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· Career Exploration: Maryland: *Washington County IDENTIFIERS

AESTRACT

The purpose of this report is to provide the Washington County School System in Maryland with current information on the local labor market. Intended to aid work-study coordinators, teachers, and administrators in providing information for students on occupational guidance and career exploration, this resource guide includes pertinent data on local industries, noting manpower needs and possible links between school and industry. Employment trends and projections are discussed extensively, and job opportunities are listed, together with starting salaries and educational requirements. As a member of a local Career Education Project, the author has worked closely with retail, manufacturing, and business personnel to collect labor market information, to promote openings for students in work-study programs, to place graduates, and to explain the career education concept. (Author/AG)



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A Report from the Job Developer/Analyst
Wendell L. Greene

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JOB DEVELOPER/ANALYST REPORTS ON LOCAL LABOR MARKET

This report is for the purpose of providing the Washington County
School System with current labor market information. We hope that this
information will aid work-study coordinators, teachers and administrators
in giving proper direction to students interested in the world of work
and career exploration. The companies have been categorized and the
listing includes pertinent information which should assist in establishing
a direct line of communication between industry and the educational system.

The Job Developer, working in the Career Education Project, will continue to work closely with retail, manufacturing and business personnel to collect labor market information, to promote openings for students in work release programs, to place graduates and to explain the career education concept.

Making a career decision is a giant step for anyone. By providing and sharing correct information concerning labor market trends and future projections, students and guidance personnel can be better prepared to cope with the decision making process.

Wendell L. Greene Job Developer/Analyst

Washington County Board of Education, Hagenstown, Md.



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Excerpts from the 1972-73 Occupational Outlook Handbook, Department of Labor

SECTION I

NEW INDUSTRY: Certain-teed Products Corp.

Interstate Industrial Park Governor Lane Boulevard

P.O. Box 288

Williamsport, Maryland 21795

(301) 797~5567

PRODUCTS: Manufacturers of Plastic Piping

CONTACTS: Bob Freeman, Plant Manager

Keith Swinehart, Sr., V.P.

Lawrence J. Woodward, Asst. to President

Bruce Phillips (Atty.)

EMPLOYMENT: Initial 75 - Ultimate 500 (3 years)

ANNOUNCED: February 23, 1971

BEGAN PRODUCTION: October 15, 1971

We have a meeting scheduled, a report will follow.

NEW INDUSTRY: Donahue Sales Inc.

(Div. of Textron, Inc.)

PRODUCTS: Distributors of Talon zippers, threads, tapes, braids and other

home sewing products.

EMPLOYMENT: Initial: 50-60

ACREAGE: 7 - Interstate Industrial Park, Williamsport, Md.

CONTACT: Walter S. Crowe, Vice President

Donahue Sales, Inc. 1777 Boston Post Road Milford, Conn. 06460 phone: (203) 878-2424

LOCAL CONTACT: Bill Kearney, Plant Manager

Donahue Sales, Inc.

Int. Indus., Pk., Gov. Lane Blvd. Williamsport, Maryland 21795

223-8100

BEGAN PRODUCTION: June 1; 1972

We have a meeting with this industry, a report will follow.

NEW INDUSTRY: Golden West Mobile Homes

Hopewell Industrial Park

Sharpsburg Pike

Hagerstown, Maryland 21740

PRODUCT: Campers and travel trailers

CONTACT: Jerry Golden, Chairman of the Board

Golden West Mobile Homes

1929 East St. Andres Place 5000

Santa Ana, California 92711

(714) 875-0909

EMPLOYMENT: Initial - 100

ANNOUNCED: June 26, 1972

Have made initial contact, nothing more in report yet.

NEW INDUSTRY: Rayloc

(Div. of Genuine Parts Co.)

Hancock, Maryland

PRODUCTS: Wholesale distributors of automobile parts and supplies.

CONTACTS: John E. Aderhold, President

Ed Kipling, Plant Manager (Rayloc)

Division of Genuine Parts Co.

4200 Gordon Road; N.W. Atlanta, Georgia 30336

(404) 691-3780

EMPLOYMENT: Initial 25-50 - Ultimate 150

AMNOUNCED: March 10, 1972

MEW INDUSTRY: Ryder Truck Lines, Inc.

P.O. Box 2408

Jacksonville, Florida 32203

PRODUCTS: Motor Freight Terminal

CONTACT: John Mangu, Jr.

Director of Properties Ryder Truck Lines, Inc. P.O. Box 2409

P.O. Box 2408

Jacksonsville, Florida

EMPLOYMENT: Initial 100 - Ultimate 200

AMMOUNCED: December 21, 1971

More information on this industry to follow.

NEW INDUSTRY: Valley Mall

PRODUCTS: 70-Store enclosed shopping mall

CONTACT: Arnold Praver

Shopco Development Co. 342 Madison Avenue

New York, New York 10017

(212) 682-0680

EMPLOYMENT: Initial 1,400 - Ultimate 1,600

Auxiliary Employment due to shopping center category such as equipment servicing, garbage removal, construction, maintenance, advertising and other will add an additional 500 people. Over two-year construction period, the projection is 700 primary construction jobs.

ANDIOUNCED: February 1, 1972

COMSTRUCTION: Baltimore Contractors, Inc.

I am now collecting information on stores going into the Mall, with main office contacts. We hope to have student interviews for employment prearranged when personnel representatives come to the area.

To Hener

NEW INDUSTRY: Wilderness Industries of Maryland

Interstate Industrial Park

Governor Lane Blvd.

P.O. Box 287

Williamsport, Maryland 21795

582-2770

CONTACT: Bob Willis, Plant Manager

HEADQUARTERS: Fleetwood Enterprises, Inc.

3125 Myers Street

Riverside, Calif. 92507

(714) 687-0303

EMPLOYMENT: Initial 100 - Ultimate 150

ANNOUNCED: November 15, 1971

BEGAN PRODUCTION: April 1, 1972

SECTION II



WASHINGTON COUNTY HOSPITAL Entry level

JOB CLASSIFICATION	EDUCATIONAL REQUIREMENTS	ADDDOV COLDETVO DAGE
' .geral Clerical	High School Diploma with typing.	\$2.10 to \$2.34 hr.
Secretarial - General	High School Diploma with shorthand.	\$2.34 to \$2.58 hr.
Medical Secretary	High School Diploma and Medical Secretarial training.	\$2.46 hr.
P.B.X. Operator	High School Diploma	\$2.46 hr.
Dietary Worker	High School Diploma - not required.	\$2.10 hr.
Electronencephalograph Technician	High School Diploma and on the job training.	\$2.52 hr.
Computer Operator	High School Diploma additional school preferred, but not required.	\$3.18 hr.
Programmer	High School Diploma and Programming training from an accredited school.	\$3.25 hr. Trainee \$3.50 hr. w/training
Maid, Houseman	High School Diploma not required.	\$2.10 hr.
Inhallation Theraphy Technician	High School Diploma and on the job training. (1 year training program)	\$2.52 hr.
Jr. Lab. Assistant	High School Diploma - academic sciences preferred.	\$2.10 hr.
Lab. Technician	High School Diploma and two years formal training.	\$3.18 hr.
Medical Technologist	High School Diploma and four years college in Medical Technology field.	\$3.65 hr.
General Laundry Worker	High School Diploma - not required.	\$2.10 hr.
Elevator Operator	High School Diploma - not required.	\$2.10 hr.
Grounds Worker	High School Diploma - not required.	\$2.10 hr.

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JOB CLASSIFICATION	EDUCATIONAL REQUIREMENTS	APPROX. STARING RATE
Handyman	High School Diploma - not required.	\$2.10 hr.
Truck Driver	High School Diploma - not required. Must have a good driving record.	\$2.16 hr.
Maintenance Helper	High School Diploma - not required.	\$2.22 hr.
General Maintenance Man Carpenter, Electrician, Plumber, Painter	High School Diploma helpful, but not necessary. Must be journeyman or licensed.	\$2.55 hr.
Nurses Aide	High School Diploma - not required.	\$2.10 hr.
Floor Clerk	High School Diploma	\$2.10 hr.
L.P.N.	High School Diploma and graduate of formal nursing program. (Must be registered in the state of Maryland.)	\$2.55 hr.
Storekeeper	High School Diploma	\$2.55 hr.
Xray Technician	High School Diploma and graduate of formal radiology program. (Must be registered)	\$3.18 hr.

SECTION III

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CAREER EDUCATION PROJECT Job Developer/Analyst Weekly Report

Representing the total Career Education Project in Washington County, the following personal contacts were made by the Career Education Project Job Developer/Analyst. Firms contacted were both Retail and Manufacturing. Contacts made were for the purpose of establishing resources for information, job opportunities, placements of students in work study or work release programs, graduate placement, projections for future labor market trends and job information to aid the Counseling and Guidance Component.

- 1. Sears personnel manager, Mrs. Jane Digman said they would have taken several work study students if contacted early in July or August. This was due to scheduling and testing that had to be pre-arranged. I assured Mrs. Digman I would keep in touch and they are now in the process of seeing if they can make some adjustments, to take two or more work study students. I was assured I would be contacted for other student placement. I will follow up next week.
- 2. Martins Food Store Manager (Dual Highway) said he would be interested in work study students if he could get good people, I assured him he would. He has also agreed to use our office for other student placement. That was the first time that a particular store had been contacted.
- 3. Robert Hall, Manager, Mr. Henness, said during his 1½ years in Hagerstown, he had never been contacted by the school system for placement in any area. He is interested in work study. I have arranged a meeting with Mr. Henness, a work study coordinator and myself. He also agreed to furnish company information and to use this office when wanting student personnel. Also, had one immediate part time opening.
- 4. First National Bank, Mr. Charles Reccer, Personnel Manager, said he didn't use work study people, because of security and the confidential nature of their business. After talking a while I pointed out the maturity of the person being the key in that situation and that we would see that he got to interview the best possible people for that position. They are now reevaluating the work study program and how they can apply it to their business. I am sure of some placement there. He also agreed to furnish information and to use ou: office for placement if other openings developed.
- 5. Horner Manufacturing, Mr. Horner said he could use students if he could get them a whole day. He also said he would use our project for placement, and cooperate anyway possible.
- 6. Mr. Norman Kagel, Personnel Manager for the Daily Mail newspaper, has agreed to give us total information concerning that industry. He has also agreed to get with Antietam Cable to see what they can work out jointly for student placement in work study and training, also any other exposure they can provide. The owners of Antietam Cable and the Newspaper are the same, Kagel had never been contacted.



