used as either required or elective courses for an associate degree
 program.

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Describe the options available to Tech Prep students who decide they want to earn a bachelor's degree. Discuss under what circumstances this change in direction might occur.

Emphasize these points:

Tech Prep is designed to prepare students for worthwhile career opportunities that do NOT
require a bacheior's degree. However, there ARE several options open to Tech Prep students
who may, at some point, change their career goals so that a bachelor's degree or more is
required.



Students who go through Tech Prep in high school and do NOT take college prep academics and foreign larguage (i.e., have not met the admission requirements for state-supported four-year colleges) have two choices. First, they can enter a University Transfer program* at a two-year/technical college and begin their baccalaureate studies there. Or, they can apply to a private four-year college in the state upon receiving appropriate advice from their guidance counselor. (NOTE: Tech Prep students who have not met the freshman admission requirements for a state-supported four-year college can always apply but, depending upon the institution, the likelihood of acceptance will probably be slim.) They can, however, enter one of those colleges without difficulty upon successful completion of transfer requirements taken through a two-year/technical college program. (USE TRANSPARENCY IV-3: "What's so Great About University Transfer Programs?"—APPENDIX B)

STUDENT ACTIVITY IV-F: "Exploring Transfer Options"— APPENDIX A.

- Tech Prep students who enter an occupational associate degree program may be able to transfer to selected four-year colleges without any difficulty. All two-year/technical colleges have faculty advisors who will help students understand these options. As just one example, at Tri-County Technical College, a graduate in Electronics Engineering Technology can transfer as a junior to University of North Carolina/Charlotte in the Bachelor of Engineering Technology program. (And, the advantage is the student is capable of earning a very good salary, based on his/her associate degree education, while pursuing the bachelor's degree, or many employers will pay the cost of the additional coursework.)
- Discuss another example in the field of Nursing. Help students understand that graduates of associate degree programs in nursing take the same licensure examinations that graduates of bachelor's degree programs take. Upon completion, both ADN and BSN graduates are called "registered nurses." While ADN graduates may have limited opportunities in supervisory positions, they can always continue their education for the BSN while earning \$25,000+ per year. In fact, from Tri-County Technical College, ADN graduates can enter Clemson University and finish with a master's degree in nursing in three years of full-time study!!
- Help students understand that how much time it takes them to complete their education is directly related to their career goals and whether or not those goals change. For example, a person who wanted to be a music teacher and decided in his junior year of college that he really wanted to be a dentist will find that many of the courses he's taken "wch't count." Not because his previous courses are "no good," but because he's changed his career goal and the education required is different! A similar result would occur if a person wanted to be an engineering technician and then decided he wanted to be an engineer or a teacher. Emphasize that even if a person's career goal changes halfway through an educational program, it's not a "fatal" error! If it takes five years to get

^{*}Students who know early on that they want a Bachelor's Degree but want to begin studies at a two-year/technical college should be encouraged to take the same courses as are required for freshman admission to a state-supported four-year college. (The academic courses in a University Transfer program are equivalent to those taught in four-year colleges—That's why they transfer!)





the degree required for a particular career, that's OK because one way or another the person will be five years older—he'll either be where he wants to be in those five years or exactly where he is now. And, even if it takes five years, that's a small amount of time in comparison to the forty or so years in which he/she will be working.

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Discuss ways that the Tech Prep program, with proper planning, can make an associate degree more affordable. (USE TRANSPARENCY IV-4: "Making College Study Affordable"—APPENDIX B)

- Taking the right courses in high school, and doing well in those courses, can help a
 student enter an associate degree program successfully by: 1) eliminating the need to take
 remedial courses (and paying for them both in terms of money and time); 2) avoiding the
 need to take prerequisite courses that don't count for graduation but are required for
 program admission (like in health programs that require high school-level courses in math
 and sciences).
- Taking occupational courses, like computer courses or a full occupational speciality, can
 help a student by: 1) qualifying him/her for a higher-paying part-time job that will provide
 money to help with college costs; 2) qualifying him/her for advanced standing in a
 technical college program thereby eliminating the need to take (and pay for!) those courses.
 (NOTE: Students should plan for advanced standing carefully following the requirements of
 the two-year/technical college they plan to attend.)
- Investigating financial aid/scholarship opportunities early can help a student "position" him/herself to qualify for tuition assistance. Students should check out federal programs as well as private scholarships. Your school's Guidance Office, or the Tri-County Technical College library, has materials which will help students identify sources of financial aid.
- Cooperative Education programs are available in most high schools/career centers and technical colleges. Co-op programs place students in curriculum-related positions on a part-time basis. Students usually earn above minimum wage, depending upon the specific program.
- The Bosch Apprenticeship Program and Michelin's Technical Scholars program, both
 offered through Tri-County Technical College, provide students with full tuition benefits and
 part-time employment. (SEE SUPPLEMENTAL MATERIAL ON THESE PROGRAMS—
 APPENDIX D) All technical colleges offer similar programs for qualified students. The
 competition is very heavy for acceptance into these programs.
- If Tech Prep students cannot afford to attend a technical college right out of high school, even with financial aid, they should consider looking for full-time employment. (Because they should have taken occupational courses as part of their Tech Prep program, they will





be more marketable than students who have not had the benefit of these types of courses.) Students should be encouraged to accept employment with a company that has a tuition reimbursement program—nearly all major employers in our area have such programs.

- One way to cut down on college costs is to go part-time. Even if a student can only afford
 the tuition and book costs for one course per term, he/she will be three courses closer to
 graduation at the end of the year than would have been true otherwise! (The most important
 thing is earning the credential, not how long it took to earn it. An employer will NEVER ask
 whether the degree was earned in two years or three!)
- The bottom line is that if a student wants an associate degree, he CAN get there from here!
 It's really just a matter of being a "smart consumer" and knowing how to work the system to his/her best advantage.

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Discuss the concept of "positioning for increased marketability."

Emphasize the following:

- Help students understand that a college degree, whether an associate or a bachelor's degree, is NOT a guarantee of a "good job" or a "satisfying life." Education provides greater opportunities, it opens doors that would in all likelihood be closed otherwise. Higher education increases the probability of a rewarding career and a "successful life." Remind students that the educational credential is only the beginning, they must combine their education with successful work experience if they are to advance in their chosen field.
- Students can increase the likelihood that they will find a good job right out of college if they
 position themselves for greater marketability. Define this concept by explaining that if
 students plan ahead by building skills and gaining experience to complement their associate
 degree education, they can put themselves in a better position to get the kind of job they
 desire right out of school. (USE TRANSPARENCY IV-5: "Positioning Yourself for
 Greater Marketability."—APPENDIX B)
- Students should ALWAYS combine their education with some type of relevant work experience—whether co-op, part-time employment they arrange on their own, or even some kind of volunteer work.
- Students should build positive reputations with instructors and work supervisors so when
 the time comes for a letter of recommendation, they will have someone to help. (Also, in
 technical colleges, many employers will go right to instructors and department heads when
 they're looking for graduates to hire!)





- Students should select electives carefully and should take additional courses, even if they are "noncredit" courses, while in associate degree programs to build their knowledge/skills base. For example, taking extra courses in computers or in "total quality management" would show an employer that the person is willing to go beyond the minimum to gain relevant skills. (Some technical colleges, like Tri-County, also offer "advanced technology certificates," which are short-term programs that allow students to gain advanced skills in their fields.) When an employer interviews a graduate with more advanced courses, versus someone who just took the required courses, chances are that the first person will get the iob!
- Students should always be ready to show an employer that they possess not only the
 technical skills required but the general type of employability skills that are so important for
 success. A person who can demonstrate a strong work ethic and who projects a teamoriented, professional attitude will have the advantage every time.
- Before an associate degree graduate starts applying for positions, he/she should seek
 assistance in developing a strong resume and effective interviewing techniques. All technical colleges offer these services free of charge.

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Conclude this unit by emphasizing that Tech Prep is designed to prepare students for the careers of the future. (USE TRANSPARENCY IV-6: "Tech Prep: PREParation for TECHnologies...Careers for the Future."—APPENDIX B) Remind students that a successful, rewarding future begins with the work and the planning they're doing right now—all the key ingredients for success are within their reach.





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Planning for the Future





Planning for the Future

Major Concept:

Planning your career goals—and the education path to lead you to those goals—will help ensure your success in the workplace of tomorrow.

Equipment:

- overhead projector
- Handout: Career Planning Checklist
- Real World profiles

Topics:

- 1. each student's present stage of planning
- 2. motives and reasons for education and career choices
- 3. development of an action plan
- 4. career research suggestions
- 5. avocations and vocations
- 6. "Real world" experiences

Student Behavioral Objectives:

At the conclusion of this unit, students will be able to:

- 1. describe their current position in the career planning process.
- state their reasons for choosing career goals and selecting education paths to help them reach their goals.
- 3. design an action plan for their future career goals and related education.
- 4. distinguish between vocational and vocational goals.
- 5. describe the concept of lifelong learning to justify making as well as changing plans.





Presentation:

1

Introduce this unit with the question: "How do you get there from here?" Remind students of the necessity for early identification of career choices and for tailoring their secondary education and post-secondary education to prepare them for entering their chosen career areas.

In this final unit they will be asked to:

- assess their career-planning progress to this point; and
- develop an action plan for the rest of their secondary education and beyond.

2.

Students who have worked through the first four units in this program have begun to develop ideas about planning for their career and educational futures. To help organize these ideas, they must determine where they currently stand in this planning process. (ACTIVITY V-A: Career Planning Checklist "Where do I Stand Today?"—APPENDIX A)

3.

If students are unable to complete the Career Planning Checklist easily—or have no idea what kind of career they want to pursue—ask them to conduct some further research. (SEE SUPPLEMENTAL PUBLICATION: "A Career in the Technologies is as Easy as 1-2-3!"—APPENDIX D)

You may wish to suggest the following appropriate research methods:

- Identify your abilities, your likes and dislikes.
- Talk with friends, neighbors, relatives who have jobs that interest you. Ask them what their jobs involve, what their hours and responsibilities are, etc.
- Talk to your teachers and high school guidance counselors about your aptitudes and interests. Ask to take a career interest test.
- Visit your local career center, two-year technical college, or university to talk to teachers and students about degree programs, courses and career opportunities after graduation.
- Check into shadow or mentoring programs at your school which will allow you to explore firsthand a mid-level technology career.





Students have been encouraged to identify their likes and dislikes, their talents and their interests as a first step in choosing a career. However, some students may be tempted to design their career and education plans around personal talents or interests which may not be enough to sustain a career. They may wish to find jobs which will utilize their favorite hobbies or skills. For example, a student who enjoys playing music may decide to pursue musical performance as a career without considering the odds against finding a profitable position in the highly competitive world of professional musicians. Students who seem to be choosing unrealistic career goals based upon their favorite pastimes should be reminded of the following:

- There is a difference between avocational and vocational goals. While you need
 not give up your hobby or neglect your talent, you must consider what is practical
 as well as what is personally rewarding.
- Not every interest, skill, or talent will lead to a rewarding career; however, a
 carefully chosen career can provide the salary, location, and schedule you desire
 while it also allows you the time and opportunity to pursue your talent or hobby
 as an avocation (on the side). With a satisfying vocation and the time for an
 avocation, you can then have the best of both worlds.

5.

As soon as students have chosen a career area, they should identify the kind of education they will need to enter the field or advance in their career. You may wish to place students in peer groups to continue to evaluate each other's progress. Group members may question each other on their educational plans. (An alternative activity might involve using your school's own version of the "Career Planning Flowchart," if appropriate.)

Partners should consider the following:

- What are the educational requirements for entry or advancement?
- What high school courses will be most important?
- What kind of post-secondary education will prepare a student for this career?
- Where can the student receive this education or training?
- How can the student plan an education path that will lead most directly to this career?





Ask students to share stories of people with educations that did or did not prepare them for satisfying careers. Share your own personal experience with education and work—or that of friends and relatives, particularly those holding jobs in mid-level technology. (In preparation for this discussion, facilitators might brainstorm examples from their own high school class or from students they have taught over the years.) Students may contribute stories of their parents, friends, and other acquaintances.

Try to include examples of the following:

- unsuccessful high school dropouts;
- high school graduates with and without any vocational training;
- graduates of a two-year/technical college program;
- graduates of a four-year college program (Point out that many four-year graduates attend graduate school or other advanced degree programs before going to work.);
- students in four-year programs who changed majors;
- four-year graduates who ended up in jobs unrelated to their studies or their earlier interests; or
- those who changed careers in mid-stream, had second careers after retirement or who have successfully combined a career with avocational interests. (STUDENT ACTIVITY V-B: "Real World Profiles"—APPENDIX A).

7.

Share other examples of people who have accomplished interesting things in their professional lives, who have followed diverse career paths, who have combined their vocational interests with vocational interests, or who have unusual educational backgrounds.

Discussion of these profiles should lead students to conclude:

- There are many pathways to "success."
- People with many interests and talents can combine career pursuits with leisure activities to have a balanced and satisfying life.
- Some talents and interests may become vocational by being incorporated into a career, while others may remain vocational and a source of pleasure outside the workplace.





Encourage students to express concerns about planning their careers and their education paths. Allow them to discuss indecisiveness and uncertainty they may feel at this stage in their planning process. Contribute your own examples of people who made dramatic changes in their chosen paths.

Some student concerns may include:

- What if I get halfway through my major and decide I want to switch?
- What if I choose the wrong career and end up unhappy in my work?
- What if I spend five years preparing for a career and then decide I don't want to pursue that one?

9.

Students may express indecision and concern that this uncertainty will send them down the "wrong" education path, or that they may omit coursework that will turn out to have been necessary. Assure students that the self-examination and brainstorming exercises in this student awareness program have been designed to help them plan, but that their plans may indeed change as they progress through their education and into their careers. Changing direction is not a crime! However, beginning with a plan—no matter how it may later be altered or exchanged—is the most effective way to select high school and college courses. Respond to student fears, citing examples and reassurances from Unit IV.

You may wish to make the following observations:

- The only real mistake you can make is to prepare to do nothing. If you have prepared yourself for one career, then decide to pursue another, you can at least support yourself while you change direction and train for another career.
- It is all right to change your mind. Various experiences may cause your interests to shift or dictate unexpected changes in your lifestyle.
- You cannot know for certain that you are suited to a career until you have observed or tried it for yourself.
- Changing your mind, or making a "mistake" in planning your education path to your chosen career is not a failure if you learn from the experience. (USE TRANSPARENCY V-1: "People don't plan to fail, they simply fail to plan"——APPENDIX B)
- The planning process is also a learning process, and such learning should continue throughout your life.
- Whether you decide to pursue Tech Prep options or not, the time spent on this program has been worthwhile if it has been spent thinking and planning for the future...





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"Color-Coded Employment Agency Applicants"

MATERIALS NEEDED:

- Colored applicant cards containing education and experience levels
- Job ads stating requirements and salary
- (Optional) Application forms (Facilitators may obtain these forms from your county's Job Service office.)

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Before student arrive, select an appropriate number and mix of applicant cards, and corresponding job ads, to equal the number of students in the class. Use the "answer keys" provided to determine the correct mix of job ads and applicant cards.

2

As students enter the room, hand each one a colored card which describes the education level and work experience of a potential job applicant. These cards are color-coded as follows: pink (high school diploma/GED); yellow (associate degree); and green (bachelor's degree or higher).

3.

The facilitator is the "employment agency." Welcome students to your county,s Employment Agency and announce that you are taking applications for a number of jobs. [OPTIONAL STEP: Have students fill out employment agency application forms you have obtained from a job service office. They should fill out the application from the perspective of their assigned applicant's card, using the education levels and experience described on the card.]





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Using the job ad cards provided, read a job title and describe the requirements, emphasizing the following:

- a. education level preferred;
- b. experience required; and
- c. salary range

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Ask those who think they qualify for this job (according to their applicant cards) to stand. Have students explain why they feel they qualify. If two or more students seem to be qualified for the same job, the facilitator may read more detail from the job ad and should ask more probing questions to make sure students have read their card correctly. Then the facilitator may ask typical interview questions (for example, "What can you tell me about yourself that would make me hire you rather than someone else who seems equally qualified?") to determine which of the standing students is most qualified. (Student answers might relate to attitude, enthusiasm, willingness to learn, etc. Encourage students to be creative with their answers.)

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When an applicant has been selected for the job in question, give that student his job ad and say, "Congratulations, you,re hired." [Note: the facilitator must collect ads at the end of the activity or be prepared to xerox from the master copy when this activity is used again.]

7.

Repeat this process with new job ads until all students have been "hired." Then lead a discussion of the jobs and their requirements.







QUESTIONS FOR DISCUSSION:

- a. What kinds of skills are required in this job?
- b. How important are good communications skills? Good mathematics skills? Other types of skills?
- c. What is the most/least interesting aspect of this job?
- d. What are the prospects for those with the pink cards (high school grads)? Yellow cards (associate degree grads)?
- e. What surprised you about these job ads?
- f. How important is work experience to getting hired?
- g. How do the salary ranges compare for jobs requiring different amounts of education? Do higher salary levels always accompany jobs requiring a bachelor's degree? Do you think that's true in all fields, or is that likely to be more true in some fields than others?
- h. What job prospects would a high school dropout have? How might job prospects compare for someone with just a high school diploina compared to someone with postsecondary education?

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In this discussion, guide students to consider the following points:

- the number of opportunities for those with some occupational training at the high school level or a two-year degree from a technical college
- the amount of experience required of applicants and possible ways to gain that experience through class projects, internships, part-time employment, apprenticeships, etc.
- the competitive salaries offered in careers requiring some occupational training on the high school level up to an occupational associate degree

ALTERNATIVE:

If the facilitator wants students to work in groups on this Job Ad activity, give each group the correct number of "applicant" cards and have them review their members' qualifications and respond to the job openings as the facilitator announces them. Then each member of the group would need to become familiar with all the jobs for which the group qualifies.





BACHELOR'S DEGREE OR HIGHER: (Green)

Applicant 1

I have a Master's Degree in Library Science (MLS) from a state university which is accredited by the American Library Association. I also have five years of experience in all aspects of maintaining the Library of Congress cataloging system. I am proficient with both IBM-compatible and Macintosh computers.

Applicant 2

I have a bachelor's degree in journalism and three years experience as a newspaper reporter for a daily paper. I also worked for one year in the advertising department of a major newspaper. When I was in college, I was a fund-raising and publicity chairman for my service sorority/fraternity.

Applicant 3

I have a master's degree in counseling, along with two years of experience working in a county mental health facility where I conducted group therapy and individual counseling sessions for clients and their families.

Applicant 4

My master's degree is in psychology, and my undergraduate degree was in sociology. While I was in graduate school I served for two years as a counselor in a university counseling center where I conducted workshops on drug and alcohol abuse awareness.



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Applicant 5

I have just graduated from college with a bachelor's degree in economics and a minor in English. I do not have any actual work experience; however, during my senior year I served as a student representative on the local planning commission.

Applicant 8

I have a bachelor's degree in physical education but no full-time work experience. My only work experience has been as a camp counselor during the summers while I was in college.

Applicant 7

I earned my bachelor's degree in financial management five years ago and have held two full-time positions since then. My experience has been in office management, community relations and marketing.

Applicant 8

I will finish my master's degree in student personnel in about a month. For the last two years of college, I was a resident advisor in my dorm, and during graduate school I have been a director for the freshman dorm.

Applicant 9

I finished my bachelor's degree in psychology three years ago. Since that time, I have been working for the Department of Social Services interviewing and assessing potential clients for the Aid to Families with Dependent Children Program.







ASSOCIATE DEGREE (Yeilow)

Applicant 10

I have a two-year associate degree in electronics engineering technology and four years of work experience in maintaining and installing telecommunications equipment. I also hold a fiber class Radiotelephone license from the FCC.

Applicant 11

I have an associate degree in business with a major in computer technology. In high school I was a student worker in the media center where I maintained the school's audiovisual equipment. I have also worked part-time as a student assistant for the past two years in my college's PC-lab.

Applicant 12

Although I did not graduate from high school, I later earned my GED and attended a two-year college where I received my associate degree in business. I have also worked part-time for the past ten years in my father's automotive repair shop performing bookkeeping and general accounting duties.

Applicant 13

I have a two-year associate degree in business. Since earning my degree, I have worked in the accounting department for a large manufacturing plant. I started out as a junior accountant for one year, then was promoted three years ago to the position of area manager where I supervise several accounting clerks.

Applicazt 14

I have a two-year associate degree in veterinary technology from a technical college. I also worked in an analytical laboratory for a local hospital while attending college and as an assistant for a local veterinarian.





Applicant 15

I studied management, including courses in purchasing, retailing, and advertising at a local two-year/technical college where I earned an associate degree in business. I have also worked for two years as a sales clerk and then as assistant manager of a department store.

Applicant 16

I received an associate degree in business after majoring in office systems technology. While in school I was a student worker in the admissions office where I served as a receptionist, typist, and file clerk.

Applicant 17

After completing my associate degree in health science with a major in medical laboratory technology, I passed the certification exam to become a registered technician. In addition to experience in laboratory techniques, I have also managed an independent clinical laboratory for two years.

Applicant 18

I finished my associate degree in clinical lab technology three years ago. Since then, I have been working full-time in a laboratory running a variety of clinical tests which involve processing plastics compounds.

Applicant 19

I finished my associate degree in computer electronics technology last year. I started a co-op position my last year of college in which I installed and maintained telecommunications equipment. I started working for the same company full-time after I graduated and now work exclusively in testing and troubleshooting.

Applicant 20

I graduated recently with an associate of applied science degree in electronics technology. While in school, I earned all "A's" in courses that involved troubleshooting circuit boards, and in our senior project in which I specialized in applications of MS-DOS systems.

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Applicant 21

My associate of applied science degree is in electronics engineering technology. For the past five years, I have been a technician for People's Computers. I repair all types of personal computers and peripherals including fax machines and modems.

Applicant 22

I work in the marketing department for a large retail store chain. My duties include designing advertisements for local papers, using spreadsheets to track our public relations budgets and writing reports, among other things. I have a two-year degree in marketing management.

Applicant 23

I have an associate degree in office systems technology. While I was in school, I worked part-time as an administrative assistant in a physician's office. I have completed several courses in medical terminology and would like a full-time job in an office environment within the health care industry.

Applicant 24

I finished my two-year degree in medical lab technology three years ago and then went to work for one of the local hospitals as a lab technician. I am now an assistant supervisor responsible for purchasing, quality control and conducting specific clinical tests in the hematology department.

Applicant 25

I graduated from high school with a vocational specialty in construction and then finished my associate degree in business. I have been a construction manager for the past five years working on renovations in public housing units.

Applicant 26

I have an associate in business degree with a major in construction technology. After working as an independent contractor for five years, I completed the requirements for licensure in housing code inspection. I have extensive experience in housing inspection and in preparing detailed, technical reports.





HIGH SCHOOL DIPLOMA (PIOK)

Applicant 27

After I graduated from high school, I worked as a cashier in a grocery store for two years. Then I spent five years as a clerk and three years as an assistant manager of a drugstore. As assistant manager, I was responsible for purchasing all merchandise and maintaining accurate inventory control records.

Applicant 28

During high school I took a number of business education courses and went to work after graduation as an office assistant. After about six months, I began my present job as a clerk-typist in a city police department. I have been in that position for the past two years.

Applicant 29

I dropped out of high school in the tenth grade but later went back and finished my GED. I have worked full-time for the last two years in the maintenance department at the local hospital.

Applicant 30

I graduated from high school five years ago and have been working in the maintenance department at the local textile plant ever since. Last year, I went back to school to earn my associate degree in textile management.

Applicant 31

I graduated from high school five years ago with a vocational specialty in industrial maintenance. After high school, I started working for a local manufacturing company doing maintenance and repair on large refrigeration and heating systems.

Applicant 32

I graduated from high school two years ago with a vocational certificate in construction. I also completed a certificate program in carpentry at the local community college. I now have a part-time job at Lowe's and do carpentry work on the side.





Insert empty top loading sheet protectors here for storage of cards



Facilitator's Key to Qualified Applicants

(NOTE: Several different applicants may be "qualified" for the same jobs; however, the following applicants are paired with those jobs for which they are most qualified. In the most obvious cases where more than one applicant is qualified for the same position, both applicants have been listed in this key. A second answer key follows this one which shows the job titles in alphabetical order with the corresponding applicant number.)

Applicant 1 (LIBRARIAN)

I have a Master's Degree in Library Science (MLS) from a state university which is accredited by the American Library Association. I also have five years of experience in all aspects of maintaining the Library of Congress cataloging system. I am proficient with both IBM-compatible and Macintosh computers.

Applicant 2 (MEDIA PROGRAM COORDINATOR)

I have a bachelor's degree in journalism and three years experience as a newspaper reporter for a daily paper. I also worked for one year in the advertising department of a major newspaper. When I was in college, I was a fund-raising and publicity chairman for my service sorority/fraternity.

Applicant 3 (THERAPIST AND COUNSELOR III)

I have a master's degree in counseling, along with two years of experience working in a county mental health facility where I conducted group therapy and individual counseling sessions for clients and their families.

Applicant 4 (THERAPIST AND COUNSELOR III)

My master's degree is in psychology, and my undergraduate degree was in sociology. While I was in graduate school I served for two years as a counselor in a university counseling center where I conducted workshops on drug and alcohol abuse awareness.



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ACCOUNTING SUPERVISOR

Supervisor position, small department. Will oversee general accounting functions. General ledger entries and accounts payable. Must have 2 years associates degree and supervision experience. Compensation \$20-\$25K commensurate with experience. Send resume, with salary history and requirements, to: News-Piedmont, Box N-49, G'ville, SC 29602

Accounting Supervisor

- 1. Associate Degree and supervisory experience
- 2. \$22,500 (average)

STUDENT ACTIVITY !-A

Clemson University

AG Science Assistant 11

Qualifications: An associate degree ar two years of college in a science field; or high school diploma and three years experience in an analytical laboratory. Knowlease/experience in following analytical procedures and in operating instruments, such as a balance, spectrophotometer, kieldahl unit, fiber apparatus, atomic absorption and ph meter.

Salary: State Pay Grade 21. Minimum of \$15,227 negatioble within State guidelines. Closing Date: June 1, 1990

Send letter of application and resume or apply directly to:

Clemson University Personnel Services Division 104 University Square Clemson, SC 29634-5337

An Affirmative Action/Equal Opportunity Employer.

AG Science Assistant II

- 1. Associate Degree or two years of postsecondary science, or high school graduation and three years experience
- 2. \$15,229 (minimum)



CLEMSON UNIVERSITY INSTRUCTIONAL MEDIA SPECIALIST

Permanent, full-time position in the Media Resource Center of the Clemson University College of Nursing.

Gualifications: Associate degree and one year experience in a Media Center. Ability to operate, maintain, and make minor repairs on all types of audiovisual equipment. Ability to work with IBM computers and some familiarity with software packages such as Wordstar and dBase III. Good communication skills necessary to work with students, faculty and staff.

Salary: State pay grade 22 (\$15,535-\$23,302) with benefits package.

Closing date: August 28, 1989 Send a letter of application and resume or apply directly to:

CLEMSON UNIVERSITY Personnel Services Division 106 University Square Clemson, SC 29634-5337 An Affirmative Action/Equal Opportunity Employer

Instructional Media Specialist

- 1. Associate degree and one year experience
- 2. \$19,418 (average)

STUDENT ACTIVITY I-A

REVENUE COLLECTOR Salary range, \$18,512-\$25,896 Normally hire at minimum

The City of Greenville needs a Revenue Collector to enforce ordinances for collection of business license fees. Requires high school diploma or GED, SC driver's license, use of own vehicle, good communication skills, 3 years experience in collections or accounting. Associate Degree in Business or Accounting desired. Apply by January 11, 1991. at 206 S. Main St. Greenville, SC. EOE

Revenue Collector

- 1. High School graduation or GED and three years experience, Associate Degree preferred
- 2. \$22,200 (average)



ECONOMIC PLANNER

ECONOMIC PLANNER

The Greenville County Planning
Commission is seeking qualified
applicants for the position of economic planner in the planning
services division. Responsibilities
include the preocution of economic and demographic publications, the maintenance and expansion of the (Computerized) developen of the (Computerized) developen of the Computerized develope

Economic Planner

- 1. Bachelor's degree in planning. economics, or related field: internship or some work experience preferred
- 2. \$20,503 (entry)

STUDENT ACTIVITY I-A

MICROWAVE FIELD TECHNICIAN

This position will be primarily responsible for the maintenance of local Columbia area fiber sysor local Columbia area ricer systems and microwave systems statewide. Duties will include the installation, testing and maintenance of fizer optic transmission equipment and microwave equipment. A two year technical degree in Electronic Engineering or equivolent mili-tary training and three (3) years of experience in the installation and maintenance of complex telecommunications equipment, telecommunications equipment, including telephone, radio and microwave systems. Prefer applicants with microwave, fiber class Radiotelephone license or nigher: or a Certified Technician w/certificate from a nationally recognized organization. SALARY RANGE: \$24.035-\$36.052. Send resume to: Attention Personnel, P.O. Box 12444, Columbia, SC 27211.

EQUAL OPFORTUNITY EMFLOYER

Microwave Field Technician

- 1. Associate Degree or equivalent military training and three years experience
- 2. \$30,000 (average)



PROGRAM SPECIALIST I \$17,534

The Recreation Department of the City of Greenville needs a Program Specialist to assist in planning, developing, implementing and promoting a broad range of recational activities and special events. Requires a Bachelor's Degree in Recreation. Physical Education or related field, or equivalent experience, good oral & written communication skills, good interpersonal skills, a valid SC driver's license. Your own transportation and must be able to work flexible haurs. One year working experience with children is desired. Apply at 206 S. Main St. G'ville SC by 6-04-92. EOE.

Program Specialist I

- 1. Bachelor's degree in Recreation. Physical Education, or related field or equivalent experience
- 2. \$17,534 (entry)

STUDENT ACTIVITY I-A

ACCOUNT ADMINISTRATOR

ACCOUNT ADMINISTRATOR
US PERSONNEL, one of the
Southeast's fastest growing temporary services is expending & is
currently seeking a professional,
enthusiastic person for our entry
level Account Administrator position in our Greenville affice. Responsibibities include interviewing
& evaluating temporary employee
candidates, client services, general office duties. & some inside
marketing. Excellent growth
potential to marketing or management position. Buse plus bonuses.
\$18,000 to \$24,000 1st year. Successful condidate would have Bocheion's Degree with excellent verbal
& written communication skills.
Send resume to: US PERSONNEL, Inc. P.O. Box &22, G'ville, SC
29602. EOE

Account **Administrator**

- Bachelor's degree
- 2. \$21,000 (average)



CLEASON UNIVERSITY HISTOLOGY TECHNOLOGIST

Qualifications: High School Graduation and two (2) years experience as a Histology Technician; or an associate degree in Histology (preferred) and (6) months experience in Histologic Techniques. Supervisory experience is preferred. Experience with processing plastics would be helpful. Salary: State Pay Grade 26 (S18,17"-\$27,265) with benefits package. Closing Date: December 1, 1989. Apply directly or send a letter of application and resume to: Clemson University, Personnet Services Division, 106 University Sauare, Clemson, South Carolina, 29634-5337. An Affirmative Action/Equal Opportunity Employer.

Histology **Technologist**

- 1. High School graduation and two years experience or Associate Degree and six months experience
- 2. \$22.721 (average)

STUDENT ACTIVITY I-A

CLEMSON UNIVERSITY MEDICAL LAB TECHNICIAN

QUALIFICATIONS: High school graduation and 2 years experience in a clinical or medical laboratory; or an appropriate equivalency prefer an associate degree in medical lab technology (MLT) with national ASCP registration or with national ASCP registration or equivalent. SALARY: State Pay Grade 22 min-imum salary is \$16,234 with bene-fits package. Send a letter of appli-cation and and resume by October 12,1990 to: Clemson University, Personnel Services Division, 106 University Square, Clemson, SC 29634-5337.

An Affirmative Action Equal Opportunity Employer

Medical Laboratory **Technician**

- 1. High School graduation and two years experience, prefer Associate Degree and ASCP registration
- 2. \$16,234 (minimum)



Clemson University

Business Associate !

Requires a bachelor's degree (preferobly in accounting, business administration or a related field), or any equivalent combination of education and related experience.

Salary: State Pay Grade 26. Minimum is \$18,533 with benefits package.

Send a letter of application and resume or apply directly to:

Clemson University Personnel Services Division 166 University Square Clemson, SC 29634

An Affirmative/Action Equal Opportunity Employer

Business Associate I

- Bachelor's degree or equivalent combination of education and experience
- 2. \$18,533 (minimum)

STUDENT ACTIVITY I-A

Clemson University

Environmental Systems Operator Trainee

Requires a tenth grade education. Prefer a high school dipioma. Valid driver's license required. Hours worked: 2:30 pm-10:30 p.m., including weekends., Salary: State Pay Grade (Minimum \$12,336) with benefits. Send a letter of application and resume by September 20, 1991 to:

Clemson University Recruitment & Employee Services 106 University Square Clemson, SC 27634-5337

Clemson University is an Affirmative Action/Equal Opportunity Employer.

Systems Operator Trainee

- 1. Tenth grade education
- 2. \$12,336 (minimum)



LEGARIAN

Piedmont Technical College is sesting a librarian whose srimory responsibilities will be OCLC cataging of basits and eudio-visuois, maintenance of en-line cristice and some public service duties, inclusional bibliographic instruction. ALA accre? Alega MLS required. Library experience (preferably ecomic) and OCLC Septemore required. Also required is a working knowledge of U.S. Marc. AACRII, LC rule interpretentens. LCSH, LC classifications. OCLC standards, and a seneral working knowledge and experience with 18M-contestion of experience with 18M-contestions work is required. Annual storting solary is \$22,589. Apply not later than July 31, 1972 by submitting a current resume to: South Correlina Employment Security Commission, ATTN: Mr. Willies Action/Equal Departuality and College. P. O. Box 1427. Greenwood, SC 2548. An Affirmative Action/Equal Departuality in July 21, 1972 to: Personnel Office. Pledmont Technical College. P. O. Drower 1437, Greenwood. SC 2548. An Affirmative Action/Equal Opportunity Employer.

