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Project PIT (Program of Industrial Training) was a pilot and demonstration program of industrial training for Detroit's innercity youth. Its major aims were to provide youth with occupational information and guidance, to help youth see the need for a good education, to provide these youth with financial means to return to school, and to make useful goods for non-profit organizations. Those aims were fulfilled through a simulated industrial setting and an intensive guidance program. Questionnaires and analyses of the Detroit high school population have shown that most youths either have not selected an occupational goal or have selected a goal that is unrealistic for their abilities and potentials. Project PIT's most important aim, the upgrading of the employee's goals and aspirations and the acquisition of a sound background of the occupations available to them, is an intangible that is difficult to measure in a short-range program; however, results were obtained which indicated a significant shift in educational and occupational aspirations to both a high and more realistic level. (CH)

PROJECT PIT

A Summer Industrial Work Experience and Occupational Guidance Program.

1967

Director: Dr. William Baranyai

Ass't. Director: Harold Resnick

A Wayne State University Project funded by the U. S. Department of Labor (OMPER) and the Detroit Public Schools, and sponsored by the Industrial Education Department of Wayne State University, with the cooperation of the Vocational Department of the Detroit Public Schools.

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Preface

Project PIT is a pilot and demonstration program. Its major aims were to provide youth with occupational information and guidance; to help youth see the need for a good education; to provide these youth with financial means to return to school; and to make useful items for non-profit organizations. These aims have been fulfilled through a simulated industrial setting and an intensive guidance program.

All indications show that Project PIT is a good program with tremendous potential. This we have demonstrated.

The choice - and challenge - is now ours to make. We can do any one of four things. We can let Project PIT die, and see another potential program end without a real beginning. We can continue it on its present level, which would be a good program but not large enough even to make a significant dent in the problems of our large urban areas. We can expand and enlarge it to a good size program throughout the inner-city area, which will give many youths a significant and meaningful summer. Or, we can expand it to a year-round program giving intensive guidance and training during the summer and a good follow-up guidance program throughout the school year. All the good of a summer program can be rendered meaningless if there is no "buffer" to help the individual over the rough spots when he returns to his previously unsuccessful school year environment.

In several weeks time, I hope to present a program expanding Project PIT. A continuing program of guidance, training, and counseling may well make the difference tomorrow for many of the youths today.

Harold Resnick

Harold Resnick

William A. Baranyai

William A. Baranyai
Director

Acknowledgements

Project PIT owes its existence to people from many different areas. Chronologically, the first acknowledgement belongs to Mr. Donald V. Healas, Director, Mayor's Committee for Human Resources Development. The idea for Project PIT came from Harold Resnick's association with Project Exploration; a project designed and directed by Mr. Healas during the summer of 1966. Mr. Healas also helped greatly with the design of the initial proposal for the Project PIT program.

The funding of the PIT program would not have been possible without the assistance of a great many people. Mr. George Mead, administrative assistant for Wayne State University, was an invaluable aid in funding. Special recognition also goes to Dr. G. Harold Silvius, chairman, Department of Industrial Education, Wayne State University, for helping with the development of the project and for funding it through the Industrial Education Department. Dr. Louis Monacel, director of Federal Projects for the Detroit Board of Education, provided the necessary subcontract and local funds to make the project a reality, and we gratefully acknowledge his efforts.

There are a myriad of other persons and organizations who helped in the initial stages of Project PIT. Among them are the entire Vocational Department of the Detroit Board of Education, the Industrial Education Department of WSU, the other departments of both those institutions, who helped us and, of course, those persons at the Department of Labor who worked to obtain the funds for Project PIT.

To all those who worked so hard and did so much "above and beyond," we thank you.

Harold Resnick

Harold Resnick,
Assistant Director

William A. Baranyai

William A. Baranyai
Director

The Staff

The following people comprised the staff of Project PIT. The administrative staff of Project PIT would like to take this opportunity to thank the entire staff for a job well done. A program is only as good as its staff, and PIT was fortunate to have the finest staff possible.

Administration

Dr. William Baranyai*	director*
Harold Resnick	ass't director
Paul Lammers	research ass't
Judith Howe	secretary

Plant Instructors

Robert Henderson	instructor, wood plant
Ray Hughes	instructor, wood plant
Larry Claiborne	special aide, wood plant
Robert Davis	instructor, metal plant
Thomas Rohde	instructor, metal plant
Harry Saul	special aide, metal plant

Guidance

John Vaccaro	guidance counselor
John Buchalski	guidance counselor
Bruce Fitzpatrick	counselor & supervisor for intramurals
Donald Turner	aide and audio visual specialists
Ferd Hall	aide and special photographer

*Mr. Jack Duvall served in the capacity of director for a period of time when Dr. Baranyai was serving in an official capacity for the United States Department of State.

Project PIT - (Program of Industrial Training)[1]

By Harold S. Resnick

Project PIT was a program of industrial training for Detroit's inner-city youth. The program was in operation from July 1, 1967, to August 25, 1967, and was located at Cass Technical High School in Detroit. Cass Technical High School was selected for its geographic location, being centrally located in the inner-city area, its superior shop facilities, and for the prestige associated with the name Cass Technical High School. Each of the 80 youths was carefully selected according to pre-determined specifications that demonstrated his need for such a program.[2]

What did Project PIT try to accomplish? Questionnaires and analyses of high school population of Detroit have shown that most youths either have not selected an occupational goal or have selected a goal that is unrealistic for their abilities and potentials. This lack can be traced to the fact that during a student's school career, he is given insufficient occupational guidance. How can a youth raise his career aspirations if he has little or no accurate knowledge of the jobs available to him? Project PIT attempted to fill a portion of this occupational gap. In this program, the students (henceforth called employees) actually established their own industry and produced items for charitable and non-profit organizations in the Detroit area. The 80 employees were divided into four heterogeneous groups[3] of 20 employees each - two groups in the metals shop (henceforth called plant) and two groups in the woods plant. When two groups were in the plant, the other two groups were in a guidance session with the Project's trained guidance counselors (called personnel directors).

