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COLLABORATION BETWEEN INDUSTRY AND EDUCATION:
A FOLLOW UP STUDY OF THE ON THE JOB PERFORMANCE
AND RETENTION OF SOME OF THE GRADUATES OF THE
BAY STATE SKILLS CORPORATION TRAINING PROGRAMS

A Dissertation Presented

By

ROBERT H. GREENBLATT

Submitted to the Graduate School of the
University of Massachusetts in partial fulfillment
of the requirements for the degree of

DOCTOR OF EDUCATION

September, 1986

School of Education

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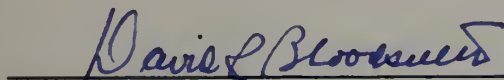
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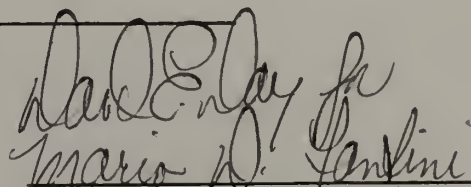
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ABSTRACT

COLLABORATION BETWEEN INDUSTRY AND EDUCATION:
A FOLLOW UP STUDY OF THE ON THE JOB PERFORMANCE
AND RETENTION OF SOME OF THE GRADUATES OF THE
BAY STATE SKILLS CORPORATION TRAINING PROGRAMS

September, 1986

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The Commonwealth of Massachusetts established Bay State Skills Corporation in July, 1981. The agency awards grants to educational institutions which link up with one or more private companies to train people for jobs in high growth fields. This partnership with industry and education has been successful with 86% of all program graduates finding full time employment.

The study was designed to uncover the following via personal interviews: (1) long term placement figures, (2) how the on the job performance of BSSC trained personnel compared with other employees, (3) employer perception of BSSC training, (4) problems some trainees had with their job, (5) why some target people had a higher than average attrition rate, and (6) why some companies failed to attract the number of target people mentioned in the contracts.

In a questionnaire, BSSC graduates were asked: (1) how they learned of the program and why they applied to it, (2) to rate the job preparation and teaching in the program, (3)

to list any supplemental services provided, (4) whether they would have received the job without the training, (5) their job satisfaction, and (6) their future plans.

The interviews revealed that 57% of the hirees are with the same employer. Bay State trained personnel received high marks for job performance as did the BSSC training. Some employers cited target people as having chips on their shoulders toward society. Among the reasons for high attrition rates for target people were frustrated expectations, and women head-of-households being overwhelmed by the responsibility of home and job.

The BSSC graduates heard of the program largely from advertisements, friends, or employers. Most applied to the program to improve their job skills, to get a job, or to get a better job. They were nearly unanimous in their praise of the teaching and the training in that program. There was wide disagreement on what, if any, supplemental services were provided. Almost all acknowledged that they would not have their current job without the training. Finally, few BSSC people wish to leave their places of employment and most want more training to improve their chances for promotion with their companies.

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CHAPTER I
INTRODUCTION

A. BACKGROUND

On Friday, July 29, 1983, the United States Department of Education sponsored a conference of the National Commission on Excellence in Education. The purpose of the conference was to start or to improve cooperation between industry and education. One of the speakers, the Honorable Vance R. Kelly, chairman of the Senate Education Committee in New Hampshire, said:

"What we need are better linkages between business and industry and education ... industry does not work in a general sense cooperatively with education ... only when they have a recognized shortage in a particular area of labor, they come to education, and generally when they come to education, they come to berate it for not being farsighted enough to recognize business and industry needs."

The overwhelming consensus of the conference was that linkage between business and industry and education was desirable.

A similar theme was sounded by then Senator Paul E. Tsongas in an interview published in the Quincy Patriot Ledger (June 14, 1983). Warning that the state would begin to lose its high technology industry unless its public schools were rescued from decay, the Senator urged that they

form partnerships with industry. "Every public high school in the state would have a corporate godfather."

Roger Yarrington, Vice President of the American Association of Community and Junior Colleges wrote in 1979 that many companies work with colleges to provide courses for employees beyond specific job related training to enable their staff to earn a college degree. Many companies believe that investing in human resources improves employee morale and loyalty, thereby reducing turnover of personnel. That belief is one of the reasons many unionized companies have agreed to labor demands for educational benefits in collective bargaining agreements.