Librarian

- Master of Library Science degree (MLS) from American Library Association (ALA) accredited institution
- 2. \$22,500 (entry)

STUDENT ACTIVITY I-A

SPARTANBURG COUNTY MEDIA PROGRAM COORDINATOR: (ADS-7) Entry - \$23,293

Masters Degree in Journalism, Public Relations, Marketing or related field and two (2) years related field and two (2) years related experience; or bachelors degree in same with four (4) years related experience. Requires thorough knowledge of media field, experience in coordination of multimedia efforts and public awareness campaigns, newsletter development, and public speaking experience. Reports to Deputy Director. Application accepted thru October 23, 1991. Apply at Spartanburg Caunty Personnel, 366 N. Church St., P.O. Box 5666, Spartanburg, S.C. 29304. EOE M/F.

Media Program Coordinator

- Master's degree in Journalism, Public Relations, Marketing or related field and two years experience; or bachelor's degree and four years experience
- 2. \$23,293 (entry)



Clemson University Lab Equipment Specialist III

Requires a high school diploma Requires a high school diploma or equivalent and five years experience in operation and/or maintenance in yern manufacturing area (opening through winding); or an associate dependent in textile technology and three years experience in the above.

Salary: State Pay Grade 27 (\$19,752 - \$29,628) with benefits. Send a letter of application and resume or apply directly by No-vember 29, 1991 to:

Clemson University Recruitment & Employee Services 104 University Square Clemson, SC 29634-5337

Clemson University Is An Affirmative Action/Equal Opportunity Employer.

Lab Equipment Specialist III

- 1. High School graduation and five years experience, or Associate Degree and three years experience
- 2. \$24,690 (average)

STUDENT ACTIVITY I-A

Clemson University

Master Craftsman

Requires four years experience in general maintenance; or an appropriate equivalency. Prefer an associate degree in HVAC and two years experience. Ex-perience with heat pumps, fan coil units and boilers and natu-ral gas het fer desired. Some ex-perience in the repair of locks, perience in the repair of locks, plumbing, electrical and appliances heipful. Valid driver's license required. Hours worked: 3:00 p.m. • 11:00 p.m., Thursdoy through Monday. Salary: State Poy Grade 28 (minimum \$20,545) with benefits. Send a letter of application and resume by November 15, 1991 for by November 15, 1991 to:

Clemson University Recruitment &

Employee Services 106 University Square Clemson, SC 29434-5337

Clemson University is An Affirmative Action/Equal Opportunity Employer.

Master **Craftsman**

- 1. Four years experience or Associate Degree and two years experience
- 2. \$20,545 (minimum)



SUPPORT TECHNICIAN TELECOMMUNICATION Solary \$19,448

Salary \$19,448

The City of Greenville needs a person to assist the telecommunications Analyst in maintaining voice and data equipment. To assist in support of the telephone system and computer hardware by assisting in identifying problems sources and providing solutions. To perform preventive maintenance on all telecommunication and computer heroware equipment by testing/observing the equipment and cleaning or makeing minor repairs or adjustments. Requires a H5 diploma or equivalent with specific courses in electronic/telecommunications and 2 yrs. of experiences in telecommunications, cabling, and computer support services or an Associate Degree in Telecommunications/Computer Electronics and a volid SC driver's license.

Apply at 206 S. Main St. G'ville, SC by 5-21-92. EDE

Telecommunication Support Technician

- High School graduation and two years experience or Associate Degree
- 2. \$19,448 (entry)

STUDENT ACTIVITY I-A

CLEMSON UNIVERSITY Corporater

Requires: One year of experience as a finish corpenter; or an equivalent combination of training and experience. Prefer high school diploma with completion of a technical training program in the corpentry field. Valld driver's license required. Salary: State pay grade 19 (minimum \$14,422) with benefits. Send a letter of application and resume or apply directly by October 4, 1991 to:

CLEMSON UNIVERSITY Recruitment & Employee Services 106 University Square Clemson, SC 29634-5337

Women and minorities are encouraged to apply.

CLEMSON UNIVERSITY IS AN AFFIRMATIVE ACTION/EQUAL OPPORTUNITY EMPLOYER.

Carpenter

- 1. One year of experience or equivalent combination of training and experience; prefer high school graduate with completion of technical training program in carpentry
- 2. \$14,432 (minimum)



TECHNICIAN

Justime Learning Corporation, a nationally recognized leader in instructional technology, has an opening in its services division for a Technician to cover the Greenville area.

The ideal condidate will have a 2 year technical school background or equivolent, MS-DOS skills, and be cogobie of troubleshooting to board level. The stillity to work with minimal supervision and excellent interpervision and excellent interpervision devices of must. Frequent fravel required, An excellent drivel required, An excellent drivel required is essential; a DAV report will be required if you are hired.

LOCAL INTERVIEWS
WILL BE HELD
IN THE
NEAR FUTURE.

We offer a competitive benefits package with a starting solary in the high leens. Please for-ward your resume and solary history to:

Jostens Learning Corporation, Attn: HR/GST, 7878 N. 16th Street, Ste. 160, Phoenix, AZ 85020.

NO PHONE CALLS PLEASE

Instructional **Technology** Service **Technician**

- 1. Associate Degree and MS-DOS skills
- 2. \$17,000 (minimum)

STUDENT ACTIVITY I-A

ELECTRONIC TECHNICIAN

Greenville Technical College is accepting applications for on Electronics Technician for its Computer Center. Will work under limited supervision, install, trouble-shoot, perform moderate to complex repairs, perform preventive maintenance on personal computers, peripherals, & data communications equipment. Assist with the training of port-time technicions. Employee must have working knowledge in the maintenance & repair of personal computers, peripherals, fiberoptic/copper data communications capiling systems. Aust demonstrate skill in the use of electronics testing equipment. Aust be able to maintenan peripherals, interface with management personnel, as well as equipment personnel, as well as equipment users throughout compus. Employee should passess at least an AS degree in computer Electronics with 3 years of hands on experience. Minimum salary, \$20,044. This is a permanent full time position, interested parties should submit State application to: Personnel Services, Greenville Tech.

Electronic Technician

- 1. Associate Degree and three years hands-on experience
- 2. \$20,044 (minimum)



Announcing
Administrative Positions
Within The Department Of
University Housing At Clemson University.

Manager Of
The Clemson
House
Manager Of
Family/Faculty
Housing

Master's Degree Preferred, BS Required, Starting Salary \$19,659. Women & Minorities Are Encouraged To Apply. For Details, Call Clemson University Personnel Office, 803-656-2426 Before Thursday, October 19th.

Manager of Family/Faculty Housing

- 1. Bachelor of Science degree required, Master's preferred
- 2. \$19,659 (entry)

STUDENT ACTIVITY I-A

SOCIAL WORKER II

The S.C. Department of Mental Retardation - Coastal Region is seeking a Social Warker II. Requirements are a bachetor's degree in Social Work ar Social Welfare Program, ar o bachetor's degree in sociology ar psychology and one (1) year of social work experience. Must be licensed by the South Caralina Board of Social Workers, Salary \$16,604.

Apply to Personnel, SCDMR -Coastal Center, Jamison Rd., Ladson, SC 29456. Walk in applications accepted only on Mon. & Weds. EOE/AA employer.

Social Worker II

- 1. Bachelor's degree in sociology or psychology, one year experience
- 2. \$16,804 (entry)



CITY DEVELOPMENT COORDINATOR

Min. of 2 yrs. exp. in public relations, marketing or related field. Associate degree in related field is desired. Knowledge of bookkeeping, gen. office & computer required. Salary \$18,000. Send resume to: PO Box 507, Greer, SC 29652. All resumes received before August 24 will be considered. Equal Opportunity/Affirmative Action Employer.

City Development Coordinator

- 1. Associate Degree and two years experience
- 2. \$18,000 (minimum)

STUDENT ACTIVITY I-A

CLEMSON UNIVERSITY MEDICAL TRANSCRIPTIONIST

Requirements: High school graduation with 2 years of clerical experience or an associate degree in Secretarial Science or related field. Type at a corrected rate of 35 wpm. Prefer corrected rate of 50 wpm. Knowledge of medical terminology and ability to use transcriber to compile and assemble medical information required. Computer experience desired.

Salary: State pay grade 20. Minimum \$14,644 with benefits.

Closing Date: May 4, 1990.

Send letter of application and resume or apply directly to:

CLEMSON UNIVERSITY Personnel Services Division 104 University Square Clemson, SC 29634-5337

Clemson University is an Affirmative Action/Equal Opportunity Employer.

Medical Transcriptionist

- 1. High School graduation and two years clerical experience or Associate Degree
- 2. \$14,644 (minimum)





ADMINI SPECIALIST A

One position, Vocancy # 4353
FET:Y Correctional Institution
Petaer, S.C. 79667
Grade 17, Solory \$13,017-519,725
Deadline for Ase4/ine: 4-3-90

MINIMUM QUALIFICATIONS:
A high school dislama and one
year of cierical experience; or an
associate degree in socretorial
science or related field; or two
years of cierical experience. Selected sostlines may require the
ability to type at a corrected rate
of 35 words per minute.

interested persons may send a resume (SS number & vaconcy number must be included in order for the resume to be processed), or apply in person of the:

S.C. DEPT OF CORRECTIONS
Recruiting & Employment
Services Bronch
4330 Broad River Road
Columbia, S.C. 79210
MVF EOE

Administrative Specialist A

- 1. High School graduation and one year experience, or Associate Degree, or two years experience
- 2. \$16,270 (average)

STUDENT ACTIVITY I-A



CLINICAL LABORATORY TECHNICIAN III

One position. Vocancy # 4435 Perry Carrectional Inst. (Leb) Perry, S.C. 29449 Grade 22. Selery \$15,509-523,758 Deadline for Applying: 4-2-40

Deadline for Applying: 42-90

MINIMUM QUALIFICATIONS:
Successful commeltine of a progroun of instruction for ideoratery
casistants in a heasifel, citiege or
commeltine all generator hours of
beliese or chemistry and one (1)
year experience in a clinical, research or actional loberatory; or
resistration as a Certified Laboratory Assistant or the equivolent por
the American Saciety of Clinical
Potthelesists, and one (1) year reloted experience.
PREFERED: 2 years experience in all departments of clinical
procedures manuals, ordering
procedures manuals. Manually
through Friday, first shift seeltion.

S.C. DEPT OF CORRECTIONS
Recruiting & Employment
Services Brench
438 Breach River Read
Calumbia, S.C. 27219
MVF EDE

Clinical Laboratory **Technician II**

- 1. Completion of Laboratory Assistant Program in hospital or technical college, or 12 semester hours of biology or chemistry and one year experience, or reg**istration as Certified Laboratory** Assistant and one year experience
- 2. \$19,798 (average)



THERAPIST LAURENS COUNTY

Therapist needed immediately to provide in-home family preservation services in Laurens County. Crisis intervention, counseling, advocate for families, and teach new cooling and communication skills. Flexible work time, on-call, excelent fringe benefits. Masters degree preferred or related experience. \$18,000-\$21,000.

Send resumes by July 24th to:
HOUSE CALLS/LEXINGTON-LAURENS-GREENWOOD 100 Executive Center Drive Santee Building, Suite 208 Columbia, SC 29210

Therapist

- 1. Master's degree or related experience
- 2. \$19.500 (average)

STUDENT ACTIVITY I-A

ALCOHOL & DRUG ABUSE COMMISSION **COUNSIFOR III**

Starting salary \$23,311

Provides and coordinates individuals family and group therapy; participates in planning and overseeing treatment programs. Requires Master's degree in solcal sciences with 1-2 years experience in a counseling program for alcohol and drup rehab. Applications accepted thru July 9, 1992. APPLY: SPARTANBURG COUNTY PERSONNEL, 366 N. Church St., P.O. Box 5666. SPARTANBURG, SC 29304. EOE

Counselor III

- 1. Master's degree with one-two years experience
- 2. \$23,311 (entry)



Tune In To The Management Opportunities At Rent-A-Center

At Rent-A-Center, the leader in the rent-to-own industry with over 800 stares nation-wide, you'll tagin your coreer as a Manager Trainee with a base sainty of \$15,000-\$18,000/year. You'll take part in an excellent management development program while working 5 days/week with Sundays and holidays off. Within just 12-18 months, you'll experience growth potential with excellent apportunities for advancement. Currently, we have opportunities for our new Anderson location.

In addition, we can offer you medical, dental and life insurance, paid holidays and vacations, a 401(k) ravings plan and a merchandise purchase program.

We require a minimum of I year retail or restaurant management experience and excellent customer relations skills... Some college is pre-terred.

For immediate consideration for our Anderson location, please call 1-800-548-805 or send resume to: RENT-A CENTER, 914 Market Sevare Shopping Center, Hwy. 28 By-Pass, Anderson, SC 29624. ATTENTION: Herry Cripps.

Manager Trainee

- 1. One year retail or restaurant management experience, some college preferred
- 2. \$16,500 (average)

STUDENT ACTIVITY I-A

IMMEDIATE OPENING NEWSROOM SECRETARY

An established local newspaper company is seeking a secretary for its newsrooms. Duties include answering phones, typing, filing, handling sensitive and confidential information, distributing mail, assisting and directing visitors, compiling payroll information, processing bills and other documents, and assisting in special projects as needed.

Minimum qualifications include some college or technical training, good typing skills (40 - 50 WPM), experience using a word processor, and, strong interpersonal skills.

Starting salary for this position is \$16,500. Please send your resume and your salary history in confidence to:

Box J-19 News Piedmont Greenville, SC 29502

EOE

Newsroom Secretary

- 1. Some technical training or college
- 2. \$16,500 (entry)



City Of Anderson Rehabilitation **Specialist**

This is responsible technical work of considerable difficulty in the inspection and rehabilitation of substandard housing and other buildings. Will be responsible for evaluation Will be responsible for evaluating structures proposed for rehabilitation, determining if established criteria is met and authorizing that work proceed. Work is performed with considerable independent judgment and is evaluations. ed by conferences and re-ports to the Director of Com-munity Development. Appli-cont requirements include extensive knowledge of miniextensive knowledge of mini-mum housing codes and stan-dards, building construction methods and building materi-als, building labor and mate-rial costs and ability to estab-lish and maintain effective working relationships with property owners and contrac-tors. Associate degree in con-struction area and three tars. Associate degree in construction area and three years at work experience in construction rehabilitation, plus experience in cost estimating is desired. Apply in Persennel Office, 401 S. Main St., 2nd fleor, by Friday, June 1, 1990. Entry level salary range \$15,429-\$16,639.

Rehabilitation **Specialist**

- 1. Associate Degree and three vears experience
- 2. \$16.000 (entry)

STUDENT ACTIVITY I-A

* DO SOMETHING EXCITING!

DU SUMEIHING EXCITING!
Be a CODE'S SPECIALIST I for the Greenville County Redevelopment Authority.
Under general supervision of the Operations Manager, conducts ansite inspections of structures in target neighborhoods of the Redevelopment Authority.

:-ensure compliance with safety ond building codes.
I enforce codes, regulations, and standards.

:-easists municipals in their code functions in their code functions.

--easists municipals in their code functions.

owners. 'éperform related duties as re-

quired.

Attnimum of Associate Degree in construction or related field.

The two years experience in building codes or related dreas.

—Certified Housing Code Inspec-

i. for.

.possess volid S.C. drivers license.
The solary range for this position
is \$19,589 to \$27,425. A comprehensive benefits package is provided.
This positions is available immediately

Forward resume to:
Personnel Director County of Greenville 301 University Ridge, Suite 500 Greenville, SC 29601

Codes Specialist

- 1. Associate Degree, Certified **Housing Code Inspector, Driver's** License, two years experience
- 2. \$23,500 (average)



PERSONNEL ANALYST RECRUITMENT

Associate Degree and one year experience in personnel, business, or related field; or an equivalent combination of education and experience. Previous experience in recruitment and screening of applicants a plus. Salary \$20,891.

Apply: 10 AM - 4 PM. Mon-Fri. Gville County Personnel Dept. 301 University Ridge Suite 500, County Sauare Greenville, SC 29601 EEO/AA Employer

Personnel Analyst

- 1. Associate Degree and one year experience or equivalent combination of education and experience
- 2. \$20,891 (entry)

STUDENT ACTIVITY I-A

SENIOR BUYER

High School Diploma or equivalent. Three years experience in the purchasing field; or an associate degree in purchasing and one year's experience in the Business Field. Salary range. \$20,503 -\$28,704. Normally hire at minimum.

Apply: 10 AM - 4 PM, Mon-Fri.
Greenville County Personnel Dept.
301 University Ridge, Suite 500
Greenville, SC 29601
EEO/AA

Senior Buyer

- High School graduation or GED and three years experience, or Associate Degree and one year experience
- 2. \$24,600 (average)



Insert empty top loading sheet protectors here for storage of cards



Facilitator's Key to Qualified Applicants

(NOTE: Several different applicants may be "qualified" for the same jobs; however, the following applicants are paired with those jobs for which they are most qualified. In the most obvious cases where more than one applicant is qualified for the same position, both applicants have been listed in this key. A second answer key follows this one which shows the job titles in alphabetical order with the corresponding applicant number.)

Applicant 5 (ECONOMIC PLANNER)

I have just graduated from college with a bachelor's degree in economics and a minor in English. I do not have any actual work experience; however, during my senior year I served as a student representative on the local planning commission.

Applicant 8 (PROGRAM SPECIALIST I)

I have a bachelor's degree in physical education but no full-time work experience. My only work experience has been as a camp counselor during the summers while I was in college.

Applicant 7 (ACCOUNT ADMINISTRATOR AND BUSINESS ASSOCIATE I)

I earned my bachelor's degree in financial management five years ago and have held two full-time positions since then. My experience has been in office management, community relations and marketing.

Applicant 8 (MANAGER OF FAMILY/FACULTY HOUSING)

I will finish my master's degree in student personnel in about a month. For the last two years of college, I was a resident advisor in my dorm, and during graduate school I have been a director for the freshman dorm.

Applicant 9 (SOCIAL WORKER II)

I finished my bachelor's degree in psychology three years ago. Since that time, I have been working for the Department of Social Services interviewing and assessing potential clients for the Aid to Families with Dependent Children Program.





Facilitator's Key to Qualified Applicants

(NOTE: Several different applicants may be "qualified" for the same jobs; however, the following applicants are paired with those jobs for which they are most qualified. In the most obvious cases where more than one applicant is qualified for the same position, both applicants have been listed in this key. A second answer key follows this one which shows the job titles in alphabetical order with the corresponding applicant number.)

ASSOCIATE DEGREE

Applicant 10 (MICROWAVE FIELD TECHNICIAN)

I have a two-year associate degree in electronics engineering technology and four years of work experience in maintaining and installing telecommunications equipment. I also hold a fiber class Radiotelephone license from the FCC..

Applicant 11 (INSTRUCTIONAL MEDIA SPECIALIST)

I have an associate degree in business with a major in computer technology. In high school! was a student worker in the media center where I maintained the school,s audiovisual equipment. I have also worked part-time as a student assistant for the past two years in my college's PC-lab.

Applicant 12 (REVENUE COLLECTOR)

Although I did not graduate from high school, I later earned my GED and attended a two-year college where I received my associate degree in business. I have also worked part-time for the past ten years in my father's automotive repair shop performing bookkeeping and general accounting duties.

Applicant 13 (ACCOUNTING SUPERVISOR)

I have a two-year associate degree in business. Since earning my degree, I have worked in the accounting department for a large manufacturing plant. I started out as a junior accountant for one year, then was promoted three years ago to the position of area manager where I supervise several accounting clerks.





Facilitator's Key to Qualified Applicants

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Applicant 14 (AG SCIENCE ASSISTANT II)

I have a two-year associate degree in veterinary technology from a technical college. I also worked in an analytical laboratory for a local hospital while attending college and as an assistant for a local veterinarian.

Applicant 15 (MANAGER TRAINEE AND PERSONNEL ANALYST)

I studied management, including courses in purchasing, retailing, and advertising at a local two-year/technical college where I earned an associate degree in business. I have also worked for two years as a sales clerk and then as assistant manager of a department store.

Applicant 16 (NEWSROOM SECRETARY)

I received an associate degree in business after majoring in office systems technology. While in school I was a student worker in the admissions office where I served as a receptionist, typist, and file clerk.

Applicant 17 (MEDICAL LAB TECHNICIAN)

After completing my associate degree in health science with a major in medical laboratory technology, I passed the certification exam to become a registered technician. In addition to experience in laboratory techniques, I have also managed an independent clinical laboratory for two years.





Facilitator's Key to Qualified Applicants

(NOTE: Several different applicants may be "qualified" for the same jobs; however, the following applicants are paired with those jobs for which they are most qualified. In the most obvious cases where more than one applicant is qualified for the same position, both applicants have been listed in this key. A second answer key follows this one which shows the job titles in alphabetical order with the corresponding applicant number.)

Applicant 18 (HISTOLOGY TECHNOLOGIST)

I finished my associate degree in clinical lab technology three years ago. Since then, I have been working full-time in a laboratory running a variety of clinical tests which involve processing plastics compounds.

Applicant 19 (TELECOMMUNICATION SUPPORT TECHNICIAN)

I finished my associate degree in computer electronics technology last year. I started a co-op position my last year of college in which I installed and maintained telecommunications equipment. I started working for the same company full-time after I graduated and now work exclusively in testing and troubleshooting.

Applicant 20 (INSTRUCTIONAL TECHNOLOGY SERVICE TECHNICIAN)

I graduated recently with an associate of applied science degree in electronics technology. While in school, I earned all "A's" in courses that involved troubleshooting circuit boards, and in our senior project in which I specialized in applications of MS-DOS systems.

Applicant 21 (ELECTRONIC TECHNICIAN)

My associate of applied science degree is in electronics engineering technology. For the past five years, I have been a technician for People's Computers. I repair all types of personal computers and peripherals including fax machines and modems.





Facilitator's Key to Qualified Applicants

(NOTE: Several different applicants may be "qualified" for the same jobs; however, the following applicants are paired with those jobs for which they are most qualified. In the most obvious cases where more than one applicant is qualified for the same position, both applicants have been listed in this key. A second answer key follows this one which shows the job titles in alphabetical order with the corresponding applicant number.)

Applicant 22 (CITY DEVELOPMENT COORDINATOR)

I work in the marketing department for a large retail store chain. My duties include designing advertisements for local papers, using spreadsheets to track our public relations budgets and writing reports, among other things. I have a two-year degree in marketing management.

Applicant 23 (MEDICAL TRANSCRIPTIONIST)

I have an associate degree in office systems technology. While I was in school, I worked part-time as an administrative assistant in a physician's office. I have completed several courses in medical terminology and would like a full-time job in an office environment within the health care industry.

Applicant 24 (CLINICAL LAB TECHNICIAN II)

I finished my two-year degree in medical lab technology three years ago and then went to work for one of the local hospitals as a lab technician. I am now an assistant supervisor responsible for purchasing, quality control and conducting specific clinical tests in the hematology department.

Applicant 25 (REHABILITATION SPECIALIST)

I graduated from high school with a vocational specialty in construction and then finished my associate degree in business. I have been a construction manager for the past five years working on renovations in public housing units.

Applicant 28 (CODES SPECIALIST)

I have an associate in business degree with a major in construction technology. After working as an independent contractor for five years, I completed the requirements for licensure in housing code inspection. I have extensive experience in housing inspection and in preparing detailed, technical reports.





Facilitator's Key to Qualified Applicants

(NOTE: Several different applicants may be "qualified" for the same jobs; however, the following applicants are paired with those jobs for which they are most qualified. In the most obvious cases where more than one applicant is qualified for the same position, both applicants have been listed in this key. A second answer key follows this one which shows the job titles in alphabetical order with the corresponding applicant number.)

HIGH SCHOOL DIPLOMA

Applicant 27 (SENIOR BUYER)

After I graduated from high school, I worked as a cashier in a grocery store for two years. Then I spent five years as a clerk and three years as an assistant manager of a drugstore. As assistant manager, I was responsible for purchasing all merchandise and maintaining accurate inventory control records.

Applicant 28 (ADMINISTRATIVE SPECIALIST A)

During high school I took a number of business education courses and went to work after graduation as an office assistant. After about six months, I began my present job as a clerk-typist in a city police department. I have been in that position for the past two years.

Applicant 29 (SYSTEMS OPERATOR TRAINEE)

I dropped out of high school in the tenth grade but later went back and finished my GED. I have worked full-time for the last two years in the maintenance department at the local hospital.

Applicant 30 (LAB EQUIPMENT SPECIALIST III)

I graduated from high school five years ago and have been working in the maintenance department at the local textile plant ever since. Last year, I went back to school to earn my associate degree in textile management.



STUDENT ACTIVITY I-A Facilitator's Key to Qualified Applicants

(NOTE: Several different applicants may be "qualified" for the same jobs; however, the following applicants are paired with those jobs for which they are most qualified. In the most obvious cases where more than one applicant is qualified for the same position, both applicants have been listed in this key. A second answer,key follows this one which shows the job titles in alphabetical order with the corresponding applicant number.)

Applicant 31 (MASTER CRAFTSMAN)

I graduated from high school five years ago with a vocational specialty in industrial maintenance. After high school, I started working for a local manufacturing company doing maintenance and repair on large refrigeration and heating systems.

Applicant 32 (CARPENTER)

I graduated from high school two years ago with a vocational certificate in construction. I also completed a certificate program in carpentry at the local community codlege. I now have a part-time job at Lowe's and do carpentry work on the side.





STUDENT ACTIVITY I-A FACILITATOR'S KEY TO QUALIFIED APPLICANTS

(Alphabetical by Job Title.)

Account Administrator	Applicant 7
Accounting Supervisor	Applicant 13
Administrative Specialist A	Applicant 28
Ag Science Assistant II	Applicant 14
Susiness Associate I	Applicant 7
carpenter	Applicant 32
City Development Coordinator	Applicant 22
Clinical Lab Technician II	Applicant 24
Codes Specialist	Applicant 26
Counselor III	Applicant 3 and 4
Electronic Technician	Applicant 21
Economic Planner	Applicant 5
Histology Technologist	Applicant 18
Instructional Media Specialist	Applicant 11
Instructional Technology Service Tech.	Applicant 20
Lab Equipment Specialist III	Applicant 30
Librarian	Applicant 1
Manager of Family/Faculty Housing	Applicant 8
Manager Trainee	Applicant 15
Master Craftsman	Applicant 31
Media Program Coordinator	Applicant 2
Medical Lab Technician	Applicant 17
Medical Transcriptionist	Applicant 23
Microwave Field Technician	Applicant 10
Newsroom Secretary	Applicant 16
Personnel Analyst	Applicant 15
Program Specialist I	Applicant 6
Rehabilitation Specialist	Applicant 25
Revenue Collector	Applicant 12
Senior Buyer	Applicant 27
Social Worker II	Applicant 9
Systems Operator Trainee	Applicant 29
Telecommunications Support Technician	Applicant 19
Therapist	Applicant 3 and 4





STUDENT ACTIVITY 1-B: "Changing Times"

MATERIALS NEEDED:

- Overhead projector and blank transparency with pens, or
- Flip Chart/Chalkboard
- Discussion Questions (You may wish to write these questions on a transparency or chalk-board—or prepare them as a handout—before beginning this exercise.)

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1.

To illustrate the dramatic changes in American life caused by technological advances, ask students to meet in small groups to consider how their lives differ from the lives led by previous generations. Encourage group members to contribute information concerning their own parents, grandparents, great-grandparents, other relatives, historical figures, or characters from tiction, film, or television.

2.

Each group should select a recorder, someone who will take notes and report on the group's discussion to the entire class.

3.

Ask the groups to use the following discussion questions to help them examine differences between the past and the present.





QUESTIONS FOR DISCUSSION:

- a. What types of careers and jobs were available 50 years ago? 100 years ago? What careers and jobs are available today?
- b. What skills, tools, and equipment were used by workers of 50 years ago? 100 years ago? What kinds of skills and equipment do workers use today?
- c. How much spare time did people have in the past? How did they relax? What forms of recreation and entertainment did they have? How do people spend their leisure hours today?
- d. How did people communicate across long distances in the past? What forms of communication do we use today?
- e. What kinds of transportation were available in the past? How do we transport goods and people today?
- f. How were things manufactured long ago? How are they produced today?
- g. What kinds of medical care were available in the past? How do we treat injuries and disease today?

4

Instruct groups to select information from their discussion to contribute to the whole class. Then guide students in generating a master list of changes that have taken place over the past century; record their contributions on an overhead transparency or chalkboard. Their observations should illustrate the effects of technology on lives and careers over the past 50-100 years.



"A Simulated Work Place"

MATERIALS NEEDED:

- Workplace situation cards
- (OPTIONAL: REVIEW SOURCE ARTICLE, "A Day at the Box Factory" contained in APPENDIX D.)

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1

Ask students to help you describe a "typical" production-based work site. Identify a product to be manufactured and describe the departments and tasks involved in a typical manufacturing plant. These departments might include the following:

- a. RECEIVING—Raw materials arrive, are inspected, marked "received" and sent to the assembly line.
- b. ASSEMBLY—Materials are assembled to create a product.
- PACKAGING—The completed product is wrapped or otherwise packaged.
- d. LABELING—Identification labels are attached to each package.
- e. SHIPPING—Customer orders are filled. Workers box the requested number of packages and address them for mail or delivery.
- f. DELIVERY—Trucks deliver the orders to customers or to the post office or other shipping facility. (SEE OPTIONAL ACTIVITY I-D FOR YOUNGER STUDENTS)

2

Assign different departmental responsibilities to small groups or pairs of students. Ask each group to describe its operation. What does a typical work day involve?





Introduce a problem into the production process by reading from one of the supplied situation cards. Ask student groups to discuss how this development would affect their operations. How would they solve the problem?

4.

Ask each group to report to the entire class on the effects of the problem posed by the situation card. Lead a discussion of their proposed responses and solutions. This exercise should illustrate aspects of the modern workplace, including the following:

- · group dynamics;
- problem-solving techniques;
- · worker cooperation; and
- effects of worker dependability, absenteeism, etc..





STUDENT ACTIVITY 1-C: SITUATION CARDS

SITUATION 1: Absenteelsm

This department (supervisor may select which one) has been stricken with the flu. Everyone has called in sick today.

SITUATION 2: No Delivery

The truck that delivers the raw materials was involved in an accident. The supplies are running low and no materials will be delivered today.

SITUATION 3: Mechanical Breakdown

The conveyor belt that carries the product through the assembly line has broken down. Mechanics are having difficulty getting the parts to repair it.

SITUATION 4: Defective materials

In the latest shipment, the raw materials are defective and cannot be used. (Or the defect was discovered too late and some products have already been fouled up.)

SITUATION 5: Wrong materials

The raw materials in the latest shipment are the wrong ones for this product (wrong item) and cannot be used by this factory.





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OPTIONAL ACTIVITY I-D:

"A Simulated Workplace: the Paper Airplane Factory"

MATERIALS NEEDED:

- Paper printed with instructions and dotted lines for folding into airplanes (The facilitator will need to create these "raw materials" and duplicate them before beginning this exercise.)
- Scissors and tape as needed
- Packaging materials such as paper bags, boxes, or plastic wrap
- Pens and stickers for labeling
- Larger boxes for shipping
- Situation cards (provided with Activity I-C)
- (OPTIONAL: REVIEW SOURCE ARTICLE, "A Day at the Box Factory" contained in APPENDIX D.)

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1

After initial description of the "typical" workplace, you may wish to develop the exercise described in Activity I-C further for younger students by allowing them to act out the workplace situation.

2.

Arrange the classroom furniture to represent the following factory departments. Assign a pair or group of students to each while the facilitator serves as "plant supervisor."

- RECEIVING—Raw materials arrive, are inspected, marked "received" and sent to the assembly line.
- b. ASSEMBLY—Materials are assembled to create a product.
- c. PACKAGING—The completed product is wrapped or otherwise packaged.
- d. LABELING—Product labels are prepared and attached.
- e. SHIPPING—Customer orders are filled. Workers box the requested number of packages and address them for mail or delivery.
- DELIVERY—Trucks deliver the orders to customers or to the post office or other shipping facility.





Provide each group with the materials and tools their task will require. Hand the printed paper to the Receiving Department and allow students to begin their paper airplane manufacturing process.

4

Allow the process to go smoothly at first; then introduce problems from the situation cards provided. Department group indicated on each situation card should step out of the process and observe the effects of their situation on the production line while remaining groups brainstorm for solutions to the problems presented.











"Job Titles in Mid-Level Technology Careers"

MATERIALS NEEDED:

- Job Title Cards (Master copies are provided. Facilitator should prepare these cards before beginning the unit.)
- · Key to Job Titles list
- Signs designating four mid-level technology cluster areas: Industry/Engineering Technologies, Business Technologies, Human and Public Service Technologies, Health Technologies.
 (Facilitator will need to make these signs and post them in four corners of the room ahead of time.)

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1.

Shuffle and hand out cards containing mid-level technology job titles to students.

2.

Remind students of the four major areas of mid-level technology careers, referring to the handout provided: "Average Salaries for Mid-Level Technology Careers." Point out that each corner of the room has been assigned one of the four mid-level technology career cluster areas.

3.

Ask students to classify their job titles into the correct area by moving to the appropriate corner. Have the groups in each corner discuss each card to verify that each job belongs in this category.

4.

Have each group elect a recorder who will take notes for the group and a spokesperson who will use these notes in the general class discussion. Ask students in each of the four groups to discuss these job titles in as much detail as possible, trying to determine what each one might involve.





QUESTIONS FOR DISCUSSION:

- a. Where does this job occur in our community?
- b. Who do we know who works in such a position? (relatives, friends?)
- c. What kind of work does this job require?
- d. What kind of equipment or tools does it utilize?
- e. How much education is required to enter this job?
- f. What other jobs in this field are also available?

5.

Ask groups to present job titles and group observations about these jobs to the entire class, until everyone has a solid understanding of representative jobs in the four major areas of mid-level technology careers. Ask students to consider the following points:

- Which jobs typically require only high school occupational education courses?
- Which typically require some high school occupational classes and some postsecondary education at a technical college (but not an entire two-year degree)?
- Which typically require a two-year occupational associate degree from a technical college?

OPTIONAL ACTIVITY:

As an out-of-class assignment, have each student research a job title and report to the class at a later date. Facts to determine could include:

- 1. job responsibilities;
- 2. skills and equipment used;
- 3. salary range; and
- 4. education and experience required.