The one word that best expresses the philosophy of Project PIT is "simulation." If the employees can be exposed to a simulated modern manufacturing program in all practical phases of organization and production, then they will develop a sound understanding of industry. Guidance and knowledge in this area will enable them to choose the best career possible when they enter the employment market.

[1]An experimental and demonstration program funded by the U.S. Dep't of Labor (OMPER).

[2]See section on characteristics of employees.

[3]After the 80 youths were tested, each group was established heterogeneously in terms of employees' I.Q., reading ability, and math ability.

Since Project PIT operated in a Detroit Public School, it became immediately necessary to impress the employees with the concept that they were employees and not students, and that Project PIT was, in fact, a plant and not a school. The primary means of establishing this concept was the issuance of a pay check that each employee received based on the rate of $1.25 per hour for the 25 hour work week. This pay check not only added to the reality of the employees being an actual member of a work force, but also allowed for the financial means for the employee to return to school in the fall. To reinforce the concept of an industrial organization, each employee completed a formal job application. Upon acceptance of this application, the employee was given an official Detroit Board of Education Medical Examination and then placed on the payroll and approved for Workmen's Compensation.

The first three days of the program were devoted to orientation. At this time, each employee signed his own personal job contract, was issued his badge, including a photo and an identification number, and received an apron and a pair of goggles. Half of the orientation period was designated for an intensive safety program. A training supervisor from the Ford Motor Company presented Ford's safety program to initiate Project PIT's program. All employees were required to pass a test concerned with basic safety practices. The orientation period was also used by the staff to learn about the employees via standardized I.Q. and interest tests and staff-developed questionnaires. Very similar questionnaires were filled out at the end of the program as well and the results were used to help determine the short range impact of the program.

In the plant, employees and supervisors (teachers) worked together to establish an assembly line. The items to be made had been pre-selected for their need and their adaptability to mass production techniques. Final designs and modifications were left, however, to the employees and supervisors. Jigs and fixtures for each job were designed and manufactured by the employees. The actual assembly line consisted of a timekeeper, line workers, foremen, quality control inspectors and safety engineers. A staff organization for inventory control, requisitioning, and time and motion study was also established. Each plant employee was given an opportunity to experience all the line operations and also to spend a number of hours at the other line and staff positions. The background of each job in terms of salary, educational requirements, working conditions and opportunities for promotion were discussed in the daily two hour guidance program.

The guidance program served other vital functions as well. As an integral part of the total guidance program, speakers from industry were

invited to tell the employees about their industries and employment possibilities in these industries. The Detroit Police and Fire Departments and all branches of the Armed Forces also sent representatives to discuss career possibilities. The guidance department was not satisfied, however, with just a verbal exposure to these industries. Two field trips were arranged each week for each group to visit as many varied local industries as possible. Such diversified corporations as the Ford Motor Company, Sears, Roebuck & Co., and the Detroit News were visited.

Working under the assumption that "all work and no play makes Johnny a dull boy", one of the guidance directors, trained also in the area of Physical Education, established an intra-mural program including four hours of organized sports and one hour of swimming each week.

Each employee spent three hours a day in the plant and two hours a day in the guidance program. After three weeks, the groups switched plants and counselors so that they could have the ultimate of varied experiences in all the areas that the Project encompassed. A typical day for an employee at Project PIT looked something like this:

7:55 - 8:00 Report to the plant and sign in with the timekeeper.

8:00 - 8:20 Plant instruction or discussion in the use of a new machine, design of a new jig or fixture, etc.

8:20 - 9:30 Line operations with plant in full production.

9:30 - 9:45 Coffee break.

9:45 - 11:00 Line operation with plant in full production.

11:00 - 12;00 Lunch hour (not paid) and intra-mural program.

12:00 - 2:00 Guidance Session - might include a field trip, guest speaker, film, discussion of occupations, how to take an interview and fill out an application, etc.

2:00 Sign out with timekeeper and dismissed for the day.

Discipline was not a problem at Project PIT for several reasons. The primary reason was that the employee's contract contained a list of regulations. The infringement of any of these regulations resulted in a specified number of demerits for the employee. For each ten demerits accumulated, the employee was told not to report to work the next day and was docked a

days pay. The secondary reason for the lack of discipline problems was the establishment of a shop steward and grievance committee for each group. When the employee signed his contract at the commencement of the program, he was made aware of these parts of the contract and by signing, he accepted the responsibility of complying with the stated regulations.

This simulated industrial disciplinary system seems to have been accepted by the employees. This is evidenced by the fact that 75 of the 80 employees completed the program. Four of the five who dropped out did so for neutral rather than negative reasons, eg. two moved out of the satet with their families, leaving an attrition rate of:

5.15% for neutral reasons
1.25% for negative reasons

Did Project PIT achieve its goals? Indications seem to point in an affirmative direction. The salaries received by the employees helped them finance themselves for the ensuing school year. A sampling of the wide variety of items made included music stands for the Detroit Board of Education, games for the Jr. Red Cross to be shipped to the soldiers in Vietnam, specimen packaging boxes for the Detroit Children's Museum, and were of real practical use to their recipients. The most important aim, however: the upgrading of the employees' goals and aspirations and the acquisition of a sound background of the occupations available to them is an intagible that is difficult to measure in a short range program. All indications point to a good degree of success for the program. Response to the short range questionnaire developed and administered by the staff of Project PIT showed a considerably broadened scope of the manufacturing industries and the occupations involved. Another significant result was a shift in educational and occupational aspirations to both a high and more realistic level. It is hoped that future follow-ups of these employees will indicate further success of the program.