The link between education and vocational training is not new. From earliest colonial days to the present, the mission of the American educational establishment has been in part to prepare people for the job market. Paul Woodring wrote that eight of the nine colleges founded in colonial America (Harvard, William and Mary, Yale, Princeton, Dartmouth, Brown, Kings (Columbia), and Rutgers) were established to train ministers. (1969, p. 4)

As the country grew and its economic structure became more complex, the number and style of schools also increased. This expansion of education at all levels was in response to the trends of the nineteenth century. An increasingly technical society demanded literate workers, managerial personnel and competent engineers. Large sums of money from

the Morrill Acts were earmarked by state governments for vocational programs in established institutions like Rutgers, or for the creation of new agricultural and mechanical colleges like Auburn, Purdue, and Michigan State.

In the twentieth century there have been further attempts to promote collaboration between industry and education. During much of this century, the federal government has passed legislation designed to meet the manpower needs of an increasingly urban industrial based economy. The occupational programs developed from the Smith-Hughes Vocational Education legislation in the 1920's; passage of P.L. 16, The G.I. Bill of Rights, in the post World War II years; the National Defense Acts first passed in 1958 as our answer to Sputnik; and amendments to the Vocational Education Act of 1963 and the Higher Education Act of 1965 are testaments to that concern.

Links have been forged between industry and educational facilities, sometimes independently, sometimes with the aid of government. Triton College in River Grove, Illinois is an example of a two year community college that aggressively established a variety of collaborative efforts with the business and industrial community. Increasingly, such arrangements have been sponsored by state governments either to promote economic growth or to prevent economic decline. Both the Carolina's have used their educational systems to provide industry with skilled labor. South Carolina has

pushed for programs that would aid its textile industry while North Carolina has been fostering cooperation to diversify its industrial base. States that wished to avoid economic hard times (e.g. Kentucky, Minnesota, and Washington) followed the Massachusetts example and modeled agencies after the Bay State Skills Corporation (BSSC).

This corporation was formed because the Commonwealth of Massachusetts feared that without a pool of trained labor, companies like Wang, Prime, and Digital would one day relocate elsewhere. The state government recognized that with limited dollars and changing demographics, higher education could not always respond to the short term needs of the marketplace. While acknowledging the importance of federally funded skills training programs such as the Private Industry Councils under the Job Partnership Act, the Commonwealth felt that those programs were not sufficient. The primary responsibility of those programs was to serve the social and economic needs of disadvantaged citizens rather than the needs of industry. The state government concluded that it would have to help its education and training institutions respond more effectively to the needs of the marketplace. Therefore the Commonwealth chartered Bay State Skills Corporation in 1981 to "encourage and facilitate the formation of comprehensive relationships between business and industry and educational institutions which provide for the development and significant expansion of programs of skills

training and education consistent with employment need."
(BSSC Annual Report 1983 p. 2)

The agency's purpose was to award grants to educational institutions which linked up with one or more private companies to train people for jobs in high growth fields. This grant process was predicated on the theory that financial support from the government was necessary to encourage partnerships between corporations and colleges in order to produce a skilled workforce for the Commonwealth's growing companies. Moreover the agency requires that companies participate financially and programmatically in each grant by giving staff time and expertise or equipment or space or any number of contributions which can make the program more directly responsive to industry's needs.

To achieve its purpose, BSSC has funded nearly two hundred skills training programs since its inception. The agency has become a partner with over eighty education and training institutions and more than five hundred Massachusetts companies. Eighty six percent of all program graduates find full time employment according to the six monthly placement reports that BSSC receives from the contracting agencies. However, Bay State can vouch for the accuracy only of the first three placement reports. Further, the corporation not only lacks long term placement statistics, but also it does not receive any information on the trainees' on-the-job performance.

B. STATEMENT OF THE PROBLEM

The problem of this study was to investigate the length of time BSSC trainees remained on the job, as well as the number who received promotions. Employers were asked to compare the on-the-job performance of BSSC trainees with personnel who did not have the training. The study queried employers regarding their perception of BSSC training. Employers were asked to cite any problems trainees had with their jobs and were questioned about why some target people had higher than average attrition rates. Where appropriate, companies were asked why they failed to attract the number of minorities, women or unemployed they had projected.