ACCOUNTING BROADCAST **TECHNICIAN TECHNICIAN FOOD SERVICE** COMPUTER **MANAGER** OPERATOR WORD **LIBRARY PROCESSING** TECHNICAIN **SPECIALIST PSYCHIATRIC POLICE OFFICER** AIDE **FIREFIGHTER** DETECTIVE





AIRCRAFT BRICK **MECHANIC** MASON DIESEL **ELECTRONICS ENGINE** ENGINFERING **SPECIALIST SPECIALIST** TOOL & DIE **ELECTRICIAN** MAKER WELDER DRAFTER LICENSED REGISTERED **PRACTICAL**



NURSE

NURSE

MEDICAL **MEDICAL LAB** RECORDS **TECHNICIAN TECHNICIAN** PHYSICAL DENTAL THERAPY ASSISTANT **ASSISTANT** SURGICAL VETERINARY TECHNICIAN TECHNOLOGIST MECHANICAL MACHINERY ENGINEERING **MAINTENANCE** TECHNICIAN TECHNICIAN AUTOMOTIVE LEGAL **MECHANICS** SECRETARY TECHNICIAN





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"Job Titles in Mid-Level Technologies"

FACILITATOR'S KEY

Industrial and Engineering Technologies

- 1. Aircraft Mechanic
- 2. Automotive Mechanics Technician
- Brick Mason
- 4. Diesel Engine Specialist
- 5. Drafter
- 6. Electrician
- 7. Electronics Engineering Specialist
- 8. Mechanical Engineering Technician
- 9. Machinery Maintenance Technician
- 10. Tool and Die Maker
- 11. Welder

Business Technologies

- 1. Accounting Technician
- 2. Broadcast Technician
- 3. Computer Operator
- 4. Food Service Manager
- 5. Legal Secretary
- 6. Word Processing Specialist

Human and Public Service Technologies

- 1. Detective
- 2. Firefighter
- 3. Library Technician
- 4. Police Officer

Health Services Technologies

- 1. Dental Assistant
- 2. Licensed Practical Nurse
- 3. Medical Lab Technician
- 4. Medical Records Technician
- 5. Physical Therapy Assistant
- 6. Registered Nurse
- 7. Psychiatric Aide
- 8. Surgical Technologist
- 9. Veterinary Technician











"Job Profiles"

MATERIALS NEEDED:

- Job Profile cards (Eight one-page job profiles based upon real people are provided; however, you may need to xerox additional copies for student use.)
- Discussion questions (These may be xeroxed to hand out or written on an overhead transparency or chalkboard.)

PROCESS:

1

Assign students roles from job profile cards provided. Allow students to present their profiles to the class or to a small group for discussion. After a profile is presented, ask students to assess the choices made by the profiled individual. They should consider the individual's quality of life and level of success, weighing the pros and cons of each person's employment choices by considering the following:

QUESTIONS FOR DISCUSSION:

- a. What kind of prestige, power, and responsibility does this person have within his organization or field?
- b. What kinds of stress are associated with this position?
- c. What sort of social life and/or family life does this individual enjoy?
- d. What kinds of purchases and living expenses can this person afford?
- e. How much leisure time does this job allow?
- f. What benefits and privileges come with this position?
- g. How many hours a week does this person devote to her career? What is this person's schedule like?





The discussion questions should lead students to consider the demands of a career and the requirements for a satisfying personal life as they examine how some people balance the two. Help them draw some of the following conclusions:

- Some employees make great personal sacrifices in exchange for money, power, prestige, or professional satisfaction and accomplishment.
- Employees should pursue a balance between the demands of work and the requirements of their personal lives.
- Career choices should match personality types. While some people may be happy
 with a career that makes great demands upon their time and personal resources,
 others may wish to forego some of the prestige or financial reward in exchange for
 a more satisfying personal life.

3.

Ask students to evaluate the careers profiled according to their own hopes and plans for the future: Which profiles do they consider "successes?" In determining how successful they consider these individuals, they will recognize their own need to plan for a future that balances their personal needs and their professional needs to provide a satisfying lifestyle.



JOB PROFILE: **Physician**

Harris Smith, M.D., has a private practice in Obstetrics and Gynecology near a rural South Carolina hospital. After four years of education at Clemson University, four years at the Medical University of South Carolina, and three years in a residency program at Greenville Memorial Hospital, today he commands a salary of over \$160,000 a year. He also owes over \$100,000 in education loans, which he must begin paying now that he is out of school.

There is no "typical" workday for Dr. Smith, but his planned schedule calls for him to work about 12 hours a day. He goes in for hospital rounds at 7:00 a.m., then sees office patients from 8:30 to noon and from 2:00 until 6:00, when he returns to the hospital for evening rounds. Two days a week he is scheduled to spend the morning hours in surgery.

Of course, that schedule goes out the window when he has a patient in labor. And most days—and nights—he has at least one delivery to attend. Sometimes he is called back to the hospital as often as four out of five nights.

He must stay "on call," available to his patients by phone and beeper, twenty-four hours a day for 24 days out of each month. Although he enjoys his work, he has grown to dread the sound of the telephone. His wife and their daughters hate to hear his beeper go off in the middle of a meal or other family activity. The Smiths rarely go out at night anymore. They have given up on going to the movies because Dr. Smith has not been able to sit through an entire film without an interruption in over a year.

The Smiths are building a home on the lake. He drives a new BMW and his wife has a Volvo station wagon. His favorite pastime is sailing, so he recently purchased his own boat. The problem is that he doesn't get to use it very often. He can't risk being stuck out on the lake with no wind when his beeper goes off!





JOB PROFILE: Attorney

Frank Steadman is an attorney in Greenville, South Carolina. After four years as an undergraduate and four years in law school, he and his partner have now been practicing criminal and civil law together for ten years. Although they employ two full-time legal secretaries, Frank still finds himself working seven days a week. He tries to put in a regular work week, from 9:00 a.m. to 5:00 p.m., but most days he goes in early and his afternoon appointments often stretch past 6:00.

Many of his civil cases require him to do hours of research, reading and writing, so he ends up taking work home with him every night and over each weekend. He uses computer databases for much of his research, and he composes notes and briefs on his home or office computer.

He figures his average work week is about 65-70 hours. He doesn't have much time to spend with his wife or friends, except when they meet at a local restaurant for a quick meal.

When he is appointed by a judge to defend someone against serious criminal charges, he spends months preparing the case and then puts in long days in the courtroom during the trial. During a death penalty case he has trouble sleeping at nights and ha has developed an ulcer.

Frank earns a salary of approximately \$50,000 a year, and his wife works as an interior decorator, so they have purchased a house and two cars, and they can afford a week of vacation in Mexico each year. They would love to start a family, but not until they figure out a way to spend more time together.





JOB PROFILE: Police Officer

Bill Wilson received an Associate Degree in Public Service after completing coursework in Criminal Justice Technology at a two-year technical college. His first job was on the campus police force of a small university where he worked a schedule of alternating shifts as a desk officer and patrol officer. He did not find the work particularly challenging. Typical calls involved keys locked in cars, fights, usually among underaged drinkers, and thefts, including a computer heist from two office buildings.

After four years at the university, Bill left to join a city police force at \$22,000 a year. His first years on the new job involved patrolling, monitoring surroundings, and responding to suspicious activity or to radio instructions from headquarters. The most dangerous experience he had was during a hostage situation in which a man who had murdered his wife entered a restaurant and held employees and customers hostage. As one of the first officers to arrive on the scene, Bill was shot at and narrowly escaped serious injury. Bill's family was proud when he received a commendation for his participation in the hostage situation, but they were relieved when he was later promoted to community relations liaison for the police department. Today his duties involve coordinating an education program for children, teenagers, and adults. He arranges and conducts training on topics including neighborhood crime watch, substance abuse awareness, child abuse prevention, and other areas of community crime prevention.

Bill finds his work with civic groups and school children rewarding, satisfying, and safe. Except for special evening or weekend events, his schedule calls for regular working hours, allowing him to spend more daylight hours with his family. His new position in law enforcement pays approximately \$27,000 a year, and it allows him to interact with people in his community in a positive way.





JOB PROFILE: Registered Nurse

Jane Gordon earned a two-year Associate Degree in Nursing at her local technical college and became a Registered Nurse before she turned 21. She has worked in a doctor's office and in a hospital, and now she is a home health care nurse.

Immediately after graduation, Jane was hired by a local family practice. She enjoyed the regular hours and gained valuable nursing experience in many different areas of medicine. In 1984, her starting salary as a beginning nurse was \$15,000 a year. She made the move to the hospital when she was offered an increase in pay to \$19,000. There she worked in Obstetrics, assisting in deliveries and caring for newborns in the nursery. She worked 40 hours a week, but in twelve-hour shifts on a three-day and four-day schedule.

When she had her first child, Jane took a year off from the hospital, but returned to work on the second shift as soon as her husband, a teacher, was able to care for their son. Their second child was born after her husband had become a high school administrator, so Jane stayed home for another two years. She found she missed working, however, so she entered another nursing job, this time as a home health care nurse, a part-time position which pays her approximately \$20,000 a year.

Jane considers this the ideal job for her. She has a moderate caseload of patients and a schedule that she is able to arrange around her own needs and those of her patients. She goes to each patient's home daily or weekly to monitor his or her condition, administer medication or treatments, and offer advice and health care counseling.

Not only does she like being able to work a schedule suited to her own tamily life, she enjoys getting to know her patients well. She also has time to teach a nursing course in the same Associate Degree in Nursing program from which she graduated. She feels more fulfilled personally and professionally in this latest career move.

[This profile is based upon a true story. Names have been changed to protect this person's identity.]



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JOB PROFILE: University Professor

Since her years as an English major in college, Angela Moore had thought she might like to be a college professor one day. The pace of an academic career, working nine months a year, was very appealing. When her children were both in school, Angela entered a university to earn her Master of Arts degree.

As a graduate student, she was given a teaching assistantship, so she taught freshman composition classes between attending seminars. It took her two years to complete her coursework and another semester to write her thesis. After taking her oral comprehensive exams and defending her thesis, she was given her Master of Arts degree. The university hired her in 1978 as a full-time instructor, but the job was only temporary because she did not have a "terminal" degree, a doctorate. She taught for three years as an instructor, earning \$15,000 a year.

When her instructorship ended, Angela went to work for a local engineering firm as a technical writer at \$20,000 a year. She used the basic writing skills she had taught her students, but she also had to learn specific technical writing practices while on the job. The company she worked for offered several business and technical writing seminars for their employees, and Angela attended them all.

After five years, Angela left her job to enter a doctoral program at a nearby university and spent two more years earning her Ph.D. in English.

Today Angela teaches business and technical writing in a university English Department where she earns \$23,000. She is in her fourth year as an assistant professor and is currently being considered for tenure, a type of promotion which will mean she can continue to teach at the university indefinitely. (Only those professors who are granted tenure have secure jobs teaching at the university level.) To earn this tenure, Angela has taught a full load of classes, served on numerous committees in the department, and conducted research. Between preparing for classes, teaching, attending meetings, doing her research, writing, and grading papers, she works about 48 hours a week. Although teachers are supposed to have their summers free, Angela has had to spend her vacations doing research and writing papers for publication.

If the committee reviewing her teaching and research accomplishments decides not to grant her tenure, Angela's career in the English Department will end. At age 47, she will be allowed to teach for one more year while she looks for another job.



JOB PROFILE: **Radio Personality**

As a child, Sonny Fox was sure he would be a celebrity one day—he just didn't know when, where, or how he would get his big break. Throughout his school years he was the king of class clowns. Even his teachers could not help being amused at his perfect impressions of television characters, movie stars, politicians, and school personnel. Each time his smart mouth got him into hot water with teachers or parents, he would turn into Gomer Pyle or Beaver Cleaver and talk himself out of trouble, eventually getting the adults to laugh.

During high school, when many of his friends were taking college prep classes and making plans to attend universities, Sonny was more interested in entertaining than studying. On weekends he performed with two music groups, singing and dancing like Mick Jagger with a local rock 'n roll band one night, and impersonating Briscoe Darling from the Andy Griffith show in a bluegrass band the next night. He talked teachers into letting him bring his music and comedy skills into the classroom. Instead of writing book reports in his English classes, Sonny would sometimes get permission to write humorous songs or comedy skits to perform before the class.

After high school graduation, Sonny had no idea what to do next. He continued to perform with his bands, but he also took a first shift job in a local textile manufacturing plant. When he was fired after six months (for impersonating his shift supervisor), Sonny turned to the guidance office at the local technical college. After an interview and some vocational aptitude tests, he was directed to the college's broadcasting program, where he was trained in audio production and earned his radio operator's license. Sonny's first job in radio was as a disk jockey on the graveyard shift. He soon became a late-night celebrity. When a competing radio station hired him for their morning man, Sonny's career took off.

He was given free reign on the airwaves, allowed to create a whole repertoire of comic characters and to do his famous impressions of stars and politicians. Over the next ten years, Sonny's talent was "discovered" by bigger stations who gave him broader exposure and more freedom. At a major station in Florida, he teamed up with a straight man who became the perfect foil for his humor. The two moved to larger stations in other southern states. Finally they were hired to serve as the morning team on a new station in Georgia. Their comedy routines have helped the new station become number one in the market.

Today, Sonny's annual salary is in six figures, while his advertising and endorsement activities bring him an extra income. He has purchased a home, he drives a new sports car, and he loves his job. He is at work by 4:30 a.m. most weekdays, although he is not heard "live" until after 6:00. By 9:30, he is off the air and in the recording studios creating taped routines and ads. He usually leaves the station by noon, in time to pick up his daughter at school. Sonny has his own computer and recording equipment at home, so he is able to do much of his writing and taping on his own schedule. In his spare time, he enjoys following the local college football team, and his son's soccer team.



JOB PROFILE: **Retail Salesperson**

Cathy Jones has been in retail sales since her junior year in high school when she began working part-time for a clothing store in the local mall. At 16, she loved the job. She was paid the minimum wage, but she got a discount on her own purchases, and she enjoyed helping customers with their choices. Everyone said she had a good sense of fashion.

By working after school and on weekends, and full-time during the summers, Cathy was able to save most of her income until she managed the downpayment on a car. She was also able to make her monthly payments and insurance premiums.

Because she liked her job so much, Cathy didn't plan to attend college, expecting instead to go to work full-time at the same clothing store. Over the two years she'd worked there, she had been given more responsibilities, supervising other salesclerks, helping the manager with the inventory, setting up displays, and even closing the store in the evenings. She had also received small raises each summer.

One year after graduation, Cathy's plans began to change. She still liked working at the clothing store, but it was sold and the new owners decided to hire a new manager. When Cathy was overlooked for the position—even with her experience and seniority—she was told that she lacked the necessary education.

She dropped back to part-time hours at the store and began taking classes at a technical college. Within two years she had earned both her Associate in Management degree and her Fashion Merchandising certificate. Armed with these credentials she approached her store's primary competition in the mall and was hired as sales manager.

Cathy now works a regular 40 hour week and earns \$20,000 a year. In addition to training and supervising her sales staff, she is responsible for scheduling, sales and payroll records, placing orders, receiving, and display. She uses the retail clothing chain's computerized system of order and inventory control to keep her stock up-to-date and her store competitive. Although the work is now much more challenging, Janet is happy with her position. She has been recognized by the Mall Association for her accomplishments, and she has won management and sales awards from her store's chain. Cathy still finds time to help out on the sales floor occasionally, and she still uses that employee discount!





JOB PROFILE: **Architect**

Roberta Adams pulled many all-nighters working on design projects as an undergraduate architecture major at a state university. She completed the five-year program and then spent one year as an intern with a major firm before taking her licensing exams to become a registered architect. She joined the same firm and worked on group projects for several years, but the work involved little creativity and many long hours at the drafting table.

She returned to the university to obtain her Master of Fine Arts (MFA) degree. While she worked on the degree she also taught freshman classes in the Architecture department. She had a lot of empathy for her students because she was still keeping late hours on her own projects. After she received her M.F.A. she remained on the faculty for two more years and then decided to open her own firm.

The first few years on her own were more stressful than she had expected. The expenses of setting up an office, purchasing drafting and copying equipment, and advertising her services put her deeply in debt. At first, business was slow. There was strong competition for local design jobs, and she had to learn how to sell her ideas to prospective clients, but once she had won some contracts, she began to establish a reputation and received more offers. With each new job she had to work cooperatively with both clients and builders, often a time-consuming and tense undertaking.

During these difficult first years, her schedule was unpredictable and her social life suffered. Some weeks she put in over 75 hours at her drafting table, in meetings, and on building sites. She dated during the slow times, but was unavailable for weeks at a stretch when working under a deadline. She did not pursue a committed relationship while she built her practice.

As Roberta's confidence grew, so did her reputation for being an innovative and competent architect with excellent communications skills. Twelve years after starting her own firm, she is now making over \$60,000 a year and employs two architectural drafters. In her solo practice she still feels she must oversee every aspect of each job she wins, so she continues to keep long and irregular hours. After years of worrying over every detail, she has a hard time turning any work over to her employees. A single professional who loves her work, Roberta considers herself a certified workaholic without much time for a social life.





JOB PROFILE: **Electronics Technician**

George Hudson entered a two-year degree program in Electronics Engineering Technology at a technical college after graduating from high school. He had always tinkered with his own electronic equipment, from stereo receivers to guitar amplifiers, and he wanted to learn the principles and proper techniques for maintaining, modifying, and repairing electronic equipment.

After earning his Associate Degree in Engineering Technology, he went to work in a local music store. Most of the work involved repairs of musicians' electronic equipment. Through on-the-job training, George continued to learn about his field. He studied manufacturers' publications and electronics magazines and journals to stay up-to-date with the latest developments.

This job paid just above minimum wage, but he enjoyed meeting local musicians and impressing them with his skills. After four years with the store, George decided to strike out on his own. His father helped him obtain a loan to rent a space and purchase the diagnostic equipment and tools he needed to set up his own electronics repair shop. With the contacts he had made among local bands, he did not have to advertise his new business. His reputation and word-of-mouth continue to provide him with a steady stream of equipment modifications and repairs.

George paid off his loan within the first six months of going into business for himself. He pays an accountant to help him with his taxes and insurance, and a high school student works for him part-time as an assistant and deliveryman. His schedule is flexible. He maintains fairly regular hours, but an answering machine takes messages for him when he goes out to a job site or takes time off to go river rafting or fishing. He makes housecalls to local clubs and concert halls when bands and other owners of faulty equipment need his expertise.

Last year, his sixth year as his own boss, George made over \$35,000. He has purchased a home and converted the basement into his shop. He makes a comfortable living, has an active social life with the musicians he has befriended, and keeps up with new developments in his field. George is pleased that his hobby has become his career.





"Student Profiles"

MATERIALS NEEDED:

Student Profile cards (Fifteen student profiles are provided on five sheets of three profiles.
You may wish to xerox additional copies as necessary. These profiles should be cut apart
before you begin the unit.)

PROCESS:

1

Divide students into small discussion groups. Assign student profile cards to individual students or to each group. Have students present their profiles within their groups. Then ask them to discuss choices made by the teenagers profiled.

QUESTIONS FOR DISCUSSION:

- a. Has this student made any career and education choices so far? If so, what decisions has she/he made?
- b. What are this student's reasons for his/her decisions regarding career and education? Why has he/she decided to follow a particular education path?
- c. How valid are this student's decisions about career and education? Are they logical? Based on good reasoning?
- d. What do you think will happen to this student if he/she follows through on these decisions? Will he/she be successful in school and at work?
- e. How has this student used his/her personal interests and abilities to guide his/her education choices?
- f. What are some possible alternatives to this student's plans? If she or he were a friend of yours, what advice would you have to offer?





Ask each group to select one or more profiles to present to the entire class, along with the conclusions its members reached about the teenager's plan of action. Whole group discussion should emphasize the following points:

- · Various student reasons for selecting education and career paths.
- · Legitimacy or validity of such reasoning.
- Other, better reasoning for student decision-making.

3.

Ask students to contribute possible alternatives to the choices the profiled students have made. Let the whole group determine whether these suggestions are helpful and logical.



STUDENT PROFILE:

GLORIA

Gloria has been on her own since she turned sixteen and moved out of her father's house. Working at McDonalds after school and for a local manufacturing plant on weekends, she is supporting herself while she finishes high school.

Despite her schedule, she manages to keep her grades up. She is especially good in science and math, but her English and history grades are also above average. During her junior and senior years the courses she liked the most were Health Occupations I and II.

Between her jobs and her studies, Gloria doesn't have much time to socialize, but she considers the situation temporary. She knows she doesn't want to work in fast food or production for the rest of her life, so Gloria is planning to become a registered nurse. Her main concern is finding the money to put herself through a two-year nursing education program.

STUDENT ACTIVITY III-B

STUDENT PROFILE:

DAVID

David splits his free time between sports and photography. He is an average athlete who enjoys being a spectator at the athletic events he doesn't participate in. Most of the time he carries a camera with him. Several of his sports photographs have been printed in local newspapers.

His hobby requires long hours in the darkroom, but he finds the work of developing his own film and prints very satisfying. Sometimes his grades suffer as a result of the time he spends in the darkroom, but he is trying to keep them up so that he can go to college.

David wants to make a lot of money one day, so he thinks he will major in pre-law or pre-med in college.

STUDENT ACTIVITY III-B

STUDENT PROFILE

MONIQUE

Monique is an excellent artist. She has been winning awards for her paintings and drawings since elementary school. She is the student that every teacher calls upon to design posters, displays, program covers, etc. She doesn't mind, though, because she really enjoy doing the work. During classes she sketches or doodles in the margins of her notebooks. She can also draw perfect caricatures of friends, teachers, and politicians.

Her friends think she could become a professional artist or illustrator for an advertising firm. Her father and mother hope that she will want to study architecture at a state university. Monique thinks she would rather try to become a political cartoonist and children's book illustrator. A friend who works as an illustrator has suggested she study business since she is already a good artist. Monique hasn't decided what kind of education she will seek after high school graduation.



STUDENT PROFILE

SUZY

Seventeen-year-old Suzy makes above-average grades in all subjects, but she is particularly strong in math. She has always been "good with numbers." Since her parents' divorce when she was twelve, Suzy has helped her mother manage the household accounts—paying bills, arranging a car loan, balancing the checkbook; she even prepares her mother's income tax returns.

Suzy babysits on weekends and every day during summer vacation for three younger cousins. She is glad to have the income, but the children drive her crazy. Sometimes she finds herself dreading the weekend because it means spending another hour with those "little monsters."

After graduating from high school, Suzy plans to go to a state university. She has already selected early childhood education as her major, because she's been told that "teaching is a good career choice for a woman."

STUDENT ACTIVITY III-B

STUDENT PROFILE:

JOHN

John is the son of a surgeon who serves on the staff of a large hospital. He admires his father and the life-saving work he does, but sometimes he resents the many long hours his dad spends at the hospital. When he played soccer in elementary school his father made it to only two games, and he was called away from one of those.

His father rarely gets home before dark, even in the summers, and he works most weekends, so the two have never been able to spend much time together. Luckily, John is a pretty good student, especially in science and math, so he hasn't needed his father's help with homework. After high school graduation, John plans to enter college as a pre-med student.

STUDENT ACTIVITY III-B

STUDENT PROFILE:

KIM

Kim has always been "musical." She plays several instruments, sings in a choir and in the school chorus, and has studied modern dance for five years. After playing the lead in two musicals produced by the local little theatre, Kim has been bitten by the acting bug. She wants to become a professional actor/singer/dancer.

In school, Kim makes good grades in English and history, but she is barely squeaking by in math and science. She likes her Spanish class, but hates Chemistry and Geometry.

She doesn't want to go to college, but her parents are insisting on it, so she plans to apply and will decide later what to major in since the local college doesn't offer a drama program.



STUDENT PROFILE:

BILL

Bill considers himself a true "farm boy" after working on his grandfather's farm every summer since he was ten. He does well in his science and math courses, but he enjoys his agriculture classes more.

During the school year Bill spends his Saturdays working with a landscaping company. He also has a backyard vegetable garden which he keeps "organic" by avoiding chemical fertilizers and pesticides. Between work and maintaining his garden, he still finds time to hike, camp, and fish.

Bill will be the first member of his immediate family to attend college. He plans to go to a two-year/technical college and major in business.

STUDENT ACTIVITY III-B

STUDENT PROFILE:

TIM

Tim has been an athlete all his life. During his junior year in high school he lettered in three sports. Because his senior year football team went to the state finals, his basketball season began before his football season ended, and baseball practice began before basketball ended. College scouts from both football and basketball have been looking at him. He is known as an excellent team player.

Tim hasn't had much time to devote to his classes during high school. He does okay in math, but English, history, and science are problems for him. His scores on the SAT are just good enough to get him into college, but he is worried about the writing section of his exit exam.

If he passes the exit exam, Tim plans to go to college on a football scholarship. He thinks he will major in secondary education.

STUDENT ACTIVITY III-B

STUDENT PROFILE:

CATHY

Cathy has been taking all college prep classes during high school; her favorite is a humanities class called "Civic Responsibility." In addition to organizing several community service projects through this class, she has served as a volunteer tutor to an elementary student for three years, and as a master tutor, she helped train other high school students to work with younger students.

For the past two summers, Cathy has worked at a camp for physically handicapped children. She has also taught swimming for the YMCA. This summer she is planning to help coordinate a program to provide lunches for local "latchkey" children.

Cathy's grades have been average—except in Civic Responsibility—and her family has not saved any money to send her to college. She received a \$500 scholarship in recognition of her work as a tutor, and she plans to apply for a loan when she enters college. She thinks she will major in psychology or sociology.



STUDENT PROFILE:

RONALD

Ronald's father is an electronics engineer for a computer manufacturing company. His firm supplies scholarships to the children of its employees, and he is hoping that Ronald will qualify for one to study engineering at his alma mater.

In high school, Ronald has problems with English and history. He has never been a strong reader, and he doesn't feel secure writing papers. Math is easier for him, especially when he uses a computer, but he doesn't really enjoy it. His favorite pastime is breaking down boat, motorcycle, and car motors and rebuilding them. He makes his spending money working on friends' and neighbors' vehicles.

Whether he receives the scholarship or not, Ronald expects to go to college and to major in computer science.

STUDENT ACTIVITY III-B

STUDENT PROFILE:

ANN

Ann loves all animals. In fact, she has rescued a number of stray cats and dogs, finding homes for most, but adopting six cats and two dogs herself. She also has a menagerie of small animals including gerbils, mice, a guinea pig, and a chinchilla.

During her sophomore year of high school Ann volunteered at the local animal shelter, but she quit when she had to assist with euthanasia. She couldn't stand putting the unwanted animals to sleep, but her family would not allow her to adopt any more pets. She decided she was a little too "soft-hearted" for shelter work.

Most of Ann's grades in high school are average and above-average. She wants to go to a two-year/technical college to become a veterinarian's assistant.

STUDENT ACTIVITY III-B

STUDENT PROFILE:

JERRY

Both of Jerry's parents work at a university. His mother is an English professor and his father is a microbiologist. Jerry is good in both biology and English; he especially liked taking a journalism class.

For three years of high school, Jerry has served on the staff of the student newspaper. He has enjoyed writing articles, editing other students' work, and performing lay-out and paste-up tasks.

Jerry isn't sure what he wants to major in when he goes to college. His parents hope he chooses English or Biological Sciences, but friends have told him he could make a lot of money in engineering.



STUDENT PROFILE

JAMES

James is the oldest of five brothers. He has always been a good student and athlete, but his one true love is computers. He saved his babysitting and lawn-mowing money to purchase his first computer when he was fifteen. He has upgraded that computer regularly by ordering parts from computer catalogs and trading labor for other parts at a local electronics store.

He is considered a "computer whiz" by his teachers and the store manager. When his high school installed a computer lab, James was their primary troubleshooter. His principal even let him skip two days of classes in order to assist with the installation and learn more about the system. Whenever any computer has a hardware or software problem, he is the one they call.

James is very interested in computer programming, systems analysis, and networking. His goal is to attend a two-year/technical college to major in Computer Technology.

STUDENT ACTIVITY III-B

STUDENT PROFILE:

ANNIE

As soon as they both graduate from high school, Annie and her boyfriend are getting married. They became engaged over Christmas during their senior year, and the wedding was scheduled for June, so Annie has not been able to think of much else since then. Her grades have fallen a little, but not enough to keep her from graduating with her class.

Her boyfriend has been working after school and weekends in his brother's garage as a mechanic, making \$5.00 an hour. He expects to work full-time after school ends. Annie thinks she might look for some kind of job after the wedding. She wishes she had taken some occupational courses in high school, but she guesses it's too late now.

Except for the wedding, the honeymoon trip to the beach, and setting up housekeeping, Annie has no concrete plans for life after high school.

STUDENT ACTIVITY III-B

STUDENT PROFILE-

MIKE

When he was six years old Mike toured the cockpit of a commercial airliner. Ever since that day Mike has wanted to fly airlanes and jets. He doesn't want to be a fighter pilot, but he thinks he would really enjoy being a pilot for a commercial airline. He is considering going into either the Navy or the Air Force after he finishes high school.

Although he doesn't like the idea of having to serve in the military, he has heard that many commercial pilots got their start in the service, and he thinks that this is the one way he might be able to afford flight training and gain the experience he will need to qualify for his commercial license.

Mike has worked to keep his grades in math, science, and English above average. He is planning to talk to both the Air Force and Navy recruiters before he begins his senior year in high school.



Insert empty top loading sheet protectors here for storage of cards



"What do I want?"

MATERIALS NEEDED:

 Personal Inventory: "What do I Want?" (This inventory is provided; however, you should xerox the copies you require before beginning the unit.)

PROCESS:

1.

Many student plans will be uncertain, incomplete, or non-existent. To help them begin to establish concrete career goals, and to evaluate the potential of their current proposals for success or failure, ask students to complete the personal inventory: "What do I Want?"

2.

Divide students into small peer groups. Ask them to present their inventories to the group and review each member's answers. Direct them to discuss the following:

QUESTIONS FOR DISCUSSION:

- a. Has this student listed his or her desires, expectations, and goals honestly?
- b. Do the answers reflect serious thought or has this student answered them the way he or she feels someone else expected him/her to?
- c. What are the motives behind this students answers? Do the answers reflect true feelings and opinions? (If not, this student needs to work on the inventory again.)
- d. Has the student identified a clear career interest? What is it? (If this student has not identified an area of interest, suggest that he/she do some research on fields which might satisfy his/her personal goals.)
- e. What does this student already know about the career area listed?
- f. Where has he/she learned about this field? Where else could he/she learn more about this career choice?





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Ask group members to make helpful comments and suggestions regarding each student's personal inventory. Then allow students to continue to add to and further revise their answers.

4

Instruct students to retain their personal inventories in a folder of career and education planning materials.





PERSONAL INVENTORY: What do I want?

i am interested in the following careers:	
in my spare time I enjoy the following activities:	
One day I want to be able to purchase the following:	
I want to live in the following area:	
My plans for a future family life include:	
hope to enjoy a social life which involves:	
The male qualities I seek in a sensor training	
The main qualities I seek in a career include:	











"Exploring Occupational and Transfer Degree Opportunities at Area Technical Colleges."

MATERIALS NEEDED:

 Catalogs from area technical colleges. (To obtain catalogs, contact the admissions office of each technical college or check with your school's guidance office.)

PROCESS:

1.

Assign students to small groups and give each group one or more college catalogs, depending upon how many catalogs you are able to collect and how much time you want to devote to this activity.

2.

Ask students to spend a specific amount of time reviewing the catalogs to determine the answers to one or more of the following questions:

- a. What Associate Degree programs are offered? Which programs offer an applied degree and which offer a transfer degree? What's the difference?
- b. What types of courses are common to all Associate Degree programs? (ANSWER: math, English, science, social science/humanities.)
- c. Which programs require special prerequisites for admission?
- d. What shorter-term programs are offered, such as diploma and certificate programs?
- e. Have the group select one program of particular interest and explain to the class what types of concepts a person would study in that major, what the name of the degree is and what types of careers the program prepares graduates for.





"Learning from the Voice of Experience"

M	ATERIALS NEEDED:
	None
SP	ECIAL PREPARATION:
	Identify a former student from your high school who completed an occupational speciality, and/or who graduated from a technical college program, and is now successfully employed in a mid-level technology field. Ask that person to address your class. (To locate a potential speaker, contact your school's vocational director, your career center director or the alumni office at an area technical college.)
PR	OCESS:
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	Ask your speaker to describe his educational experience, his/her current job and what he enjoys most about what he does.
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).	Have students from the class ask questions prepared ahead of time.

Have your speaker describe what was most important about his/her educational preparation or what he wished he'd done differently. What advice would he/she give to others considering the career field?



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(OPTIONAL) STUDENT ACTIVITY IV-C:

"Understanding Applied Academics"

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 VCR and promotional videos on different applied academic courses. (Promotional videos should be available from the appropriate department head at your school. The PACE Office also has copies you may borrow.)

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R	OCESS:
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	Show promotional videos and discuss with students what they saw in each video.
	Ask students what they think is different about these classes from others with which they are familiar.

Discuss how applied academics address the types of abilities students will need in the "real world" and why good skills in math, English and science are necessary for future success.





(OPTIONAL) STUDENT ACTIVITY IY-D:

"Exploring Applied Academics and Our School."

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M	ATERIALS NEEDED:
	None
SF	PECIAL PREPARATION:
_	Travel and/or other arrangements, as appropriate, to visit applied academic classes at the high school.
PF	OCESS:
1.	
	Arrange to take your students, either as a class or in smaller groups, to observe one or more applied academic classes at the high school.
2.	
	If possible, have student groups "help" with a lab or work cooperatively with students in the applied class. (Or have the teacher do a demonstration for your students.)
3.	
	Discuss the results of the visit back in your class. Ask students to describe what they saw and how an applied class may differ from others with which they are more familiar.
(Al	TERNATIVE)
1.	
	Arrange with a teacher of applied academics to bring one or more of his/her students, who are good spokespersons, to visit your class.
2.	
•	Have the teacher and student presenters conduct a demonstration or simple lab exercise in your class.
3.	
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Have your students interact with the visitors and ask questions, or participate, in the classroom demonstration.





STUDENT ACTIVITY IV-E:

"Exploring Advanced Standing Options Through Technical Advanced Placement."