- 7. Pangborn has agreed to furnish information and exposure to students, but can't hire work study because of age and union, will do some graduate placement with project if opportunity comes up.
- 8. Washington County Personnel Manager, Mr. Everly has given us all job classification, Educational requirements, this will benefit our counseling component. There is also a chance for more work study, I will know more on that next week.
- 9. Mr. Weaver and Mr. Buchanan of Beachley Furniture, said they have no openings for work study right now, but it is possible something will develop and they will be in immediate touch with our office. Also for other placement. They put a lot of emphasis on getting good people. People willing to work, it seemed they did have some bad placement.

Other contacts with no report yet were, General Motors, Miller-Liskey, (Jack Barr), Mr. Richard Grumbacher, Mr. Bobby Fouch, Eastern Products, and Mack Trucks.

We are also receiving information from the Department of Labor both Federal and State on labor market trends and projections at both state and national level.

All firms visited were very much in favor of more personnel contact, and agreed totally with the Career Education approach.

Wendell L. Greene Job Developer/Analyst SECTION IV



PANGEORN

Pangborn Division • The Carborundum Company • Hagerstown, Maryland 21740

September 19, 1972

Mr. Wendell L. Greene Board of Education of Washington County Hagerstown, Maryland 21740

Dear Wendell:

Per your request of September 7, 1972, the following are my observations of our particular employment needs and the educational programs that are affected by these needs:

Production and Maintenance

At the present time we have excess personnel in this area as there are approximately 200 employees on furlough status at this time. Although an upward business surge could conceivably exhaust this list, it would appear that no openings will occur in the immediate future.

When we do begin to look for additions and replacements, potential employees will probably have at least a high school education with those in the academic program receiving first consideration.

The reason for this background rather than a vocational orientation is that most new employees in production positions tend to fill a variety of jobs before finding their niche. A wide base tends to give the employee and the company a wider base from which to work and train. The areas that may be advantageous to the vocational student are machine operation and maintenance but again without the broader base, these potential employees are less likely to achieve the more skilled positions.

Office and Clerical

Again, there are few openings at the present time for positions in the above categories but the time span may be somewhat less because of the larger turnover in such positions. Also for entry positions the student who has completed an academic education will undoubtedly have an advantage due to the greater flexibility offered in moving from one position to another. The exception here is the typing skill which is nearly mandatory because of



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Mr. Wendell L. Greene Page 2 September 19, 1972

the nature of the work. It would appear that the best opportunities for those striving for this area will come from the academic students with typing skills who receive their vocational skills such as data processing, accounting, etc., after high school. A little more concern for business manners would also be helpful and if the schools could develop a course or program in this area it may enhance the student's work opportunities.

Professional and Technical

Although this area is growing the fastest it is quite limited to those students entering the work area that have achieved only a high school education. There appears to be many opportunities opening for the individual entering the work force with at least an associate degree in a chosen field. This again requires a good educational base at the high school level supplemented by specific vocational skills.

Sincerely,

Jack L. Hutchison Personnel Manager

JLH:blw

SECTION V

WASHINGTON COUNTY INDUSTRIES

FOOD PRODUCTS

Breakstone Sugar creek Foods, Div. of Kraftco Corporation 500 McDowell Avenue Hagerstown, Md. 21740 733-2500 W. Klindtworth Plant Manager

Cottage Cheese, Sour Cream

Dutchie, Inc. Div. of Pet Milk 539 W. Howard St. Hagerstown, Md. 21740 739-9111

George E. Snyder President

Soft Pretzels

Eldridge Dairy Company 215 East Washington St. Hagerstown, Md. 21740 739-3210

Richard Laher Vice President

Dairy Products

Manbeck Bread Company 358 West Church Street Hagerstown, Maryland 21740

Park O. Beaver, Sr. President

Bakery Products

Potomac Creamery Co., Inc. Jefferson Street Hagerstown, Md. 21740 739-6380

J.J. Kirk President **Dairy Products**

Potomac Farms Dairy 215 East Washington Street Hagerstown, Md. 21740 739-3210

James Laher President Dairy Products

Superior Dairy, Inc. 201 Reynolds Avenue Hagerstown, Nd. 21740

Joseph H. McElwee President

Dairy Products

TEXTILES AND CLOTHING

Calbern, Inc. High Street Hancock, Md. 21750 678-6691 Calvin Sayler President

Ladies' Dresses

Dorbee Manufacturing Co. 825 Commonwealth Avenue Hagerstown, Md. 21740 733-9420

Nick Palumbo Generai Manager

Ladies' Dresses

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TEXTILES AND CLOTHING

Doris Manufacturing Co. 113 Summit Avenue Hagerstown, Md. 21740 733-1877

Orion Baumgardner Manager

Children's Dresses

Evonne Kay, Inc. Bowman & Commonwealth Aves. Hagerstown, Md. 21740 797-4520

John D'Aquino Co-Manager

Ladies' Dresses

E.J. Fennel, Inc. 32 East Avenue Hagerstown, Md. 21740 733-4538 Robert Fennel, President

Ladies' Dresses

Holland Woven Label, Inc. S. Conococheague St. Williamsport, Md. 21795

L. William Fiedler President

Woven Labels

L'Aiglon Apparel, Inc. 324 East Antietam Street Hagers town, Md. 21740 733-1100

Lawrence E. Winner Manager

Ladies' Dresses

Londontown Manufacturing Co. Boonsboro, Md. 21713 432-5181

Michael Wright Plant Manager London Fog Rainwear

Londontown Manufacturing Co. Hancock, Md. 21750 678-6181

Sidney Salitsky Plant Manager

London Fog Rainwear

Maryland Ribbon Company 857 Willow Circle Hagerstow n, Maryland 21740 739-6314

Philip E. Portner V.P., General Manager

Woven Ribbons, Tapes

Potomac Dyeing & Printing Corp. 367 East Franklin Street Hagerstown, Maryland 21740 733-5260

Alfred Geber General Manager

Dyeing/Finishing Textiles

Ross Garment Company, Inc. 2030 Pennsylvania Ave. Hagerstow n, Maryland 21740 744-7760

Jane Ross President

Ladies' Dresses

Victor Hosiery Corporation 700 East First Street Hagerstown, Maryland 21740 739-4180

George Burchett Manager Hosiery

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MILLWORK AND LUMBER

Cavetown Planing Mill Co. Cavetown, Nd. 21720 733-7940

George M. Bushey President

Millwork Building Supplies

H.L. Coffman Lumber Co. 449 North Prospect Ave. Hagerstown, Md. 21740 739-3366

R. Landis Coffman President

Millwork **Building Supplies**

Dixie Millwork Co., Inc. 727 N. Mulberry St. Hagerstown, Md. 21740 733-4600

Thomas Hollinger President

Millwork Window and Door Units

Escambia Treating Co. St. James Maryland 21781 223-8336

Charles Wright Manager

Pole Treatment and Preservation

Hagerstown Lumber Company 700 Frederick Road Hagerstown, Md. 21740 733-4600

J. Lee Mullendore **President**

Building Supplies

Maugansville Elevator & Lumber Co. Adam R. Martin Maugansville Maryland 21767 739-4220

President

Millwork **Building Supplies**

G.A. Miller Lumber Co. 142 W. Potomac St. Williamsport, Md. 21795 582-1200

G.A. Miller President

Millwork **Building Supplies**

FURNITURE

Beachley Furniture Co., Inc. 227 North Potomac Street Hagerstown, Md. 21740 733-1910

D.R. Beachley, Jr. **President**

Upholstered Furniture

Brandt Cabinet Works 686 Pennsylvania Avenue Hagerstown, Md. 21740 733-7000

B.K. Kunkleman President

Tables Occasional Furniture

Furniture Specialities, Inc. 22 N. Mulberry St. Hagerstown, Md. 21740 733-1430

Robert Wilkins President

Beauty Salon & Barber Shop Furniture

FURNITURE

Hagerstown Kitchens, Inc. 24 W. Long Meadow Rd. Hagerstown, Md. 21740 733-2939

Richard A. Young President

Custom Kitchen Cabinets

Horner Manufacturing Co. 241 Prospect Avenue Hagerstown, Fd. 21740 733-8686

C.R. Horner, Sr. - President

Occasional Furniture Wall Units

Maryland Maid Kitchens 227 E. Hashington Street Hagerstown, Md. 21740 739-5853 David Fletcher President

Prefinished Cabinets

Statton Furniture Mfg. Co. East First Street Hagerstown, Maryland 21740 739-0360

Philip B. Statton President

Colonial Furniture

PRINTERS AND PUBLISHERS

Arnold Graphic Industries, Inc. Middleburg Pike Hagerstown, Md. 21740 731-3110

Evarist Wilson Plant Manager **Business Forms**

Doubleday and Co., Inc. Smithsburg Maryland 21783 824-3311

J.D. Johnson Plant Manager

Book Printing

Hagerstown Bookbinding & Printing 952 Frederick Street Hagerstown, Md. 21740 733-2000 William B. Snyder President

Printing, Publishing

Harper & Row Publishers, Inc. 2350 Virginia Avenue Hagerstown, Maryland 21740 582-0200

David P. Miller Publisher Medical Publishing

CHEMICALS

Central Chemical Corporation 49 North Jonathan Street Hagerstown, Maryland 21740 733-4700

Franklin M. Thomas President

Fertilizers Insecticides

BRICK, BLOCK & PAVING MATERIALS

Bester-Long, Inc. 441 South Potomac St. Hagerstown, Md. 21740 739-1620

M.L. Porterfield General Manager

Bituminous Concrete Products ____ Asphalt

Victor Cushwa & Sons, Inc. Williamsport Maryland 21795 223-7700

David Cushwa III President

Face & Paving Brick

Hagerstown Block Company 448 East First Street Hagerstown, Md. 21740 733-3510

James J. Myers President

Cinder Blocks
Stone Blocks

Kline Paving Co. Benevola, Maryland 733-8049

Joseph M Kline President

Bituminous Concrete Products Asphalt

Marquette Cement Mfg. Co. P.O. Box 650 Hagerstown, Md. 21740 739-1150

R.E. Holladay Plant Manager

Cement, Mortar

Plummer Construction, Inc. 81 Edgewood Drive Hagerstown, Md. 21740 731-3370

E.J. Plummer Plant Supt.