The technique of simulation is not new, but is just recently beginning to obtain its rightful place in education. If used properly, it can give students meaningful real-life experiences so desperately needed and infrequently received in the school systems.

The conclusions and recommendations of Project PIT can be found in other sections of this report, but one factor must be pointed out immediately. All the good of any summer program can easily be nullified with a few poor experiences unless there is an opportunity for a follow-up. Without some continuing year-round guidance program to help these individuals

they may easily become more statistics in the drop-out list. There is an immediate need for a continuing program of this type on an expanded scale, and this author hopes to have a formal proposal for The Department of Labor's examination in the near future.[4]

[4]For further information about Project PIT, contact: Harold Resnick, 23071 Kipling, Oak Park, Michigan 48237. Or phone (313) 548-6568.

Characteristics of Trainees Prior to Employment

The trainees in this program consist of inner-city senior high school youth. Seventy of these youths are Negro and six are white. The boys are products of a home environment where an unrealistic aspirational and low motivational attitude may prevail. Many of the trainees reside in the general riot vicinity of Detroit.

The grade level of our trainees ranges between 10B and 12A, distributed as follows: There are thirty-six trainees under sixteen and the remainder range in age from sixteen to nineteen.

The following statistical breakdown indicates the performance level of our trainees as indicated by the Stanford Reading & Paragraph Meaning, as well as the Advanced Arithmetic: (Scores are indicated by grade)

Arithmetic	Reading	Comp.
Range 4.2 - 12.9	Range 3.8 - 12.1	Range 3.8 - 12.9
Median = 6.6	Median = 7.4	Median = 6.9
Quartile I = 5.6	Quartile I = 5.8	Quartile I = 5.7
" II = 6.6	" II = 7.4	" II = 6.9
" III = 8.2	" III = 9.6	" III = 8.9

*Grade 10 = 35 employees
" 11 = 23 employees
" 12 = 18 employees

Weekly Reports

The eight week Project PIT program provided simulated industrial work experience and intensive guidance and counseling toward selecting an occupational career for high school youth in Detroit's inner-city. Some of the important, significant, and contrasting activities that took place during this time on a week-to-week basis will be mentioned briefly in the following report.

The first week of the Project PIT program primarily involved staff and employee (student) orientation. The administrative staff explained the roles, duties and responsibilities of all staff members and informed the employees about the activities they would encounter at Project PIT. The employees were told that they would work on production lines in the wood and metal plants and would be exposed to various guidance activities that included field trips, guest speakers, industrial films, and group as well as individual discussion.

The second week of the Project PIT program involved initial contact in procedures used in the industrial shops. Safety in the use of equipment, tools and materials, jig and fixture construction, production line set-up, and stages of product assembly was extensively covered. To reinforce the safety instructions discussed and demonstrated by the production supervisors, Mr. Albin Knoblock, supervisor, training personnel, at the Ford Motor Company, presented Ford's safety program to the PIT employees.

As the discussions and demonstrations on industrial production techniques progressed and the production lines were set up, initial production began.

The first product that was run in the metal shop was a sheet metal transparency box for the Detroit Public Schools. The woodworking shop began the construction of 3 sizes of specimen packaging boxes for the Detroit Children's Museum.

The third week of the Project PIT program was actually the first week that the woodworking and metalworking areas demonstrated great strides toward an end product on the production lines. The woodworking section completed preliminary construction of 150 model cases for the Children's Museum and began setting up and constructing jigs and fixtures for the second product: solitaire games for the Junior Red Cross to be shipped to soldiers in Vietnam. The metalworking area began sub-assembly of the transparency boxes.

As production progressed in the shops, the guidance section included, as a guest speaker, Mr. Marcellus Ivory from the United Auto Workers Union, and field trips to the Industrial Furniture Plant and the Currier

Lumber Company. These trips provided introduction to some aspects of wood production and the construction of precision machinery.

As the employees advanced to the fourth week of Project PIT, product construction moved rapidly toward completion. In the wood shop, fifty large boxes and 128 solitaire games were completed. Work in the metal shop involved line changeover to construct the tops of the boxes, and, finally, the first completed transparency box. They also began cutting and sub-assembly of the second product: music stands for the Detroit Public Schools.

During the fourth week, also, employees were exposed to three woodworking films and a fourth film introducing the engineering field. The two guest speakers were Mr. Steven Lewis, representing the J&L Steel Company, and Mr. Al Thiel of the Youth Employment Service. Besides these, employees visited Ford's Dearborn Assembly Plant and Sears, Roebuck and Company.

As the Project PIT program progressed, it had many distinguished and important people tour the production and guidance phases of the program. This week, however, Project PIT had two special guests: Dr. G. Harold Silvius, professor and Industrial Education chairman at Wayne State University, and Dr. Hermogenes F. Belen, director of Industrial Education from the Republic of the Philippines.

Due to the riots and city emergency in Detroit, the fifth week of the Project FIT program was disrupted considerably. All Detroit schools and most industries were closed from Monday, July 24, through Thursday, July 27. When the program resumed, each staff member prepared his portion of the interim report, and production continued at its regular pace once more.

Dr. William Baranyai, director of Project PIT, was delegated as an educational consultant for the U. S. State Department to British Honduras for a month. Therefore, during his absence, starting this sixth week of Project PIT, Mr. Jack Duvall, supervisor of Industrial Education for the Detroit Public Schools was acting director.