The study also sought information on the training program from some graduates. BSSC graduates were asked how they learned of the program and why they applied to it. Former trainees were asked to rate the job preparation and the teaching in the program. Inquiries were made into the kind of help the educational job training program provided. Graduates were asked, if in their opinion, they could have gotten their present position if it had not been for BSSC training. Queries also were made regarding the job satisfaction and future plans of the former trainees.

All the gathered data will help BSSC assess the effectiveness of their training programs and allow the Corporation to implement any change it feels is necessary.

The information was acquired through interviews of

former training supervisors and/or personnel directors. The companies were chosen in conjunction with BSSC personnel. The following criteria were used to select the companies to be studied:

1. the companies were located within approximately a fifty mile radius of Boston;
2. the trainees hired were representative of the range of BSSC job training contracts from unskilled people to advanced training programs;
3. the companies hired at least five trainees and these trainees worked for their employer at least six months.

A questionnaire was sent to the trainees hired by those companies on the trainees' perception of the value of Bay State training. All companies cooperated in forwarding the questionnaires to their employees. While the rate of response varied from company to company, the overall response was sixty five percent.

C. SIGNIFICANCE OF THE STUDY

The Commonwealth created Bay State Skills Corporation under the Massachusetts General Laws Chapter 40-I in July 1981, for the following reasons:

"There exists within the Commonwealth a critical shortage of training and education programs necessary to meet the growing needs of business and industry for skilled employees ... As a result of

this shortage, business and industry are unable to obtain sufficient numbers of qualified employees for continued operation and expansion within the Commonwealth ... Business and industry support of educational institutions, is necessary to enable educational institutions to meet the needs of business ... for skilled employees Educational institutions are unable to attract sufficient support from business ... through the normal operation of the private enterprise system It is an important function of government ... to encourage ... business ... support to educational institutions ... public money may be expended, to encourage and facilitate the formation of comprehensive cooperative relationships between business and industry and educational institutions"

In the more than four years of its existence, BSSC has awarded grants totaling over five million dollars to education and training institutions in the Commonwealth. It has entered into partnerships with five hundred Massachusetts companies to assure that they have skilled workers through appropriate training, retraining, upgrading of skills, and especially advanced training. The results are that eighty six percent of its graduates are placed in the fields of their choice.

As Section 8 of the Bay State Skills Corporation Act requires, the agency must submit an annual report to the Commonwealth that includes a detailed description of the individuals trained, educated and employed. BSSC receives placement information once a month for six months from its clients. However, BSSC can vouch for the accuracy of the placement data for only ninety days.

The results of this research are useful to BSSC, for they provide the agency with hard job retention data on some

of its graduates for periods of over three years. Since the data supports the claim that the people are successfully trained, placed, and/or retained, the agency can expand its role still further in promoting industry - education partnerships. The findings also point out some of the problems in attracting target people to the training programs as well as some problems target people encounter once on the job. Lastly, the job statistics will be useful to states that have replicated the BSSC model along with other governmental units interested in replicating that agency.

D. DELIMITATIONS

There was no attempt to interview either people connected with the training institutions or people working for corporations that were involved in the training but did not hire graduates. Because of the time constraints on the researcher plus the large number of companies (more than five hundred) that have hired BSSC graduates, the number of companies surveyed was delimited. Only companies within a fifty mile radius of Boston that had a minimum of five BSSC graduates in their employ for at least six months were surveyed.

E. LIMITATIONS

The interviews were limited to current supervisors or personnel department heads. Also the interviews are, in part, the perceptions of the interviewees and not their corporation.

Further, only the graduates of the programs who were hired by the surveyed companies and were still working for those companies were asked to respond to the questionnaire. Some of the questions sought out opinions of BSSC graduates.

F. DEFINITION OF TERMS

- *1. Business and Industry - a private corporation, institution, firm or person or group or association of the same, concerned with commerce, trades, manufacturing or the provisions of services within the Commonwealth, or a public or non-profit hospital licensed by the Department of Public Health.
2. Collaboration - cooperation, teamwork, synergism, working together with others for a common purpose, a joint effort or operation.
3. Contractor - an education or training institution receiving a BSSC grant.
- *4. Corporation - the Bay State Skills Corporation, or BSSC.
- *5. Educational Institution - a public secondary or

post secondary institution or an independent non-profit institution within the commonwealth authorized by law to provide a program of skills training or education beyond the secondary school level.