Bituminous Concrete Products Asphalt

Supreme Concrete Block , Inc. Dual Highway, P.O. Box 1903 Hagerstown, Md. 21740 739-6080

Russell R. Reid, Jr. President

Concrete Block Products

MINERALS

Martin Marietta Aggregates Pinesburg Williamsport, Md. 21795 582-2660

F.A. Griffith District Manager

Crushed Limestone

CONCRETE PRODUCTS

Gray Concrete Pipe Company 1007 Virginia Avenue Hagerstown, Md. 21740 739-4890

Fred B. Gray President

Concrete Pipe

Wolfkill Vault Service, Inc. Western Pike Hagerstown, Md. 21740 582-1122

Asher D. Kann President

Concrete Burial Vaults

LEATHER PRODUCTS

W.D. Byron & Sons, Inc. Williamsport Maryland 21795 223-7500

James E. Byron President

Leather Tanning Leather Finishing

Digby Products, Inc. Highland Way Hagerstown, Md. 797-4900

Harold N. Taylor President

Attache Cases, Schoolbags

21

Hagerstown Leather Goods 858 Willow Circle Hagerstown, Md. 21740 739-3594 Harold N. Taylor
President

Leather, Plastic Goods

Hagerstown Shoe Company 148 W. Franklin Street Hagerstown, Md. 21740 739-1664

George Relyea Plant Supv. Shoes

PLASTIC PRODUCTS

Hesco 720 North Mulberry St. Hagerstown, Md. 21740 739-5911 Max O. Mogensen President

Injection Molding

Milmar Plastics Leitersburg Maryland 739-5730

J.L. Schmid President Custom Plastic Fabrication

Murray Sales & Mfg. Co. 826 Oak Hill Avenue Hagerstown, Md. 21740 E.J. Donahue President

Custom Injection Molding

IRON AND STEEL FABRICATION

Central Mfg. & Welding Works Downsville Pike Hagerstown, Md. 21740 733-2753

Raymond White President

Steel Fabrication

Danzer Metal Works Co. 2000 York Road Hagerstown, Md. 21740 582-2000 Claude O. Merckle President

Fabricated Sheet Metal

IRON AND STEEL FABRICATION

Foltz Mfg. & Supply Co. Washington & Locust Sts. Hagerstown, Md. 21740 739-1076

Robert M. Foltz President

Machine Shop Industrial Supplies

1

Kauffman Mfg. & Supply Co. 709 Pennsylvania Ave. Hagerstown, Md. 21740 733-4800

Norman B. Kauffman General Manager Metal Castings

Maryland Machine & Foundry 89 West Lee Street Hagerstown, Md. 21740 733-4730

Wilbur C. Sarver President

Fabricated Steel

Maryland Metals, Inc. 304 W. Church Street Hagerstown, Ad. 21740 739-5525

Harry Kerstein President Scrap Steel Processing

Mitchell Corporation 26 South Locust St. Hagerstown, Md. 21740 733-9676

Mitchell Wagaman General Manager Screw Machine Products

GENERAL INDUSTRIAL PRODUCTS

Airline Products Co. 2000 York Road Hagerstown, Md. 21740 582-2500

Claude O. Merckle President Louvers Dampers

Carborundum Company Pangborn Division Pangborn Boulevard Hagerstown, Md. 21740 739-3500

E.J. Finn General Manager Sandblasting Equipment Abrasive Saws

Certain-Teed Products Corp. P.O. Box 288 Williamsport, Md. 21795

Robert Freeman Plant Manager Polyvinyl chloride Pipe Vinyl Siding

Duvinage Corporation Downsville Pike Hagerstown, Md. 21740 733-8255 William C. Wachter President

Spiral Stairways Outdoor Play Equipment

Eastern Products Corporation 881 Pennsylvania Avenue Hagerstown, Md. 21740 731-3100

Taylor Nute Plant Manager Metal Utility Buildings

GENERAL INDUSTRIAL PRODUCTS

Fairchild Industries, Inc. Showalter Road Hagerstown, Md. 21740 733-3600

Gus Stathis General Manager

Commercial Aircraft Helicopters Metal Bonding

Jamison Door Co., Inc. 55 Maple Averue Hagerstown, Md. 21740 733-3100

J.V. Jamison III

Insulated Doors

Mack Trucks, Inc. 1999 Pennsylvania Avenue Hagerstown, Md. 21740 733-8300

Frank Pryatel Vice President

Engines Transmissions

Prowler Ind. of Maryland, Inc. West South Street Hancock, Md: 21750 678-6171

Marvin Burkett Gen. Manager

Travel Traile's

Victor Products Corporation 901 Pope Avenue Hagerstown, Maryland 21740 733-3020

Roy Small Director of Operationa

Commercial Refrigeration Equipment Vending Machines

Wilderness Ind. of Maryland P.O. Box 287 Williamsport, Md. 21795

Robert Willis Plant Manager

Travel Trailers

ELECTRONIC PRODUCTS

Angstrohm Precision, Inc. Ward Leonard Division P.O. Box 1827 Hagerstown, Maryland 21740

John T. Huskin Vice President

Precision Metal Film Resistors, Potentiometers

Electro Enterprises, Inc. 743 Bowman Avenue Hagerstown, Md. 21740 733-6621

Paul Erickson President

Electroplating Anodizing

Marine Electronics & Mfg. 747 Boxm n Avenue Hagerstown, Md. 21740 739-7128

Warren Dexter President

Electronic Components

W.H. Reisner Manufacturing Co. 240 North Prospect Street Hagerstown, Maryland 21740 733-2650

W.H. Reisner, Jr. President

Electromechanical Assemblies Pipe Organ Supplies

TOYS

Gilbert Manufacturing Co. Long Meadow Road P.O. Box 980 Hagerstown, Maryland 21740 739-2606

Ray Eignebrode Plant Manager

Educational Toys

Maryland Toy Corporation 36 w. Lee Street Hagerstown, Maryland 21740 733-8030

John J. Porter President

Toys and Games

MUSICAL INSTRUMENTS

M.P. Moller, Inc. 403 N. Prospect Street Hagerstown, Maryland 21740 733-9000

W.R. Daniels President Pipe Organs

SECTION VI

POINTS OF INFORMATION TO BE FOLLOWED UP

At present aside from Valley Mall we have two other shopping centers going up in the area, one has already been started the other is pending. I have made some contacts on both accounts, will continue to follow up and report developments.

A Banquet Hall may be going up on the Dual Highway if the sewage problem is worked out.

Several students have been referred to openings received. In making personal visits to firms we discovered Robert Hall might be interested in work study, I arranged a meeting with the Manager, and Mr. Murray of South High, Work Study Coordinator, at that time one opening was disclosed and Mr. Murray was sending candidates.

work Study is on the increase, and several employers indicated it would be doing better if they could have students when they wanted them, early morning, all day, lunch time, etc.

Many companies talked to, agreed to give students exposure in their industry, this would not neccessarily be for pay, but for exposure and learning experience.

A Booklet containing information on 76 companies in the Washington County area has already been distributed by the Job Developer to Counselors, Coordinators, etc. in the School System.

SECTION VII

Skilled and Other Manual Occupations

An excerpt from the 1972-73 Occupational Outlook Handbook

The 27.8 million blue-collar workers-skilled, semiskilled, and unskilled—employed in 1970 made up more than one-third of all the Nation's employed workers. They work in hundreds of different occupations and perform many important functions in our economy. They transform the ideas of scientists and the plans of engineers into goods and services. They operate transportation and communication systems that tie the country together. They build homes, office buildings, and factories. They fabricate, install, control, maintain, and repair the complex equipment necessary for operating our highly mechanized society. They repair automobiles. television sets, washing machines, and other household appliances. They move raw materials, wrap and pack finishe products, and load and unload supplies and equipment of all kinds.

Young persons who have mechanical interests and abilities, or who enjoy working with their hands, will find many employment opportunities among the hundreds of occupations in this group.

Technological progress is causing major changes in the occupational composition of the Nation's labor force. Rapid advances in the industrial applications of scientific knowledge and invention are making pos-

sible increasing use of automatic devices that operate the machinery and equipment used in manufacturing. Nonetheless, the number of skilled and semiskilled workers is expected to continue to increase through the 1970's, despite this rapid mechanization and automation of production processes. It is expected that our increasingly complex technology generally will require higher levels of skill to operate and service this machinery and related equipment.

Although blue-collar workers declined slightly as a proportion of total employment between 1960 and 1970, their number increased by about 3.7 million. Semiskilled workers accounted for nearly 53 percent of the increase, skilled workers for 43 percent, and unskilled workers for less than 5 per-

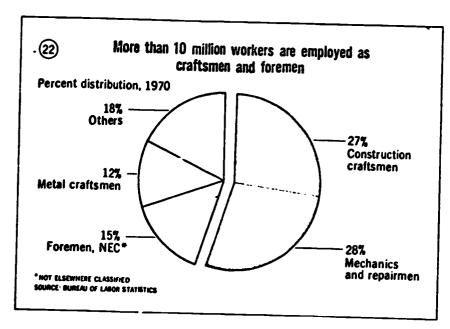
Through the 1970's, employment of blue-collar workers is expected to increase only about half as fast as total employment. However, different rates of growth are expected for each of the three major occupational groups that make up the blue-collar worker category. For example, employment of skilled workers is likely to increase nearly as fast as total employment; semiskilled workers will grow at a much slower rate; and no significant

change is expected in the number of unskilled workers.