In this sixth week, the employees who formerly worked in the wood shop switched to the metal shop and vice versa. The woodworking area completed 175 museum packaging boxes and 250 solitaire game boards and started production of the sewing boxes for the Detroit Board of Education. The metal shop continued production on the transparency boxes and the music stands.

The guidance-counseling section continued with group and individual discussions, varied films, guest speakers, and field trips. The employees were presented two woodworking films, three films on investigating voca-

tions, and one on mechanics. Representatives from the United States Army, Air Force, Navy, and Marine Corps proposed occupational opportunities in their respective fields. Field trips to the Marathon Oil Company and the Detroit News were also undertaken during this sixth week.

As the seventh week of Project PIT advanced, the administrative staff began planning for completion of the employee work experience and also the final written report. They also organized an "open house" to be held August 22, and a "field day" for the employees on Friday, August 25.

At the same time, the wood and metal shops neared the completion of production. The seventh week offered many occupational guidance activities, including discussions with Dr. Leonard, a Wayne State University guidance professor, Dr. Henderson, of the Detroit Board of Education, and Officer Wagner from the Detroit Police Department Recruitment Bureau. There were also two films covering general mechanics and auto mechanics and were supplemented by a field trip to Marathon Oil Company.

The eighth and final working week of the employees in the Project PIT program proved to be very interesting and rewarding. Representatives from the Michigan Bell Telephone Company and the Detroit Edison Company and field trips to the Ford Steel Plant provided information on occupational opportunities and job qualifications.

The plants completed production and closed shop. The total of completed items made throughout the summer included:

Metals Plant
Transparency boxes - 200
Music stands - 100
Small parts boxes - 100

Wood Plant
Specimen packaging boxes - 240
Solitaire games - 500
Sewing boxes - 200
Honor roll plaques - 100

This final week included shop clean-up and close-up, field trips to the recipients of the items produced, the open house and a final all-day field trip.

Field Trips

Name of Place	Type of Operation	Topics Discussed
Industrial Furniture Plant	Furniture construction	Union regulations, safety, qualifications for employment, entry occupations, hourly rates at various levels, promotional opportunities
Currier Lumber Co.	Wholesale & retail lumber sales	Safety, employment opportunities, lumber curing process
Excello Corporation	Manufacture of Precision machinery	Job classifications, job entry, employment practices & procedures, filling out applications
Ford's Dearborn Assembly Plant	Assembly of Mustang & Cougar	Brief history of Rouge Assembly Plant. Auto assembly process, some job information (wage scale, etc.)
Sears, Roebuck & Co.	Storage, merchandizing, retailing, administration, shipping & receiving departments	Employment opportunities, store policies, job qualifitions
Marathon Oil Co.	Complete oil refinery from raw oil to finished gas & related products	Detailed outline of oil products & their formation, job qualifications & opportunities by Personnel manager
The Detroit News	Production of Detroit's leading newspaper	Employment opportunities & qualifications (various job classes & wages)
Ford Steel Plant	Manufacturing of steel for automobiles, tractors, etc.	Job classes, working conditions, wages, use of automation, etc.
Detroit Historical Museum	Pictorial history of Detroit & Michigan from founding to present	Iron & wood age displays were of particular interest to boys who had worked in the shops with these items

Name of Place	Type of Operation	Topics Discussed
Bell Telephone Co. (Seniors only)	Complex operations that go on in the Bell Telephone system	Job classes, qualifications, starting wages to maximum, opportunities for advancement, detailed operational information by various departmental supervisors
Red Cross (work recipient--games for soldiers)	Boys saw their gifts being prepared for shipment to Vietnam	A short speech of thanks by supervisor and then a brief tour of shipping department
Children's Museum (work recipient--speciman boxes)	Boys saw how their boxes were being used	A short speech of thanks by director and then a tour of Museum
Metropolitan Beach (Field day trip)	Recreation park	Last day of program -- field trip (annual picnic for employees)

Guest Speakers

Speaker	Firm Represented	Topic
Mr. Albin Knoblock	Training Personnel, Ford Motor Company	Safety
Mr. Marcellus Ivory	U. A. W.	Unions organization structure functions
Mr. Steven Lewis	J&L Steel Company	Apprentice programs Employment pooortunities Job safety Company expectations from employees
Mr. Al Thiel	Youth Employment Service	Apprenticeship training program
Chief Petty Levegur	Navy Recruitment	Obligation at 18 --procedure to follow --possible careers
S. Sgt. Stewart	Marine Recruitment	
Sgt. Charles Ross	Air Force Recruitment	
Lt. D. DeBavich	Army Recruitment	
Mr. Noah Brown	Higher Educational Opportunities Commission	How one qualifies for college financial assistance
Patrolman Wagner	Police Recruitment	Qualifications-- community relations Police Training-- daily routine
Dr. G. Henderson	Wayne State University Guidance & Counseling	"Occupations Today and Tomorrow"

Speaker	Firm Represented	Topic
Dr. G. Leonard	Detroit Board of Education Assistant to Superintendent Human Relations	"Role Models"
Mr. Sonnetag	Detroit Edison Company (Employment Office)	Job classification qualifications wages other benefits procedure to follow in applying