- *6. Grant-in-Aid - funding that is provided to an educational institution by the BSSC for the development or significant expansion of a program as provided in this chapter.
- 7. Interviewing - meeting people face to face for questioning or examining.
- 8. Linkage - an association, a joining together to work hand in hand.
- *9. Targeted Individuals - residents of the Commonwealth who become unemployed as a result of a severe economic dislocation, and individuals receiving public assistance from the Commonwealth, including recipients of aid to families with dependent children, and individuals between the ages of sixteen and twenty-one, inclusive, who are unemployed and economically disadvantaged residents of urban areas of the Commonwealth.
- 10. Trainees - people trained in BSSC programs.

*Definition from the Bay State Skills Corporation Act
Massachusetts General Laws Chapter 40-I pp. 3-4

G. ORGANIZATION OF THE STUDY

The dissertation is organized into five chapters entitled I. Introduction; II. Review of the Literature; III. Methodology; IV. Findings; and V. Summary, Conclusions, Recommendations and Implications. A listing of the materials contained in the Appendix is found in the Table of Contents. The Bibliography lists the sources used in the research for this study.

CHAPTER II
REVIEW OF LITERATURE

The literature search will provide a rationale for collaboration between industry and education. This will be followed by a description of various types of collaboration, both public and private, as a prelude to an in depth look at Bay State Skills Corporation. This study will focus on all pertinent aspects of the Corporation, from the enabling legislation through an outside evaluation conducted by Abt Associates of Cambridge, Massachusetts. Further, since the interviews with corporate executives included questions regarding on-the-job performance, there will also be material on personnel evaluation.

A. THE ROLE OF HIGHER EDUCATION IN AMERICA

Paul Woodring in his book The Higher Learning in America: A Reassessment (p. 4) wrote that the explosive growth of all kinds of post secondary educational institutions began with nine colleges founded in colonial America. Those colleges, Harvard, William and Mary, Yale, Princeton, Dartmouth, Brown, Kings (Columbia), Rutgers, and Franklin Academy (University of Pennsylvania) were all, with the exception of the last, initially founded to train

ministers. This in itself is not surprising since many of the colonies were closely identified with particular non conformist Protestant churches. Further since, at that time small scale farming was the principle occupation and urban life was virtually non existent, there was little need for higher education, or in fact virtually any formal education, except to train clergy.

The nineteenth century witnessed significant shifts in the country's economic development. The American industrial infrastructure was being established. An increasingly industrialized society demanded a literate workforce. Thus education expanded at all levels as a response to the trend of those years.

Martin Carnoy in his book Education as Cultural Imperialism made strong comments regarding the role education has played in order to accommodate itself to societal views. Carnoy believed that the educational system was used primarily as a means of social control to preserve the established order. Nevertheless his research supports the fact that one of the roles of education has been vocational. He argued that public education as it developed in the United States was the reformers' answer to the growth of industry. Further Mr. Carnoy stated that the system was seen by reformers and industrialists as promoting a common vision of an ordered, purposeful and progressive society (pp. 235-236). Noting that the schools were designed to ensure that the free

enterprise system worked, he added that schooling was conceived as a preparation for future work (pp. 246-247).

An indication of the importance of vocational education was the passage of the Morrill Act in 1862. While the nation was in the midst of fighting a bloody civil war, the federal government recognized the important role education would play in guiding the nation's future development.

In New York, Ezra Cornell, founder of the Western Union Telegraph Company, using Morrill land-grant funds and his own substantial fortune, established in the late 1860's, the university bearing his name. Cornell University was dedicated to vocational technical training and community service. Basically it was New York's "A and M" college. Some state legislatures gave Morrill income for vocational pursuits to established institutions, e.g. Rutgers in New Jersey. However, especially in the west and south, independent "A and M" colleges were established including Auburn, Clemson, Kansas State, Michigan State, Purdue, and Virginia Polytechnic Institute (Doller et al pp. 646-647). Of course, in our own Commonwealth, the University of Massachusetts traces its ancestry to this act.