In addition to the large number of job opportunities expected to be available for blue-collar workers because of employment growth, an even greater number is expected to result from the replacement of experienced workers who retire, die. or transfer to other fields of work. Replacement needs caused by retirements and deaths alone should provide more than 600,000 job openings annually. For skilled workers, replacement needs are expected to offer about the same number of job opportunities as employment growth. For semiskilled workers, on the other hand, replacement needs are expected to offer more than twice as many job opportunities as employment growth. For unskilled workers, virtually all job opportunities will come from replacement needs.

The skilled, semiskilled, and unskilled occupation groups are discussed separately in the following section. Following these general discussions are more detailed statements on selected blue-collar occupations. Many other bluc-collar occupations also are described in individual industry statements elsewhere in the Handbook.





SKILLED WORKERS

(Craftsmen, Foremen, and Kindred Workers)

The Nation's economic strength depends to a great extent on the initiative and competence of its skilled work force. Skilled workers make the patterns, models, tools, dies, machines, and equipment without which industrial processes could not take place. They repair the equipment used in industry, and the mechanical equipment and appliances used by consumers. They also build homes, commercial and industrial buildings, and highways.

In 1970, there were about 10.2 million skilled workers. More than half of them were employed in two broad occupational groupings—construction craftsmen and mechanics and repairmen. (See chart 22.) Two occupations had more than 800,000 workers each—carpenters and automotive mechanics. About a dozen additional skilled occupations had more than 100,000 workers each. (See chart 23.) However,

many skilled occupations, such as watch repairmen and paperhangers, had fewer than 20,000 workers each.

Although skilled workers are employed in almost every branch of industry, more than three-fifths work in manufacturing and construction. About 9 out of every 10 skilled workers are employed by private firms; others are self-employed or work for Federal, State, or local governments. The building trades have a fairly high percentage of self-employed craftsmen. As might be expected, the skilled work force is concentrated in the highly populated and industrialized States. Job opportunities, however, are found in every State, A very small proportion (about 3 percent) of skilled workers are women.

Training, Other Qualifications, and Advancement

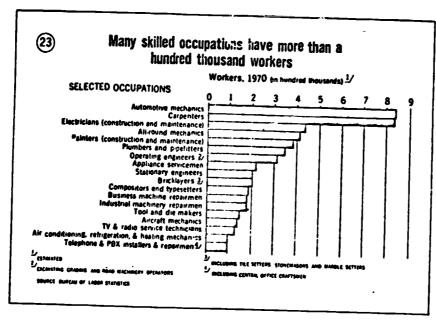
Skilled workers must have a thorough knowledge of the processes involved in their work. They often ex-

ercise independent judgment and they may also be responsible for valuable equipment or products. Consequently, they require considerable training to qualify for their jobs. A large proportion of skilled workers learn their trades through informal on-the-job training and experience. Many others learn their trades through apprenticeship or other formal training programs. Large numbers of young men also acquire skills in the armed services. For others, vocational school training plays an important role.

Most training authorities agree that the best way to learn a skilled trade is through a formal apprenticeship program. Apprenticeship is a period of systematic on-the-job training, supplemented by related trade instruction, which is designed to familiarize the apprentice with the materials, tools, and principles of the trade. The apprenticeship program provides the trainee with a balanced knowledge of his trade. The formal apprenticeship agreement specifies the training time the apprentice is to receive in the various aspects of the trade. Most apprenticeship programs last from 3 to 4 years.

Apprenticeship has several advantages over less formal methods of learning a trade. An apprentice receives broad training and experience that enable him to adjust to constantly changing job requirements, and prepare him to work in a wide range of jobs. The completion of an apprenticeship also gives the worker a recognized status that is an advantage in finding and holding jobs. In addition, it may increase his opportunities for promotion to a foreman or supervisory-level job.

Many companies have training programs that also provide systematic on-the-job training. Frequently, these programs include supplementary classroom instruction.



Many young persons move from one semiskilled job to another and, over a period of years, acquire knowledge and skills sufficient to make them skilled workers. Others begin learning a skilled trade in vocational, trade, or technical schools. A small proportion of these students move directly into jobs in their trade and, after acquiring on-thejob experience, qualify as skilled workers. Other young persons, who already are employed in semiskilled or unskilled jobs, move into skilled occupations by taking vocational studies related to their work, such as correspondence courses, manufacturers' training programs, and night school courses.

Large numbers of young men acquire skills in the Armed Forces that enable them to qualify, with additional training, for skilled jobs in civilian life, such as automobile mechanic, aircraft mechanic, electrician, or office machine repairman.

Many supervisors and men in administrative positions have come from the ranks of craftsmen. Employers long have recognized the value of executives who have both industrial know-how and administrative ability.

Young persons who do not expect to go to college should consider the definite advantages the skilled trades offer, compared with semiskilled and unskilled occupations. Skilled workers have higher earnings, more job security, better chances for promotions, and more opportunities to open their own businesses than most workers having lesser skills. Among the 11 occupational groups that make up our labor force, only men in the professional, managerial, and salesworker groups had higher earnings than the average \$8,791 a year earned by skilled men in 1969.

Employment Trends and Outlook

Employment in skilled occupations grew from about 8.6 million workers in 1960 to 10.2 million in 1970. Continued growth in the number of skilled jobs is expected in the years ahead. Job opportunities also will result from the replacement of skilled workers who transfer to other fields of work, are promoted, retire, or die. About 215,000 skilled workers are expected to be needed each year to replace those who retire or die.

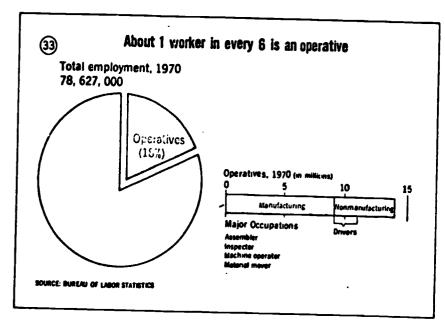
Employment in skilled occupations is expected to rise moderately through the 1970's because of industrial growth and technological advances that increase the need for skilled workers. As in the past, rates of employment growth will differ among the skilled occupational groups. For example, employment of mechanics and repairmen and construction craftsmen is expected to grow more rapidly than the skilled work force as a whole, and employment in major skilled machining occupations is expected to grow less rapidly. On the other hand, employment in the printing trades is expected to show little or no change.

Young men who acquire a good basic education (including courses in mathematics and the sciences), as well as thorough job training, will be better able to compete for higher paying skilled jobs than applicants without this training.

SEMISKILLED WORKERS

(Operatives)

Semiskilled workers make up the largest occupational group in the Nation's labor force. About 13.9 million workers-1 out of every 6 -were employed in semiskilled jobs in 1970. Of the 9 million semiskilled workers employed in manufacturing industries (chart 33), large numbers were engaged in processing food, making textiles and clothing, and producing automobiles and industrial machinery. The broad field of semiskilled jobs will provide hundreds of thousands of employment opportunities for young persons in the years ahead.



Truckdrivers account for the largest single group of semiskilled workers. Millions of other semiskilled workers operate power driven machines in factories. Many use sewing machines to join fabrics for clothing. Others operate machines to stamp out metal parts; still others use machine tools, such as engine lathes and milling machines, to shape metal to precise sizes. A considerable number of semiskilled workers operate materials moving equipment, such as forklift trucks, to move raw materials and manufactured products from place to place in factories.

Large numbers of semiskilled workers are employed as assemblers and inspectors. Assemblers install components and subassemblies into end products such as radios and television sets. Inspectors examine and test products to find out whether their quality is satisfactory. Many semiskilled workers in factories are employed as helpers or assistants to skilled workers. For example, stationary firemen help skilled stationary engineers operate and maintain steam boilers.

In 1970, 4.3 million women accounted for about 30 percent of all

semiskilled workers. Jobs like those of sewing machine operators, packers and wrappers, and assemblers were by far the largest source of employment for women in manufacturing. The number of women employed in the different manufacturing industries varied considerably. Women accounted for a large proportion of the semiskilled jobs in the apparel, textiles, and food industries. On the other hand, plants that produce iron and steel and petroleum products employed relatively few women in semiskilled jobs.

Training, Other Qualifications, and Advancement

Semiskilled workers ordinarily receive only brief on-the-job training. Usually, they are told exactly what to do and how to do it, and their work is supervised closely. They often repeat the same motions or the same routine throughout the working day.

Semiskilled workers do not need to invest many years in learning their jobs. The simplest, most repetitive jobs can be learned in a day and mastered in a few weeks. Even jobs that require a higher degree of skill, such as truckdriving, can be learned in a few months. At the same time, the ability to learn new jobs quickly, including the operation of new machines, is an important qualification for semiskilled workers.

New employees in semiskilled jobs are not expected to be highly proficient. After a short training period, however, they must work at a fast and steady pace. Frequently good eyesight and good coordination are required.

Semiskilled jobs often pay well. Some semiskilled workers who are paid on an incentive basis are among the highest paid workers in manufacturing. However, the average annual earnings of semiskilled men in 1969 was \$7,348—\$1,443 less than those of skilled men. An added disadvantage is that semiskilled workers are more likely to lose their jobs during a business recession, and to remain unemployed longer than skilled or white-collar employees.

Employment Outlook

Employment of semiskilled workers is expected to increase slowly through the 1970's. Most job opportunities are expected to result from the need to replace workers who are promoted, transfer out of semiskilled jobs, retire, or die. About 320,000 job openings are expected each year as a result of retirements and deaths. Transfer rates for semiskilled workers are high because a large proportion of them are young workers who tend to change jobs frequently, and women workers who leave their jobs to marry, raise families, or move to other areas when their husbands change jobs.