MATERIALS NEEDED:

 Multiple copies of Tri-County Technical College's student handbook for Technical Advanced Placement (TAP) and copies of similar materials, if available, from other technical colleges. (TAP handbooks should be available from the Guidance Office, vocational teachers or by contacting Anita Turlington, TCTC TAP Advisor.) Multiple copies of your school's course listing, or Career Planning Guide, would also be helpful.

PROCESS:

1

Assign students to small groups and give each group a copy of the TAP Handbook and a copy of your school's Career Planning Guide (or whatever document shows the courses available through your school and/or career center.)

2.

Give students appropriate time to review the documents and then to write down the answers to one or more of the questions listed below. (To save time, each group could be assigned different questions and asked to share their findings orally with the class.)

- a. What is TAP? Explain briefly how it works and why a student might be interested in participating.
- b. List the courses at your high school that might qualify a student to earn TAP credit.
- c. Is TAP a good idea for every student? Why or why not?
- d. What happens when a student earns TAP credit—describe the steps that a student would go through after receiving notification of TAP credit. (Answers may be found in the flowchart at the back of the handbook.)
- e. Identify three terms with which the group is unfamiliar, locate the definitions and write them down so they can be explained in the recorder's own words. (Answers are in the glossary at the back of the handbook.)
- f. What is the difference between TAP and AP?
- g. If you took the right courses in high school and could qualify for TAP credit, can you think of any reasons why you might choose NOT to earn TAP? (Answers might be that the student would rather take the course at TCTC than get TAP credit because he/she should be able to earn a high grade in the course and benefit from the opportunity to review—a perfectly legitimate choice!)





STUDENT ACTIVITY IV-F:

"Exploring Transfer Options."

MATERIALS NEEDED:

Multiple copies of the brochure entitled, "Tech Prep and Admission to Four-Year Colleges." (A copy of the brochure is included in the supplemental materials section of this notebook. Other copies may be obtained by contacting Anita Turlington at Tri-County Technical College, or anyone in the PACE Office.)

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Ask the class as a whole to identify the four ways that a student in Tech Prep could pursue a baccalaureate degree. (ANSWER: 1) If a Tech Prep student took all the courses required for freshman admission to state-supported four-year colleges, he could apply to any four-year college, and if he had strong qualifications, he could expect to be admitted; 2) She could enter a University Transfer program and transfer into a baccalaureate degree program; 3) He could apply to a private four-year college, after receiving appropriate advice from a counselor; 4) She could transfer from an occupational associate degree program into selected four-year colleges, after receiving appropriate advising from his college counselor.)

2.

Explain to students that this activity will highlight only one of those options—transferring from a University Transfer (Associate in Arts or Associate in Science) program.

3.

Assign students to small groups and give each group a copy of the brochure, "Tech Prep and Admission to Four-Year Colleges."

4.

Give students appropriate time to review the brochure and to write down the answers to one or more of the questions listed below. (To save time, each group could be assigned different questions and then asked to share their findings orally with the class.)

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OUESTIONS FOR DISCUSSION:

- a. Is the SAT required to transfer into a four-year college? If yes, under what circumstances?
- b. Is there a foreign language requirement to transfer into a four-year college? If not, should a student take foreign language at the two-year/technical college? (ANSWER: Foreign language is usually not required for transfer admission. The student SHOULD take foreign language at the two-year/technical college because he/she can transfer the credit and because foreign language is required to graduate from many baccalaureate degree programs.)
- c. List four benefits of transierring into a four-year college.
- d. Is acceptance as a transfer student guaranteed? (ANSWER: NO! Just as with freshman admission, the student's academic record will determine acceptance. Also, if the student is applying to a very rigorous, or popular, major within the university—like architecture, there will be heavy competition for acceptance just like there is for freshman admission! However, in many cases students will have a better chance of getting in as a transfer student because competition is heaviest for freshman spaces.)
- e. Does a transfer student have to graduate from the two-year/technical college before transferring? If not, how much credit does the transfer student have to earn before entering the four-year college? What are the maximum number of credit hours that can be transferred? Are there any benefits to graduating with an associate degree? (ANSWER: A student does NOT have to graduate with an associate degree before transferring. However, most four-year colleges have minimum and maximum numbers of credit hours they will accept for transfer. There are considerable benefits to graduating with the associate degree. A simple reason is that the credential can be noted on employment applications. [Employers typically only ask for degrees completed on application forms.] Students may enter a four-year college and, depending upon how close they are toward completing the associate degree, they may transfer credit back to the two-year/technical college and graduate with their associate degree!!)











"Career Planning Checklist: Where Do I Stand Today?"

MATERIALS NEEDED:

- Handout: "Career Planning Checklist" (A master copy of this checklist is provided. You should xerox the required number of copies before beginning the unit.)
- Discussion questions (You may wish to prepare these ahead of time on a transparency, chalkboard, or handout.)

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1.

Provide students with copies of the Career Planning Checklist: "Where Do I Stand Today?" Ask them to fill out as completely as possible.

2.

Put students into small peer groups or pairs and ask each student to share his/her answers to the Career Planning Checklist. Instruct group members or partners to consider the following list of questions:

QUESTIONS FOR DISCUSSION:

- a. Does this student seem to know what he or she wants to pursue as a career?
- b. What are the student's reasons for this decision? And are they valid reasons?
- c. Has the student been honest in his/her attempt to fill out this checklist? (If not, encourage the student to try again.)

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When it has been established within the groups or pairs that each student has made and honest effort to complete the form, ask students to evaluate the extent of each other's commitment to a career choice—and genuine interest in that choice—by responding to the following questions. (You may prefer students to write their answers, or you can ask them to give their answers aloud to a partner.)

QUESTIONS FOR DISCUSSION:

- a. How would you describe the job?
- b. What skills and abilities will you need to perform it?
- c. What equipment will you use?
- d. Will there be openings in the area in which you prefer to live?
- e. Will the employer expect you to have experience in the job?
- f. What pay scale do you expect?

4.

Based upon the ease or difficulty with which students were able to answer questions about their career choices, ask each student to gauge his or her own progress in planning for the future.

4.8.

OPTIONAL:

You may wish to ask students to write down a brief evaluation of where they (or their group members) stand in the planning process. Each writer should include

- a. a statement of how easy it was to answer the questions on the Career Planning Checklist;
- b. a statement of how easy it was to answer the questions posed by their partners or group members; and
- c. a statement of intent: What should I do next?





career planning checklist: Where do I stand today?

I have begun to plan my future.	YES	NO	
I am interested in pursuing the following career(s):			
I already know the following facts about my	chosen career:		
l learned about this career from the following	g sources:		
I can find out more about this career from th	e following sour	CCes:	
To enter this career I will first have to acquir	e the following e	education training:	
To enter this career I will have to have the fo	ollowing work exp	perience:	
I may be able to gain experience in this field	l by:		
I have reached the following level in my edu	cation pathway:		
My next step in planning my future is:			





"Real World Profiles"

MATERIALS NEEDED:

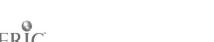
- Real World Profile Cards (These cards are provided; however, the facilitator may wish to make additional copies as needed.)
- Discussion questions (These are included in the instructions but the facilitator may wish to select specific questions to reformat as a handout or to list on the chalkboard/overhead before beginning the activity.)

PR	OCESS:
1.	
	Place students in small groups and assign one or more Real World profile cards to each group.
2.	

Instruct groups to choose one student to read the profile to the group and another to take notes on the group's discussion; profile cards may also be copied ahead of time so that each person in the group may read the profile silently before beginning discussion.

3.

Have the spokesperson from each group read the profile aloud to the rest of the class and summarize the key points of the group's discussion.





OUESTIONS FOR DISCUSSION:

- a. How did the career path of the person profiled change over the course of his/her professional lifetime? What caused this person to change directions?
- b. Describe whether or not the person profiled could be considered "successful." Explain why you feel the person is, or is not, successful.
- c. What is the most interesting aspect of this person's life to you and what lessons can you learn from his/her experience?
- d. How did the person profiled demonstrate good "problemsolving" skills, creativity or initiative in changing career directions or in blending career and personal interests?
- e. Describe the person's education and the relationship of that education to his/her original or current career.
- f. If the person experienced one or more career field changes, what in your opinion, motivated the person to change directions?
- g. If a person starts in one career direction and changes to another, does that mean the person "made a mistake" by not choosing his/her current career in the first place? Why or why not?
- h. Describe what the person did to change career fields. Did he/she go back to school? Did the career change require a bachelor's degree?
- i. If <u>you</u> were to decide on a specific career, and after several years, you discovered that you wanted something else, what would happen? What specific things could you do to help yourself move in a new direction?





Real World Profile - Dawn Tabor

Owner, Alexandra Station Salon, Central, SC

"I originally thought I would just do this kind of work temporarily and then go back to college to get a four-year degree later on. Then, when I got to the point that I could go back to school if I wanted to, I took the time to think about why I was considering doing it and what kind of a degree I wanted. I realized that I was only thinking about going back to school because I thought I had to have a four-year degree so people would respect me! It was ridiculous - I have an associate's degree that gave me plenty of experience with writing and math skills that I need for my business, and I am very happy and successful doing what I am doing now!"

Dawn Tabor is the 26 year-old owner of Alexandra Station, a hairstyling salon in Central, South Carolina. She has been a licensed cosmetologist for six years, and in that time she has built up a large, loyal clientele in Clemson and the surrounding areas. She even has some clients who travel from as far away as Atlanta for a haircut. "When I was growing up near Florence, I always made good grades in school. So everybody just assumed that I would go to a four-year college. I thought that was what I had to do to be successful and to be respected. I went to Frances Marion College and made decent grades, but I was so unmotivated! I had no idea what I wanted to do! Also, I kept remembering the lady in my hometown who cut my hair and a lot of other people's that I knew. I knew that she was very successful and well-paid. I had always been interested in cosmetology and good with hairstyling myself, so I eventually decided to quit school and train as a cosmetologist."

Dawn finished her training in record time by working long hours. She moved to the Upstate area and began building a clientele. "I was doing very well, but still, in the back of my mind, I kept thinking that people in my group of friends wouldn't really accept me until I had more education. So I started taking courses at a local technical college and finished my associate of arts degree. I used to just mumble "cosmetologist" when people asked what I did for a living; then I would quickly add that I planned to go on for a four-year degree."

"Finally the time came to decide where to go and how to finish up. My husband had recently graduated with his B.A. and had a job. But as I really thought about the decision, I realized that I was thinking about spending a lot of time and money on something I didn't really need or want! So I decided instead to take the plunge and open my own business. It has been great! I don't feel anymore that I need to apologize for what I do - in fact, I think I was crazy ever to feel that way. I provide a necessary service, and I'm good at it. I really enjoy what I do, and now as a business owner, I am giving other people a chance to earn a good living. I am also contributing to the economic revitalization of this area. I am really happy about my decision; it was definitely the right one for me."

Dawn's advice to students as they explore their career options - "Don't let anyone else dictate your career choice to you; you decide what you really want to do and then get the necessary education to be able to do it. You will be a lot happier in the long run!"



Real World Profile - Dr. Marshall Welch

Director of Training, BASF Corp., Parsippany, New Jersey

"I believe my background as a machinist gives me an understanding of the concerns of employees and their training needs that is unique to most people in my position. My experience and training in machine tool technology has really enriched every career experience I have had."

Dr. Marshall Welch is the Director of Training for BASF, an international corporation that specializes in product research and innovation. He began his career in 1966 as a tool and die maker while completing his associate's degree in tool and die technology at Midlands Technical College in Columbia, SC. He then went on teach tool and die technology at another technical college. At about this time, he became interested in industrial training and decided to go back to school. "My special interest that led me to my initial career decisions is a lifelong love of automobiles and auto racing. This led me to study machine shop and tool and die at Midlands Tech to broaden the mechanical knowledge that I had gained from constantly working on cars. This education led me to teaching in the Technical College system and eventually into my present career of industrial training management."

After completing a four-year degree in psychology, Dr. Welch went to work as training supervisor for the Anderson, SC BASF plant, a job he held for nine years before moving on to a division-wide training position for BASF and on to his current position, which is national in scope. In the meantime, he completed both a master's degree and doctorate in industrial education. Of his career shift from tool and die to industrial training, he says, "I doubt that I would change any of my decisions if I had the chance to 'do it again.' I enjoy my work very much. There have been many times when I wondered where I would be and what I would be doing if I had stayed with metalworking rather than moving toward industrial training. I am glad that I had the opportunity to do both!"

"My advice to students is to focus on what you enjoy doing. That's what I did and where I started from. Satisfaction in your job is more important than any amount of money. But don't be afraid to change directions, either. You will be successful in a field that interests you and where you will be happy. It may mean more time spent on training or education, but it will be worthwhile in the long run."



150

Real World Profile - Ron Talley

Department Head and Instructor, Electronics Engineering Technology , Tri-County Technical College, Pendleton, SC

"I guess I went the long way around to get to what I really wanted to do in the first place, but I wouldn't change a thing. All the experiences I've had and the different jobs I have done have enriched me immeasurably. I'm not sure I would be as satisfied with where I am now if I hadn't done other things first."

Ron Talley loves learning for its own sake, and his educational credentials and career experiences reflect his love of learning and adventurous attitude. Beginning college at the age of 16, Ron originally went to Dartmouth to study computers. "In those days," he said, "you had to major in math if you were interested in computer programming, so that's what I did. But I got in over my head and really didn't like what I was doing in the math department, so I decided to change my major. I tried a couple of majors before finally hitting on sociology because they had a computer lab on campus. I worked in that lab my whole four years of college, and that is where I finally got to do some programming and really work with computer hardware and software." When he graduated at the age of 20, though, he had a degree in sociology and assumed that his choice of jobs was limited to what he was qualified to do on paper. "It never occurred to me that I had developed extensive experience using and programming computers that would qualify me to do any number of computer-related jobs; I thought I had to stick to what my degree said I knew how to do."

Over the course of the next ten years, Ron did extensive community work overseeing programs for minority students at Dartmouth, community action groups in Boston, and an experimental school for at-risk teenagers in New York City. He also worked as a cab driver and as a counselor with the New York City Police Department. Eventually deciding to come home to South Carolina, he ended up working with a reading program at Tri-County Technical College. "I originally planned to take industrial mechanics courses at Tri-County, but the Dean of Students convinced me that I needed to work there instead." He had worked in administration at the College for about seven years and completed a master's degree in educational administration at Clemson University before he finally took some courses in electronics engineering and became "hooked." "It was what I had been interested in doing all along!" After completing his associates degree in electronics engineering technology, Ron became an instructor in the department and eventually, department head, the position he currently holds.

"My advice to students," Ron says, "is to figure out what you are interested in doing, and then figure out how you can get some experience doing it. Don't be afraid to try things. Volunteer if you have to in order to try out your interests. And remember that developing different skills and experiences will give you options, and I believe that having options is one of the keys to being happy in your career."



Real World Profile—Lynn Rochester

Electronics Engineering Technician, Taylors, SC

"I guess you could say my hobby became my career. I always tinkered with my own electronic equipment, like stereo receivers and guitar amplifiers. I wanted to learn how to maintain, modify, and repair other kinds of electronic equipment, so fight after high school I went into a two-year program in Electronics Engineering Technology at a technical college."

After earning his Associate Degree in Engineering Technology, Lynn went to work in a local music store. Most of the work involved repairs of musicians' electronic equipment. Through on-the-job training, he continued to learn about his field. He studied manufacturers' publications and electronics magazines and journals to stay up-to-date with the latest developments.

This job paid just above minimum wage, but Lynn enjoyed meeting local musicians and impressing them with his skills. After four years with the store, Lynn decided to strike out on his own. "My Dad helped me get a loan to rent a space and purchase the equipment and tools I needed to set up my own electronics repair shop. I already had so many contacts in local bands that I didn't have to advertise!" Lynn's reputation and word-of-mouth continue to provide him with a steady stream of equipment modifications and repairs.

Lynn paid off his loan within the first six months of going into business for himself. He pays an accountant to help him with his taxes and insurance, and a high school student works for him part-time as an assistant and deliveryman. His schedule is flexible. He maintains fairly regular hours, but an answering machine takes messages for him when he goes out to a job site or takes time off to go river rafting or fishing. He makes housecalls to local clubs and concert halls when bands and other owners of faulty equipment need his expertise.

Last year, his sixth year as his own boss, Lynn made over \$35,000. He has purchased a home and converted the basement into his shop. He makes a comfortable living, has an active social life with the musicians he has befriended, and keeps up with new developments in his field.



Real World Profile—Teresa Holt

Surgical Nurse California Pacific Medical Center , San Francisco, CA

"I thought I was dying! But instead of panicking, I just wanted to know what everybody was doing and why....I was so fascinated with all the machines and instruments and medicines they were using to save my life."

It took a near-death experience after the birth of her child for Teresa Holt to realize what she wanted to do for a career. A hospital emergency convinced her that she wanted to become a nurse.

Before this medical crisis, Teresa had little idea of what she would like to do for a living. Most of the jobs she held before and during college were not related to her major, which was literature. She worked as a state park inspector, a waitress, and a receptionist. Then, the summer before her junior year in college, she got a job as a nursing assistant in the Labor and Delivery Department at Oconee Memorial Hospital. The pay was terrible, but she found she liked working in a hospital environment so much that she returned to the job the next summer.

Teresa married an architect during her senior year After her graduation, the couple moved to Fort Lauderdale, Florida, where her husband worked in an architectural firm and she took a job with a local social services agency.

A year later, Teresa became pregnant, and seven months into the pregnancy, she had a stroke. She woke up one night to find she was paralyzed on her left side. She was rushed to a private, well-equipped hospital where doctors discovered a blood clot in her brain. Her pregnancy prevented them from treating the problem with drugs, but after several days the feeling began to return to her left side. Soon she was able to move and to speak clearly, and physical therapy helped her recover the full use of her left arm and leg. Once she knew she would be all right, she considered the whole experience fascinating.

The baby was unharmed, and Teresa gave birth to a healthy daughter. All seemed to be well until Teresa began hemorrhaging the night after the birth. "I was awake off and on during the whole ordeal. I knew I was in trouble, but I was mainly just curious about what they were doing to help me. I remembered a similar case from my days as a nursing assistant, and I wondered if they would try the same things on me. I don't even think I was very scared. I was just incredibly interested in what was going on. That's when I first thought I might study nursing—if I lived, that is."

She survived, but her career plans were put on hold for a while. Then, when her marriage ended after four years, she returned to Oconee Memorial Hospital as a nursing assistant. There she realized what she really wanted to do. She entered a two-year program and earned her Associate Degree in Nursing. As a registered nurse, Teresa returned to Oconee Memorial and soon became head nurse or the fourth floor. When her daughter was nine years old, Teresa



Real World Profile—Teresa Holt...continued

received a job offer in San Francisco. She and her daughter packed what they could carry into a Honda Civic and drove across the country to their new home.

Teresa worked for four years as a floor nurse in a major hospital in the city, while living across the Golden Gate Bridge in Mill Valley. Her schedule conveniently allowed her to commute to work and return home within her daughter's school hours. During her fifth year in California, Teresa was accepted into a nursing education program at another major hospital where she was trained in surgical urology. She was then hired by the surgery department there at a higher salary.

After two years, she was promoted again, this time into organ transplant surgery. Much on-the-job training made her an invaluable member of a prestigious transplant team. Although some of these surgeries, such as heart, kidney, and liver transplants, require long, stressful hours, Teresa often finds herself exhilarated rather than exhausted when she leaves the hospital. She finds the work fascinating and satisfying: "It's hard work, but I'm rarely bored!"

When the major earthquake hit San Francisco in 1989, Teresa had just returned home from work. As soon as she was sure her daughter was safe, she drove into the burning city to volunteer her nursing skills.

Every summer Teresa helps organize a group of volunteers to travel to Guatemala for two weeks. She goes along as a member of a team of American doctors and nurses who perform surgeries on children and adults. She has also vacationed in England, Portugal, and Hawaii.

Now that her daughter is away at college, she signs up for more hours of "call," so she gets paid simply for wearing a beeper and staying available. She gets time-and-a-half pay when she is called in for surgery. Her income tops \$48,000 a year, which is making it possible for her to buy a house and pay her daughter's tuition to UC-Santa Cruz.

Teresa's house and yard are her main hobbies. Her work schedule leaves her plenty of daylight hours for gardening, antique shopping, and home renovation projects. Her advice to students considering their career futures: "Look for a field that you're really interested in. All the education and training are a lot easier and a lot more fun when you care about what you're learning."



Real World Profile—Dr. Bill Darnell

Emergency Room Nurse Oconee Memorial Hospital , Seneca, SC

"After I retired from my 34 years as a chemical engineer with Dupont, my wife and I decided to move south. We ended up living in a beautiful lake in Salem, South Carolina. I found that I wasn't quite ready for the 'retired' life yet, so I decided to pursue a hobby that I had been involved in for about 15 years—health care. I had been an Emergency Medical Technician with a rescue squad and had taught first aid courses through a local hospital and a fire department. Now I decided I would take the necessary courses to work full-time in health care."

Bill Darnell is an emergency room nurse at Oconee Memorial Hospital in Seneca, SC. He pursued this second career, he says, because of his interest in working with people. "Engineering was more of a solitary profession, and I really wanted to be involved with people." Although he investigated a four-year degree in nursing, Bill decided ultimately to pursue an Associate Degree in Nursing (ADN) at Tri-County Technical college. "I investigated both programs, and both were very good. However, I realized that most nurses with a BSN (Bachelor of Science in Nursing) are being prepared for administrative positions. What I wanted to do was care for people, not manage other staff, so the ADN program was perfect for me."

Now he has a second career that he finds very fulfilling. "Because I am a little older, I am able to relate to patients easily and reassure them. I am enjoying the different challenges in my 'second career' and the opportunity to interact so much more with people as I care for them."

Although Bill had originally intended to work a light schedule, he finds that the need for his skills is so intense that he is in great demand. "There is such a demand for nurses that I could probably work all the time, but I try to keep my hours at a reasonable level so I can enjoy some free time too!"

Would he change any of his career decisions? "No. I have enjoyed both my careers tremendously, and my nursing training gave my education a real boost as it provided me with a strong liberal arts component. Both of my career choices have involved hard work and preparation, but hard work can be fun if you like what you are doing."



Real World Profile—Lew Holton

Department Head Criminal Justice Technology, Tri-County Technical College, Pendleton, SC

Call him a "jack of all trades" or even a "Renaissance Man," but Lew Holton has done a little bit of everything from police work to radio broadcasting to drumming in the house band of a nightclub. Now, at age 43, he is combining his lifelong interests in literature, theatre and police work. While teaching criminal justice courses and overseeing a program in criminal justice technology, he also recently completed a master's degree in English and is currently negotiating to have one of his plays produced of Broadway.

"I have been performing since I was two years old, when I sang "Hey Good Lookin" and played guitar on a local Charlotte television show. I played in bands through high school and after I got back from Viet Nam. But I was always interested in police work, too. My grandfather was a policeman in Mecklenburg County, North Carolina, so we always had policemen who were friends of the family." Lew got sidetracked into radio broadcasting for several years in his twenties after being told he was too small to be a policeman.

"But after the Supreme Court struck down height and weight requirements for policemen in the late seventies, I decided to try again. After attending the Police Academy, I worked as a police officer in Manning and then Columbia, SC. In Columbia, I completed a two-year degree in criminal justice technology from Midlands Technical College and moved up eventually to a position as acting lieutenant in crime analysis. At the same time, though, I was doing a lot of local theatre and writing my own plays, so I decided to go on and get a four-year degree in English, which had always been an interest."

Lew came to the Upstate in 1986 to take the position with Tri-County and became involved in local theatre almost immediately as well as enrolling in the master's degree program in English at Clemson University. Now he has one original play in production at Clemson and one in New York.

"I think young people these days have a tendency to think they have to make career choices that will last the rest of their lives. But I am living proof that you don't have to box yourself in. I think students should have goals, but they should make sure that they are not locked in to one narrow path; people change as they grow older and so do their interests. The one bit of real advice I give my students is to become comfortable with the English language; I really believe that success in any field largely has to do with how well a person can use language, either oral or written. Those skills will open up more options than any others."



Insert "Appendix B" divider page and tab here

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Insert transparency of "Education: The Decreasing Pyramid" here



WILL WE BE READY FOR TOMORROW'S WORKFORCE?

- By the year 2000, the <u>average</u> job in the Southeast will require almost 14 years of formal education.
- ◆ 42% of South Carolina's 1991 graduates chose <u>NOT</u> to pursue <u>any type</u> of formal postsecondary education directly after high school.
- ◆ 52.1% of first-time freshmen entering S.C. public two-year colleges in 1988 needed remediation.
- ◆ The high school dropout rate in S.C. is 35%.
- Only 16.6% of adult South Carolinians have at least a bachelor's degree.

"Current levels of educational attainment [in the Southern states] will not produce enough people who will have the skills and education to fill the kinds of jobs available in the 21st century."

(Trends in Education, Employment, Population; Challenge 2000, SREB, 1989.)



Insert paper master copy of "Education: The Decreasing Pyramid" here



A 26 • THE CHRONICLE OF HIGHER EDUCATION • December 19, 1990

Job Prospects for 1991 College Graduates Are the Bleakest in at Least 20 Years, Study Finds

Recession and the possibility of war in college graduates the bleakest in at least the Middle East are combining to make 20 years, according to a report from job prospects for the coming year's Michigan State University.

they did a year earlier, when they hired an expect to hire about 10 per cent fewer new college graduates this coming spring than estimated 13 per cent fewer than the year Over all, the report says, employers

Michigan State began surveying employers 20 years ago, said L. Pearick Scheetz, and the projected drop for 1991 represent Taken together, the decline in 1990 director of the university's Collegiate the largest decrease in hiring since Employment Research Institute.

because of the uncertainty that exists in the stoce and questions of the Iraqi "Employers are still hesitant to return to the hiring of new college graduates

Outlook is Not Optimistic'

nesses "tentative" in their plans for biring. It amount to only a 1-per-cent decline from last Another study of employers, released last bachelor's degrees this spring. But that will week by Northwestern University, confirms that "the business outlook is not optimistic," reported they would hire fewer people with says 42 per cent of the employers surveyed and that economic factors are making busispring's hiring rate, the report says.

those of the Michigan State report because the salaries for new college graduates and to study The Northwestern survey, which looked at corporate personnel practices. Mr. Lindquist has said the results of his survey differ from 320 companies, was conducted by Victor R. placement at the university. The survey is two institutions look at different kinds of rimarily used by businesses to establish Lindquist, associate dean and director of

fewer opportunities available, and therefore anticipating a slowdown in hiring, have begun to look for jobs much earlier this year. "There . shout job hunting. Mr. Schootz says that college seniors,

health-care services; hotels and restaurants; and those in automotive and mechanical equipment; banking, finance and insurance; bospitals and planned to increase hiring this year, including

also expect to submit to drug tests, according to the Michigan report. Nearly 60 per cent of and who have no idea what they're seeking. New graduates looking for jobs should the employers surveyed said they would

for Jobs, Study Finds Face a Tight Market Recent Graduates

Economics and finance majors hit by downturn in banking industry

BY SUSAN DODG

finance faced a tight job market this year because of a College graduates who majored in economics and downturn in the banking industry. Wages for those

List land johs were only slightly higher than last

THE CHRONICLE OF HIGHER EDUCATION · October 30, 1991

Facing Bleak Job Prospects, Many Recent Graduates Look to Advanced Degrees for a Competitive Edge

By DEBRA E. BLUM

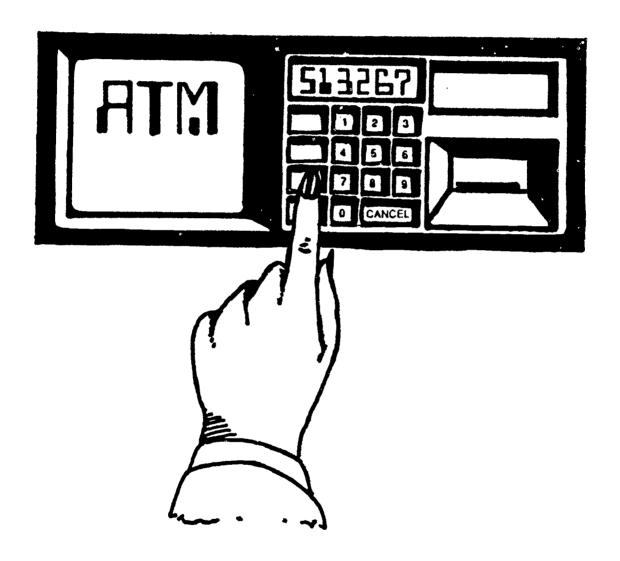
Elliott P. Levine, who graduated from Hofstra looking for a job before he decided to enroll last University in May, spent April through August month in the university's master's program in speech pathology.

may be heartened by forecasts that the faculty ing whether to apply to Ph.D. programs also ranks may open up later in the decade.

master's and doctoral programs at institutions across the country have increased 10 to 15 per In the last two years, applications to









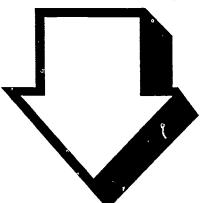


THE WORKPLACE IN SOUTH CAROLINA IS CHANGING...

- shift from an emphasis on "hand" work to a blending of "head" and "hand" work
- nature of work is shifting from "task-oriented" to "team-oriented"
- demand is increasing for skills-diversity and flexibility
- low-skilled workers are becoming too costly for industry
- technology is changing the nature of work and creating more jobs in the "mid-level" range



Mid-Level Technologies



Careers for the future!

Opportunities for Advancement

Available in many fields



Most require education beyond high school

GENERAL CHARACTERISTICS OF MID-LEVEL TECHNOLOGY CAREERS

- offer wide range of responsibilities, good salaries, and advancement opportunities
- require H.S. vocational training up to an Associate Degree for entry and/or advancement
- require problem-solving, communications, "teamworking", and technical (job-specific) skills
- often require performance of duties as part of a team
- offer opportunities in more than industrial/ technical fields—many positions exist in health, business, and public service areas
- are becoming more plentiful locally, regionally, and nationally



"The average person finishing high school today is expected to change jobs 10 times and careers 3 times."

(Education and Work. Career Opportunities News, March/April, 1990, p. 4.)



"You want to be a WHAT?"

LABORATORY

Anderson Memorial Hospital is Anderson memorial nospital is seeking a Processing Technician to join our Outpatient Diagnostic to join our Outpatient Diagnostic Laboratory. Successful candi-dates should posess a MA, CLT, or MLT degree with computer experience helpful. Will consider in perience helpful.

Anderson Memorial Hospital is seeking a STERILE PROa full-time position. Prefer experienced surgical technician and or knowledge of surgical and or knowledge We offer a instrumentation. competitive salary and benefits package. For more information, please contact. Linda Brown

In opportunity adiating success.

Radiologic Technologists

If you're a Radiologic Technologic and like the idea of the lorgest hospital career with one of the largest hospital systems in the Southeast, we have an opportunity for you to become a part the Greenville Hospital System. we have openings for Radiolog

PHLEBOTOMIST

Mon-Fri, 8 AM - 5 PM. Excellent hourly rates. Good benefits. Call 250-1002 for appt.

SLEEP TECH

Anderson Memorial Hospital is seeking a Sleep Technician to join our Sleep Disorder Center. Position would administrator sleep, diagnostic studies utilizing computerized equipment. Qualified candidates will posess a minimum of one year of Allied Health/Medical experience and willingness to train: RRT or CRTT preferred, but not required. Hours part-time from 9:00 PM-7:00AM, 2 nights weekly.

Please send resume to or contact:

Virginia Suggs

Qualifications: High School Graduation and two (2) years experience as a Histology Technician: perience as a mislology i ecnnician; or an associate degree in Histology ence in Histologic Techniques. Surprise of the service of the servic

ence in histologic reconsiques, ou-pervisory experience preferred. Expervisory experience preferred Ex-perience with processing plastics would be helpful. Salary:State Pay Grade 26 \$18,177 - \$27,265

TECHNOLOGIST

The opportunity to join our CAT SCAN Department is available now tor second shift. Requirements

- Two years of college
- Two years of experience in Radiology. Special Procedures. Other s. Ultrasound, or Physical

n experience is required

iry and benefits package pply in person, to Medical 1 15 Medical Drive, reet Ext or call 8033. arden Street Ext) or c laker at (803) 765-6: ormation.

CROBIOLOGIST TECHNICIAN

Candidate will have a A.S/B.S. in Biological Sciences with course work or experience in Microbiology. Candidate will work independently on microbilogical evaluations to depermine potential effectiveness of bioremediation, prepare and carry out degradation studies, order supplies and duties as necessary.

Veterinary Technician

Full Time Position Send Resume To:

Clemson Animal Hospital

108 Liberty Drive Clemson, SC 29631

HEALTH CARE SPECIALIST

Franch of Fortune 500 Company -leasing Textiles to hospital & exanded care facilities. Requires out going person with nursing inckground Will be trained in injectials management, sales, cost antral & in servicing. Mpn. - Fri vork week. Attractive compensuion package. To include automo-ille allowance, interested persons dease send resume to: P. O. Box 696, Sta. B. Givil e, SC 29606.





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Currently seeking Wafer Fabrication Process Technicians

Requires an AAS Degree in one of the following fields:
CHEMICAL ENGINEERING TECHNOLOGY
COMPUTER ENGINEERING TECHNOLOGY
MICROELECTRONIC TECHNOLOGY
MECHANICAL ENGINEERING TECHNOLOGY
ROBOTICS
ELECTRONICS
ELECTRICAL ENGINEERING TECHNOLOGY

Mitsubishi offers a competitive salary as well as an attractive benefit program which includes company paid medical, dental, vision and life insurance, a 401 (k) retirement program, Credit Union and more.

Send resume and salary requirements to:

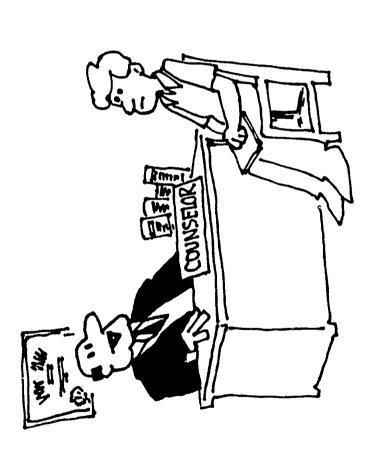
MITSUBISHI SEMICONDUCTOR

AMERICA. INC.