The passage of the Morrill Act in 1862 guaranteed that linkage would develop between industry and education. This would be beneficial for students, whose education blended both the theoretical and hands-on experience.

In Education and Employment: A Critical Appraisal

Mr. Carnoy raised several important issues. While the book dealt primarily with manpower problems in non-industrial countries, the remarks are relevant to the United States. When there are not enough jobs created for university graduates, those people may take lower status work which will make it more difficult for high school graduates to find work. Therefore the high school diploma will be devaluated and pressure will be put on the government to expand the university system. Education is seen as the "ticket" to high pay-off jobs (pp. 66-68). Interestingly, figures released by the Bureau of Labor Statistics for March 1983 show that the number of college graduates in the labor force has risen to 25%. Unemployment for college graduates between the ages of 25-64 was 3.8% compared to a rate of 16% for workers without high school diplomas. Martin Carnoy also advocated for the creation of employment. Jobs could be created by direct government employment such as Franklin D. Roosevelt's W.P.A. or the government could give a subsidy to firms for workers employed, e.g. tax credit would be based on the amount of wages a company paid (p. 75). The reductions in the corporate tax structure were designed to encourage companies to invest in new plants and equipment, thus increasing jobs. Carnoy also stated that it might be possible for school to be tied increasingly to work. He cited Antioch, in Ohio, which allows students to work for a year on social projects for college credit. In his view such programs are an interesting

and useful effort to make education more relevant and enjoyable (p. 82). Martin Carnoy further thought that "if the young already working and recommended for study from their work place were given preference for a university education over non-job holders, it would be a considerable incentive for young people to find jobs first and then study." (p. 85)

Samuel Bowles and Herbert Gintis in their book Schooling in Capitalist America tackle the issue of education in this country from a Marxist perspective. They described how educational reformers saw schooling as a safety valve against economic strife. All children would have an equal opportunity to make it and those who failed to measure up had only themselves to blame. However, by the late fifties college enrollments began to burst. Over that decade the number of high school graduates entering college increased from one out of three to one out of two. The homogeneous appearance of higher education rapidly gave way to a hierarchy of colleges from the elite Ivy League down to the unpretentious community colleges. These authors charged that the influx of bodies destroyed the myth of equal opportunity and full personal development. The youth of the sixties challenged economic and political inequality in the country and showed a less than enthusiastic acceptance of the American dream (p. 4). Both liberals and conservatives counterattacked, the former with various types of

compensatory education, like remedial education, while the latter embraced Arthur Jensen's ideas on I.Q. that intelligence is determined by heredity (p. 5). Bowles and Gintis claimed that corporations have used education to provide them with a labor force, and to defuse any situation that might challenge the profit system. Having a surplus of skilled labor gives the employer an effective disciplinary tool - the power to hire and fire (p. 11). Professors Bowles and Gintis argued that the meritocratic orientation of higher education is actually a facade that facilitated the stratification of the labor force. The authors stated that by the time most students terminate schooling they have been put down enough to convince them of their inability to succeed at the next highest level (pp. 104-107).

In the chapter, "The Transformation of Higher Education and the Emerging White-Collar Pool", Bowles and Gintis described how higher education has been integrated into the wage labor system. They repeated their earlier statement that by increasing the available labor pool and by reducing job security, the power of employers over their employees is increased. Further, they stated that due to sharp increases in enrollments, the community colleges and many four year schools took up the task of training middle office and technical workers. However, this activity was overshadowed by the rise of student radicalism in the late sixties and a deepening financial crisis (pp. 204-205). Then they referred

to the recommendations of the Carnegie Commission on Higher Education chaired by Clark Kerr. The commission called for expansion of two year education as well as on-the-job training and apprenticeship programs (p. 206). The authors labeled the proposals for bringing student hopes in line with realities of the job market, a tracking system. They saw the commission's recommendations as "four year transfer programs for the promising, vocational programs for the dead enders" (pp. 208-211).