The continuing growth in the use of commercial motor vehicles will increase employment opportunities for drivers of trucks and buses. Greater substitution of power equipment for unskilled labor in lifting, hauling, digging, and similar heavy physical work will create new jobs for semiskilled workers such as power equipment operators. On the other hand, employment growth in manufacturing will be limited by increasing automation of production processes. There are many processes, however, to which automation is not likely to be applied in the 1970's, and many industries in which the impact of automation will be limited.

Young men and women who have no training beyond high school will continue to find a major area of job opportunities in semiskilled occupations. The most rapid gains in the Nation's employment, however, will be in professional, technical and other white-collar occupations and in skilled occupations. If possible, young persons having ability should obtain the additional training and education that these occupations require. Semiskilled workers, however, even those who did not complete high school, are not cut off permanently from advancement if they take advantage of the many educational opportunities available in

their communities. They may take courses in evening schools or enter apprentice training programs and eventually qualify for better jobs.

UNSKILLED WORKERS

(Laborers)

Unskilled laborers work in manual occupations that generally require no special training. These jobs usually involve handling and moving materials; for example, loading or unloading, digging, hauling, hoisting, wrapping, and mixing. Some jobs require heavy physical work. About half of the 3.7 million unskilled laborers employed in 1970 worked in manufacturing and construction industries. A large proportion of the remainder were employed in retail and wholesale trade, transportation, public utilities, and service industries.

Although some of these jobs pay well, particularly in construction work, the average annual earnings of unskilled men in 1969 was \$6,082—\$1,266 less than those of semiskilled men. Moreover, unskilled workers are usually the first to lose their jobs during a business

recession; they have the highest unemployment rate of all the major occupational groups.

Little or no change in the number of unskilled laborers is expected through the 1970's. Nevertheless, there will be thousands of opportunities for new workers to get jobs as unskilled laborers because of the need to replace workers who transfer to other fields of work, retire, or die. Deaths and retirements alone are expected to result in about 70,000 job openings each year.

Mechanical equipment has been replacing manual labor, and this trend will continue. Power-driven equipment, such as forklift trucks, derricks, cranes, hoists, and conveyor belts will take over more and more materials-handling work in factories, freight terminals, and warehouses. Other power-driven machines will do excavating, ditchdigging, and similar work. Integrated systems of processing and materials-handling equipment, a more advanced step in automation, will be installed in an increasing number of plants in the years ahead. Industrial expansion, however, is expected to create a need for unskilled laborers which will approximately offset the jobs lost to laborsaving mechanical equipment.

Detailed information on job duties, employment outlook, training and qualifications, and earnings and working conditions in the occupations discussed in this brief is contained in the 1972-73 Occupational Outlook Handbook. Separate reprints of the sections on these occupations are also available. In addition, the Occupational Outlook Quarterly, a periodical issued 4 times publications may be ordered by using the form at the end of this brief.

Sales Occupations

An excerpt from the 1972-73 Occupational Outlook Handbook

Saleswork offers career opportunities for young people who have not completed high school, as well as for those who have a college degree; for men and women who like to travel and those who do not; and for people who want salaried employment, as well as those who aspire to run their own businesses.

Workers in this occupational group may sell for manufacturers, insurance companies, and other producers of goods and services; for wholesalers who stock large quantities of goods so that smaller lots may be purchased and resold by retail stores; and for drugstores, dress shops, and other retailers who deal directly with the public.

About 4.9 million workers were employed in sales occupations in 1970. Approximately one-fourth

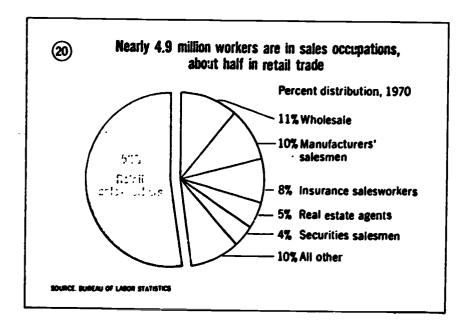
were part-time employees who usually worked fewer than 35 hours a week. Two out of five were women, employed mainly in retail stores. In insurance, real estate, and other saleswork outside retail stores, the great majority of employees were men. Chart 20 shows employment in the major sales occupations discussed in this chapter. This chapter also includes individual statements for automotive salesworkers.

Training, Other Qualifications, and Advancement

Training requirements for different kinds of saleswork are as varied as the work itself. Thousands of salespersons have routine jobs selling standardized merchandise such

as magazines, candy, cigarettes, and cosmetics. In such cases, the salesworker needs to do little more than "wait on" people who already have made their selections from the stock displayed. Employers seldom require salespeople in such jobs to have specialized training. They usually learn their duties on the job as they work with experienced salesclerks; in some large stores, they may attend brief training courses. Even in the most routine kinds of selling, however, a high school diploma is an asset to a beginner seeking a job. High school courses in business subjects, as well as specialized courses in distributive education offered in some school systems, are regarded by most emplayers as particularly good preparation for saleswork. The Federal Government also sponsors training for some salesworkers under provisions of the Manpower Development and Training Act.

The salesman who sells complex products or services—electronic equipment or liability insurance, for example—has a job which is altogemer different from that of most retail salesclerks. Beginners on jobs of this kind sometimes receive training which lasts many months. For some positions, salesmen must be college graduates who have majored in engineering or some other field. Other salesmen dealing in specialized services and products may acquire the necessary technical knowledge through courses offered by universities or manufacturers. Still



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others gain knowledge through years of on-the-job experience, often supplemented by home study. Thus, a real estate salesman may qualify better for his job by taking university extension courses; a beauty counselor in a department store may participate in an industry-sponsored training program before beginning her sales duties; or a salesman of fine jewelry may acquire his knowledge of gems during years of observation and study as he works on the job.

Successful salespeople must have the ability to understand the needs and viewpoints of their customers, and a readiness to be of assistance to them. Saleswork also requires people with poise who are at ease in dealing with strangers. Other important attributes in many types of selling are energy, self-confidence, imagination, the ability to communicate, and self-discipline. Because salesworkers frequently are required to make price computations or give customers change, arithmetic skills are an asset. In almost all saleswork, except retail stores, the salesman must have the initiative to locate his own prospective customers and plan his own work schedule.

Employment Outlook

During the 1970's, employment in sales occupations is expected to rise slowly. Openings created by employment growth as well as vacancies that arise as salesworkers retire, or stop working for other reasons, are expected to result in a need for a few hundred thousand workers each year. Additional workers will be needed to replace

people now employed in saleswork who transfer to other types of employment.

As employment rises, the proportion of part-time workers—already higher than in most occupational groups—also is likely to increase. In the growing number of suburban shopping centers, where many retail stores remain open several nights a week, a larger-than-average proportion of the sales force is l.kely to be made up of part-time workers.

The main reason for the anticipated rise in employment is the prospect of increased sales resulting from population growth, business expansion and rising income levels. Within retail stores, however, special circum tances which have restricted employment growth in the recent past probably will continue to do so. Information about these special circumstances and the em-

Detailed information on job duties, employment outlook, training and qualifications, and parnings and working conditions in the occupations discussed in this brief is contained in the 1972-73 Occupational Outlook Handbook. Separate reprints of the sections on these occupations are also available. In addition, the Occupational Outlook Quarterly, a periodical issued 4 times a year, provides up-to-date information on new studies and occupational trends between editions of the Handbook. These publications may be ordered by using the form at the end of this brief.

Service Occupations

An excerpt from the 1972-73 Occupational Outlook Handbook

Workers in service occupations police streets, serve food, put out fires, clean homes and buildings, and, in numerous other ways, provide services to the American peo ple. The more than 9.7 million service workers who were employed in 1970 included a wide range of occupations such as babysitters, policemen, cooks, hospital attendants, golf caddies, theatre ushers, barbers, and cleaning women. The major groups of service workers are discussed below:

Occupations related to food preparation and service. In 1970, more than 2.7 million people, or approximately three-tenths of all service workers, were employed in this group which includes occupations such as cooks and chefs, kitchen workers, waiters and waitresses, counter and fountain workers, and bartenders. These workers are employed in hotels, restaurants, and other institutions, such as hospitals, schools, and plant cafeterias.

Building cleaning and servicing occupations. The nearly 2 million persons employed to clean and provide other services in buildings made up the second largest group of service workers in 1970. This group includes workers in occupations such as janitors, charwomen, chambermaids, and elevator operators.

Private household workers. About 1.5 million people were employed as private household workers in 1970. Altogether they made up the third largest group of

service workers and constituted almost one-fifth of all service worker employment. Private household workers perform tasks that are familiar to all homemakers. They prepare and serve meals, make beds, do cleaning and laundering, take together account for more than one-third of the total number of protective service workers. Most policemen and detectives are government employees, but some work for hotels, stores, and other businesses. Guards and watchmen, another large group of protective service workers, are employed chiefly by private companies to protect their property and enforce company rules and regulations. Some guards and watchmen are employed in jails, prisons, and other government care of children, and perform other household duties as well. (This chapter includes a detailed statement covering private household workers.)

Protective service workers, another large group of service workers, are needed to help safeguard lives and property. More than 950,000 workers, or one-tenth of all service workers, were employed in protective service occupations in 1970. The majority of these workers are policemen, guards, or firemen. Policemen and detectives establishments. Firemen, also a significant group of protective service workers, are employed mainly by city governments. The remaining protective service workers are sher-

iffs and bailiffs, crossing watchmen and bridge tenders, and marshals and constables. This chapter includes separate statements for FBI special agents, police officers (local government), State police officers, firefighters, and guards and watch-

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The remaining service workers -those concerned with providing health care, grooming and personal services, and people in occupations related to entertainment and leisure time activities—accounted for about 2.5 million workers. More than 1 million were employed in health service occupations, which include workers such as hospital attendants and nurse aides. Service occupations concerned with grooming and personal services, such as barbers and cosmetologists, provided employment for over 800,000 workers. Nearly 100,000 workers were employed in occupations related to entertainment. This group includes occupations such as ski instructors, ushers, and check room attendants. All other service workers, nearly 300,000, were in occupations such as airline stewardess and travel

Some of the occupations mentioned briefly in this introduction are described in greater detail later in this chapter. They are cook and chef, waiter and waitress, bartender, hospital attendant, barber, and cosmetologist. Other personal service occupations, including the airline stewardess, hotel bellman, human

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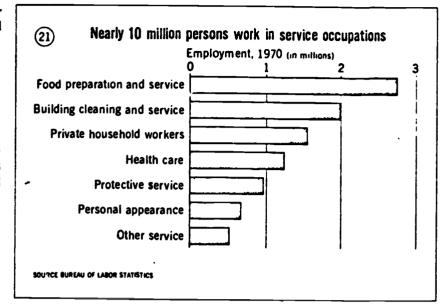
services aide, and hotel house-keeper and assistant, are discussed elsewhere in the *Handbook*.