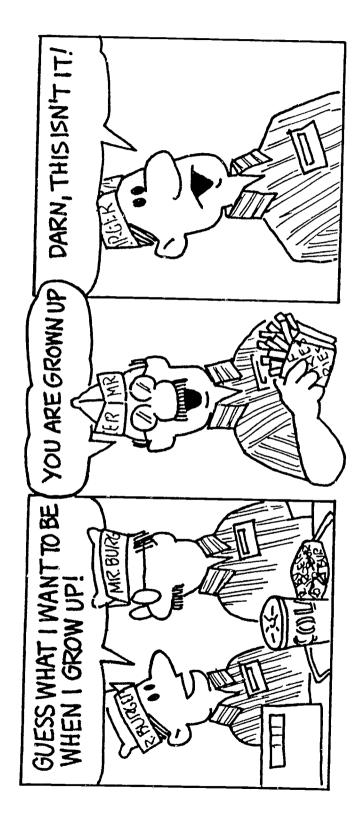
Human Resources Department Attention: Department A Three Diamond Lane Durham, NC 27704

An Equal Opportunity Employer M/F/H
The Challenge of Excellence





LOT OF MONEY, AND BE HAPPY. THANKS FOR STOPPING BY. "MY ADVICE IS GET A GOOD EDUCATION, MAKE A



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WHAT IS TECH PREP?

It's PREParation for TECHnologies

- Tit's new!
- Taking the right academic and vocational classes in high school to prepare you for exciting, rewarding careers in:
 - industrial/engineering technologies
 - business technologies
 - public service technologies
 - health technologies
- Opportunities to earn technical college credit while you're still in high school, saving time and money toward college studies!



dT1

WHAT IS TECHNICAL ADVANCED PLACEMENT?

Part of the Tech Prep program designed to:

- reduce "overlapping" between high school and college courses
- enable qualified students to earn Tri-County
 Technical College credit based on coursework and completion of specific procedures
- provide an incentive for students to take occupational courses while in high school and to do well in those courses
- save students time, money, frustration in College





What's So Great About Two-Year College University Transfer Programs?

- High quality education, small classes, personal attention.
- Special tutoring and study skills programs to help you be successful in university-level work.
- University transfer courses are the **same** as those taught in four-year colleges (that's why they transfer!)
- You can earn up to the first two years of your bachelor's degree for much less money!



MAKING COLLEGE STUDY AFFORDABLE

- ✓ Take the RIGHT courses in high school; do your very best, and reach the highest standards you possibly can.
- ✓ Take occupational courses that will:
 - —give you marketable skills
 - -qualify you for advanced standing
- Investigate financial aid opportunities EARLY
- Consider Co-op in high school and in college
- Look for special opportunities like the Bosch Apprenticeship program, the Technical Scholars program and others
- If you need to, get a full-time job after high school graduation with a company that has a tuition reimbursement program
- Go to college on a part-time basis—take at least one course per term

THE BOTTOM LINE...

If you want a college degree, you CAN get there from here!



POSITIONING YOURSELF FOR GREATER MARKETABILITY

During Your Associate Degree Program, Consider...

- Gaining relevant work experience
- Building a positive reputation with your instructors and work supervisors
- Taking electives and even additional courses to give yourself a "jump" on the competition
- Polishing your employability skills—punctuality, teamwork, professionalism and ATTITUDE
- Getting assistance to improve your interviewing and resume writing skills





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"People do not plan to fail. they simply fail to plan."

(author unknown)



Insert 5 blank pieces of colored transparency film in Flip-Frame Protectors here for individualization of program



Insert "Appendix C" divider page and tab here



Insert "Status of 4-Year College Graduates/Class of 1986 One Year After Graduation" handout here



INTRODUCTION TO CAREERS - A MATCHING QUIZ

DIRECTIONS: Listed below are job titles and salary figures taken from local newspaper ads, company job descriptions and S.C. Employment Security Commission figures. For each career/position listed in the left column, match the appropriate salary and educational level from the column on the right.

POSITIO	DN	EDUCATION/SALARY
1.	Junior Quality Assurance Engineer	(a) Assoc. Deg./\$26,000
2.	Automotive Technician	(b) Voc. Cert. to 1 Year Coll./\$20,000
3.	Carpenter	(c) Assoc. Deg./\$25,200
4.	Speech Pathologist	(d) H.S. grad. to some college/\$19,500
5.	Registered Nurse	(e) Assoc. Deg./\$30,000
6.	Electronics Technician	(f) Voc. cert. to Assoc. Deg./\$25,500
7.	Psychological Social	(g) Assoc. Deg. or Bachelor's/\$33,200
	Worker	(h) Assoc. Deg./\$17,500
8.	Criminal Investigator	(i) Master's Deg./\$21,400
9.	Medical Lab Technician	(j) Bachelor's/\$23,500
10.	Microwave Field Technician	(k) Voc. cert. or OJT/\$30,700
11.	Word Processing Supervisor	(1) Bachelor's or Master's/\$21,500
12.	Clinical Dietician	(m) Assoc. Deg./\$17,500
13.	Licensed Practical Nurse	(n) Assoc. Deg./\$16,234
14.	Accounting Technician II	(o) Assoc. Deg./\$27,500
15.	Convenience Store Manager	(p) Bachelor's/\$40,000
NOTE:	The job titles and salary figures listed above Considerable variation exists in job titles, ed upon the company/agency, the applicant's e	e are JUST SAMPLES. ducation required and salary information depending experience and other factors. The salary figures used



here are averages or mid-point figures when the original source showed a salary range.

INTRODUCTION TO CAREERS - A MATCHING QUIZ

DIRECTIONS: Listed below are job titles and salary figures taken from local newspaper ads, company job descriptions and S.C. Employment Security Commission figures. For each career/position listed in the left column, match the appropriate salary and educational level from the column on the right.

POS	SITION	EDUCATION/SALARY
<u>C</u>	Junior Quality Assurance Engineer	(a) Assoc. Deg./\$26,000
F	2. Automotive Technician	(b) Voc. Cert. to 1 Year Coll./\$20,000
K	3. Carpenter	(c) Assoc. Deg./\$25,200
<u>L</u>	4. Speech Pathologist	(d) H.S. grad. to some college/\$19,500
G	5. Registered Nurse	(e) Assoc. Deg./\$30,000
0	6. Electronics Technician	(f) Voc. cert. to Assoc. Deg./\$25,500
I	7. Psychological Social	(g) Assoc. Deg. or Bachelor's/\$33,200
	Worker	(h) Assoc. Deg./\$17,500
<u>A</u>	8. Criminal Investigator	(i) Master's Deg./\$21,400
<u>N</u>	9. Medical Lab Technician	(j) Bachelor's/\$23,500
<u>E</u>	10. Microwave Field Technician	(k) Voc. cert. or OJT/\$30,700
<u>M</u>	11. Word Processing Supervisor	(1) Bachelor's or Master's/\$21,500
J	12. Clinical Dietician	(m) Assoc. Deg./\$17,500
<u>B</u>	13. Licensed Practical Nurse	(n) Assoc. Deg./\$16,234
<u>H</u> _	14. Accounting Technician II	(o) Assoc. Deg./\$27,500
<u>D</u>	15. Convenience Store Manager	(p) Bachelor's/\$40,000

NOTE:

The job titles and salary figures listed above are JUST SAMPLES. Considerable variation exists in job titles, education required and salary information depending upon the company/agency, the applicant's experience and other factors. The salary figures used here are averages or mid-point figures when the original source showed a salary range.



FASTEST-GROWING OCCUPATIONS: MID-LEVEL TECHNOLOGIES

Listed below are the fastest-growing careers in mid-level technology fields projected for state of South Carolina. These careers typically require some vocational training in high school up to and including an occupational associate degree either to enter the job or to qualify for advancement. Also included are careers which require some formal or specialized training after high school available through employers, proprietary schools or other agencies. Careers are listed in descending order of projected growth.

INDUSTRIAL AND ENGINEERING TECHNOLOGIES

Position	Increase by the Year 2000 (projected)
Machinists The state of The sta	68%
Electrical & Electronic Technicians	61%
Numerical Control Machine Tool Operators	51%
Industrial Machinery Mechanics Technicians	43%
Water & Waste Treatment Plant Operators	41%
Automotive Body, Related Repairers	40%
Drafters	39%
Electricians	38%
Data Processing Equipment Repairers/Technicians	47%
Tool & Die Makers	37%
Heating, A/C, Refrigeration Mechanics	36%
Plumbers, Pipefitters, Steamfitters	36%
Automotive Mechanics	34%

BUSINESS TECHNOLOGIES

Position	Expected Increase by 2000 (projected)
Computer Programmers* Receptionists, Information Clerks Property & Real Estate Managers* Computer Programmer Aides Medical Secretaries Brokers & Sales Agents, Real Estate* Insurance Sales Workers Bill & Account Collectors Computer Operators, except peripheral equip. Insurance Adjusters, Investigators New Account, Loan, Credit & Adjustment Clerks Insurance Policy Processing Clerks	79% 67% 63% 62% 62% 52% 52% 51% 45% 42% 42% 40%
General Office Cierks Loan Officers and Counselors*	37% 35%



HUMAN AND PUBLIC SERVICE TECHNOLOGIES

Position	Expected Increase by 2000 (projected)
Child Care Workers	111%
Legal Assistants, Technicians & Paralegals	106%
Guards	73%
Food Service & Lodging Managers*	69%
Legal Secretaries	64%
Teachers' & Education Assistants	39%
Police Patrol Officers	37%
Teachers, Preschool & Kindergarten*#	36%
Hairdressers and Cosmetologists	35%

HEALTH TECHNOLOGIES

Position	Expected Increase by 2000 (projected)
Medical Assistants	92%
Surgical Technicians	86%
Radiological Technologists & Technicians	78%
Dental Assistant	57%
Registered Nurses*	55%
Dental Hygienist	55%
Licensed Practical Nurse	48%
Emergency Medical Technician	37%

^{*} Persons in these positions may have either an associate or a bachelor's degree.

NOTES: The information in this list compares the 1986 employment figures against projected change by the year 2000. Only mid-level technology occupations showing at least a 33% increase were included in the list. It should also be understood that these are <u>statewide</u> projections. Because there are differences across the state, demand for a particular career area may be very high in the Upstate but lower in other parts of the state which will result in a lower overall percentage for projected growth.

(Source: South Carolina Employment Security Commission. <u>Palmetto Perspective 1990: South Carolina's People and Jobs in the Year 2000</u>. Columbia, SC: Author, 1990. NOTE: This was the latest information available from the state as of June 1992.)

June, 1992



[#] Persons with appropriate credentials and/or a postsecondary diploma or an associate degree may teach in preschools or private kindergartens in South Carolina.

AVERAGE SALARIES FOR MID-LEVEL TECHNOLOGY CAREERS

Listed below are just a few examples of AVERAGE salaries for mid-level technology careers* in the Upstate South Carolina MSA (Metropolitan Statistical Area) region or for the state as a whole. Again, the salaries listed are AVERAGE figures—some people earn considerably more depending upon their experience and the particular company with which they are employed. While the original salary figures reported by the S.C. Employment Security Commission were in hourly rates, they have been converted here to annual rates and rounded to even numbers.

INDUSTRIAL/ENGINEERING TECHNOLOGIES

Position	Average Annual Salary
Aircraft Mechanics+	28,000
Automotive Body and Related Repairers	22,000
Automotive Mechanics Technicians	22,000
Brick Masons	26,000
Bus/Truck Mechanics & Diesel Engine Specialists	29,000
Carpenters 2	19,000
Chemical Technicians/Technologists	24,000
Civil Engineering Technicians	31,000
Data Processing Equipment Repairers	29,000
Drafters	24,000
Electrical and Engineering Technicians	28,000
Electricians	27,000
Heating, Air Conditioning and Refrigeration	_,,000
Mechanics and Installers	21,000
Machine Tool Operators (Metal/Plastic)	27,000
Mechanical Engineering Technicians	34,000
Machinery Maintenance Mechanics	26,000
Machinists	22,000
Nuclear Technicians/Technologists+	28,000
Numerical Control Machine Tool Operators	23,000
(Metal/Plastic)	26,000
Programmers (Numerical, Tool, Process Control)	30,000
Supervisors (First-Line), Mechanics	35,000
Surveying and Mapping Technicians	30,000
Tool and Die Makers	28,000
Welders and Cutters	23,000



BUSINESS TECHNOLOGIES

Position	Average Annual Salary
Accounting Technicians	16,000
Announcers+	14,000
Billing, Posting, Calculating Machine Operators	15,000
Bookkeeping, Accounting and Auditing Clerks	18,000
Broadcast Technicians+	17,000
Brokerage Clerks	17,000
Combination Food Preparation & Service Workers	11,000
Cooks, Institution or Cafeteria	11,000
Cooks, Restaurants	10,000
Computer Programmers@	33,000
Computer Operators, except peripheral equipment	21,000
Data Entry Keyers, except composing	16,000
Dispatchers, except police, fire and ambulance	24,000
Food Service and Lodging Managers@	19,000
Hairdressers, Hairstylists and Cosmetologists	15,000
Insurance Policy Processing Clerks	18,000
New Accounts Clerks	16,000
Payroll and Timekeeping Clerks	19,000
Personnel Clerks, except payroll	19,000
Production, Planning and Expediting Clerks	29,000
Real Estate Brokers+@	75,000
Receptionists and Information Clerks	15,000
Sales Supervisors, First-Line	22,000
Secretaries	19,000
Stenographers	21,000
Supervisors, Administrative Support Occupations	30,000
Travel Agents+	17,000
Typists, Word Processing Equipment	20,000

HUMAN AND PUBLIC SERVICE TECHNOLOGIES

Position	Average Annual Salary
Biological, Agricultural and Food Technicians+ Child Care Workers Detectives and Investigators, except public@ Firefighters% Funeral Directors and Morticians@ Guards, Security+ Human Services Workers+ Library Technicians% Occupational Therapy Assistants% Paralegal Personnel Police Officers Pre-School Teachers+@	16,000 11,000 17,000 20,000 27,000 16,000 14,000 19,000 18,000 26,000 21,000 13,000
Psychiatric Aides+ Social Service Aides%	11,000 22,000



HEALTH TECHNOLOGIES

Position	Average Annual Salary
Dental Assistants	17,000
Dental Hygienists	33,000
Emergency Medical Technicians+	13,000
Licensed Practical Nurses	20,000
Medical Assistants	19,000
Medical and Clinical Laboratory Technicians	24,000
Medical Records Technicians	18,000
Nursing Aides, Orderlies, and Attendants	10,000
Pharmacy Technicians	21,000
Physical and Corrective Therapy Assistants	22,000
Precision Dental Laboratory Technicians+	25,000
Radiological Technicians	18,000
Registered Nurses@	27,000
Surgical Technologists and Technicians+	20,000
Veterinary Technicians%	21,000

CURRENT SALARIES FOR OTHER OCCUPATIONS

Listed below are AVERAGE salaries for selected occupations other than mid-level technologies. These career fields and salary figures are provided for comparison purposes.

PROFESSIONAL LEVEL (Bachelor's Degree or Higher)

Accountants, Auditors & Other Financial	
Specialists	31,000
Aircraft Pilots and Flight Engineers+	34,000
Architects, except landscape and marine	40,000
Electrical and Electronic Engineers+	39,000
Medical and Clinical Laboratory Technologists	24,000
Operations and Systems Researchers & Analysts	32,000
Pharmacists	46,000
Physical Therapists+	37,000
Recreational Therapists+	13,000
Social Workers, Medical and Psychiatric	26,000
Systems Analysts, Electronic Data Processing	•
Teachers, Secondary	34,000
Writers and Editors	35,000
writers and Editors	26,000



SEMI-SKILLED (On-the-job Training)

Bus Drivers	9,000
Cashiers	11,000
Cooks, Fast Food	9,000
Highway Maintenance Workers+	22,000
Janitors and Cleaners, except maids	13,000
Motion Picture Projectionists+	11,000
Salespersons, retail	13,000
Service Station Attendants	10,000
Tire Repairers and Changers+	14,000
Vehicle and Equipment Cleaners	12,000
Waiters/Waitresses	6,000

- * Mid-level technology careers are those that typically require some high school vocational training up to and including an occupational Associate Degree either to enter the job field or to qualify for advancement.
- # Annual salaries are calculated by taking the hourly rate and multiplying by 2080 hours per year.
- + These figures are AVERAGES for the state of South Carolina. Salaries for the Upstate region were not available.
- @ Persons in these positions may have either an associate or a bachelor's degree.
- % Local figures unavailable from the Employment Security Commission so salaries reported were taken from statewide reports. (Source: South Carolina Occupational Information System, COIN Educational Products, 1991.)

(Source: S.C. Employment Security Commission, Labor Market Information Division. <u>The South Carolina Wage Survey</u>. Columbia, SC: Author, 1991; and local Employment Security Commission offices, 1992. Information contained in <u>The South Carolina Wage Survey</u> is based upon results of questionnaires sent to nearly 3000 employers across the state between February 1991 and June 1991.)

June, 1992

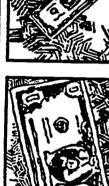


Insert charts here of information derived from "Compensation Potential," from Tooling and Manufacturing Association's brochure













What The Things You'll Want Will Cost

	Today	In 10 Years	In 20 Vears	1. 54 OC -1
Car	\$20,000	\$32.382	\$55.31.2	III SU rears
Condo	\$100,000	\$161 909	6030,000	\$94,482
Cup of Coffee	80.60	\$0.07	42/0/304	\$472,412
Caribbean Vacation	\$3.500	16.00 CE 666	31.00	\$2.83
Round of Golf	503	25,000	6/9/6¢	\$16,534
Doctor Visit	526	040	\$69	\$118
Doctor Visit	333	\$123	\$498	\$2,015
Dentist Visit	\$40	\$140	\$569	\$2 303
Auto Oil Change	\$20	\$32	\$55	604
Restaurant Dinner	\$7.50	\$12	\$20	426
Monthly Health Insurance	\$150	\$527	\$2.134	48 636
Prescription Medicine	\$45	\$158	\$640	\$0,030
Home Property Tax	\$1,500	\$5.276	\$21.547	06,26
Gallon of Gas	\$1.35	53.18	\$8.2K	300,303
Hospital Visit	\$2,500	\$8.794	\$35,570	\$21.42
Domestic Air Fare	\$500	\$1,178	\$3.057	\$145,938
Motel Room	\$75	\$121	\$207	6354
Monthly Electric Bill	\$125	\$294	\$764	\$334 €1 092
Long Distant Phone Call	\$4.50	\$7.29	\$12.45	\$21.26
1 97 Nominal Inflation Rate: 5.5%	Enerov Inflation Rate: 10%		Modical Indiation near 120	198

d514

Medical Inflation Rate: 15%

Energy Inflation Rate: 10%

Nominal Inflation Rate: 5.5%



What Success means

To laugh often and love much; to win the respect of intelligent persons and the affection of children; to earn the approbation of honest critics and endure the betrayal of false friends; to appreciate beauty; to find the best in others, to give of one's self, to leave the world a little better, whether by a healthy child, a garden patch, or a redeemed social condition; to have played and laughed with enthusiasm and sung with exultation; to know even one life has breathed easier because you have lived - this is to have succeeded.

> - Rotary Club Bulletin, Stratford, Ont., Canada, quoted in Anderson Hospice newsletter (from Anderson Independent Mail, Nov. 1, 1992, p. C1)





INTERNATIONALLY-OWNED COMPANIES IN ANDERSON, OCONEE AND PICKENS COUNTIES

COMPANY	LOCATION	COUNTRY OF OWNERSHIP
1. AUTECS	Anderson	Japan and Germany
2. Robert Bosch Corp.	Anderson	Germany
3. AFCO	Anderson	Japan and Germany
4. Orian Rugs	Anderson	Belgium
5. Santens of America	Anderson	Belgium
6. Ryobi Motor Products	Anderson Plant Pickens Plant	Japan
7. Frigidare	Anderson	Sweden
8. Forsheda	Anderson	Sweden
9. Schmid Products	Anderson	England
10. Cambral	Anderson	Canada
11. BASF	Anderson Plant Norris Plant	Germany
12. Michelin Tire Corp.	Sandy Springs	France
13. American Liba, Inc.	Piedmont	Germany
14. Dunlop Slazenger	Westminster	England
15. Schlumberger	West Union	France
16. U.S. Engine Valve	Westminster	Japan
17. Square D	Seneca	France
18. Ahlstrom	Easley	Finland
19. American House Spinning	Central	Egypt
20. Danfoss	Easley	Denmark

Current as of 6/29/92

(Source: Survey conducted by TCTC in 1991 and telephone update in 1992.)



Insert "Appendix D" divider page and tab here



Insert source article, "The Value of College," here



Insert source article, "Future Workplace is Shocking," here



Insert source article, "The New Economics of High Technology," here

Insert source article, "South Carolina: In Pursuit of Total Quality," here



Insert supplemental material, "A Day at the Box Factory," here



Insert supplemental materials, "Tech Prep and Admission to Four Year Colleges," "The Associate Degree," and "A Career in the Technologies is as Easy as 1-2-3!" in top loading sheet protectors.



UNIT IV - Tech Prep/PREParation for TECHnologies

Supplemental Material: "Tech Prep and Admission to Four-Year Colleges" brochure.



TECH PREP PREPARATION FOR TECHNOLOGIES

Published by
Tri-County Technical College
in cooperation with The Partnership
for Academic and Career Education
(PACE), a business and education
consortium promoting Tech Prep
programs for students in
Anderson, Oconee and Pickens
counties of South Carolina

PACE

P.O. Box 587, Pendleton, SC 29670 (803-646-8361, Ext. 2137)

TECH PREP

AND ADMISSION TO FOUR-YEAR COLLEGES

Now that you're a Tech Prep Student...

What are your options?

What college programs can you choose?

Can you qualify to earn a four-year degree?

IF YOU NEED ANSWERS TO THESE QUESTIONS, READ ON!

ERIC Full Text Provided by ERIC

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ANDERSON COLLEGE

To transfer from a University Transfer program to Anaerson Callege

-You may transfer a maximum of 72 semesrer hours from a two-year institution

-- You must have an overall grade point average of C or better.

-You may transfer a maximum of 12 hours of D work in general education courses only -- SAT requirement.

If you've completed 24 transferable semester hours of coursework in a university transfer program. NO SAT is required for transfer admission. If you have completed less than 24 hours (or are younger than age 21), the SAT is required for transfer admission foreign language requirement:**

NO foreign language is required for admission when you transfer from a University Transfer program.

you trained in a university transfer program.

high school transcript:
If you have completed 30 transferable semester hours, your high school transcript is NOT required for admission when transfering from a University Transfer program, if you have completed less than 30 hours, your high school transcript is required for admission

CONTACT PERSON

Bill Childress Registrar Anderson College 316 Boulevard Anderson, SC 29621 (803) 231-2120

CENTRAL WESLEYAN COLLEGE

To transfer from a University Transfer program to Central Wesleyan College:

-You may have a maximum of 68 semester hours accepted from a two year institution -You must have a grade average of C or better for major or general education credit.

-You may transfer a maximum of 12 hours of D work

as elective credit only S.'.I requirement:

li you've completed 30 (transferable) semester hours of coursework in a university transfer program \underline{NO} SAT is required for transfer admission. If you have completed less than 30 semester hours, the SAT IS required for transfer admission.

foreign language requirement.**

NO foreign language is required for admission when you transfer from a University Transfer program.

high school transcript:
If you vecompleted 30 (transferable) semesterhours
of coursework, your high school transcript is NOI required for admission when you're transferring from a University Transfer program: if you've completed less than 30 hours your high school transcript S required for transfer admission.

CONTACT PERSONS

Tim Wilkerson Dean of Enrollment Management or Christine Walker, Senior Admissions Counseior Central Wesleyan College Central South Carolina 29630-1020 .\$03) 639-2453 or 639-4099

CLEMSON UNIVERSITY

To transfer from a University Transfer program to Clemson University

—You must have completed at least 30 (transferable) semester hours of coursework.

-You must have a grade average of C+ or better in University Transfer courses

SAT requirement:
If you are transferring from a University Transfer program, generally there is NO SAT score required for fransfor admission. However, Clemson reserves the right to require the SAT in certain cases if two-year

college coursework is borderline foreign language requirement **
If you are transferring from a University Transfer program NC foreign language is required for transfer admission

high school transcript

If you ve completed 30 (transferable) semester hours of coursework in a University Transfer program, your high school transcript is NOT required for trans-

admission. If you've completed less than 30 transferable semester hours, your nigh school transcript IŞ required for transfer admission. Clemson reserves the right to require the high school transcript in special circumstances

CONTACT PERSON

Gina Warren Assistant Director of Admissions Clemson University Clemson, South Caroling 29634-4024 (803) 656-2464

FURMAN UNIVERSITY

To transfer from a University Transfer program to Furman University:

- You are not required to have a specific grade point average. However, collegiate GPA is very impor-
- —You must have a grade of C or better on each course transferred.

SAT requirement

If you have completed 30 (transferable) semester hours of coursework. NO SAT is required for transfer admission. If you've completed less than 30 transferable credit hours of coursework, the SAT IS required for transfer admission.

foreign language requirement:**
There is NO foreign language requirement for transfer admission when enrolling from a University Transfer admission when enrolling from a University Transfer admission.

ter program
-high school transcript:

You WILL need to submit your high school transcript to Furman in order to complete transfer admission requirements.

CONTACT PERSON

Carey Thompson Director of Admissions Furman University Greenville. South Carolina 29613 (803) 294-2000

LANDER COLLEGE

To transfer from a University Transfer program to Lander College:

- -You may transfer a maximum of 64 semester hours --You must have a grade of C or better in each
- transfer course.
 SAT requirement:

If you've completed 30 (transferable) semester hours in a University Transfer program, NQ SAT is required for transfer admission. If you've completed less than 30 semester hours of transferable credit, the SAT IS required for transfer admission, foreign language requirement:**

foreign language requirement. If you vecompleted 30 (transferable) semester hours of coursework in a University Transfer program NO foreign language is required for transfer admission. If you ve completed less than 30 semester hours of transferable credit. a foreign language MAY BE required for transfer admission

high school transcript:
If you ve completed 30 semester hours of transferable coursework in a University Transfer program. your nigh school transcript is NOT required for trans-Your ingriscribol transferibilis 1802 i required for indris-fer admission. If you've completed less than 30 transferable credit hours, your high school transcript [§ required for transfer admission. Students who wish to transfer less than 30 semester hours must meet treshmen admissions requirements as listed in the college catalog.

CONTACT PERSON

Jacquelyn Roark Director of Admissions Lander College Greenwood, South Carolina 29649 (803) 229-8307 or 1-800-768-3600

** Foreign language may not be required for dam ston when you tronsfer into a four-year covege but many! Thes foreign anguage is required to graduate from the four-year accesses. Although foreign language is NOT required for dam ston to rechnical accesses they tronsfer programs it is recommended that you take fareign longuage in high school. With most background you will be better prepared to take foreign anguage courses in the University Transfer program that will foreign anguage course in the University Transfer program that will reacted to your four-way anguage. ransfer to your four-year coilege



As a Tech Prep student, you know that you are preparing for a rewarding, high-paying career in one of the many occupational fields that require a certificate, diploma or two-year associate degree. In fact, most of the high-tech jobs that will be in demand by the year 2000 will not require a "our-year degree."

But what if you change your career goals and find that you will need a bachelors degree?

If you are a freshman or sophomore, you should see your counselor about taking the academic classes required for freshman admission to a four-year college.

However, if you are a junior or senior and have not met the freshman admission requirements for four-year colleges, consider these advantages of a University Transfer program at a two-year/technical college:

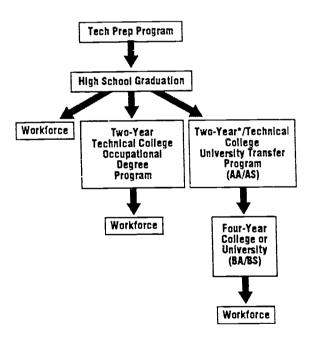
- a high-quality education at a manageable cost.
- small classes and personalized instruction,
- up to two years of credit toward a bacnelor's degree, and
- acceptance into any South Carolina college or university based on satisfactory performance and your two-year technical college transcript.

Working closely with an academic advisor at your two-year/ technical college, and with a successful college record, you will be able to transfer your credit to the coilege or university of your choice.

In addition, your advisor can help you identify which occupational associate degree programs or courses will also transfer to a four-year college.

FOR MORE INFORMATION ON UNIVERSITY TRANSFER. SEE YOUR HIGH SCHOOL COUNSELOR OR CONTACT THE ADMISSIONS OFFICE OF YOUR LOCAL YECHNICAL COLLEGE.

TECH PREP OPTIONS



 Some two-year colleges, like the USC branches, have specific admission requirements. Check with your counselor for more information.

Listed inside is information on transfer admission requirements for some area colleges and universities. This information was provided by the transfer admissions office for each institution, so contact the person listed if you have questions.



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UNIT IV - Tech Prep/PREParation for TECHnologies

Supplemental Material: "The Associate Degree" brochure.





Consider these facts:

- Employers actively seek persons with Applied Associate Degrees for careers requiring echnical, hands-on skills.
- · The average monthly salary of an Associate Degree graduate is nearly double that of someone with only a high school diploma.
- Earning the Associate Degree in a public Associate Degree-granting institution is the most economical way to pursue your higher education.
- The Associate Degree can be the foundation for the bachelor's degree.
- you a sense of pride in having reached a goal. • Earning the Associate Degree will give
- require almest 14 years of formal education. The Associate Degree will assure your place • By the year 2000, the average job will in a more demanding job market.
- ing but less than a bachelor's degree. Oppor-· Many new jobs will require college traintunities for Associate Degree graduates will continue to grow!
- cause many Associate Degree-granting insti-Degree while you work, if you choose, be-· You may be able to carn the Associate tutions offer day and evening classes.

Tri-County Technical College Associate Degrees offered at

Accounting

Associate in Science Degree (University Transfer) Associate in Arts Degree (University Transfer) Computer Technology

Criminal Justice Technology

Electronics Engineering Technology

Engineering Graphics Technology General Engineering Technology

General Technology

Industial Mechanics Emphasis

Welding Emphasis

Heating, Ventilation and Air Conditioning Technology

Industrial Electronics Technology Machine Tool Technology

Management

Medical Laboratory Technology

Nursing

Quality Assurance Technology Office Systems Technology

Radio and Television Broadcasting Textile Management Technology

Veterinary Technology

Tri-County Technical College also offers one-year diplomas in the following areas of study:

Automated Office Dental Assisting

Early Childhood Development Industrial Mechanics

Surgical Technology Practical Nursing Machine Tool Welding

TECHNICAL COLLEGE TRI-COUNTY

P. O. Box 587 • Pendleton, SC • 29670 Anderson County 225-2250 Oconee County 882-4412 Pickens County 859-7033 Main Number 646-8361

Tri-County Technical College does not discriminate in admission or employment on the basis of sex, race, religion, age, national origin or handicap.

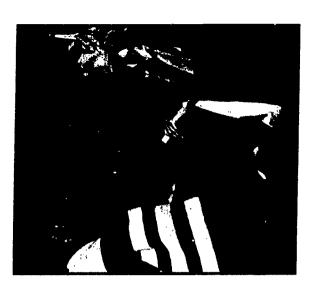
TDD/VOICE 1-800-735-2905

TRI-COUNTY TECHNICAL COLLEGE



Associate The

egree



The key that can open the door to career increased earning confidence, and satisfaction, bower.

9403

What is the

Associate

Degree?

The Associate Degree is awarded by a two-year community junior or technical college for specified study beyond high school. While you earn the Associate Degree, you master knowledge providing the foundation for future career or university success.

In addition to the skills you gain in your area of concentration, you will also take related courses in written and oral communications, mathematics, social sciences and humanities to broaden your understanding and competitiveness in a global market-

The Associate in Arts (AA) and Associate in Science (AS) Degrees prepare you for transfer to a senior college. Graduates of AA or AS programs typically continue their education in engineering, education, business or other majors offered in four-year colleges. Credit hours carned in AA/AS (University Transfer Programs) are accepted at senior colleges and universities throughout the country.

Associate Degrees in Applied Areas prepare you for a career immediately following your graduation from the two-year college.

These degrees are often called Associate in Applied Science (AAS) degrees. These types of degrees assure your potential employer that you have mastered the skills for a specific career in industrial/engineering technology, health, public service, or business fields. Your degree, for example, could be in nursing, management or criminal justice among many, many others.

Why should I consider the Associate Degree?

Earning an Associate Degree signifies that you have successfully completed two years of college training and gives you a competitive edge in the marketplace.

How do I earn an Associate Degree?

Just as an athlete prepares for a major sports event, you prepare for your future as an Associate Degree student. By planning early in your high school career, you can be academically prepared to begin college-levei work and you can save time and money by eliminating the need to take brush-up courses in college. If you successfully complete high school vocational courses, you may also qualify for advanced credit in an Applied Associate Degree Program. Your guidance counselor can help you plan your course of study in high school to prepare for your Associate Degree Program.

How long will it take me to earn an Associate Degree?

The number of credit hours required for the Associate Degree varies, but the average is approximately 70 semester hours. You should plan to spend about two years as a full-time student. If you plan to attend college part-time while you work, it may take longer. Course scheduling is frequently flexible — day and evening courses are offered in many programs — so that you may fit your work schedule around your college courses.

What does the Associate Degree cost?

The cost of earning an Associate Degree depends upon whether you choose a public or private college, whether you commute to your local community college, or attend a college away from home. In addition to tuition, you should plan for the cost of books, transportation, and meals away from home. If you attend a residential college, you must also plan for the expense of room and board.

Tri-County Technical College and the Associate Degree

Tri-County Technical College is a public community college located in Pendleton, South Carolina. Tri-County is nationally recognized for quality Associate Degree, Diploma and Certificate Programs.

Tri-County Technical College is accredited by the Commission on Colleges of the Southem Association of Colleges and Schools to award the Associate Degree.