Films Shown in the Project PIT Program

Title	Content	Quality
Wheels Within Wheels	Job opportunities in the trucking industry	Fair
Building a House	Methods & opportunities of House Construction	O. K.
Getting Acquainted with Engineering	Preparation for & the opportunities of engineering	Poor
Automation	Shows automation at work in a variety of industries; its problems, development & uses	Inferior
Measuring & Squaring	Fundamentals of woodworking	Good
Industrial Arts: Planes	Grinding, adjusting and use of planes in woodworking	Fair
Arc Welding at Work	Uses & techniques of electric welding	Good
Knowing Woods & Their Uses	Proper selection of stock for different jobs	Good
Drill Press	Adjustment & use of press	Fair
Planning & Laying Out Work	Proper use of layout tools for woodworking	Good
A Safe Shop	Conditions that lead to injuries & accidents	O. K.
Benefits of Looking Ahead	Importance of proper job selection & vocational choice	O. K.
Careers in Agriculture	Opportunities in agriculture	Poor
Careers in the Building Trades	Skills needed & opportunities for employment in building trades	Good

Title	Content	Quality
Choosing Your Occupation	How to analyze and prepare yourself for occupational possibilities	O. K.
College Ahead	Stresses the problem of competition for admission and subject requirements	Fair
Fireman, The	Organization of a fire company in a modern city	O. K.
Getting a Job	Describes the many aids of job hunters	Fair
Heating & Air Conditioning	The uses, equipment, installation and job opportunities of air-conditioning	Good
Brazing Carbide Tools	Technique of gas welding carbide cutting tools	Too Repetitious
Blanking Sheet Metal With Hand Snips	Cutting light metal with various types of snips	Good
Oxy-Acetylene Welding Light Metal	Preparing metal, adjusting equipment and gas welding light metal	Fair
Inside Arc Welding - Flat Position	The common welding of metal and its advantages over other construction uses	Good
Inside Arc Welding - Fundamentals	Setting up an arc welder; explaining operations & uses	Good
Micrometer	Operation, use and reading the micrometer	Good
It's Easy to Bend	Techniques of forming sheet metal into useful products	Good
A. B. C. of Hand Tools	Animated description of basic hand tools; their uses and limits	Excellent

Title	Content	Quality
The Woodworker	Job descriptions and opportunities in the many fields of woodworking	Fair
How to Investigate Vocations	Procedures used by one young man to investigate occupations; research, visits, interviews and summer jobs	Good
How to Keep a Job	Compared "brothers" working on the same job; the "Do's" and "Don'ts"	Fair
Personal Qualities for Job Success	Observing personality requirements during job interviews. Stresses the points of good appearance, work habits, getting along with others, etc.	Good
Planning for Success	Stresses setting reasonable goals and working to achieve them, not too high or failure is sure to cause demoralization & maladjustment	O. K.
Should I Go to College?	Answers to questions most often asked by those wondering about college	Poor
What is Business?	Gives students a view of business which, motivated by profit, satisfy demand	O. K.
U. S. Coast Guard	Describes the history of this service; the academy, air patrol and work aboard a cutter	Terrible

Items Produced in the Plants

The items made in the plants were selected for three reasons:

1. They were needed by charitable or non-profit organizations in the Detroit area.

2. They would be of real and practical benefit to the recipients of these items.

3. They were adaptable to mass pro uction techniques and could be made with the facilities at the project's disposal.

The Wood Plant

1.

Solitaire games for the Junior Red Cross to be shipped to the Armed Forces in Vietnam. Over 500 were produced, utilizing almost every conceivable hand and machine tool in the woodworking area. All jigs and fixtures for this job were designed and made by the employee in the program. Instructions for playing the game and packaging materials were supplied by the Junior Red Cross.

2.

Specimen packaging boxes ofr the Detroit Children's Museum--225 were produced, of three specified sizes. They are hinged boxes with handles and hasps made of 1/2" plywood and containing special cleats and shock absorbers on the inside. The finish is black enamel paint.

3.

Honor roll plaques for award presentation made for the Detroit Board of Education. Over 100 were produced. This job was initiated to give each employee experience and the opportunity to develop some skill in the use of the hand saw and router. The entire job involved only four major operations and consequently was run as a side production at the same time that the solitaire games were being produced.

4.

Sewing boxes for home economics classes for the Detroit Board of Education. This job was similar on the exterior to the specimen boxes

for the Children's Museum in design and production. The interior, however, did not have cleats or shock absorbers, but did have special compartments for spools of thread, needles, etc. 300 of these boxes were made and decoratively finished with pastel colored paint and brass hardware. They are being sent to the individual schools in the inner-city area to be given to students at those schools who do not have the means to purchase their own sewing boxes.

The Metal Plant

5.

File boxes of a special size made to hold transparencies for overhead projectors. To be distributed to all Detroit Public Schools. Over 200 of these file boxes were made in an assembly line that simulated an industrial assembly line in every sense of the word. The completed units were of such high quality that the recipient of these items wanted to know where they were bought so that they could purchase more of them.

6.

Tote and nail boxes -- approximately 100. These boxes were a side production made while the file box assembly line was in operation. They were made from scrap metal after cutting operations were completed so that waste would be kept at a minimum. Any employee who made a box was permitted to keep it. Since an employee could only make a tote box after completing a certain number of pieces on the assembly line, this served as added motivation to maintain production at a maximum level.

7.

Music stands for the Detroit Board of Education. 160 completed units were produced, and there were three significant contributions made by the production of this item. First, it involved many welding operations, and each employee was taught how to weld and spent several days developing some skill in that area. Second, the bases for the music stands were supplied and delivered by Kelsey-Hayes, Inc., free of charge. This contribution equaled between two and three hundred dollars. Third, the employees themselves changed the original design of the stand sent by the Detroit Board of Education and improved it, showing the degree of sophistication they had acquired in the techniques of mass production.

Testing

Any good testing program must help both the proctor and testee. It helps the testee learn about himself and shows the proctor how to help the testee. Project PIT's testing program was founded on this assumption.

It had two major subdivisions. The first subdivision was the administration of a series of standardized tests. These tests included the Stanford reading and arithmetic tests and the Kuder Interest Inventory. The standardized test results were used by both the employee and counselor to help in self-assessment and decision-making in terms of future educational and occupational aspirations.