Training, Other Qualifications, and Advancement

Training and skill requirements differ greatly among the various service occupations. FBI special agents, for example, must have a college degree. Barbers and beauty operators need specialized vocational training. Still other occupations-general maid, waitress, and hotel beliman, for example—have no specific educational requirements for entry, although a high school diploma is always an advantage. The Federal Government sponsors training for many service occupations under provisions of the Manpower Development and Training Act.

For many service occupations, personality traits and special abilities may be as important as formal schooling. Thus, physical strength and endurance are a necessity for work as a porter, life guard, or window cleaner; and a pleasing manner and appearance are especially important for the theater usher, elevator operator, and checkroom girl. Still other service workers, including store and hotel detectives and travel guides, should possess good judgment and be skillful in dealing with people.

Some service workers eventually go into business for themselves—as caterers or restaurant operators, for example, or proprietors of barber or beauty shops. Advancement from service occupations that require little specialized training or skill may be difficult, however, particularly for young people without a good basic education and some knowledge of the business in which they are employed.



Employment Trends and Outlook

For many years, the number of workers in service occupations has been growing at about the same rate as the labor force as a whole. Between 1960 and 1970, both increased by about 20 percent. Among service workers, health service employment increased by nearly two-thirds since the early 1960's. Employment in food services has risen by about one-fourth; and entertainment services, food services, protective services, and personal appearance services by about 20 percent. Employment of private household workers, however, decreased by 20 percent, despite a strong demand for their services.

Employment in service occupations is expected to increase faster than the labor force as a whole in the years ahead as income levels rise and leisure time increases. By 1980, as many as 4 million more workers may be providing the services that add to people's comfort and enjoyment and protect life and property. As total employment rises, however, different occupations within the service group are likely

to be affected quite differently—some growing very rapidly, others only moderately, and a few decreasing in size.

Most of the future employment increase is expected to be among policemen and other protective service workers; attendants in hospitals and businesses rendering professional and personal services; beauty operators; and cooks, waiters, and others who prepare and serve meals outside private homes. Some of the factors responsible for their growth are the added medical care related to the increase in population, especially the number of older people: the greater need to protect life and property as urbanization continues and cities become more crowded; and the more frequent use of restaurants, beauty parlors, and other services by families and individuals as income levels rise and as an increasing number of housewives take jobs outside the home.

Although service workers are employed throughout the country, firefighters, hospital attendants, hotel service employees, and amusement and recreation attendants are found chiefly in the larger towns and cities.

Professional and Related Occupations

An excerpt from the 1972-73 Occupational Outlook Handbook

Professional occupations have many attractions for young persons choosing a career. They offer opportunities for interesting and responsible work, and in many cases, lead to high earnings. However, professional work usually can be entered only after a long period of preparation since a broad and thorough knowledge of a field is essential to success in the professions.

More than 11.1 million persons, or about 1 out of every 7 workers, were in professional or related occupations in 1970. These workers accounted for about three-tenths of all white-collar employment.

Professional occupations are of two major types. The larger group, which includes engineer, physician. and teacher, requires specialized and theoretical knowledge. Professions in this group require college graduation-and sometimes an advanced degree—or experience that provides comparable knowledge. The other group, which includes performing artists and athletes. places a high premium on skill and often on creative talent. Academic training generally is of lesser importance in this second group. Licenses are required for practice in many professions—medicine. dentistry. and pharmacy, for example; licensing authorities determine the minimum qualifications for eligibility. Professional societies set up membership standards that tend to define their respective fields.

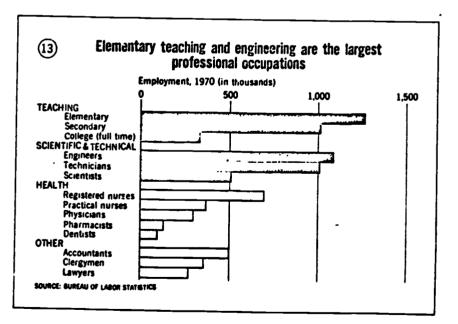
Women find many employment opportunities in the professions. Almos' two-fifths of all professional and related jobs were filled by women in 1970; women predominate in several large professions, including teaching, nursing, library work, and social work.

Closely related to the professions is a wide variety of technical occupations. Persons in these occupations work with engineers, scientis, mathematicians, physicians, and other professional personnel. Their job titles include those of draftsman; engineering aid; programer; and electronics, laboratory, or X-ray technician. Employment in these technical occupations usually requires a combination of basic scientific knowledge and specialized

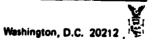
education or training in some particular aspect of technology or science. Such training may be obtained in technical institutes, junior colleges, and other schools, or through equivalent on-the-job training.

Many occupations in education, health, social welfare, recreation, library work, and other areas also are related to the professions. Related—and supportive—occupations in these areas include teacher assistant, medical laboratory assistant, social welfare technician, recreation assistant, and library technician. Training for many supportive jobs may be obtained in vocational and technical schools, junior colleges, or sometimes on the job.

The major professional and related occupations are shown in chart 13. As a group, these workers



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increased by nearly 3.7 million during the 1960-70 decade. The rate of increase, almost 50 percent, was more rapid than for any other occupational group, and two and one-half times the rate for all occupational groups combined. The outlook for professional and related occupations continues to be very favorable. Between 1970 and 1980, employment in this group is expected to increase by nearly tweefifths. (See chart 14.)

The continuing very rapid growth in the professional worker group is the result of developments such as expansion in research and development activities; improvements in standards of living, medical care. and education; and the growing concentration of the population in metropolitan areas—all of which stimulate requirements for highly educated workers. A unique set of factors, however, determines growth in any one occupation. To illustrate, birth rates, school attendance rates, and classroom size are the primary factors in the demand for teachers. whereas primary factors underlying engineering demand include the

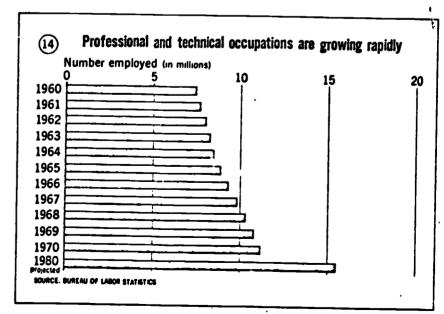
level of research and development activities and the complexity of industrial processes. In addition, the nature and effect of technological advances on employment requirements vary from profession to profession. Technology in education, such as programmed learning and instructional television, is expected to affect the nature of teaching rather than to exert a strong influence on the level of teacher requirements. In contrast, technological advances in the engineering field are expected to increase requirements for engineers and limit to some extent requirements for the lesser skilled among draftsmen. Although different rates of growth are expected among individual professional occupations because of the varying influence of factors underlying growth, the general tendency will be for a moderate to very rapid growth of these occupations.

Natural scientists are expected to be among the rapidly expanding professions through the 1970's. Chemists, for example, will be required in increasing numbers for research and development and for the

manufacture of products such as plastics, man-made fibers, drugs, and high energy and nuclear fuels for missiles and rockets. Demands for physicists also will grow as more are required to perform highly complex research and development work and to satisfy the increasing demand for physicists on college faculties because of the growing importance of physics in engineering and other science curriculums. Requirements for mathematicians are expected to increase markedly, stimulated by the application of systems analysis and computers to a wide range of endeavors and by the use of mathematics in research in fields as diverse as economics and biology. Demands for engineers will rise rapidly in response to industrial expansion, and a variety of programs that include urban renewal, transportation, and environmental protection.

Employment of most types of health workers is also expected to increase rapidly, due to population growth, rising standards of health care, increasing emphasis on preventive medicine and rehabilitation. new drugs and techniques, and wider participation in private health insurance plans and in government programs such as Medicare and Medicaid. In contrast, the employment effect of rising standards in education will be offset partially as declining birth rates begin to affect elementary and secondary school enrollments significantly. However, employment requirements in certain areas of education, such as teachers trained in instructing physically and mentally handicapped and disadvantaged students, are expected to rise. Rapidly increasing college enrollments probably will require large increases in college and university teaching staff.

Social scientist employment is expected to grow rapidly as the solu-



tion to social problems is sought increasingly through economics, sociology, psychology, and other social sciences. College trained management personnel, such as accounttants, also will be required in larger numbers to cope with the growth in the size and number of firms and their increasing complexity.

Employment of technicians and support personnel in many fields also will increase rapidly with growing emphasis on improving the utilization of professional workers by relieving them of tasks that can be performed by less highly trained personnel.

Educational Trends

Professional occupations counted for two-thirds of all workers having a college education in 1970. The proportion of all professional workers having a degree has been increasing. In addition to the many professions for which a college education long has been an entry requirement, the demand for graduates at the entry level in other professional, administrative, and related occupations is growing. College graduates are filling many positions that formerly were held by employees who qualified through their experience and personal characteristics rather than by academic studies. Graduates also are working in many professional jobs that did not exist a few decades ago.