Tuition at Tri-County Technical College

Tri-County Technical College is the area's leader in offering affordable, quality instruction. Full-time tuition is approximately \$375 per semester for South Carolina residents and \$720 for non-residents. There are no other fees or hidden costs. If you take less than 12 credit hours, the tuition is approximately \$32 per credit hour for South Carolina residents and \$60 per credit hour for non-residents.

The College administers a wide variety of financial aid: college work study, CO-OP programs, grants, loans and scholarships. If you really want an education, Tri-County can help you find a way to finance it.

the technologies
as easy as 1-2-3!



HULLING

COUNTY (efficiency and to Authority a

W. R. Gloce & La Clemson University Mora Processina

"I resume including so all " sions EMPLOYMENT COORDINTO GRYOVAC Division

il and denial coverage

Identify your interest and options



Get the facts



Start preparing now!

Think about your interests and options!

"Follow these three easy steps to finding a technology career that is right for you...

Identify your abilities, likes and dislikes:

- Take a career interest test. Your counselor may have some suggestions, or contact your area technical college, or look for the book, <u>The Fifty-Minute Career Discovery Program</u> by E.N. Chapman (1988).
- Take half an hour of uninterrupted time and write down all the characteristics that interest you about a job or career (like working with
- people, tasks that involve math, working with computers, etc.).
- Talk with someone you trust about your likes and dislikes and about career areas that might be best suited to you.



"Working in electronics is a real challenge! I have a lot of room for advancement. It took me a while to find a career that was right for me, but I'm really happy with my decision to go into electronics technology."

, —Carol R Findley Instructional Support Technician Applied Microelectronics Center Tri-County Technical College

Investigate different careers! Look for these opportunities:

- shadow or mentoring programs at school;
- field trips, guest lectures, or career fairs where you can ask questions of people in different jobs;
- computer-based career information systems like SCOIS, available in many schools, or career books in your library or guidance office:
- visit your area career center and different departments at local two-year colleges, talk with teachers and students about courses.

labs, and the types of jobs and salaries available to graduates;

- talk with neighbors, relatives, or friends who hold jobs that interest you—ask them what their jobs involve and what they like most about what they do;
- determine the kind of education you'll need to enter the career areas that you've identified.



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BEST COPY AVAILABLE

Experiment!

- Take high school vocational or occupational courses in areas that interest you.
- Volunteer in hospitals or other service agencies to gain first-hand knowledge about health care, public service, or similar career areas.

Get involved in something—join a club, school newspaper staff, community organization, etc. to give you more exposure to different career-related activities.

Get the facis-

Watch out for the six most-common career preparation myths:

Myth #1

"There are plenty of good jobs for people who finish high school."

Fact:

By the year 2000, the average job in the Southeast will require almost 2 years of education beyond high school.

Myth #2

"To qualify for a really good job. I need a 4-year college degree."

Fact:

You can earn high salaries (\$25,000 and higher in some cases!) with a two-year college degree in challenging positions with a variety of responsibilities.

Myth #3

"Technology jobs aren't for everyone: females have trouble finding jobs."

Fact:

There's a place in the technologies for everyone! In fact, projections are that females and minorities will have better opportunities than ever in technology fields—all that's needed is the right training and a will to succeed!

Myth #4

'If all I need is a two-year, technical college degree, then I can relax because it doesn't matter what I take in high school."

Fact:

Preparing for a career starts in high school. Taking the right academic courses, and combining them with vocational courses can save you time, money, and frustration in college and may qualify you for advanced placement!

Myth #5

"I don't know <u>anything</u> about electronics or other technical subjects, and I'm terrible in math. I'd never make it in a technology career."

Fact:

Technology careers are not only in technical fields, they can be in health, business, or public service areas too. While it's true that having some vocational background is helpful, two-year college programs start with basic courses and build up—so you don't have to know all the answers when you begin! And as for math, if you haven't taken the right high school courses, or need to brush-up, you can enroll in a technical college and gain the skills you need to be successful in any major.

Myth #6

"I know two-year colleges aren't as expensive as universities, but there's no way I can afford it."

Fact:

There are many opportunities to finance a two-year college education. In addition to grants and scholarships, several area companies now sponsor programs where your work part-time and receive funds for tuition and books! Where there's a will, there's a way, so find out what's available—talk with your counselor or the financial aid office at the two-year college you plan to attend.



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Start preparing <u>now</u> for an exciting career in one of the technologies...

Starting early is important because your middle/junior high and high school studies are the foundation for success in any technology career. When you plan your high school studies, follow the course recommendations for the Tech Prep (PREParation for TECHnologies) program described in your school's career planning or registration guide. Here are some general planning tips:

- Take four units of mathematics and three units of science.
- Always take the highest level course you are capable of handling successfully.
- Take some occupational courses. Computer courses are particularly helpful for any college major, and with your occupational coursework, you may qualify for college credit through such programs as Technical Advanced Placement (TAP) available at Tri-County Technical College.
- Take a foreign language in high school and continue your studies in college. (Because many area companies are now international, skills in any foreign language can be a real advantage in the job market!)
- Apply yourself in all courses, learn to study and manage your time effectively, and do your very <u>best</u> in English classes. (The ability to communicate, especially in writing, will be one of your most valuable college, career, and life skills!)
- Talk with your high school counselor, vocational teacher, or area two-year college counselor about special options to finance a college education, including "earn while you learn" opportunities such as co-op, technical scholars/apprenticeship programs, work-study, and others!

Start your course and career planning today!

What's so great about mid-level technology careers?

- They offer good salaries, interesting work, and opportunities for advancement.
- They represent a large portion of the job growth in South Carolina and throughout the country.
- They involve many different fields such as industrial and engineering technology, business, allied health, and public service.
- They typically require some vocational training in high school up to completion of an occupational associate degree, either for entry or advancement. and...

You can start preparing for a technology career in high school. In fact, your high school studies may qualify you to earn credit at area technical colleges and provide you with opportunities to receive tuition assistance to help pay some or all of your college costs!



"This is a great program! I enjoy what I'm learning in class and our lab projects are really interesting. Thanks to a special scholarship program with the ROBERT BOSCH corporation, all my college expenses are taken care of, and I have a great part-time job that relates to what I'm learning in class."

-Robin Suaas Student, Machine Tool Technology



"I'm convinced that a two-year college degree can lead to some great jobs and many possibilities for advancement. As an associate degree graduate myself, i know firsthand that this type of education can be a real plus in the job market!"

-Marcel Robinson Personnel and Training Representative Phillips Fibers Corporation



"After working for a while in a nursing home, I realized that to get anywhere I'd need more education. I really enjoy my studies in nursing and I know I'll have some good job opportunities after graduation.

—Gary L. Stancil Student. Practical Nursing







UPERVISOR IUFACT. , immediate need for an experienced first isor for our evening shift operation. The Jidate will preferably have a two year nent degree with a minimum of five year ansified supervisory experience. The ahi ectively deal with people is essential, alo nering to, an FDA work environment.

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rance \$21,262-\$31,894) ables/controls equipment maintenance and programming an Blieur Mork Gunicouweur Ed o lechnical growth or oculunity, e ations may be completed at our nions may on control requirement seumes with salary requirement seumes with salary requirement.

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Must have good written and ord communication skills.

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through a Carl Perkins grant awarded to PACE by the South Carolina Department of Education and the State Board for Technical and Comprehensive Education.

(PACE, P.O. Box 587, Pendleton, SC 29670, S03-646-8361, ext. 2107)

This brochure was published by the Partnership for Academic and Career Education (PACE).

a business/education consortium promoting Tech Prep programs for students in Anderson,

Oconee and Pickens counties of South Carolina. Funding for this brochure was made possible

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SPECIAL TUITION ASSISTANCE/WORK-BASED LEARNING PROGRAMS BETWEEN AREA EMPLOYERS AND TRI-COUNTY TECHNICAL COLLEGE

PROGRAM: Bosch Apprenticeship Program

SPONSORING COMPANY: Robert Bosch Corporation, Anderson

RESTRICTIONS: None, open to all qualified students (high school graduates) in Anderson, Oconee and

Pickens counties.

MAJOR: General Technology with a concentration on electromechanical systems leading to

an Associate Degree in Occupational Technology.

DESCRIPTION: Between 12 and 16 students are selected each year. Applicants must complete special testing and an interview with Bosch representatives. Upon acceptance, students begin

a program where a 40-hour week is split between classes at Tri-County Technical College and Apprenticeship training at Bosch. Participants receive a full-time salary beginning in the \$8.00-\$10.00/hr range (based on a 40-hour work week) and full company benefits which include all tuition and book costs. While at Tri-County, students take a full course load and graduate in two and a half years with an Associate Degree and a U.S. Department of Labor Journeyman's Certification. Upon completion, participants are eligible to bid on technical support positions within the company at salaries beginning in the \$12.00-\$17.00 hour range which equates to \$24,960-\$35,360 on an annual basis. (While full-time employment with Bosch is not guaranteed, the

probability is very high for program completers.)

PROGRAM: Technical Scholars

SPONSORING COMPANIES: Michelin Tire Corporation, Milliken Textiles

RESTRICTIONS: None, open to all qualified students (high school graduates) in Anderson, Oconee and

Pickens counties.

MAJOR: General Engineering Technology/Electronics Engineering Technology leading to an Associate

Degree in Engineering Technology.

DESCRIPTION: Approximately 6 to 10 students are selected each year on the basis of company testing and interviews with company representatives. Upon acceptance, students attend Tri-County full time and receive work-based instruction at their respective work sites as their schedules permit (usually 15-25 hours per week). Students receive full tuition, book costs and a salary in the \$7.00-10.00/hr range for hours spent at the work site. Upon

completion, partcipants are <u>usually</u> offered full-time positions as electrical/mechanical technicians. The number of students selected varies each year depending on workforce

projections.



PROGRAM: Oconee Industries Partnership Program

SPONSORING COMPANIES: Eight metalworking industries in Oconee County and one in north Georgia.

PIESTRICTIONS: None, open to all qualified students (high school graduates) in Anderson, Oconee and Pickens counties. NOTE: Several companies begin this program while students are high school seniors and attending the Fred P. Hamilton Career Center. However, other positions are open to graduates from Pickens and Anderson County high schools.

MAJOR: Machine Tool Technology leading to an Associate Degree in Industrial Technology.

DESCRIPTION: Between 6 and 8 students are selected each year on the basis of company testing and interviews by company representatives. Students attend classes and lab requirements at Tri-County Technical College during the morning and work on site with the sponsoring company during the afternoon for approximately 17-25 hours per week.

Salaries range from \$6.50 to \$9.00 per hour and tuition and books are covered by the sponsoring company. Participants are <u>usually</u> offered full-time employment upon program completion with their respective companies as Toolmakers, Set-Up Technicians, Maintenance Mechanics Technicians or Computer Numerical Control Operators.

PROGRAM: Co-op/work study

SPONSORING COMPANIES: Numerous companies in the tri-county area.

RESTRICTIONS: May differ with individual employers; however, the majority of positions are open to

recent high school graduates from Anderson, Oconee and Pickens County schools who

are students at Tri-County Technical College.

DESCRIPTION: Area companies typically sponsor between 80 and 100 students per year based on the student's program of studies and the results of company-sponsored tests and/or inter-

views. Some assignments may be short term (one semester), and others may continue until graduation where full-time employment may be offered. Hours vary with the individual company; costs for tuition and books are typically <u>not</u> covered. Salaries also vary widely with individual companies and may range from \$5.00 per hour to \$15.00 per

hour.

NOTE: It is possible for qualified students to earn Technical Advanced Placement credit through their Tech Prep programs which may be applied to any of the degree programs described above. Earning TAP credit may result in a shortened program, lighter course loads in beginning terms and/or opportunities to earn advanced certificates within the normal Associate Degree timeframe.

(6/30/92)



Lists of Works Cited & Supplemental Resources

This section of "Planning for the Future: A Student Awareness Program for Tech Prep and Mid-Level Technology Careers" contains a list of publications referenced in the program as well as several supplemental resources.

UNIT I - The Changing Workplace

Transparency I-I: "Will we be Ready for Tomorrow's Workforce?"-sources are indicated on a handout following this section.

Transparency I-2: "Education: The Decreasing Pyramic," from Garrett Park Press, <u>Career Opportunities News.</u> October 1991.

Transparency I-3: "Job Prospects for 1991 College Graduates Are the Bleakest in at Least 20 Years" from: Chronicle of Higher Education, December 19, 1990, p. A26; "Facing Bleak Job Prospects, Many Recent Graduates Look to Advanced Degrees for a Competitive Edge," Chronicle of Higher Education, October 30, 1991, p. A1, A35; "Recent Graduates Face a Tight Market for Jobs, Study Finds," Chronicle of Higher Education, October 24, 1990, p. A31.

Source Article: "The Value of College," Newsweek, August 31, 1992, p. 75.

Handout: "Status of 4-Year College Graduates/Class of 1986 One Year After Graduation," from: U.S. Bureau of Labor Statistics, Occupational Outlook Quarterly, Summer 1990.

Source Article: "Future Workplace is Shocking," <u>North Carolina Education.</u> November/ December 1990, p. 2-9.

Source Article: "The New Economics of High Technology," <u>Harper's Magazine</u>. March 1992, p. 15-17.

Content reference, Growth Policies Board, Commission on the Future of the South, <u>The Report of the Committee on Human Resource Development</u>, 1986.

Student Activity I-C: "A Simulated Work Place," supplemental material entitled, "A Day at the Box Factory," from: Waltner, Jean C., "Learning from Scientists at Work," <u>Educational Leadership</u>, March 1992, p. 48-52.

Source Article: "South Carolina: In Pursuit of Total Quality," <u>South Carolina Business.</u> vol. 11, 1951, p. 12-17.

Transparency I-6: "The Workplace in South Carolina is Changing," original transparency designed by PACE based on numerous local and state sources.

(NOTE: Other transparencies or handouts not specifically referenced here were locally developed by PACE staff.)

UNIT II - Mid - Level Technology Careers

Transparency II-I: "General Characteristics of Mid-Level Technology Careers," original transparency designed by PACE based on numerous local, state and national sources.

Transparency II-2: "Average Number of Job and Career Changes," from: Garrett Park Press, Career Opportunities News / Education and Work, March/April 1990, p. 4.

Handout: "Introduction to Careers Quiz," original source documents are included following this section.



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Handout: "Fastest-Growing Occupations: Mid-Level Technologies," South Carolina Employment Security Commission. <u>Palmetto Perspective 1990: South Carolina's People and Jobs in the Year 2000</u>. Columbia, SC: Author, 1990.

Handout: "Average Salaries for Mid-Level Technology Careers," compiled from: South Carolina Occupational Information System, COIN Educational Products, 1991; S.C. Employment Security Commission, Labor Market Information Division, <u>The South Carolina Wage Survey</u>, Columbia, SC: Author, 1991; and informal telephone surveys of Employment Security Commission offices in Anderson, Oconee and Pickens counties.

Handout: "Compensation Potential," from: Tooling & Manufacturing Association. "How Valuable is Your Future?" brochure, Park Ridge, IL: Tooling & Manufacturing Association, 1989.

(NOTE: Other transparencies or handouts not specifically referenced here were locally developed by PACE staff.)

UNIT III - Student Expectations

Handout: "How Much The Things You Want Will Cost," original source not available.

(NOTE: Other transparencies or handouts not specifically referenced here were locally developed by PACE staff.)

UNIT IV - Tech Prep / Preparation for Technologies

Handout: "List of Internationally Owned Companies in Anderson, Oconee and Pickens Counties," based on telephone surveys and an interview with the manager of the S.C. Special Schools Program based at Tri-County Technical College, June 1992.

(NOTE: Other transparencies or handouts not specifically referenced here were locally developed by PACE staff.)

UNIT V - Planning for the Future

Transparency V-I: "People don't plan to fail, they just fail to plan," original source not available.

(NOTE: Other materials used in this unit were locally developed by PACE staff.)



D525

WILL WE BE READY FOR TOMORROW'S WORKFORCE?

- ◆ By the year 2000, the <u>average</u> job in the Southeast will require almost 14 years of formal education. (Source: U.S. Department of Labor. The Southeast's 21st Challenge. Atlanta, GA: U.S. Department of Labor, Employment and Training Administration, 1990.)
- ◆ 42% of South Carolina's 1991 graduates chose <u>NOT</u> to pursue <u>any type</u> of formal postsecondary education directly after high school. (Source: Preliminary report, S.C. Department of Education, <u>S.C. Department of Education Annual Report Columbia</u>, SC: Department of Education, forthcoming, November, 1992.)
- ◆ 52.1% of first-time freshmen entering S.C. public two-year colleges in 1988 needed remediation. (Source: Southern Regional Education Board. "Issues in Higher Education: Remedial Education in College: How Widespread Is It?" Atlanta, GA: SREB, no. 24, 1988.)
- The high school dropout rate in S.C. is 35%. (Source: Chronicle of Higher Education, Chronicle of Higher Education Almanac, August 28, 1991, p. 4-7.)
- ◆ Only 16.6% of adult South Carolinians have at least a bachelor's degree. (Source: Appalachian Council of Governments, Greenville, SC. "Selected Social Characteristics: 1990, Table 1, South Carolina," (Information based on 1990 Census of Population, U.S. Bureau of Census.)
- "Current levels of educational attainment [in the Southern states] will not produce enough people who will have the skills and education to fill the kinds of jobs available in the 21st century."

 (Trends in Education. Employment. Population: Challenge 2000, SREB, 1989.)



Insert paper master copy of "Education: The Decreasing Pyramid" here



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Pickens County is seeking apolica-lions for a Criminal Investigator for the 13th Circuit Salicilar's Or-lice. Rewirements: Gradinale from a his year college and a min-imum of two years exercises in law enforcement; thereugh knowl-edge at criminal low and a peneral understanding of civil low; must act seek of the college of the college Drivers Receive. This is a full time position with benefits.

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Applications are available through the Pickens County Administra-tor's Office, P.O. Box 275, Pickens. -S.C. 27671.

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SPECIAL NOTE: First shift position with shift rotation and weekends as needed.

Would you like to experience a different type of nursing? We have an opening with the S.C. Dept. of Corrections at Perry Correctional Institution. For more information contact Joan Riley at 1-243-4700 or Nancy Oliver at 1-271-3238 or send resume to:

Appalachian Regional Office 1096 New Cut Road Spartanburg, S.C. 29303

(SS# and vacancy number must be included in order for resume to be processed.)

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Clemson University **Word Processing** Supervisor

High school graduallon and flive years affice wark experience, one year at which must have been in word as rocessina. Type at a carrected rate of 35 WPM. Prefer associate degree and three years word processing experience. Extensive knowledge of various word processing and related telecammunications soliware packness and hardware desired. Experience in training others is preferred. Pasition reautres good communication and arganizational skills. Salary: State Pay Grade 24 (Minimum \$17.561). Closing Dale: 11/30/70. Send letter of application and resume to:

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Qualifications: An associale degree with 12 semester hours in accounting related to research the school eraductive season high school eraductive three years of circleol accounting or bookkeeping experience; Working knowledge of PC. Loius 1-2-3 and D-Base software height. Knowledge of general accounting procedures and university thonclaid accounting procedures and university thonclaid accounting procedures is desired.

Salary: State Pay Grade 23 (57.43-\$11.65)

Closing Date: October 9, 1989

Send letter of application and resume or apply directly to:

CLEMSON UNIVERSITY Personnet Services Division 104 University Square Clemson, SC 24434-5337

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Some Comparitive Statistics

Average wage in Upstate South Carolina Source: South Carolina Wage Survey, 1989-90 South Carolina Employment Security Commission

	Average Hourly Earnings
Accountants, Auditors and Budget Analysts	\$14.05
*Auto Mechanics	\$12.30
Carpenters	\$14.78
Counter and Retail Clerks	\$ 6.30
*Electrical and Electronic Technicians	\$13.22
File Clerks	\$ 8.19
*Heating, A/C and Refrigeration Mechanics	\$15.74
Mail Clerks	\$ 8.20
Medical & Psychological Social Workers	\$10.27
Personnel and Labor Relations Specialists	\$12.23
*Registered Nurse	\$16.00
Social Workers except Medical & Psychological	\$ 7.09
Speech Pathologists and Audiologists	\$10.35
*Tool & Die Makers	\$12.53
Waiters and Waitresses	\$ 3.33

(To calculate hourly wage into an annual wage, multiply hourly salary by 2080 hours per year. For example, Registered Nurses making \$16.00 per hour would earn approximately \$33, 280 per year.)

^{*}Jobs requiring some career-related training or postsecondary education at the associate degree level.
Registered nurses may hold an associate or bachelor's degree.



Job description provided to PACE in May of 1990 by a large manufacturing company with plants in Anderson and Pickens counties. (Salary range= \$11.92 per hour starting; \$13.42 after 24 months.)

IOR DATING CONCURS ATIONS	CODE N	<u>. 386</u>	2A
JOB RATING SPECIFICATIONS (SHOP)	DEPT	850	
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CE NAME Electronics Engineering Technician CLASS-	·	•	

JOB DESCRIPTION:

Required to perform a diversity of operations to design, build, test and repair various electronic equipment. Must be capable of operating all test equipment in the area assigned. Must have ability to read complex schematics and test procedures. Required to check and repair all electronic controls on equipment such as Micron gear hobbers, induction heating machines, electronic tape controlled machines, computerized numerical controlled machining centers, & microprocessor controls for motor building equipment. Design and install new controlls that will meet OSHA and Electric Code standards. Up date and redesign existing controls that are now being used to bring within OSHA compliance. Requires the design, building and installation of new type electronic testing equipment for our products. Requires assistance to manufacturing department technicians and engineering departments as assigned. Requires the use of test equipment such as computers, amplifiers, oscilloscopes, various types types of meters, bridges, power supplies and complex test equipment. Testing and calibrating of meters on various test equipment on a regular basis. Performs initial tests on new and prototype equipment. Design build, and install electronic controls for customized automatic equipment which is build in-house. May be required to assist with mechanical as well as electrical troubleshooting when necessary.

Plant Mgr. 11) 1. Holt 3-25-18/1

Mgr. P & O An Arant

V.P. P & O Tamtod

Date 3/30/81

TYPICAL PARTS:

231 BY DATE
JN 3-13-81



	CODE NO
JOB RATING SPECIFICATIONS	DEPT. 850
(SHOP)	GRADE
, w _k u	275

JOB NAME Electronics Eng. Technician "A"

' FACTORS	SUBSTANTIATING DATA	EG	PTS.
EDUCATION	High school plus two years minimum formal electronics training.	4	60
EXPERIENCE	Over three years up to and including five years.	4	80
INITIATIVE AND INGENUITY	Ability to apply trade knowledge acquired through schooling or previous experience in testing, trouble shooting and repair of various circuit boards and components. Ability to use complex testing equipment and to understand interrelated and complex circuity. This position requires use of initiative in establishing methods and procedures. Work is performed where supervision is not readily available. Ability to design and build complex electronic equipment.	5	75
PHYSICAL DEMAND	Most of time light physical effort working with light weight material. Dccasionally harder work bending and installing conduct.	2	20
MENTAL OR VISUAL DEMAND	Intense and exacting mental and visual attention, visualizing, planning and laying out or otherwise performing very involved and complex work.	5	25
RESPONSIBILITY FOR EQUIPMENT OR PROCESS	Improper handling of equipment would result in damage of over \$200, but not over \$8,000.	4	20
RESPONSIBILITY FOR MATERIAL OR PRODUCT	Probable loss due to improper performance of duties would exceed \$200 but not over \$1000.	3	1
RESPONSIBILITY FOR SAFETY OF OTHERS	Safety of others depends entirely on correct action of employee on this job. Carelessness may result in fatal accident.	5	2
RESPONSIBILITY FOR WORK OF OTHERS	Responsible for 1 or 2 persons 50% or more of the time.	2	1
WORKING CONDITIONS	Good working conditions. Generally, some oil, grease, weather but only occasionally.	2	2 2
HAZARDS	Exposed to high voltages which may result in fatal accident. Possible burns from short circuits, crushed fingers or toes, falls from ladders.		5



Job description provided to PACE in May of 1990 by a large manufacturing company with plants in Anderson and Pickens counties. (Salary range= \$395-\$574 per week.)

,	ON DESCRIPTION	
MIDDLE MANAGEMENT, OFF		Rev. 6/84
•EFARTMENT Quality Assurance	4. elvielen	Motor Products

Perform specific assignments of a quality engineering nature including development of Quality Assurance procedures and techniques and corrective action programs.

6. SCOPE

Investigation of parts, assemblies and complete machines to identify failure cause. Develop corrective action plan to eliminate failure causes and prevent future occurrence.

7. WORK PERFORMED

% of Time

- (1) Analyze quality problems and initiate corrective action reports.
- (2) Inspect or sample parts for conformance of design specification.
- (3) Perform inspection set-ups to assure quality standards are maintained.
- (4) Review and write Engineering Change Requests that affect quality standards.
- (5) Review manufacturing processes and procedures for compliance.
- (6) Conduct meetings on problem investigations.
- (7) Assist in design and procurement of gages for new and existing product.
- (8) Periodically perform system audits to assure procedures are followed.
- (9) Write routine quality reports.
- (10) Perform machine capability studies.

1. SUPERVISION EXERCISED
(*) POSITIONS DIRECTLY, SUPERVISED

Number of Employees

Hourly personnel.



9. SUPERVISION RECEIVED

(a) SUPERVISOR

Engineer, Senior Quality Assurance (b) SUPERVISION RECEIVED

Work with general instructions and direction which requires the applica; of basic engineering concepts. Initiative and judgment are necessary inthe resolution of theoretical and practical problems. Planning and prescrib ing courses of action.

10. RESPONSIBILITY AND AUTHORITY

(=) EMPLOYEE RELATIONS

Daily contact with production operators, inspectors, Engineers, Foreman, Department Managers, Staff Members, QA personnel and other Singer factories and some customer contact.

(b) MATERIAL OR PRODUCTS

Piece parts through final assembled machines.

(c) EQUIPMENT

Tools, gages, measuring equipment and production tooling.

(4) MONEY

None.

(a) BUSINESS CONTACTS (INTERNAL AND EXTERNAL)

Internal - Daily contact with all levels of factory personnel. External - Contact other Singer factories and customer representatives.

11- MINIMUM REQUIREMENTS

(.) EQUIVALENT EDUCATION LEVEL REQUIRED .

Associate Degree in an engineering related field or ASQC Quality Technician Certification.

(b) EXPERIENCE REQUIRED

If an Associate Degree, three years manufacturing area experience; otherwise four years experience in Quality Assurance with three of these as a Technician, Quality Assurance.

(c) KNOWLEDGE REQUIRED

Requires knowledge of Quality Assurance techniques, product design, manufacturing methods and processes, and overall knowledge of the product.

REVIEWED BY

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Partnership for Academic and Career Education (PACE) Pendleton, SC

CAREER MATERIALS COLLECTION LIST

The materials listed below are available for loan to interested teachers, counselors and others in Anderson, Oconee and Pickens County schools. In addition, copies of most locally-developed materials are available free of charge through the PACE Office.

Tri-County Technical College also maintains a collection of materials on various mid-level technology careers which are not included in this list. These materials are available for circulation through the College's library and may be signed out by anyone in the local community.

For information on any of the materials listed below, please contact the PACE Office at 646-8361, ext. 2107.

BOOKS

- 1. American Society for Training and Development. America: Learning to Work for the 21st Century. Alexandria, VA: Author, 1989. (PACE collection)
- 2. American Society for Training and Development. America and the New Economy. Alexandria, VA: Author, 1991. (PACE collection)
- 3. Brewner, M. Attitudes on the Job. New York, NY: Educational Design, Inc., 1988. (PACE collection)
- 4. Boyle, K. and Whelden, E. <u>Career Information in the Classroom: Workshop Guide for Infusing the Occupational Outlook Handbook:</u>
 Columbus, OH: National Center for Research in Vocational Education, 1986. (PACE collection)
- 5. Brown, S. and Brown, D. <u>Designing and Implementing a Career Information Center</u>. Garrett Park, MD: Garrett Park Press, 1990. (PACE collection)
- 6. Campbell, R. and Thompson, M. Working Today and Tomorrow. St. Paul, MN: EMC Publishing, 1987. (PACE collection)
- 7. Carnevale, A., Gainer, L and Meltzer, A. Workplace Basics: The Skills Employers Want. Alexandria, VA: American Society for Training and Development, 1988. (PACE collection)
- 8. Cetron, M. <u>Jobs of the Future</u>: <u>The 500 Best Jobs--Where They'll Be and How to Get Them</u>. New York, NY: McGraw-Hill, 1984. (D. Walter collection)



- 9. Chapman, E. The Fifty-Minute Career Discovery Program. Los Altos, CA: Crisp Publications, Inc., 1988. (PACE collection)
- 10. Eberts, M. and Gisler, M. Careers for Bookworms & Other Literary Types. Lincolnwood, IL: VGM Career Horizons, 1990. (D. Walter collection)
- 11. Evans, R., Hoyt, K. & Mangum, G. <u>Career Education in the Middle/Junior High School</u>. Salt Lake City, UT: Olympus Publishing Co., 1973. (PACE collection)
- 12. Farr, J. M. and Martin, K. America's 50 Fastest Growing Jobs. Indianapolis, IN: JIST Works, Inc., 1991.
- 13. Feingold, S. and Miller, N. Emerging Careers: New Occupations for the Year 2000 and Beyond. Garrett Park, MD: Garrett Park Press, 1983. (PACE collection)
- 14. Feingold, S. Futuristic Exercises: A Workbook on Emerging Lifestyles and Careers in the 21st Century and Beyond. Garrett Park, MD: Garrett Park Press, 1989. (PACE collection)
- 15. Gale, B. and Gale, L. <u>Discover What You're Best At</u>. New York, NY: Simon and Schuster, 1982. (D. Walter collection)
- 16. Hull, D. and Prescott, C. <u>High-Technology Careers</u>: A <u>Guide for Counselors</u>. Waco, TX: Center for Occupational Research and Development, 1984. (PACE collection)
- 17. Kapes, J. and Mastie, M. A Counselor's Guide to Career Assessment Instruments. Alexandria, VA: The American Association for Counseling and Development, 1988. (PACE collection)
- 18. Kennedy, J. <u>Career Book</u>. Lincolnwood, IL: National Textbook Company, 1988. (PACE collection)
- 19. Kimeldorf, M. <u>Job Search Education</u>. New York, NY: Educational Design, Inc., 1988. (PACE collection)
- 20. Krannich, L. Careering and Re-Careering for the 1990's: The Complete Guide to Planning Your Future. Manassas, VA: Impact Publications, 1989. (PACE collection)
- 21. Krantz, L. The Jobs Rated Almanac. New York NY: Pharos Books, 1988. (D. Walter collection)
- 22. Mangum, G., Gale, G., Olsen, M., Peterson, E. & Thorum, A. Your Child's Career: A Guide to Home-Based Career Education. Salt Lake City, UT: Olympus Publishing Co., 1977. (PACE collection)
- 23. National Occupational Information Coordinating Committee. <u>Using Labor Market Information in Career Exploration and Decision Making: A Resource Guide</u>. Garrett, MD: Garrett Park Press, 1986. (PACE collection)



- 24. Petras, K. and Petras, R. Jobs '91. New York, NY: Prentice Hall Press, 1991. (PACE collection)
- 25. Pilkington, M. The Real-Life Aptitude Test. New York, NY: Pharos Books, 1987. (D. Walter collection)
- 26. Purkey, W. and Schmidt, J. <u>Invitational Learning for Counseling and Development</u>. Ann Arbor, MI: <u>ERIC Counseling and Personnel Services Clearinghouse</u>, 1990. (PACE collection)
- 27. Rettig, J. <u>Careers: Exploration and Decision</u>. Belmont, CA: David S. Lake Publishers, 1986. (D. Walter collection)
- 28. Russo, J. <u>Careers Without College: No B.S. Necessary</u>. White Hall, VA: Betterway <u>Publications</u>, Inc., 1985. (D. Walter collection)
- 29. Sacharov, A. Offbeat Careers: The Directory of Unusual Work. Berkeley, CA: Ten Speed Press, 1988. (D. Walter collection)
- 30. Schrank, L.W. How to Choose the Right Career. Lincolnwood, IL: VGM Career Horizons, 1991. (D. Walter collection)
- 31. Slater, E. ed. <u>Career Directions</u>. St. Paul, MN: EMC Publishing, 1991. (PACE collection)
- 32. Smith, C. Glamour Careers. New York, NY: Monarch Press, 1985. (D. Walter collection)
- 33. South Carolina Employment Security Commission. South Carolina Job Search Assistance Guide. Columbia, SC: Employment Security Commission, 1989. (PACE collection)
- 34. Southworth, S. Exploring High Tech Careers. New York, NY: Rosen Publishing Group, 1988. (PACE collection)
- 35. Towers Perrin and the Hudson Institute. Workforce 2000: Competing in a Seller's Market: Is Corporate America Ready? Atlanta, GA: Author, 1990. (PACE collection)
- 36. Union Carbide Corporation. <u>Undereducated</u>, <u>Uncompetitive</u> <u>USA</u>. Danbury, CT: Author, 1989. (PACE collection)
- 37. U.S. Department of Labor. The Southeast's 21st Challenge. Atlanta, GA: U.S. Department of Labor, Employment and Training Administration, 1990. (PACE collection)
- 38. U.S. Government Printing Office. Occupational Outlook Handbook. Washington, D.C.: Department of Labor, 1988. (Latest edition on order.) (PACE collection)
- 39. Wegmann, R., Chapman, R. and Johnson, M. Work in the New Economy: Careers and Job Seeking into the 21st Century. Indianapolis, IN: JIST Works, Inc., 1989. (PACE collection)

40. Wright, J. The American Almanac of Jobs and Salaries. New York, NY: Avon Books, 1987-88 edition. (D. Walter collection)

VIDEOS

- 41. American Society for Medical Technology. Clinical Laboratory Science: Career Opportunities. Washington, DC: Author, 1990. (PACE collection)
- 42. Frank Paxton Company. 21st Century Skills Series. Kansas City, MO: Author, 1988 (PACE collection)
- 43. Guidance Associates. Careers In Health Services: Opportunities for You. Mount Kisco, NY: Author, 1989. (PACE collection)
- 44. Industrial Technology Education Association. Women in the Machining Industry. Reston, VA: Author, 1988. (PACE collection)
- 45. National Tooling and Machining Association. Go For It: Careers in Tooling and Machining. Fort Washington, MD: Author, 1990. (PACE collection)
- 46. North American Veterinary Technician Association. The World of the Veterinary Technician. West Lafayette, IN: Author, 1990. (PACE collection)
- 47. Paseornek, M. Are You Ready? A Documentary Video About Career Planning for Youth. Dallas, TX: JCPenney Co., Inc., 1990. (PACE collection)

PERIODICALS/OTHER PROFESSIONALLY-DEVELOPED MATERIALS

- 48. <u>Career Opportunities</u> <u>News</u> newsletter published by Garrett Park Press. (PACE collection)
- 49. "Differences in Average Monthly Earnings by Educational Level" chart. (Adapted from: U.S. Department of Commerce, Bureau of Census, Current Populations Reports, 1990.) (PACE collection)
- 50. "Fastest Growing Jobs in the Southeast" chart. (Adapted from: U.S. Department of Labor. The Southeast's 21st Challenge. Altanta, GA: U.S. Department of Labor, Employment and Training Administration, 1990.) (PACE collection)
- 51. "Growth in Occupations, 1988-2000" chart. (Adapted from: Career Opportunities News, Garrett Park, MD: Garrett Park Press, 1990.)
 (PACE collection)
- 52. "How Does Highest Level of Education Completed Affect Earnings?" (Chart prepared by <u>Career Opportunities</u> <u>News</u>, Jan-Feb., 1991.) (PACE collection)



- 53. "How Valuable is Your Future?" brochure explaining tool & die making and mechanical engineering careers and earning potential. (Tool & Manufacturing Association, 1989.) (PACE collection)
- 54. "The Key to a Brighter Future: Your Career at Duke Power" brochure showing career opportunities with Duke Power Company. (PACE collection)
- 55. "Nuclear Medicine Technology" brochure published by the Society of Nuclear Medicine, 1990. (PACE collection)
- 56. Occupational Outlook Quarterly journal published by the U.S. Department of Labor, Bureau of Labor Statistics. (PACE collection)
- 57. "Pathways to Careers in Communication" brochure published by the Speech Communication Association, 1991. (PACE collection)
- 58. "Preparing for a Career in the Medical Laboratory" brochure published by the American Society of Clinical Pathologists, 1988. (PACE collection)
- 59. S.C Department of Education. <u>Job Seeking</u>. Columbia, SC: South Carolina Department of Education, 1982. (PACE collection)

HANDOUTS/OTHER LOCALLY-DEVELOPED MATERIALS

- 60. "Activities to Help Students Explore Technology Careers" (PACE handout, 1990.)
- 61. "A Career in the Technologies is as Easy as 1-2-3!" (PACE brochure, 1990.)
- 62. Carson, C. and Wallace, J. Mathematics for the Workplace:
 Applications from Engineering Technology.* (PACE, 1990)
- 63. <u>Guide to Area Business Speakers: A Resource for Teachers and Counselors-2nd edition.</u> (PACE, 1991)
- 64. Holton, L. and Wallace, J. <u>Communications for the Workplace:</u>
 Applications from Criminal Justice Technology.* (PACE, 1990)
- 65. "Issues in Education and Employment" quiz. (PACE, 1991)
- 66. Job ads handouts featuring local opportunities in mid-level technology careers. (PACE, 1990-91)
- 67. Jones, D. and Wallace, J. Mathematics for the Workplace:
 Applications from Medical Laboratory Technology.* (PACE, 1989)



^{*} All locally-developed curriculum modules contain information on the career area from which applications were derived.