The second major subdivision was the questionnaires designed and developed by the program's research assistant. The first questionnaire was administered right after the employees entered the program and before they began any production work. The questionnaire was used to determine the employees educational and occupational aspirations, interests and knowledge. All areas that the program hoped to reach were tested prior to production. After production was over, a very similar questionnaire was given to the employees asking many of the same questions. Comparison of the two tests showed several significant changes in attitudes and knowledge throughout the summer, and these results can be found in the conclusion section of this report.

Conclusions

Using PIT's questionnaire, employee reactions and suggestions, and staff reactions and suggestions, the following conclusions concerning the program have been developed. The first two conclusions make reference to charts. These charts can be found at the end of this conclusion section.

To keep this report concise and to the point, conclusions are listed in numerical order.

1.

One question on the pre-production questionnaire asked the employees how much education they desired, stating their maximum expectation. This same question was asked on the post-production questionnaire, and the comparison has been charted. The chart shows a distinct increase in the educational aspiration of the employees. (See chart at end of section)

2.

Similar questions were asked concerning occupational aspirations. On the accompanying chart, you will notice that unskilled and semi-skilled aspirations have decreased, skilled trades have increased and those employees who are undecided has also increased, showing an active thought process on the part of the employees. Undecided employees have been referred to other agencies and persons for further counseling.

3.

The project helped thirteen employees who were occupationally undecided before the program find the occupation they wanted.

4.

Prior to production, each employee was asked what aspect of the program he thought would be of most value to him. Money ranked first, listed by 50% of the employees. At the end of the program, however, the field trips and guidance sessions ranked first with 60% of the employees and only 10% still rated money first.

5.

Prior to production, less than 75% of the employees knew a source for the answer to an occupational question. At the end of the program, every employee could list several possible sources for occupational guidance.

6.

Direct knowledge of the jobs available in industry and the responsibilities, salaries, etc., of these jobs has almost doubled for the employees.

7.

Staff observations indicated that the attitudes and resulting performances of the employees matured and improved considerably during the program. One small indication of this trend is the fact that tardiness decreased more than 100% between the first and sixth weeks of the program.

8.

The employees unanimously indicated that they do not enjoy "doing nothing" during the summer months and that they would prefer having a job during this period. There is an aside at this point that can be of great significance. Although the PIT employees do not have the most favorable records at school, not one was involved in Detroit's riots and all were eager for them to end so they could get back to work.

9.

The employees felt that working on PIT's simulated assembly lines was of great help in understanding the roles and functions of the various kinds of line operations in industry's manufacturing plants. For many, becoming a line worker is no longer "enough."

10.

Project PIT demonstrated to its employees that a "good job and a "good" education or industrial training program are highly correlated; or, this program dramatically stressed the TV phrase, "To get a good job, get a good education."

11.

Individual counseling sessions were possible because of the 20:1 coun-

selor-counselee ratio. Both counselor and employee state emphatically that these sessions were invaluable in the employees occupational and educational decision-making.

12.

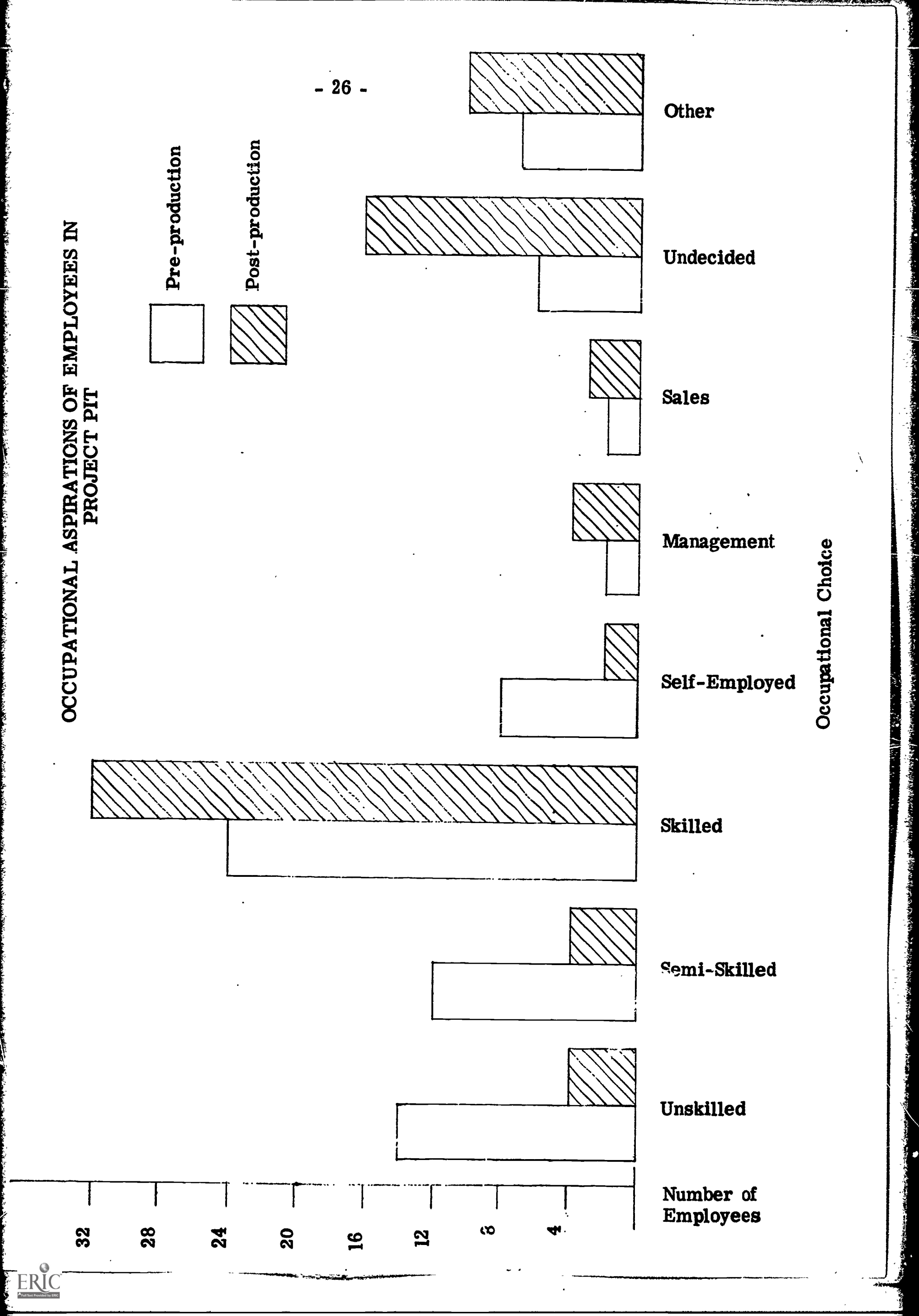
Many of the employees have stated the value of the program and have asked to come back next summer. The staff concluded that this would be a good idea, and some of these employees could function at an assistant supervisory level.