Emphasis on a college education will be reinforced in the years ahead as the growing complexity of our society constantly increases the amount of specialized knowledge required for effective performance in many professions. Finally, a college education is becoming necessary for an increasing proportion of

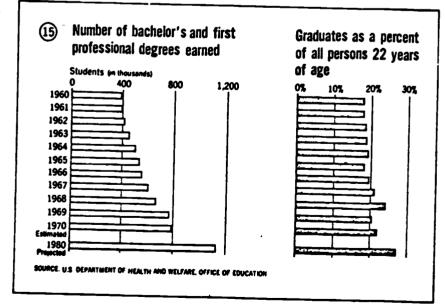
jobs, and in many professions the amount of education needed is increasing. A great increase in the number of college graduates, which is the chief source of professionally trained workers, has accompanied the growth in the professional and related occupations. As a percent of all persons 22 years of age, the proportion of young persons completing college rose from 17 percent in 1960 to 22 percent in 1970, as shown on the inset in chart 15.

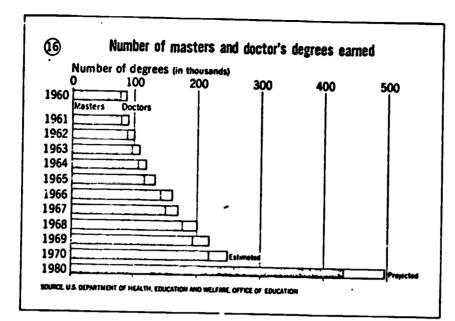
The rapid increase in the proportion of young people graduating from college reflects a number of basic social trends. Family incomes are higher, enabling more of the young to postpone going to work and to meet the costs of education. More families want a college education for their children. Scholarships and loans are available for more students; part-time work opportunities also are available.

Since these factors probably will continue to be influential in the future, the proportion of young people who graduate from college is expected to go on increasing for many years. The college-age population

also is growing. The number of persons age 18 to 21 is expected to increase by nearly 2.7 million between 1970 and 1980. These factors, considered together, indicate a great increase in college graduations, assuming that the Nation's colleges and universities build the classrooms, laboratories, dormitories, and other facilities and hire the faculty needed to provide for the greatly increased number of students. Projections prepared by the U.S. Office of Education indic. .. an increase from about 785,000 bachelor's degrees granted in 1970 to more than 1.1 million in 1980. The number of students in graduate school also has risen very rapidly during the last few decades, and probably will continue to mount through the 1970's. A master's degree usually is earned through 1 or 2 years of study beyond the bachelor's degree. The Ph. D. degree usually require 3 years or more beyond the bachelor's degree. As a rule, graduate study is concentrated in the major subject field of the student's interest, whereas undergraduate study is broader in content.

Chart 16 shows the vast increase in graduate degrees awarded during





the past 10 years. Master's degrees rose from about 78,000 in 1960 to nearly 220,000 in 1970 and are expected to exceed 430,000 in 1980, if past trends continue. The number of doctorates awarded increased from 9,800 in 1960 to 29,000 in 1970, and may reach over 62,000 by 1980.

Overall analysis of the supply and demand for professional personnel indicates that the outlook for these highly trained workers continues to be excellent. Technicians and supportive personnel generally will have very favorable opportunities.

Detailed information on job duties, employment outlook, training and qualifications, and earnings and working conditions in the occupations discussed in this brief is contained in the 1972-73 Occupational Outlook Handbook, Separate reprints of the sections on these occupations are also available. In addition, the Occupational Outlook Quarterly, a periodical issued 4 times a year, provides up-to-date information on new studies and occupational trends between editions of the Handbook. These publications may be ordered by using the form at the end of this brief.

Managerial Occupations

An excerpt from the 1972-73 Occupational Outlook Handbook

The success or failure of business enterprises depends heavily on the way managers do their job. More than 6 million salaried workers—85 percent of them men—were employed in 1970 to manage the Nation's business enterprises. An additional 2.2 million managed all or part of their own businesses. Salaried business managers, one of the fastest growing occupational groups in the country, increased nearly four times as fast as all workers between 1960 and 1970. (See chart 18.)

This chapter describes salaried managers as a group and presents individual statements on three such occupations—city managers, industrial traffic managers, and purchasing agents. Statements on other occupations that frequently involve

managerial functions are presented jn the Business Administration and Related Professions section of the Handbook.

Nature of the Work

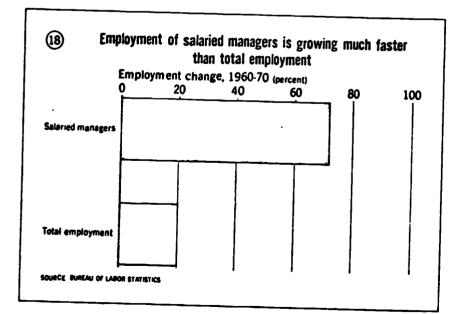
A manager's responsibilities depend on his level of management and type of employer. Although salaried managers direct or plan the work of others, some are chiefly policymakers.

Entry-level management positions are either supervisory or traince. Supervisors, the largest group, direct workers in activities such as sales, production, accounting, and purchasing. A department manager in a retail department store, for example, has a typical su-

pervisory job. Responsible for merchandising in one department or more, he may supervise as many as 50 employees. Manager trainees are sometimes assigned to assist managers; or they may be placed in a number of different jobs for short periods to learn several phases of the business.

Higher in the managerial pyramid are the middle-level managers; they have the top posts in large and important departments such as sales, accounting, research and development, marketing, production, purchasing, data processing, and personnel. When faced with nonroutine business problems, they must make decisions promptly within the framework of company policy. For example, the manager of a manufacturing company's engineering department may (1) oversee the development of new products; (2) develop plans for making efficient use of the firm's space and facilities; (3) set up and manage support services such as equipment maintenance.

Top level managers make major decisions such as the goods their firms will produce, locations of new plants, or methods of financing new projects. This top group includes the board of directors, chairman of the board of directors, president, and vice presidents. Each vice president is a policymaker and administrator for one or more company departments (for example, finance, marketing, or production) and reports directly to the president. The



U.S. DEPARTMENT OF LABOR, J. D. Hodgson, Secretary BUREAU OF LABOR STATISTICS, Geoffrey H. Moore, Commissioner OCCUPATIONAL OUTLOOK SERVICE



president or chairman of the board has final responsibility for the company's success. He usually presides at meetings and confers with officers on policy matters and problems in their individual areas.

Management responsibilities in government are similar to those in private industry. However, public service is a major responsibility of many managers in government.

Places of Employment

Although managers are employed throughout industry, more are required in some industries than in others. For example, in 1970, nearly one-third of all salaried managers worked in retail and wholesale trade. About one-fifth had jobs in manufacturing firms. Considerable numbers also worked in finance, insurance, real estate, service, transportation, and Government. Women find their best opportunities in retail trade; one-third of all women managers are employed in this field.

Training

Employers increasingly require beginning managers to have completed college. Although a person who doesn't have a degree may work his way up through the ranks, his promotional opportunities are becoming limited.

For beginning management jobs, many employers look for individuals who have a college degree in business administration, with a major in accounting, economics, or finance. Other employers look for applicants who have technical training in engineering, science, or mathematics to deal with complex industrial processes. Still others hire liberal arts graduates and give them training on the job.

The number of companies that have formal management traince programs is relatively small. As a result, entrance to many management jobs comes after several years of progressively more responsible work experience in jobs such as salesman or accountant.

The climb up the promotional ladder may be in one area of work, such as personnel, or in several areas, such as shifts from sales to marketing, or finance. Managerial skills usually can be applied as effectively in one firm or industry as another. For this reason, managers are able to change jobs with relative ease.

To increase their knowledge of management techniques, many experienced managers take advantage of training programs given by colleges and universities, companies, and various professional and trade organizations. For example, management associations conduct educational programs for experienced managers ranging from lectures and workshops of a few days duration to formal classroom courses lasting several weeks. These educational activities usually are led by experienced businessmen.

Employment Outlook

New career opportunities for managers are expected to increase moderately through the 1970's; moreover, many thousands of openings are likely to occur annually as managers retire, die, or leave the field for other reasons. The business world will need more managers as industry continues to expand, spurred by a growing population, rising living standards, and an increasing demand for goods and services. The employment of salaried managers is likely to continue to increase rapidly because large firms tend to

depend more on trained management specialists as they further increase in size. Their problems of control and communication, their need for specialized services, and their complex machinery demand a higher ratio of managers to total employees than is required by smaller firms. Similar influences alsowill necessitate more managers in government agencies.

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Earnings and Working Conditions

In 1970, starting salaries in private industry for management trainees having bachelor's degrees generally ranged from \$7,500 to \$10,500 a year. Trainces having master's degrees generally began at \$10,800 to \$14,000 a year.

In the Federal Government, management trainees usually began at \$8,098 in 1970. New employees who had a master's degree or were well qualified entered managerial work at \$9,881 a year.

At higher management levels, salaries are related to company size, scope of the job, and nature of the industry. Middle-management salaries ranged from \$10,000 to \$35,000 a year in 1970. Very large companies paid up to \$50,000 a year for some middle-management positions. Earnings of the chief executive averaged about \$45,000 a year in small companies but as high as \$200,000 or more in large corporations.

In addition to their salaries, management officirls receive other compensation, such as bonuses, stock options, and participation in profit sharing plans. Such additional compensation depends to a considerable extent on a company's profits. Bonuses are a common type of extra compensation and generally average about 30 percent of a top executive's earnings. Many companies also provide liberal life insurance,

health benefits, club memberships, and variou* special privileges according to the individual's position in the firm. Social prestige attained in the upper business levels also may be rewarding.

Entry-level managers usually work the standard workweek of the

company—from 35 to 40 hours. Managers in more responsible positions carry heavier workloads and may work longer hours. Nonroutine assignments carried out on their own time may involve travel, nightwork, speaking engagements, and other activities.

Sources of Additional Information

The American Management Association, 13. West 50th St., New York, N.Y. 10020.

Society for Advancement of Management, 1412 Broadway, New York, N.Y. 10036.

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Health Service Occupations

An excerpt from the 1972-73 Occupational Outlook Handbook

Almost everyone knows something about the professional services provided by doctors, dentists, and pharmacists. Many also have some firsthand knowledge of the duties performed by nurses, attendants. and other workers who take care of patients in hospitals. Less well known, but also of great importance to the public health, is the work of large numbers of workers employed behind the scenes in other health service occupations, such as laboratory or X-ray technician. Altogether, more than 3.5 million people were employed in health related occupations in 1970. Employment in this field has increased rapidly in recent years.