- 68. Matching quiz on careers, education and salary. (PACE, 1991)
- 69. Nichols, G. and Wallace, J. <u>Mathematics</u> for the <u>Workplace:</u> <u>Applications</u> from <u>Radiological Technology</u>.* (PACE, 1990)
- 70. Nontraditional Careers Panel Video from the 1989 PACE Summer Institute. (PACE, 1989)
- 71. Powell, M. and Wallace, J. <u>Mathematics</u> for the <u>Workplace</u>:

 <u>Applications</u> from <u>Textile</u> <u>Manufacturing</u>. * (PACE, 1990)
- 72. Spelts, C. and Wallace, J. Mathematics for the Workplace:
 Applications from Insurance.* (PACE, 1990)
- 73. Stewart, G. and Wallace, J. Mathematics for the Workplace:
 Applications from Machine Tool Technology.* (PACE, 1991)
- 74. "Tech Prep: Selected Quotes, Statistics and Need Statements" compilation of career-related trends, educational statistics and other statements from various publications. (PACE, 1991)
- 75. Transparencies on mid-level technologies, workforce trends, relationship of engineering to engineering technology and other career-related topics. (PACE, 1989-91)
- 76. Williams, C. Marshall, R. and Wallace, J. Mathematics for the Workplace: Applications from Veterinary Technology.* (PACE, 1990)

Partnership for Academic and Career Education P.O. Box 587
Pendleton, SC 29670
(803) 646-8361, ext. 2107

(2/18/92)



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Partnership for Academic and Career Education (PACE) Tri-County Technical College

CAREER AVARENESS MINI-GRANT

MATERIALS COLLECTION LIST

BOOKS

- 1. Ahrens, K. Opportunities in Eye Care Careers. Lincolnwood, IL: VGM Career Horizons, 1991.
- 2. Basta, N. Careers in High Tech. Chicago, IL: VGM Career Horizons, 1992.
- 3. Bell, J. and Garvey, L. Opportunities in the Machine Trades. Lincolnwood, IL: VGM Career Horizons, 1986.
- 4. Bingham, M., Edmondson, J. and Stryker, S. <u>Challenges: A Young Man's Journal</u> for <u>Self-Awareness and Personal Planning</u>.
- 5. Bingham, M., Edmondson, J. and Stryker, S. <u>Choices</u>: <u>A Teen Woman's Journal for Self-Awareness and Personal Planning</u>.
- 6. Blanche, K. and Blanche, J. Aspirations: A Career Decision Making Game.
 Chatsworth, CA: Career Aids Division, Opportunities for Learning, Inc. (Includes Student Manual)
- 7. Bone, J. Opportunities in Compter Aided Design and Computer Aided Manufacturing. Lincolnwood, IL: VGM Career Horizons, 1986.
- 8. Bone, J. Opportunities in Plastics Careers. Lincolnwood, IL: VGM Career Horizons, 1991.
- 9. Borowsky, I. <u>Opportunities in Printing Careers</u>. Lincolnwood, IL: VGM Career Horizons, 1992.
- 10. Budzik, R. Opportunities in Refrigeration and Air Conditioning Trades. Lincolnwood, IL: VGM Career Horizons, 1989.
- 11. Cambridge Research Group, Ltd. <u>Careers That Count, Occupational Briefs</u>. Charleston, W: Author, 1988.
- 12. Cambridge Research Group, Ltd. Choices Today..For Career Satisfaction Tomorrow (A Video Guide to Career Planning). Charleston, WV: Author, 1988.
- 13. Chronicle Guidance Publications, Inc. <u>Chronicle Business Occupations Guidebook.</u>
 Moravia, NY, 1991.
- 14. Chronicle Guidance Publications, Inc. Chronicle Health Occupations Guidebook. Moravia, NY, 1991.
- 15. Chronicle Guidance Publications, Inc. Chronicle Industrial Technology Occupations Guidebook (Volume I). Moravia, NY, 1990.



-1-

- 16. Chronicle Guidance Publications, Inc. Chronicle Industrial Technology Occupations Guidebook (Volume II). Moravia, NY, 1991.
- 17. Ettinger, B. Opportunities in Office Occupations. Lincolnwood, IL: VGM Career Horizons, 1989.
- 18. Ettinger, B. <u>Opportunities</u> in <u>Secretarial</u> <u>Careers</u>. Lincolnwood, IL: VGM Career Horizons, 1992.
- 19. Evans, M. <u>Opportunities</u> in <u>Property Management</u> <u>Careers</u>. Lincolnwood, IL: VGM Career Horizons, 1990.
- 20. Evans, M. Opportunities in Real Estate Careers. Lincolnwood, IL: VGM Career Horizons, 1988.
- 21. Farr, J.M. America's 50 Fastest Growing Jobs. Indianapolis, IN: JIST Works, Inc., 1991.
- 22. Farr, J.M. and Christophersen, S. Career & Life Skills Series: Your Career-Thinking About Jobs and Careers. Indianapolis, IN: JIST Works, Inc., 1991.
- 23. Fins, A. Opportunities in Paralegal Careers. Lincolnwood, IL: VGM Career Horizons, 1990.
- 24. Galvin, P. <u>Opportunities</u> in <u>Plumbing</u> and <u>Pipe</u> <u>Fitting</u> <u>Careers</u>. Lincolnwood, IL: VGM Career Horizons, 1989.
- 25. Garrett Park Press. <u>Improved Career Decision Making in a Changing World</u>. Garrett Park, MD: Author, 1991.
- 26. Garrett Park Press. <u>Improved Career Decision Making in a Changing World</u>, <u>Training Manual</u>. Garrett Park, MD: Author, 1991.
- 27. Gaylord, G. and Ried, G. <u>Careers in Accounting</u>. Lincolnwood, IL: VGM Career Horizons, 1991.
- 28. Girls Incorporated of Santa Barbara. Instructor's Guide for Choices, Challenges and More Choices. Santa Barbara, CA: Author, 1987.
- 29. Harkavy, M. 101 Careers: A Guide to the Fastest-Growing Opportunities. New York, NY: John Wiley & Sons, Inc., 1990.
- 30. Harvey, R. and Schutz, P. <u>Career Development</u>. Eden Prairie, MN: Paradigm Publishing International, 1992.
- 31. Harvey, R. and Schutz, P. <u>Career Development</u>, <u>Instructor's Guide</u>. Eden Prairie, MN: Paradigm Publishing International, 1992.
- 32. Henkin, S. <u>Opportunities</u> in <u>Hotel</u> and <u>Motel</u> <u>Careers</u>. Lincolnwood, IL: VGM Career Horizons, 1992.
- 33. Hornung, D.M. and Moran, R. Opportunities in Microelectronics Careers. Lincolnwood, IL: VGM Career Horizons, 1985.



- 34. Horwin, M. <u>Careers in Film and Video Production</u>. Lincolnwood, IL: VGM Career Horizons, 1990.
- 35. Hoyt, D. Opportunities in <u>Information Systems</u> <u>Careers</u>. Lincolnwood, IL: VGM Career Horizons, 1991.
- 36. JIST Works, Inc. America's Top 300 Jobs. Indianapolis, IN: Author, 1990.
- 37. JIST Works, Inc. The Enhanced Guide for Occupational Exploration. Indianapolis, IN: Author, 1991.
- 38. Kanter, E. <u>Opportunities</u> in <u>Computer Maintenance</u> <u>Careers</u>. Lincolnwood, IL: VGM Career Horizons, 1988.
- 39. Kling, J. <u>Opportunities in Computer Science Careers</u>. Lincolnwood, IL: VGM Career Horizons, 1991.
- 40. Krueger, G. Opportunities in Petroleum Careers. Lincolnwood, IL: VGM Career Horizons, 1990.
- 41. Lunneborg, P. Women Changing Work. New York, NY: Bergen & Garvey Publishers, 1990.
- 42. Maples, W.R. Opportunities in Aerospace Careers. Lincolnwood, IL: VGM Career Horizons, 1991.
- 43. Munday, M. Opportunities in Word Processing Careers. Lincolnwood, IL: VGM Career Horizons, 1991.
- 44. Martin, M. <u>Hard-Hatted</u> <u>Women:</u> <u>Stories of Struggle and Success in the Trades.</u>
 San Francisco, CA: The Seal Press, 1988
- 45. Neufeld, R. Exploring Nontraditional Jobs for Women. New York, NY: The Rosen Publishing Group, 1987, 1989.
- 46. Noerper, N. Opportunities in Data Processing Careers. Lincolnwood, IL: VGM Career Horizons, 1989.
- 47. Olsson, D. and Raphael, H. Opportunities in Packaging Science. Lincolnwood, IL: VGM Career Horizons, 1979.
- 48. Paradis, A. Opportunities in Vocational & Technical Careers. Lincolnwood, IL: VGM Career Horizons, 1992.
- 49. Petras, K. and Petras, R. Jobs '92. New York, NY: Prentice Hall Press, 1992
- 50. Project TIDE, Jersey City State College, Center for Occupational Education.
 Mythbusters Trainer's Guide. Jersey City, NJ.
- 51. Reed, R. and Reed, M. <u>Career Opportunities in Television</u>, <u>Cable</u>, <u>and Video</u> (Third Edition). New York, NY: Facts on File, Inc., 1990
- 52. Rivera, Dr. M. The Minority Career Book. Holbrook, MA: Bob Adams, Inc., 1991



- 53. Rowh, M. Opportunities in Drafting Careers. Lincolnwood, IL: VGM Career Horizons, 1986.
- 54. Rowh, M. Opportunities in Metalworking Careers. Lincolnwood, IL: VGM Career Horizons, 1991.
- 55. Rewh, M. Opportunities in Welding Careers. Lincolnwood, IL: VGM Career Horizons, 1990.
- 56. Scharnberg, K.. Opportunities in Trucking Careers. Lincolnwood, IL: VGM Career Horizons, 1992.
- 57. Scheiber, B. and Talpers, J. <u>Unlocking Potential</u>: <u>College and Other Choices for Learning Disabled People-A Step by Step Guide</u>. Bethesda, MD: Adler & Adler, Publishers, Inc., 1985, 1987.
- 58. Sheldon, R. <u>Opportunities in Carpentry Careers</u>. Lincolnwood, IL: VGM Career Horizons, 1987.
- 59. Stinchcomb, J. Opportunities in Law Enforcement and Criminal Justice Careers. Lincolnwood, IL: VGM Career Horizons, 1990.
- 60. Sumichrast, M. Opportunities in Building Construction Trades. Lincolnwood, IL: VGM Career Horizons, 1989.
- 61. TAKEOFF Video Educational Excellence. <u>Careers for the 21st Century Teacher's Guide</u> (Volume I). St. Louis, MO. (See listing of video Programs 1 12 on pages 6 and 7.)
- 62. TAKEOFF Video Educational Excellence. Careers for the 21st Century Teacher's Guide (Volume II). St. Louis, MO. (See listing of video Programs 1 12 on pages 7 and 8.)
- 63. VGM Career Horizons. <u>Careers Encyclopedia</u>, (Third Edition). Lincolnwood, IL: Editors, 1991.
- 64. VGM Career Horizons. <u>Dictionary of Occupational Titles</u>, <u>Volume I</u> (Fourth Edition). Lincolnwood, IL: Revised, 1991. Compiled by the U.S. Department of Labor, Employment and Training Administration.
- 65. VGM Career Horizons. <u>Dictionary of Occupational Titles</u>, <u>Volume II</u> (Fourth Edition). Lincolnwood, IL: Revised, 1991. Compiled by the U.S. Department of Labor, Employment and Training Administration.
- 66. VGM Career Horizons. <u>Handbook of Scientific & Technical Careers</u>, (Second Edition). Lincolnwood, IL: Author, 1992.
- 67. Weber, R. Opportunities in Automotive Service Careers. Lincolnwood, IL: VGM Career Horizons, 1989.
- 68. Wegmann, R., Chapman, R. and Johnson, M. Work in the New Economy-Careers and Job Seeking into the 21st Century. Indianapolis, IN: JIST Works, Inc., 1989.



- 69. Wert, C. Opportunities in Materials Science. Lincolnwood, IL: VGM Career Horizons, 1978.
- 70. Wittenberg, R. Opportunities in Child Care Careers. Lincolnwood, IL: VGM Career Horizons, 1987.
- 71. Wood, R. Opportunities in Electrical Trades. Lincolnwood, IL: VGM Career Horizons, 1986.
- 72. Woodburn, J.H. Opportunities in Energy Careers. Lincolnwood, IL: VGM Career Horizons, 1992.
- 73. World Future Society. Careers Tomorrow-The Outlook for Work in a Changing World. Bethesda, MD: Author, 1988.

VIDEOS

- 74. Appalachian Educational Laboratory, Inc. Your Aptitudes Related to Learning Job Skills. (15.00) Charleston, WV, 1989
- 75. Appalachian Educational Laboratory, Inc. Your Future Planning Through Career Exploration. (16:47) Charleston, WV, 1989
- 76. Appalachian Educational Laboratory, Inc. Your Interests Related to Work Activities. (13:00) Charleston, WV, 1989
- 77. Appalachian Educational Laboratory, Inc. Your Temperaments Related to Work Situations. (15:00) Charleston, WV, 1989
- 78. Cambridge Research Group, Ltd. <u>Investigating the World of Work</u>. Charleston, WV: Cambridge Career Products, 1990. (Includes Video Guide)
- 79. Cambridge Research Group, Ltd. <u>Occupational Preparation</u>. Charleston, WV: Cambridge Career Products, 1990. (Includes Video Guide)
- 80. Cambridge Research Group, Ltd. <u>Self-Awareness and Tour Career Options</u>. Charleston, WV: Cambridge Career Products, 1988. (Includes Video Guide)
- 81. Career Passports, Inc. and Delphi Productions, Ltd. The Video Career Library.

 <u>Careers in Mechnical Fields</u>. (22:00) Boulder, CO.
- 82. Career Passports, Inc. and Delphi Productions, Ltd. The Video Career Library.

 <u>Careers in the Technical Fields.</u> (33:00) Boulder, CO.
- 83. Guidance Associates Career Direction: High School as Tryout. Hount Kisco, NY.
- 84. Guidance Associates. <u>Jobs for the 21st Century</u>. Cassette 3 Health Care: Where the Jobs Are/I and II. Hount Kisco, NY.
- 85. Guidance Associates. <u>Jobs for the 21st Century</u>. Cassette 1 Looking Ahead: The Changing Workplace. Mount Kisco, NY.



- 86. Guidance Associates. <u>Jobs for the 21st Century</u>. Cassette 2 Business: Where the Jobs Are/I and II. Mount Kisco, NY.
- 87. Guidance Associates. The Ten Fastest Growing Careers: Jobs ior the Future. Cassette 1 Legal and Health Areas. Mount Kisco, NY.
- 88. Guidance Associates. The Ten Fastest Growing Careers: Jobs for the Future. Cassette 2 Hospitality and Retail. Mount Kisco, NY.
- 89. Guidance Associates. The Ten Fastest Growing Careers: Jobs for the Future. Cassette 3 Education and Human Resources. Mount Kisco, NY.
- 90. Guidance Associates. The Ten Fastest Growing Careers: Jobs for the Future. Cassette 4 Business and Computer Technology. Mount Kisco, NY.
- 91. Guidance Associates. <u>Vocational</u> <u>Visions:</u> <u>Technical/Manufacturing</u> <u>Cluster</u> <u>One</u>.
- 92. Guidance Associates. <u>Vocational Visions:</u> <u>Technical/Manufacturing Cluster Two.</u>
- 93. JIST Works, Inc. The Tough New Labor Market-And What It Takes to Succeed. Indianapolis, IN: Author, 1991.
- 94. Project TIDE, Jersey City State College, Center for Occupational Education.

 Mythbusters. Jersey City, NJ. (Includes Trainer's Guide)
- 95. TAKEOFF ideo Educational Excellence. <u>Careers for the 21st Century</u> (Volume I).

 Program 1 Fire Fighter, Veterinarian (Black Male; White Female). St. Louis, MO.

 (Includes Teacher's Guide)
- 96. TAKEOFF Video Educational Excellence. <u>Careers for the 21st Century</u> (Volume I). Program 2 - Video Producer, Fighter Pilot (Black Female; Multi Ethnic). St. Louis, MO. (Includes Teacher's Guide)
- 97. TAKEOFF Video Educational Excellence. <u>Careers for the 21st Century</u> (Volume I). Program 3 Automobile Designer, Mechanic (Black Male; White Male). St. Louis, MO. (Includes Teacher's Guide)
- 98. TAKEOFF Video Educational Excellence. <u>Careers for the 21st Century</u> (Volume I).

 Program 4 Paramedic, Restaurateur/Food Service (White Male; Hispanic Male). St.
 Louis, MO. (Includes Teacher's Guide)
- 99. TAKEOFF Video Educational Excellence. <u>Careers for the 21st Century</u> (Volume I). Program 5 Entrepreneur/Coin Dealer, Structural Engineer (White Male; Black Female). St. Louis, MO. (Includes Teacher's Guide)
- 100. TAKEOFF Video Educational Excellence. Careers for the 21st Century (Volume I).

 Program 6 Optometrist, Interior Designer (White Male; Hispanic Female). St.
 Louis, MO. (Includes Teacher's Guide)
- 101. TAKEOFF Video Educational Excellence. <u>Careers for the 21st Century</u> (Volume I). Program 7 Pediatric Radiologist, Iron (Steel) Worker (White Hale; Multi Ethnic). St. Louis, MO. (Includes Teacher's Guide)



- 102. TAKEOFF Video Educational Excellence. <u>Careers for the 21st Century</u> (Volume I). Program 8 TV News Camera Person, Carpenter (Hispanic Female; White Male). St. Louis, MO. (Includes Teacher's Guide)
- 103. TAKEOFF Video Educational Excellence. <u>Careers for the 21st Century</u> (Volume I). Program 9 Robotics Development, Political Cartoonist (Middle Eastern Male; White Male). St. Louis, MO. (Includes Teacher's Guide)
- 104. TAKEOFF Video Educational Excellence. <u>Careers for the 21st Century</u> (Volume I).

 Program 10 Educator (Biology Professor), Nurse (White Male; Black Female). St.
 Louis, MO. (Includes Teacher's Guide)
- 105. TAKEOFF Video Educational Excellence. <u>Careers for the 21st Century</u> (Volume I). Program 11 Chemical Engineer, FBI Agent (Black Male; Hispanic Female). St. Louis, MO. (Includes Teacher's Guide)
- 106. TAKEOFF Video Educational Excellence. <u>Careers for the 21st Century</u> (Volume I).

 Program 12 Executive Secretary, Inventor/Entrepreneur (White Female; Amerasian Male). St. Louis, MO. (Includes Teacher's Guide)
- 107. TAKEOFF Video Educational Excellence. Careers for the 21st Century (Volume II).

 Program 1 Police Officer, Teacher (Black Female; White Male 24:00). St.
 Louis, MO. (Includes Teacher's Guide)
- 108. TAKEOFF Video Educational Excellence. Careers for the 21st Century (Volume II).

 Program 2 Child Care Teacher, Home Health Care (White Female; Hispanic Female 19:46). St. Louis, MO. (Includes Teacher's Guide)
- 109. TAKEOFF Video Educational Excellence. <u>Careers</u> for the <u>21st</u> <u>Century</u> (Volume II). Program 3 Physical Therapist, Cosmotologist (Oriental Female; White Female 18:40). St. Louis, MO. (Includes Teacher's Guide)
- 110. TAKEOFF Video Educational Excellence. <u>Careers for the 21st Century</u> (Volume II). Program 4 Cable Services, Repair Technician (White Male; Black Female 20:42). St. Louis, MO. (Includes Teacher's Guide)
- 111. TAKEOFF Video Educational Excellence. Careers for the 21st Century (Volume II).
 Program 5 Researcher, Legislative Aide (Black Male; Hispanic Female 26:47).
 St. Louis, MO. (Includes Teacher's Guide)
- 112. TAKEOFF Video Educational Excellence. <u>Careers for the 21st Century</u> (Volume II). Program 6 Video Editor, Sales Representative (White Female; Black Male 20:56). St. Louis, MO. (Includes Teacher's Guide)
- 113. TAKEOFF Video Educational Excellence. <u>Careers for the 21st Century</u> (Volume II).

 Program 7 Park Ranger, Zoologist (Black Female; Black Male 20:45). St. Louis,
 MO. (Includes Teacher's Guide)
- 114. TAKEOFF Video Educational Excellence. <u>Careers for the 21st Century</u> (Volume II). Program 8 Computer Support Specialist, Accounting (White Male 28:00). St. Louis, MO. (Includes Teacher's Guide)



- 115. TAKEOFF Video Educational Excellence. Careers for the 21st Century (Volume II).

 Program 9 Recycling Manager, Electrician (White Male; Black Male 22:40). St.
 Louis, MO. (Includes Teacher's Guide)
- 116. TAKEOFF Video Educational Excellence. Careers for the 21st Century (Volume II). Program 10 Hobbyist, Janitorial Services (White Male 25:30). St. Louis, MO. (Includes Teacher's Guide)
- 117. TAKEOFF Video Educational Excellence. <u>Careers for the 21st Century</u> (Volume II). Program 11 Dietician, Chef (Hispanic Female; Black Male 20:00). St. Louis, MO. (Includes Teacher's Guide)
- 118. TAKEOFF Video Educational Excellence. <u>Careers for the 21st Century</u> (Volume II). Program 12 General Manager, Dentist (Black Male; Black Female 20:45). St. Louis, MO. (Includes Teacher's Guide)



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GLOSSARY

AA

Abbreviation for "Associate of Arts" degree, a degree that is designed to transfer to a four-year college or university.

AAS

Abbreviation for "Associate of Applied Science" degree; a degree that is designed to be prepare graduates for career entry or job advancement after two years of college study. AAS degrees may transfer in whole, or in part, to selected four-year colleges. AAS degrees may also be known by occupationalspecific titles such as Associate in Engineering Technology, Associate in Business, etc.

ADVANCED PLACEMENT

Occurs when a student is allowed to skip over a course, or enter on a higher level, than is normally required upon entering a college program.

AP

An abbreviation for "Advanced Placement", usually used when referring to the College Board's AP program accepted by most two and four year colleges throughout the country. Technical Advanced Placement (TAP) functions like a local version of AP for occupational degree programs at Tri-County Technical College.

AS

Abbreviation for "Associate of Science" degree, a degree that is designed to transfer to a four-year college or university.

ASSOCIATE DEGREE

A degree awarded by a two-year community, junior or technical college indicating that the graduate has completed a program of study with a broad base in general education and a concentration in a specific area. The degree may be in an occupational area (such as Electronics) or in liberal arts (such as an associate degree in science or arts.) Occupational associate degrees, often called Associate of Applied Science degrees, are now preferred by many employers and the liberal arts associate degree is widely accepted for transfer into bachelor's degree programs.

EXEMPTION CREDIT

Credit awarded for a college course which exempts or "releases" the student from taking the course on the college campus. Exemption credit appears on the student,s transcript, is calculated into the total earned credit hours but does not affect the grade point average (GPA).



MID-LEVEL TECHNOLOGY CAREERS

Careers requiring a high school diploma with occupational training up to and including an applied associate aegree, either to enter the job field or to qualify for advancement. These careers are in many different fields, offer good salaries and opportunities for advancement and are growing rapidly throughout South Carolina and the nation.

OCCUPATIONAL DEGREE PROGRAM

A program at a two-year college designed to prepare students to enter the workforce immediately following graduation. While some occupational degree courses and/or programs transfer to four-year colleges, their primary function is career preparation. Occupational degree programs may also be referred to as "applied" degree programs.

TAP

The abbreviation for Technical Advanced Placement, one component of area Tech Prep programs. TAP is a term used by Tri-County Technical College; other area two-year/technical colleges may use other names to describe similar types of programs.

TAP EXAM

A procedure required to earn credit for some courses; there is no charge for TAP exams at Tri-County Technical College.

TAP PROCEDURES

The list of steps a student must complete successfully to earn Tri-County Technical College credit. Each program area at Tri-County offering TAP credit has a page in the Student TAP Handbook listing the TAP procedures or steps to follow. (Student Handbooks may be obtained free of charge by contacting Ms. Anita Turlington, TAP Advisor at TCTC.)

TECH PREP

A new program linking high school and community college programs and combining academic and occupational study to PREPare students for mid-level TECHnology careers in industrial/engineering technologies, business technologies, health technologies and public service technologies. Tech Prep programs are now being developed across South Carolina and the nation.

TECHNICAL ADVANCED PLACEMENT (TAP)

Part of area Tech Prep programs enabling qualified students to earn Tri-County Technical College credit based on successful completion of specified high school courses and procedures. (Similar opportunities are available at other area two-year/ technical colleges.)



TRANSFER

Term used when a student has credit accepted from one college to another. Can also be the name of a two-year college program ("University Transfer" or AA/AS) where the student can earn up to the first two years of a bachelor's degree.

WORK-BASED LEARNING

May be a component of Tech Prep programs where students combine classroom instruction with structured work experiences. Examples of work-based learning include Youth Apprenticeship, cooperative education and other similar activities.



The PACE Organization

The Partnership for Academic and Career Education, established in 1987, is a business and education consortium involving the seven school districts of Anderson, Oconee and Pickens counties, local businesses and industries, Tri-County Technical College, area education agencies and the National Dropout Prevention Center and the College of Education at Clemson University.

A fifteen-member coordinating board, chaired by Dr. Karen C. Woodward, superintendent of Anderson School District Five, includes top administrators of all partner institutions and provides leadership for implementing Tech Prep programs in sixteen local high schools and four career centers in the tri-county area. The PACE consortium has a small administrative staff housed on the campus of Tri-County Technical College.

Why Tech Prep?

The PACE partners believe that Tech Prep (PREParation for TECHnologies) programs can help motivate more young people to graduate from high school, to pursue occupational training at two-year colleges, and to enter our local workforce with better academic and job-related skills. The partners also feel that Tech Prep provides a viable educational alternative for the high numbers of students who are not planning to pursue baccalaureate studies directly after high school.

What is Tech Prep?

Tech Prep is a sequenced program of academic and vocational studies preparing students to enter a two-year college occupational degree program or to enter the workforce directly after high school graduation. Tech Prep links high school and two year college programs eliminating "gaps" and "overlaps" to provide enhanced academic and vocational preparation for mid-level technology careers in industrial/engineering technology, business, health, and public service fields.

Who is Tech Prep Designed For?

Tech Prep targets primarily high school students in the general education "track"—the track which has historically enrolled up to 50% of the total student body, has produced the greatest number of school dropouts, and has provided inadequate preparation for either meaningful work or postsecondary education. However, because Tech Prep emphasizes occupational study as well as enhanced academics, high school students in traditional vocational programs are also considered Tech Prep students. Basically the program targets all students who are not planning to pursue baccalaureate degrees.



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What are the Goals of Tech Prep?

The goals of Tech Prep are to:

- Increase the skill levels of high school math, English and science courses by replacing traditional general education classes with new, enhanced applied academic courses;
- Increase students' motivation to learn academic concepts by using career-related examples from business, industrial/engineering technology, health, and public service fields in the teaching of academic courses (i.e., applied academics);
- Provide a coordinated, sequenced series of academic and vocational courses starting in grade 9 and continuing through completion of two-year college occupational certificate, diploma or associate degree programs;
- Motivate more students to graduate from high school by making their academic studies more "hands on" and more relevant to the world of work;
- Raise the self-esteem level of general and vocational (Tech Prep)
 students by enabling them to identify with a program that has direction, status, and visible support from local employers;
- Encourage students to develop basic technology skills by completing high school vocational/occupational courses;
- Increase students' preparedness to enter two-year college occupational degree programs without remediation or to enter the workforce directly after high school with enhanced employability skills;
- Motivate more high school students to pursue postsecondary education by enabling those that qualify to earn Tri-County Technical College credit for competencies equivalent to entry-level College courses (called Technical Advanced Placement);
- Increase students' understanding of opportunities in mid-level technology careers through new classroom and counseling activities;
- Increase the number of graduates from two-year college occupational degree programs (i.e., programs with the primary goal of preparing graduates for the workforce) who possess job-related, academic, teamworking and critical thinking skills.

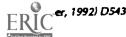
Are there Tech Prep Programs in other areas?

Yes! Tech Prep programs involving high schools and community colleges have been growing throughout the country since the early 1980's. There are now approximately 1000 programs of this type nationwide and more are developing every day! In fact, earlier this year Congress appropriated \$100 million to help encourage the development of Tech Prep programs across the nation.

For additional information...

on PACE and the Tech Prep initiative in Anderson, Oconee, and Pickens counties, please contact:

Ms. Diana M. Walter, Executive Director Partnership for Academic and Career Education P.O. Box 587, Highway 76 Pendleton, SC 29670 (803-646-8361, ext. 2378)



Tech Prep

... SELECTED QUOTES, STATISTICS AND NEED STATEMENTS

This document contains quotes and other statements concerning the need for Tech Prep programs. References are given in parentheses following each statement.

- "By the year 2000, the average job in the Southeast will require almost fourteen years of formal education."
 (United States Department of Labor. <u>The Southeast's 21st Challenge</u>. Atlanta, GA: U.S. Department of Labor, Employment and Training Administration, 1990.)
- 2. In South Carolina, technician and service jobs requiring a postsecondary education, such as that offered in two-year colleges, will increase 50%.
 (From 10/89 phone call to Mr. William Dealy, Jr. Regional Management Analyst and Coordinator for Research, Demonstrations, and Evaluation, U.S. Department of Labor, Atlanta, GA based on his research outlined in: The Southeast's 21st Challenge. Atlanta, GA: U.S. Department of Labor, Employment and Training Administration, 1990.)
- Employment is expected to grow faster for technicians and related support occupations than for any other major occupational group between now and the year 2000.
 (Davis, S.J. The 1990-91 Job Outlook in Brief. <u>Occupational Outlook Quarterly</u>, Spring 1990, pp. 8-45.)
- 4. "The average new job being created here in South Carolina requires about 14 years of formal education...that means entrants are expected to: 1) be able to reason through a variety of work situations without standard solutions; 2) interpret instructions involving written, oral and diagrammatic form; 3) perform arithmetic, algebraic, and geometric operations; and 4) read, write, and speak on a variety of subjects of considerable complexity."

 (from a speech delivered to the Anderson, Oconee, and Pickens County Personnel Associations, August 22, 1989 by William A. Dealy, Jr., Regional Management Analyst and Coordinator of Research, Demonstrations, and Evaluations for the U.S. Department of Labor, Employment and Training Division, Atlanta, GA.)
- 5. Of the new jobs available in the Southeast by the year 2000, a two-year college education will be required by 21% of new private sector jobs, and an average of two years of postsecondary education will be required by 45% of new public sector jobs. (United States Department of Labor. The Southeast's 21st Challenge. Atlanta, GA: U.S. Department of Labor, Employment and Training Administration, 1990.)
- 6. Students who think they don't need many skills to work in textiles or other manufacturing industries will be disappointed. "...high school grads are having trouble getting jobs in manufacturing...companies are setting more sophisticated requirements for blue-collar jobs."