13.

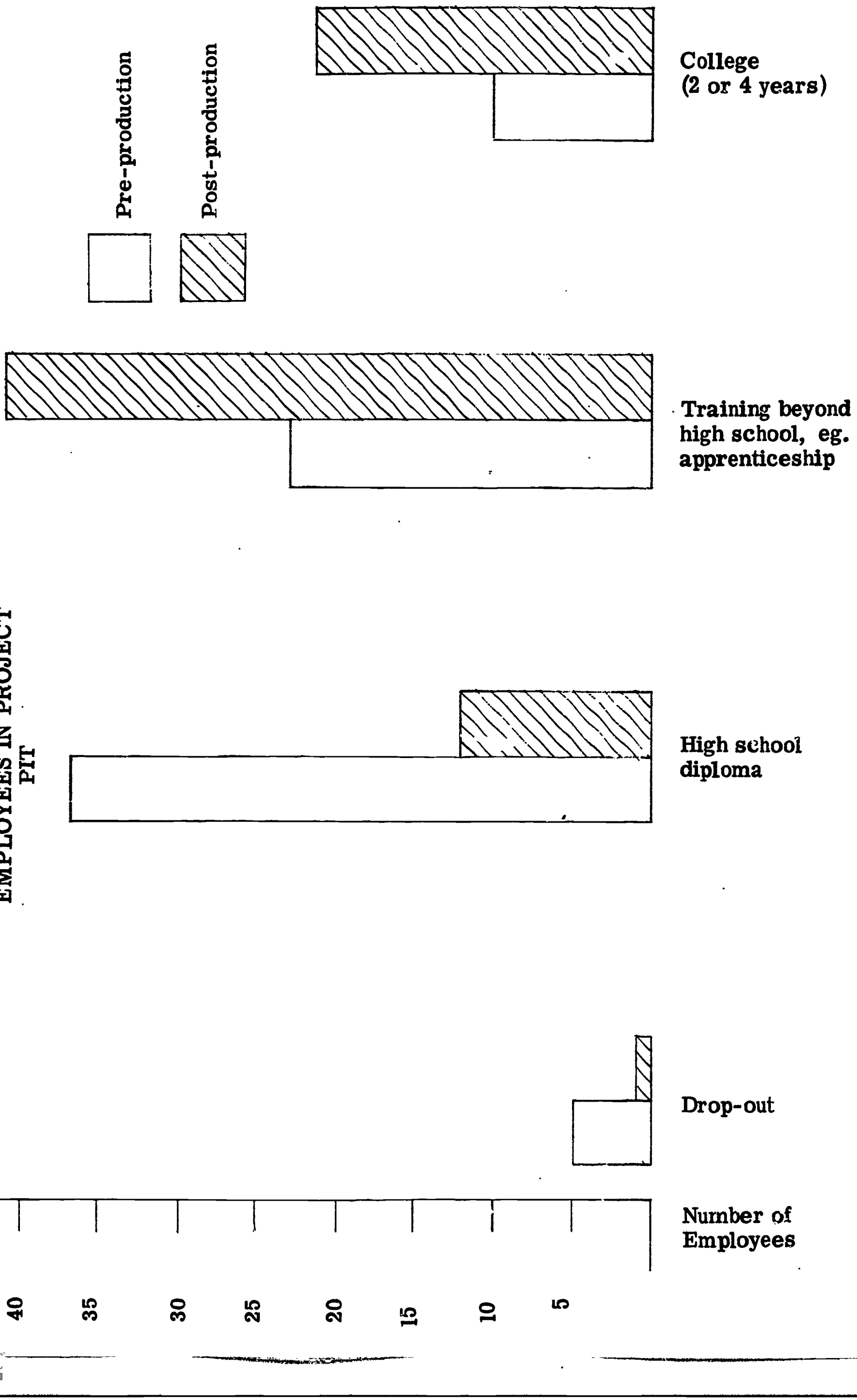
Project PIT exposed 80 Detroit inner-city youth to industry and industrial occupations. This exposure, training and guidance seemed to contribute significantly to help the employees make some very important decisions at this crossroad in their life. It appears that the objectives have been fulfilled, if short range evaluations can be projected.

In pilot programs, there are many "bugs to work out." The next section contains a list of recommendations prepared by the staff for future programs.