Nurses, physicians, pharmacists, and dentists constituted the largest professional health occupations in 1970, and ranged from 103,000 dentists to 700,000 registered nurses. Other professional health occupations are dietitian, veterinarian, optometrist, chiropractor, osteopathic physician, and hospital administrator. Other health service workers include technicians of various types, such as medical technologist, medical X-ray technician, dental hygienist, and dental laboratory technician. Large numbers-1.2 million-worked as practical nurses

and auxiliary nursing workers, including orderlies, nursing aids, hospital attendants, and psychiatric assistants.

Workers in the health field are employed in hospitals, clinics, laboratories, pharmacies, nursing homes, industrial plants, public health agencies, mental health centers, private offices, and patients' homes. Those employed in health occupations work mainly in the more heavily populated and prosperous sections of the Nation.

Many women are employed in the health field. Nursing, the largest of the major health service occupations, is second only to teaching as a field of professional employment for women. Other health service occupations in which women predominate are practical nurse, radiologic technologist, medical technologist, dietitian, physical therapist, occupational therapist, speech pathologist and audiologist, dental hygienist, dental assistant, and medical record librarian. On the other hand, most dentists, optometrists, physicians, veterinarians, pharmacists, hospital administrators, and sanitarians are men.

The educational and other requirements for work in the health field are as diverse as the health occupations themselves. For example, professional health workers—physicians, dentists, pharmacists, and others—must complete a number of years of preprofessional and professional college education and pass a State licensing examination. On the other hand, some health service occupations can be entered with little specialized training.

A continued rapid expansion of employment in the health field is expected through the 1970's although the rates of growth will differ considerably among individual health occupations. The factors that are expected to contribute to an increase in the demand for health care are the following: The country's expanding population; rising. standards of living; increasing health consciousness; growth of coverage under prepayment programs for hospitalization and medical care, including Medicare; rapid expansion of expenditures for medical research; and increasing expenditures by Federal, State, and local governments for health care and services. In addition, many new workers will be needed each year to replace those who retire, die, orparticularly for women-leave the field for other reasons. Thus, many opportunities will be available for employment in the health services.

Clerical and Related Occupations

An excerpt from the 1972-73 Occupational Outlook Handbook

More than 13 million people were employed in clerical and related work in 1970. A great many of these workers keep records and do other paperwork required in offices. Others handle communications, operate office machines of all types, attend to the shipping and receiving of merchandise, ling up sales on the cash registers of stores and restaurants, or do related work.

Clerical workers represent a wide variety of skills and experience. Included, for example, are highly skilled title searchers and examiners in real estate firms and executive secretaries in business offices, as well as workers in occupations which can be entered with little specialized training or experience—

messengers, file clerks, and others. For women, clerical occupations are particularly important in terms of numbers employed. More than half of all girls who go to work after completing high school find jobs in clerical and related occupations. Also, 7 out of 10 clerical workers are women.

By far the largest single group of clerical workers—1 out of 5—work as secretaries or stenographers. Bookkeepers and accounting clerks, who represent a little less than one-tenth of the total, make up the next largest group. Chart 19 shows employment in these and in other major clerical occupations discussed in this chapter or elsewhere in the Handbook.

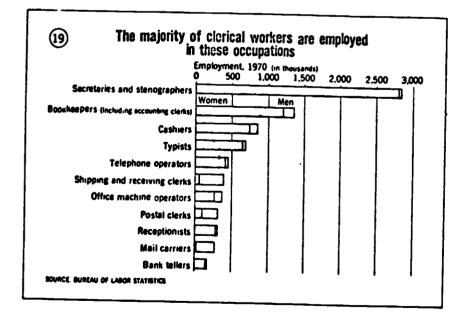
Training, Other Qualifications, and Advancement

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For all but the most routine clerical positions, the minimum educational requirement is usually graduation from high school. High school graduates who have had instruction in business subjects are regarded by most employers as particularly well qualified. Some companies cooperate with local high schools and business schools in office education programs which provide opportunities for students to work part time, under trained supervision, while still attending school. This experience is useful to beginners seeking office jobs after graduation. The Federal Government also sponsors training for some clerical occupations under provisions of the Manpower Development and Training Act.

Qualifications for many types of clerical work include reading comprehension, a knowledge of spelling and grammar, and ability in arithmetic. Some employers test applicants for clerical aptitude to determine their qualifications for work in this field.

Practically all beginning clerical workers receive some on-the-job training. They learn, for example, how their employer keeps the firm's records, and what kinds of business forms are used. They also may learn to operate adding and duplicating machines and other



equipment which they will use occasionally. If they are to operate tabulating machines or other specialized equipment, their employers may have them attend a school to receive the necessary training.

Advancement prospects are good in many types of clerical work. Some of the better paid positions -insurance claim adjuster and executive secretary, for example-repany policies and procedures, and very often are filled by promotion from within. In other instances, the worker may be promoted to more difficult and higher paid assignments in a related type of work. For example, a keypunch operator is selected and trained to operate a tabulating machine. In large business offices, promotion sometimes may lead to supervisory or managerial positions.

Experience within an organization is often an important consideration in selecting employees for promotion. Emphasis also is placed on the individual's learning ability and personal qualifications. For workers without a good educational background, opportunities for advancement are likely to be limited. Many people in clerical occupations are high school graduates who have had some additional education in colleges, junior colleges, private business schools, or other post-secondary institutions. Some are college graduates who start as office workers to gain experience which will later qualify them for professional or administrative positions.

Employment Outlook

Employment in clerical occupations is expected to increase rapidly through the 1970's. As employment rises to meet the needs of an expanding economy, more than 350,000 new clerical and related

positions will be added each year. An even greater number of clerical workers will be needed each year to replace those who retire or leave their jobs for other reasons. Employee turnover is especially high among clerical workers because many of the women who do this kind of work leave their jobs to care for their families.

Employment opportunities will quire a general knowledge of com- - be best for secretaries and stenographers, typists, bookkeeping and accounting clerks, and other workers who handle paperwork in offices. These workers will be needed particularly in banks and insurance companies; in manufacturing establishments and in wholesale and retail trade; and in government offices, educational institutions, and professional service organizations.

The growth in the number of cal workers is expected to resu, primarily from the increasing amount of paperwork which will accompany the growth of large and complex organizations. However, more and more mechanical equipment will speed the process of keeping business records, and in some offices, the number of clerical employees may be reduced. For the economy as a whole, however, the new positions created by growth are expected to far outnumber the clerical jobs eliminated by mechanization. Furthermore, many types of clerical workers are in jobs unlikely to be materially affected by mechanization—for example, secretaries, receptionists, persons responsible for collecting bills and handling complaints, and others whose duties bring them into contact with the public and require them to exercise initiative and judgment.

Nevertheless, the increased use of computers and other mechanical devices to process routine, repetitive work will probably restrict growth in the number of clerks employed to prepare payrolls, keep inventories,

sort checks in banks, and do other routine work. As work of this kind is transferred from clerks to machines, new positions for various kinds of machine operators will be created. This shift in type of clerical personnel will occur chiefly in large business firms and in the metropolitan areas where such firms tend to be concentrated.

Earnings and Working Conditions

The average salaries of women office workers in metropolitan areas surveyed by the Bureau of Labor Statistics in 1968-69 ranged from about \$70 a week for file clerks doing the most routine kind of work to nearly \$160 a week for skilled secretaries. Within each of the office occupations, the differences in the salaries paid some individuals were considerable; for example, a few payroll clerks earned less than \$60 a week; a few others whose work was complex earned \$190 or more.

Men generally were paid higher salaries than women employed in the same localities. For example, the average for office boys was \$5 a week more than for office girls, and men employed as accounting clerks averaged about \$20 a week more than women in the same kinds of jobs. To some extent, these variations were due to differences in the industries where employed. Minor differences in the duties and responsibilities assigned to men and women also may affect the pay level.

Office employees worked a 40hour week in most of the cities included in the survey. In some, especially in the northeastern part of the country, the scheduled workweek was 37½ hours.

Most office workers in large cities receive pay for 7 holidays or more a year and 2 weeks of annual vacation after working 1 year. Longer vacations, granted on the basis of additional years of service, may range up to 4 weeks or more with pay. Life insurance; hospitalization; surgical and medical insurance; and sick benefits are also generally available, as are retirement pension plans supplementing benefits paid under the Federal Social Security program.

Sources of Additional Information

Many State employment service offices maintain occupational guides giving local information about earnings, hours, and employment opportunities in clerical occupations.

Teachers may obtain information

concerning training for office occupations from:

Division of Vocational and Technical Education, Bureau of Adult Vocational and Library Programs, U.S. Office of Education, Washington, D.C. 20202.

Or by contacting their:

State Supervisor of Office Occupations Education, State Department of Education, State Capitol.

A directory of private business schools located in 300 cities throughout the country may be obtained from:

United Business Schools Association, 1730 M Street, NW., Wash ington, D.C. 20036.

Information of wages and related

behefits for office workers in 88 metropolitan areas is given in the following publication:

Area Wage Surveys: Selected Metropolitan Areas 1968-69 (BLS Bulletin 1625-90), 1970. Superintendent of Documents, Washington, D.C. 20402.

Information on wages and related benefit earnings in 229 metropolitan area is summarized for the northeastern, southern, north central, and western regions, and for the United States as a whole, in the following publication:

Area Wage Surveys: Metropolitan Areas, United States and Regional Summaries, 1968-69 (BLS Bulletin 1650-91), 1970. Superintendent of Documents, Washington, D.C. 20402.

Detailed information on job duties, employment outlook, training and qualifications, and earnings and working conditions the occupations discussed in this brief is contained in the 1972-73 Occupational Outlook Illandhook. Separate reprints of the sections on these occupations are also available. In addition, the Occupational Outlook Quarterly, a periodical issued 4 times a year, provides up-to-date information on new studies and occupational trends between editions of the Handhook. These publications may be ordered by using the form at the end of this brief.