 (Mandel, M.J. Economic Trends: The High Cost of Not Going To College. <u>Business Week</u>, May 1, 1989, 7. 20.)



- 7. "...60% of current jobs require a high-school diploma or less, only 25% of all jobs created between now and the year 2000 will require so little education."
 (United Way of America. The Future World of Work: Looking Toward the Year 2000. United Way of America, 1988.)
- 8. "...most schools teach higher-thinking skills to college-bound students but neglect students in general education, vocational education, or low-track courses...a greater proportion of...youth will be unfit to fill the jobs that will be available."

 (United Way of America. The Future World of Work: Looking Toward the Year 2000. United Way of America, 1988.)
- 9. "Students are eager for knowledge...but they haven't been allowed to study what interests them. It's the classic case of the kid who computes and knows 200 batting averages and flunks math...or the kid that can assemble a car and doesn't even take physics. Learning is remembering what you're interested in."

 ("Are We a Nation of Nitwits?" <u>USA Today</u>, February 13, 1989, p. 2D.)
- 10. "I take attendance, then ask the students to pass in the homework, a worksheet on Act I of "Romeo and Juliet." I receive about nine papers. When I ask the rest of the class why they didn't do their homework, one girl replies," I had more important things to do." Another boy says, "School isn't cool." It takes about five minutes to get everyone settled down, then I begin the day's discussion. When I ask a question about the play, the same three girls always answer. It's obvious that the rest of the class did not read the assignment, and doesn't plan to. Several times during the lesson, I have to stop midsentence to reprimand various students for talking, not paying attention or sleeping...I became a teacher because I was anxious to share my love of language and literature with young people. But at the end of the day...I wonder...was I a teacher?"

 (Butson, A.R. "Inside the Classroom." Newsweek, June 5, 1989, p. 8.)
- 11. "...the future of...education in American secondary schools requires a shift of curricular attention...to career-relevant academic skills."

 (Dunn, J.A. The Future of Secondary School Vocational Education: Curriculum Reform or Retrenchment—Basic Academic or Technical Skills. <u>Journal of Studies in Technical Careers</u>, 1988, vol. 10(4), pp. 372-383.)
- "...basic academic skills are rapidly becoming the new content of vocational education curricula."

 (Dunn, J.A. The Future of Secondary School Vocational Education: Curriculum Reform or Retrenchment—Basic Academic or Technical Skills. <u>Journal of Studies in Technical Careers</u>, 1988, vol. 10(4), pp. 372-383.)
- 13. "Virtually all subjects taught now in elementary and secondary school were taught in 1920."
 (Dunn, J.A. The Future of Secondary School Vocational Education: Curriculum Reform or Retrenchment—Basic Academic or Technical Skills. <u>Journal of Studies in Technical Careers</u>, 1988, vol. 10(4), pp. 372-383.)



- 14. "...half of all young American workers...do not attend college. And in the upcoming decade, the economy will depend as much on this diverse group of less skilled workers as it will on the nation's software programmers and rocket scientists."

 (Whitman, D. "The Forgotten Half." <u>U.S. News & World Report</u>, June 16, 1989, pp. 44-53.)
- 15. "Despite the obvious economic consequences of ignoring half the work force, businessmen and educators persistently pay scant attention to non baccalaureate America."
 (Whitman, D. "The Forgotten Half." <u>U.S. News & World Report</u>, June 16, 1989, pp. 44-53.)
- 16. "While two-year colleges are generally ignored outside the trade press, they enroll roughly half of all entering freshmen." (Whitman, D. The Forgotten Half. <u>U.S. News & World Report</u>, June 16, 1989, pp. 44-53.)
- 17. "...jobs for technicians will grow by 38% by the year 2000—faster than any other major occupational group. As automation expands, companies need smarter, more flexible employees who can perform a variety of tasks from installing and monitoring welding robots to reprogramming them if production rates drop. This will result in a new breed of employees—"Blue-and-white-striped collar workers—production employees who are paid to think."

 (Perry, N.J. The New, Improved Vocational School. Fortune, June 19, 1989, pp. 127-138.)
- 18. "Though only half of those who enter high school go on to higher education, American schools persist in treating non-college-bound students like second-class citizens. So, many drop out. Quality...programs can motivate students to stay in school—and maybe even go to college—by making academics more palatable..." (Perry, N.J. The New, Improved Vocational School. Fortune, June 19, 1989, pp. 127-138.)
- 19. "Schools are experimenting with new teaching methods that integrate academics with hands—on learning...and they are forming closer ties to businesses and community colleges so that students can easily make the transition to work or college." (Perry, N.J. The New, Improved Vocational School. Fortune, June 19, 1989, pp. 127-138.)

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- 20. "...many people learn academic subjects better in a context they can understand...we're talking about kids who hate math. But if you can show them they need it for blueprints, they'll do it."
 (Perry, N.J. The New, Improved Vocational School. Fortune, June 19, 1989, pp. 127-138.)
- 21. "If we could take the methods of vocational education and combine them with the content of academics, we could really make progress in education."

 (Perry, N.J. The New, Improved Vocational School. Fortune, June 19, 1989, pp. 127-138.)



- 22. "I hated school when I started high school. It was the worst thing in my life. Now I can connect school-work to my interest in computers. It gives a purpose to learning."
 (Perry, N.J. The New, Improved Vocational School. Fortune, June 19, 1989, pp. 127-138.)
- 23. "General education is the enemy...roughly 30% of high school students...take general education, or the general studies program, picking up a math credit here, a woodworking elective there, and finding themselves at graduation equipped for neither college nor work."

 (Perry, N.J. The New, Improved Vocational School. Fortune, June 19, 1989, pp. 127-138.)
- 24. "Around the country, schools are trying to steer [general track] students, who tend to consider the high school diploma the end of their formal education, into a new "technical track" that provides a clear path to college...I'd like to see general studies dropped and [Tech Prep] programs become the standard."
 (Perry, N.J. The New, Improved Vocational School. Fortune, June 19, 1989, pp. 127-138.)
- 25. "Millions of jobs beckon high school graduates with skills. The diploma alogis is not enough: Between 1967 and 1987, says the Bureau of Labor Statistics, high school graduates accounted for 60% of the growth in unemployment."

 (Perry, N.J. The New, Improved Vocational School. Fortune, June 19, 1989, pp. 127-138.)
- 26. According to a study conducted by the William T. Grant Foundation released in 1988, the "real median income of families headed by 20- to 24-year olds with high school diplomas plummeted 28% from 1973 to 1986. The drop is roughly equivalent to the income loss Americans suffered in the Great Depression."

 (A Vocational Void: Hard Times for High School Graduates. USA Today, July 31, 1990, pp 1D, 2D.)
- 27. "When the class of 2000 graduates, only 15% of jobs will require a [four-year] college education, but nearly all will require job specific training after high school."
 (Cetron, M.J. Class of 2000: The Good News and the Bad News. The Futurist, Nov-Dec 1988, pp. 9-15.)
- 28. The average monthly income of a worker with an associate degree is almost three times that of a worker with only a high school diploma (\$1,188 per month versus \$415 per month).
 (Wall Street Journal, March 17, 1988, p. 27.)
- 29. 42% of the 1991 graduates from South Carolina's public schools chose NOT to pursue any type of postsecondary education immediately following their high school graduation.
 (Preliminary report, South Carolina Department of Education, S.C. Department of Education Annual Report [Columbia, South Carolina: Department of Education, forthcoming, November, 1992.])



- 30. 52.1% of first-time freshmen enrolling in South Carolina's two-year colleges needed remedial studies.

 (Southern Regional Education Board. Issues in Higher Education: Remedial Education in College: How Widespread Is It? Atlanta, GA: SREB, no. 24, 1988)
- 31. Only 17% of Americans 25 years or older have attained a bachelor's degree. Even with a dramatic increase in the number of bachelor's degrees awarded in the next decade, at least 75% of public school students are unlikely to earn a four-year degree.

 (Parnell, D. The Neglected Majority. Washington, D.C.: The Community College Press, 1985, p. 4.)
- 32. "And while the work force gets less qualified and our education system gets worse, our products and technologies are growing more complex. We'll have technology able to take voice commands, but people who won't know what they're talking about. We'll have machines that recognize handwriting, but people who can't write."

 (Gerstner, L.V. "The Workforce Challenge", remarks by the president of American Express at the American Express Company Senior Management Conference, October 13, 1988.)
- 33. "The old South provided vocational and higher education for some, but neglected basic education for many...the new Southern economy will have to built on the mental strengths of its labor force, and depend on the skills, knowledge, and creativity required for more technically sophisticated work stations."

 (Growth Policies Board, Commission on the Future of the South. The Report of the Committee on Human Resource Development, 1986.)
- 34. "It will remain important for high schools to provide a curriculum where theory can be applied to work situations, but the basic competencies must undergird the practical applications..."

 (Growth Policies Board, Commission on the Future of the South. The Report of the Committee on Human Resource Development, 1986.)
- 35. "...grades 13 and 14 are the new minimum for a person to succeed in a highly technological society."

 (Welch, F.G. IE Should Have a Valued Role in Education's Changing World. School Shop, April, 1989, pp. 24-25.)
- 36. "The college-preparatory curriculum was for students who were heading for a four-year college degree, yet less than 20 percent of those students actually graduated from a four-year college. The largest percentage dr. ped out during or at the end of their first year."

 (Welch, F.G. IE Should Have a Valued Role in Education's Changing World. School Shop, April, 1989, pp. 24-25.)
- 37. "...education is the engine that drives our whole economy and will determine our future in an increasingly interdependent world. It's a short step from neglect and failure in schools to economic failure."

 (from Kiplinger Washington Letter referenced in: Welch, F.G. IE Should Have a Valued Role in Education's Changing World. School Shop, April, 1989, pp. 24-25.)



- 38. Of the ninth grade students enrolled in South Carolina's public schools in 1987-88, 37% did NOT graduate with their class in 1991. This percentage, known as the "non-completion" rate includes dropouts, deaths, transfers to other providers of secondary education within the state, etc. (The figures on which this percentage is based does not eliminate students who transferred in to the S.C. public school system between the 9th and 12th grade years.)

 (S.C. Department of Education Annual Report 1987-88 and the 1990-91 graduation rates as stated in the S.C. Department of Education Annual Report, forthcoming, November, 1992.)
- 39. "For business, helping schools is no longer just a "civic duty." It's a matter of self-interest, perhaps even self-preservation. At stake is quality of future employees...the bread and butter of business, the need for people who can communicate, handle math and technical skills. Companies have no choice...either improve local grade and high schools now or spend billions in the years ahead to make the unemployable employable. There's growing recognition that schools are EVERYONE's responsibility."

 (from Kiplinger Washington Letter referenced in: Welch, F.G. IE Should Have a Valued Role in Education's Changing World. School Shop, April, 1989, pp. 24-25.)
- 40. Only about 25% of all high school graduates...complete college within 5 years after receiving their diploma."

 (Baxter, N. Careers 101: Occupational Education in Community Colleges. Occupational Outlook Quarterly, Spring, 1991, p. 13.)
- 41. "A lot of teachers, consciously or unconsciously, reinforce the idea that education is pointless unless you are going on to college...schools need to do better representing the new reality of the job market to these kids. We need a kind of cultural change all across the system, to sell young people on the relationship between good jobs and skills."

 (quote appearing in "Schools trying to link good jobs and skills." The New York Times EDUCATION, September 27, 1989.)
- 42. "Many dropouts say now that they might have stayed in school if they had had more vocational opportunities, more real work experience while still in high school." ("Schools trying to link good jobs and skills." The New York Times EDUCATION, September 27, 1989.)
- 43. "Percentage of current jobs requiring education beyond high school: 54%

Percentage of future jobs (1984-2000) requiring education beyond high school: 65%

Percentage of new jobs that can be filled by people with the lowest skill levels: 4%

Percentage of high school class that does <u>not</u> go on to college: 61%"
(American Society for Training and Development. <u>Training America: Learning to Work for the 21st Century</u>. Alexandria, VA: Author, 1989.)



- 44. "General and vocational education students make up about 61% of the high school population. This "other half" of the class is receiving poor basic skills education and outdated preparation for work. The work of upgrading the "other half" to give them skills that will increase their effectiveness on the job falls to junior colleges, vocational schools, technical schools, the military, and to employers."

 (American Society for Training and Development. Training America: Learning to Work for the 21st Century. Alexandria, VA: Author, 1989.)
- 45. "Only 15% of all four-year college students graduate within four years and only half finish within six years according to a new study based on high school graduates of 1980."

 (Education and Work. <u>Career Opportunities News</u>, May/June, 1990, p.4.)
- 46. "The 1990 census will show that nearly 19% of Americans have at least a bachelor's degree."

 (Waldrop, J. and Exter, T. What the 1990 Census will show. American Demographics, January, 1990, p. 20-30.)
- 47. Currently, only 16.2% of all adults in the United States has completed a four-year college degree.

 (Education and Work. <u>Career Opportunities News</u>, May/June, 1990, p.4.)
- 48. Only 16.6% of South Carolinians, aged twenty-five years or older, have completed four or more years of college according to the 1990 census.

 (South Carolina Budget & Control Board/Division of Research & Statistical Services, South Carolina Selected Social Characteristics: 1990., State Budget & Control Board Newsletter, Summer 1992.)
- 49. "...secondary and postsecondary educational institutions should establish permanent 'forums' which allow the exchange of ideas between employers and teachers. The employer/education connection must move beyond simple 'adopt-a-school' and 'career day' programs to more in-depth interchange and cooperation."

 (United States Department of Labor. The Southeast's 21st Challenge. Atlanta, GA: U.S. Department of Labor, Employment and raining Administration, 1990.)
- 50. "Jobs are becoming more demanding, more complex. But our schools don't seem up to the task. They are producing students who lack the skills that business so desperately needs to compete in a global economy. And in doing so, they are condemning students to a life devoid of meaningful employment."

 ("The Knowledge Gap," The Wall Street Journal Reports: Education, February 9, 1990, p. r-2.)
- 51. "By the year 2000, according to the U.S. Labor Department, the bulk of the labor-pool growth will come from minority-group students, although nearly 40% of those students now are considered functionally illiterate."

 ("Wanting Workers," The Wall Street Journal Reports: Education, February 9, 1990, p. 1-10.)



- 52. "...technology will probably become increasingly more sophisticated in the future. And that will result in automated equipment that's easier to operate. But it will also mean that more things can go wrong that are harder to remedy—creating the need for more highly skilled technicians."

 ("The Workplace Revolution, The Wall Street Journal Reports: Education, February 9, 1990, p. r-7.)
- 53. "In most studies, between 10 and 13 percent of lifetime earnings among Americans can be attributed to the initial earnings that take place in school...but academic preparation leverages learning on the job...[workers with only] a high school diploma are not likely to get on-the-job training...[people with a diploma] plus two years of formal education have a 20 percent greater chance of securing such training. And those who have some college education have a 50% greater chance."

 (Carnevale, Anthony P. et. al., Workplace Basics: The Skills Employers Want. The American Society for Training & Development and the U.S. Department of Labor, 1988, p. 5.)
- 54. "During the last recessionary period, high school dropouts experienced a staggering 40 percent decline in earnings, the earnings of those with a high school degree, some college, or a college degree declined by 30 percent, 26 percent and 11 percent respectively. Between 1960 and 1984, the earning differences between high school graduates and dropouts increased from 30 percent to 60 percent."

 (Carnevale, Anthony P. et. al., Workplace Basics: The Skills Employers Want. The American Society for Training & Development and the U.S. Department of Labor, 1988, p. 5.)
- 55. According to a recent study conducted through the University of Florida, "people who earned associate degrees earned about the same or more money as bachelor's degree holders" in five of the eight employment categories studied. [However], "it is not a matter of whether a two- or a four-year degree is better...each has a distinct value within the job market."

 ("Earning by Degrees: The Financial Benefit of the Associate Degree," The Community, Technical and Junior College Times, October 9, 1990), p. 7.)
- 56. According to former Education Secretary Lauro Cavazos, the nation's education system should be restructured, using community colleges as "brokers" for the educational reform process. "You [community colleges] are the broker. You're the fulcrum. You have that communication with elementary/secondary [education]. At the same time you have contact with with higher education and the business community. The flexibility that we see in community colleges should also be in the elementary and secondary schools," said Mr. Cavazos.

 ("Cavazos Emphasizes Role for Community Colleges in Meeting National Education Goals," The Community, Technical and Junior College Times, October 9, 1990, p. 7.)
- 57. "Had the power of educational technology (not in the laboratory but in common use) advanced at the same pace over the past four decades as that of computer technology, a high school diploma—which still takes 12 or 13 years at a cost of about \$50,000—could be produced in seven minutes at a cost of five cents... this statistic underscores how rapidly the gap is growing between the technology of education and the technology of the rest of the world."

 (Perelman, Lewis. The Learning Revolution. Chalkboard, Fall/Winter, 1989, pp. 12-20.)



- 58. "The classroom of the future is one that integrates academic and technical knowledge and skills...This model makes good educational and economic sense and will prove, as the history of educational reform is written, to have been a most valuable design."

 (Kolde, R. Integrated Learning for a Competitive Work Force. Kappan, February, 1991, pp. 453-455.)
- 59. "If (the GED) were employed as a test for high school graduation, the cut-off score now in use would deny a high school diploma to approximately 30% of graduating seniors." (Pipho, Chris. "The Unbridled, Undebated National Test." <u>Kappan</u>, April, 1991, pp. 574-575.)
- 60. "(Tech-Prep/Associate Degree programs) benefit students by decreasing the amount of material they must go over twice, once at each school (high school/community college). This saves both time and money. Students are also better motivated in such programs because they see where their education is leading them...The (U.S. Department of Education) sees Tech Prep as giving students a strong foundation in liberal arts and basic academics as well as intense technical preparation...Tech Prep programs are strongly recommended."

 (Baxter, N. Careers 101: Occupational Education in Community Colleges. Occupational Cutlook Quarterly, Spring, 1991, pp. 17-18.)
- 61. "The need for the kind of training provided in community colleges has been growing recently. In occupations such (as those for which 1-2 years of college are required), pay is often closer to that of jobs requiring a degree from a 4-year college than to jobs that require no training...Frequently, these occupations also offer better prospects for advancement than do occupations that require no training."

 (Baxter, N. Careers 101: Occupational Education in Community Colleges. Occupational Outlook Quarterly, Spring, 1991, p. 13.)
- 62. "Technology will continue to transform the workplace, eliminating the least skilled jobs and demanding ever higher levels of communications, mathematical, and analytical skills. In fact, more than half of the new jobs created between now and the end of the century will require education beyond high school. Education beyond high school, however, doesn't necessarily mean a 4-year college degree."

 (Cavazos, L.F. The Role of Technical Education. Occupational Outlook Quarterly, Spring, 1991, p. 23.)
- 63. "In his 1985 book, The Neglected Majority, Dale Parnell advocated tech-prep programs as a way of making 'winners of ordinary students.' His logic has proven persuasive. Today, tech-prep programs are 'sweeping the country because the idea simply makes good sense.'"

 (Willis, S. Vocational Education: Applied Academics, Tech-Prep Programs Serve the "Forgotten Half." ASCD Curriculum Update, September 1991.)
- 64. "The U.S. invests less than half as much for each work-bound youth as it does for each (four-year) college-bound youth...There is increasing acknowledgment that our traditional education focus on college-bound youth needs to change."

 (Warnat, W.I. Preparing a World-Class Work Force. <u>Vocational Education Journal</u>, May, 1991, pp. 22-23.)



- 65. "Baccalaureate education continues to hold the place of honor in the education and employment communities, even though it is recognized that the skills and knowledge needed by the vast majority of the workforce are less than baccalaureate level."

 (Warnat, W.I. Preparing a World-Class Work Force. <u>Vocational Education Journal</u>, May, 1991, p. 25.)
- 66. "...the skills deficit has already cost businesses and taxpayers \$20 billion in lost wages, profits and productivity. Another estimate frequently bandied about is that corporate America is spending \$300 million a year on remedial three R's training for employees." (Zemke, R. Workplace Literacy: Shall We Overcome? <u>Training</u>, June, 1989, p. 35.)
- 67. "At a minimum, most jobs of the future will require good communications skills, competency in math and reading, the ability to give or receive directions, and an aptitude for solving problems. In particular, the ability to interact with other people, customers and co-workers, will be a key element to employment opportunities in the 21st century."

 (DeVita, C. America in the 21st Century: Human Resource Development, December, 1989.)
- 68. Between 1984 and 1987, average monthly earnings increased 8.6% for high school graduates, 22.7% for associate degree graduates, and 18.8% for bachelor's degree graduates.

 (U.S. Department of Commerce, Bureau of Census, <u>Current Populations Reports</u>, 1990.)
- 69. "The average person finishing high school today is expected to change jobs 10 times and change careers three times."

 (Education and Work. <u>Career Opportunities News</u>, March/April, 1990, p.4.)
- 70. "Associate degree holders clearly have an advantage over people who do not complete a postsecondary credential. Students who attend college without earning a bachelor's degree would do better to finish an associate degree program rather than leave college without a credential."

 (Reported in the <u>AACJC Letter</u>, April 1, 1990, based on: American Association of Community and Junior Colleges. "Where America Goes to College." Washington, D.C.: Author, 1989.)
- 71. "...Community colleges, once shurmed as little more than post-graduate vocational schools for those unable to make the grade at "real colleges," are becoming a global model for democratic higher education in the 21st century."

 ("Academia's Other Half." <u>U.S. News & World Report</u>, October 16, 1989, p. 82.)
- 72. "Ten million new jobs are expected to be created in the Southeast by early in the 21st century. Half will require post-high school technical training. Another third will require a four-year degree. That leaves a jobs pool of 15 percent on the lowest-paying rung of the service sector. Now consider this: Only one of three South Carolinians who entered first grade in 1971 has made it into post-high school training."

 ("State Must Reverse College Funding Slide" (editorial), The State, September 6, 1991, p. 10A.)



- 73. "Although over 80 percent of all jobs do not require a four-year college degree, the students unlikely to enroll in college directly after high school receive little in the way of systematic assistance to prepare for and find jobs when they leave school."

 (Moore, G. "Let's Get Over That Bridge." Work America, November, 1991, pp. 1-6.)
- 74. Every day, 1,512 teenagers drop out of school across the United States. (source: Children's Defense Fund, 1990, as reported in: "Local Schools Want Values Put Back in the Classroom." The Greenville News, December 8, 1991, p. 1A, 5A.)
- 75. "A report from the Department of Education's National Center for Education Statistics indicates that a much smaller proportion of those who were high school seniors in 1982 went on to earn a postsecondary diploma, certificate or degree than was the case for those who were seniors in 1972. Half of the 1972 high school seniors completed another level of education within 4 years after leaving high school. Only 20 percent of the 1982 senior class did. Seven years after their senior year, 58% of the 1972 group had completed another educational level; only 37% of the 1980 group had done so. Data for the 1982 group are not available."

 (Occupational Outlook Quarterly, Summer 1990, p. 53.)
- 76. "On average, less than half of all South Carolina high school graduates go on to college, a rate lower than the Southern and national averages. The statistics do not account for the roughly one-third of all students in South Carolina who drop out of school before graduation."

 (Faris, J. "State Hopes to Boost College-Bound Ranks." The Greenville News, December 12, 1991, p. 1A, 11A.)
- 77. According to a national ranking of education statistics reported in the <u>Chronicle of Higher Education</u>, the high school dropout rate in South Carolina in 1988 was 35.4% and the percentage of adults in 1980 with four or more years of college was 13.4%.

 (<u>The Chronicle of Higher Education Almanac</u>, August 28, 1991, pp. 4-7.)
- 78. "The high school dropout rate in the Southeast continues to be one of the highest of any region in the country. Almost thirty-six percent of students entering high school in the ninth grade fail to graduate with their peers at the end of the twelfth grade...The economic loss to the individual dropout is high since the average annual income for a person with less than a high school education is thirty-seven percent less than for a high school graduate. The overall lifetime cost of each dropout to the region's economy, in terms of lost tax revenue, welfare and unemployment expenditures, crime prevention funds, and lost productivity to employers is estimated at \$60,000. This means an economic loss to the region's economy of some \$84 billion between now and the turn of the century."

 (United States Department of Labor. The Southeast's 21st Challenge. Atlanta, GA: U.S. Department of Labor, Employment and Training Administration, 1990, p.6.)

- 79. "Fifty-five percent of all consumer banking transactions in 1988 were done with an automatic teller machine. What percentage of transactions were they used for in 1982? Zero. Why? Because few ATMs existed in 1982. What has happened to the number of cashiers and tellers in the banking industry in America in the last six years? They have been reduced by 40%. This number is projected to decline by an additional 40 percent between now and 1993...What are the banks scrambling for today? Technicians that can run the ATM systems."

 (From a speech made by Dr. Willard A. Daggett contained in the article, "Future Wor! place is Shocking," North Carolina Education, November/December, 1990, pp 2-9.)
- 80. "In America, our college drop-out rate is over 50%."

 (From a speech made by Dr. Willard A. Daggett contained in the article, "Future Workplace is Shocking," North Carolina Education, November/December, 1990, pp 2-9.)
- 81. "Are your dreams for your children that they'll go to high school and drop out, or go to high school in the general track and not make it, or go on to a postsecondary experience and drop out and not make it? Those scenarios represent 60 percent of the young people in this country. Therein lies the problem in American education. We focus on the 40 percent who make it and forget the 60 percent. I think we have to make some major changes in our system."

 (From a speech made by Dr. Willard A. Daggett contained in the article, "Future Workplace is Shocking," North Carolina Education, November/December, 1990, pp 2-9.)
- 82. For the 1991 high school graduating class in the tri-county area, 21.8% of Anderson County graduates entered a four-year college and 28.6% entered a two-year college*; 24.4% of Oconee County graduates entered a four-year college and 26.4% entered a two-year college*; and 26.6% of Pickens County graduates entered a four-year college and 20.8% entered a two-year college*. (Preliminary report, South Carolina Department of Education, S.C. Department of Education Annual Report [Columbia, South Carolina: Department of Education, forthcoming, November, 1992.])

 * "Two-year colleges" are defined as two-year, associate degree-granting institutions such as the two-year USC branches, or technical colleges which award diploma, certificate or associate degrees.
- 83. "American schooling sequesters students from the real world, breaks knowledge down artificially into theoretical disciplines, breaks disciplines down into component pieces, and demands that students commit fragments of knowledge to memory. Applications are reserved for pen-and-paper exercises at the back of the chapter. Interdisciplinary applications are rare, and applications in the context of working groups are even more rare."

 (Quote from Anthony Carnevale, chief economist and vice-president of national affairs for the American Society for Training and Development contained in: Hull, D. "Tech Prep: Practical Education for America's Work Force." School Shop/Tech Directions, March 1992, p.17.)
- 84. "The 1.25 grade-level-equivalent decline in the academic achievement of high school seniors between 1967 and 1980 lowered the nation's productivity by \$86 billion in 1987 and will lower it by more than \$200 billion annually by the year 2010. American students' academic decline can be attributed in part to their correct assessment of the lack of connectedness between work and schools."

 (Bishop, M. "Why U.S. Students Need Incentives to Learn." Educational Leadership, March, 1992, p. 15.)



- 85. "It seemed to me then, and it does now, that a lot of what I learned in school was totally unconnected to any purpose I've had outside of school. I think it's a great mistake to construct a curriculum like that. All kids would learn a whole lot better if there was constant interplay between learning the content and applying it. Academic and vocational—from kindergarten on up. Learn it and apply it. That's how I've learned everything of value to me since I got out of school."

 (O'Neil, J. "On Education and the Economy: A Conversation with Marc Tucker."

 Educational Leadership, March 1992, p. 22.)
- 86. "A growing number of our best and brightest students enroll in higher education institutions outside of South Carolina. Last year, nearly half of the students who scored 1200 or better on the SAT left the state." (Note: And while our educational system continues to devote much of its attention and resources to the "best and the brightest," many of those students leave us to pursue higher education and, it is logical to assume, many will stay out-of-state to work after college. All the more reason to invest in <u>South Carolina's</u> future workers, many of whom will come from the Tech Prep programs now being implemented across the state.)

 (DiGiorgio, A. "What University Designation for College Will Mean to State" [editorial], The Greenville News, March 15, 1992, p. 3.)
- 87. "In the twenty-first century, sustainable competitive advantage will come not from new-product technologies but from new-process technologies—those that enable industries to produce goods and services faster, cheaper, and better...When the route to success is inventing new products, the education of the smartest 25 percent of the labor force is critical: Someone in that top group can be counted on to invent the new products of tomorrow. But when success depends on being the cheapest and best producer of products, the education of the bottom 50 percent of the population becomes a priority. This is the part of the population that must operate those new processes. If the bottom 50 percent cannot learn what must be learned, new high-tech processes cannot be employed."

 ("The New Economics of High Technology." Harper's Magazine, March 1992, pp. 15-17.)
- 88. "...The writing most often taught in school are essays, book reports, and literary criticism. Working with the business community, [a wide variety of writing was found in the workplace]—reports, brochures, letters, memos, and instructions—but very little demand for literary criticism. (University educators even said that being good at writing literary criticism isn't all that helpful for most academic disciplines.)"

 (Packer, A. H. Taking Action on the SCANS Report. Educational Leadership, March 1992, p. 28.)
- 89. "While most high school teachers are quite familiar with the entrance requirements for [four-year] college, few know what is needed to succeed at work."

 (Packer, A. H. Taking Action on the SCANS Report. Educational Leadership, March 1992, p. 28.)
- 90. "The most effective way to teach skills is in the context of real-life situations and real problems. Students should not be filled with abstract data to be recalled for a test and forgotten, but, rather, they should begin by applying their knowledge."

 (Packer, A. H. Taking Action on the SCANS Report. Educational Leadership, March 1992, p. 30.)



- 91. "By some estimates, by the time a child born in the early '90s is ready to head off to college, four years of education at a public university will cost about \$100,000."

 (Newborns College Bound. Anderson-Independent Mail, April 19, 1992, p. 2-D.)
- 92. "Relative to their respective sizes, for every dollar of taxpayer's money invested in the education of the non-college bound, fifty-five dollars is spent subsidizing those going to college—a ratio that is neither fair nor efficient. Other nations' governments invest heavily in the postsecondary skills of the non-college bound. Britain, France and Spain spend more than twice as much as the United States; Germany, more than three times as much; and Sweden, almost six times as much."

 (Thurow, L.C. <u>Head to Head: The Coming Economic Battle Among Japan, Europe, and America</u>. New York, NY: William Morrow and Company, 1992, p. 275.)
- 93. "The demands of flexible high-tech manufacturing require an agile new breed of skilled worker—one who can write a memo to the company's engineering division as swiftly as she can adjust a numerically controlled machine tool."

 (Dentzer, S. How to Train Workers for the 21st Century. U.S. News & World Report, September 21, 1992, p. 73.)
- 94. A national study on the college graduating class of 1986 shows 27% of graduates were not employed full-time, and 57% of those who were employed, were employed in fields unrelated to their degrees. Twenty-five percent were in jobs not generally requiring a four-year college degree.

 (Amirault, T. Labor Market Trends for New College Graduates. Occupational Outlook Quarterly, Fall 1990, p. 10, 15.)
- 95. "In 1995, some 20-24 million robots will be doing work once done by people. Even the fast-food chains are working toward automation, eliminating \$5-per-hour jobs and creating \$20-per-hour jobs for technicians to tend the laser cooking system." (MDC, Inc. Greater Expectations: The South's Workforce is the South's Future. Chapel Hill, NC: MDC, Inc., 1992, p. 12.)
- 96. "As more demanding jobs devalue the high school diploma, market forces will hasten the day when a community college associate degree will be the new entry-level standard for a decent career."

 (MDC, Inc. Greater Expectations: The South's Workforce is the South's Future. Chapel Hill, NC: MDC, Inc., 1992, p. 31.)
- 97. "The highway from high school to the university has always been smooth and clearly marked. Secondary schools, however, have failed a big chunk of those young men and women who do not pursue a four-year degree."

 (MDC, Inc. Greater Expectations: The South's Workforce is the South's Future. Chapel Hill, NC: MDC, Inc., 1992, p. 33.)
- 98. "Tech Prep, attractive to employers and students alike, is catching on fast...In little more than five years, Tech Prep has moved from demonstration to implementation, and the Tech Prep systems in the Carolinas have become national models."

 (MDC, Inc. Greater Expectations: The South's Workforce is the South's Future. Chapel Hill, NC: MDC, Inc., 1992, p. 34.)



- 99. "...more and more Americans have been going to (four-year) college, and the expected (and advertised) benefits haven't fully materialized...just because you've got a (four-year) college degree doesn't mean you can get a good job...about one-fifth of college graduates go into jobs—store sales workers, for irstance—that don't usually require a degree. If more people had gone to (four-year) college in the 1980s...they would have competed mostly for lower wage jobs..."

 (Samuelson, R.J. The Value of College. Newsweek, August 31, 1992, p. 75.)
- 100. According to the 1990 census, almost one-third (31.7%) of adult South Carolinians aged 25 years and older, have less than a high school diploma.

 (South Carolina Budget & Control Board/Division of Research & Statistical Services, South Carolina Selected Social Characteristics: 1990., State Budget & Control Board Newsletter, Summer 1992.)
- 101. According to one study, 26% of those graduating from college in 1991 accepted jobs that they could have obtained with only a high school diploma. (Bracey, G.W. The Condition of Public Education. <u>Phi Delta Kappan</u>, October, 1992, p. 114.)
- 102. "Roughly 75 to 80 percent of all jobs may still not require a worker to have a baccalaureate degree in the year 2005."

 ("What's Going on in the College Labor Market? (An Editor's Note)," Occupational Outlook Quarterly, Summer 1991, p. 3.)
- 103. "Employment projections for the 1990-2005 period indicate that the average annual openings in jobs requiring a (four-year) degree will number fewer than during the 1984-90 period...demand due to growth will fall off roughly 32% in the coming decade and a half."

 (Shelley, K.J. More College Graduates May Be Chasing Fewer Jobs. Occupational Outlook Quarterly, Summer 1991, p. 5, 8.)

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