OCCUPATIONAL ASPIRATIONS OF EMPLOYEES IN PROJECT PIT



MAXIMAL EDUCATION ASPIRATIONS OF EMPLOYEES IN PROJECT PIT



PIT Employees' Reactions To The Program

Cedric Bell: "It helps a confused person to get a better understanding of the outside world of today and tomorrow."

Norah Duncan: "This program was very helpful in my selection of a specific professional occupation."

Willie McGee: "At first, I didn't enjoy the program, but it slowly began to show me vital and important things I thought would help me in the future."

Calvin Floyd: "Project PIT is the most educational accomplishment that I have seen and have been a part of."

Gerald King: "I think the program turned out well, and I for one wouldn't mind doing it next year."

Kermmor Burrell: "For the first time being set up, I think the program went along very smoothly."

Clyde Blakley: "My personal reaction to Project PIT is that I enjoyed every bit of it and hope to be in it next year."

Jerry Weakley: "I think Project PIT is one of the best summer work programs that the City of Detroit has ever had. I hope I will have another chance to work in it again."

Rodescu Macklin: "I think Project PIT was excellent in helping me to learn more about the industrial world which I know little about... The only way I think to improve Project PIT is to expand it so that more boys can get to learn things like I have."

James Burkhalter: "It should be expanded so boys all over the city can take it."

Eric Williams: "I think that this project is unique and that the way it is now it doesn't need improvements."

Major Hudson: "I think that it will be a great help to a person that doesn't have his mind made up about his future and about the life of industry, and I would enjoy being in it next year."

Earl Adams: "This Project PIT was very up-building and helped me very much in choosing the job that I would like to have."

Hiram David Standifer: "I think that this is a very good program, and I have learned alot of things from it... I would also say that, maybe with this program, some of the high school drop-outs and juvenile delinquents might not quit school or become bad because of the urge for money."

Wendell Taylor: "Project PIT was very useful because it gave me an inside view of the way people in industry work."

Recommendations

1.

The nemesis for any summer program is the lack of sufficient lead time. There were a myriad of things to attend to: recruitment of staff, recruitment of student employees, establishment of facilities, determination of items to be made, curriculum to establish for guidance, films, speakers and trips to arrange, etc. It is impossible to do this when the administrative staff has a ten-month teaching job. Project PIT, at its present level, requires two months work of one individual to set up the summer program. An expanded program requires a full-time director to set up and establish the program. If Project PIT is to help many youths throughout Detroit, it must have the time to set up the job properly. This is the primary recommendation of Harold Resnick, assistant director. All recommendations following were made by staff members and collated by Paul Lammers, research assistant.

2.

The success or failure of any undertaking will depend, to a high degree, on its pre-planning. It appears that the administrative planning was done efficiently in the weeks prior to the program but, due to the lack of time, the production planning was not. A solution to this production problem might be Saturday planning sessions of the entire staff for a period prior to the beginning of the program. With this time, available production jobs could be determined, equipment and supplies ordered, fixtures and jigs designed and constructed and a trial run performed before the student employees arrive. This pre-determined production line would then be used for instructional purposes so that the student employees could then design their own operational set-up for another production job.

3.

Products to be made must be determined prior to the beginning of the program. These items should then be analyzed for operations to insure that there are enough but not too many operations in a job for the number of employees in the plant.

4.

Recruitment needs more time. Each prospective employee should be personally interviewed prior even to the filling out of a formal application, since this application itself might be a formidable barrier for some possible employees. Recruitment should rely heavily on school guidance

counselor recommendations.

5.

A waiting list of surplus employees should be retained after recruitment is completed. This would allow the program to fill any vacancies that might develop during the course of the summer.

6.

Films, guest speakers and tours should be determined before the beginning of the program and previewed to insure their worth.

7.

A school is not the best place for a PIT program. It does not simulate industry and does not have all the facilities and atmosphere of industry. The ideal place for future operations would be Detroit Skills Center. If the Skills Center is not available, PIT should use a school building not being used for summer school, or at least have a wing or area all to itself. It is critical that PIT employees are completely divorced from summer school students.

8.

Facilities must be checked thoroughly prior to production to make sure that the assembly line can function smoothly. If a central area is being used for all production and guidance, then time clocks and cards rather than time sheets to sign in and out on should be established.

9.

Areas of responsibility should be clearly defined for each section (eg. guidance, wood) and each section should have a chairman to help formulate and organize the program for his section and facilitate reports and requests to the administration.

10.

Special training programs to develop skills in the use of some of the program's equipment should be set up on a voluntary gratis basis after hours for any employees desiring further instruction. This could be a requisite for an employee desiring foreman status and a pay raise.

11.

The demerit system in the employee contract was a very good idea but needs more efficiency in administration. Rather than have demerits placed on time sheets so they are only tabulated once a week, one person in guidance should keep an anecdotal record for each employee and record daily infractions.

12.

A three-step payroll for employees should be initiated to allow employees to start at one level and receive raises and promotions. The employee who assumes more responsibility, eg. foreman, should receive more compensation.

13.

Employees should assume more responsibility for insuring quantity and quality of production. This can be done if the items are sold for a nominal fee and the employees are shareholders. Another possibility is a bonus system. Some reward system must be set up to motivate the employee to work at maximum potential.

14.

More time should be devoted to the discussion of sources of funds and financing for continuing education.

15.

The "open house" should be planned earlier in the program when production is at its maximum.

16.

Some follow-up of the employees is necessary to determine the long range benefits of the program. One step further would bring about the establishment of a full-year guidance and industrial training program for the potential drop-out. A proposal for this program will be submitted in the near future, including the expansion of the summer program, by Harold Resnick.