The role of education was also the theme of Joel Spring's The Sorting Machine. His theme was that the increasing federal role in education since the end of World War II has been aimed at achieving specific national policy objectives. His basic argument was that federal involvement since 1945 reinforced a tradition in American education: namely, that public education increased the efficiency of our industrial society. Involvement was also intended to maintain our capability to meet both the Soviet challenge and the demands of the civil rights movement (pp. 1-2). The large manpower needs of the military and the needs of occupations necessary to national defense created a manpower shortage that had been exacerbated by the low birth rates in the twenties and thirties compounded by the restrictive immigration laws of the 1920's. Through testing, tracking and ability grouping, the school guidance counselor would channel high school students into careers needed by society

(pp. 54-57). Similarly, the decolonization of Afro-Asian nations and the desire to have these countries join our crusade against communism, propelled an otherwise indifferent Eisenhower administration to act in behalf of black Americans (pp. 157-1960). The Kennedy and Johnson administrations recognized that ending discrimination and poverty were a means of discovering and classifying talent for the national economy and national defense (p. 186).

Again Spring's main theme was that the role of federal involvement in education since World War II has been to channel and sort people for the national labor force. The result was a sharp increase in enrollments of 18 - 21 year olds in higher education (1946 17.6%, 1956 31.2%, 1965 43.9% to nearly 50% in 1970). However, whether they attended two or four year colleges, the vast majority of these students were liberal arts majors. These young people, who attended colleges both in record breaking percentages and total number, unlike their older brothers and sisters, were not a silent generation. They rebelled against the war and the educational policies of the 1960's. They protested the universities' involvement in research and development and denounced close links with corporations. The students rejected the manpower policies of the traditional American public school system (p. 231). These street rebellions drove Lyndon Johnson from the White House but they also produced a conservative reaction that elected Richard Nixon. The new

administration pushed career education. It believed that style of education was the answer to student rebellions, delinquency, and unemployment. The United States Commissioner of Education argued that student disenchantment existed because their educational program did not prepare them for the job market. Adopting James Conant's argument from the fifties, Commissioner Marland said that schools were in turmoil because they never completely achieved the goal of sorting students for the labor market. He called for the complete alignment between the job market and the public schools. Higher education was also to be organized on the career education model; with community colleges assuming a greater role. After all, community colleges were developing a philosophy centered around career education and they had close ties with local businesses that made it possible for community colleges to gear programs to the needs of the labor market. Thus career education was the Nixon administration's solution to educating the disadvantaged and ending rebellion and turmoil in the schools (pp. 233-236).

B. THE MISSION OF COMMUNITY COLLEGES

Leland Medsker and Dale Tillery in their book Breaking the Access Barriers gave a more detailed account of the growth of community colleges. Public community colleges came into being near the turn of the last century. They were

conceived by a few people of the period as the capstone of an integrated system of postsecondary education. The curriculum, though essentially patterned on the transfer requirements of four year colleges, was designed to meet the new knowledge requirements of a society shifting from a rural-agricultural to an urban-industrial base. Occupational programs were developed from the Smith-Hughes Vocational Education legislation in the 1920's as well as from the pressing economic needs growing out of the Great Depression. Yet by 1946 there were still fewer than a half million students, probably because the two year college was thought of as grades thirteen and fourteen. However, the passage of P.L. 16, the G.I. Bill of Rights, sent a flood of adults to college who never before would have considered going. Community colleges moved quickly to absorb the enrollment spill-over of crowded four year institutions (pp. 14-15). Since then, community college leaders have worked diligently to define a level of occupational education which would differentiate such preparation for employment from secondary occupational programs. The authors stated that community colleges have been wise in developing programs which have clearly earned the respect of employers Now there is a great urgency for these colleges to enter a new phase of cooperation with business, industry, and government to train and retrain youths and adults (p. 60).

Arthur Cohen described more fully his vision of a

community college in Dateline '79. In his ideal college there would be no permanent buildings, only rented ones which are easily disposable. Libraries would be stacked with paperback books, which could be checked out or purchased. Businesses or business personnel would teach the specialty courses in programming and data processing. The college would own no industrial equipment, instead the students would go to community factories, shops, and laboratories for their technical training (pp. 10-11). Note that Dr. Cohen's vision of a community college is in reality a linkage between corporations and colleges.

In his book The American Community College which he co-authored with Florence B. Brawer in 1982, Arthur Cohen further amplified the role of the community college. The authors noted that community colleges have effected notable changes in American education by opening the system to lower income students. Except in a few colleges like the tuition-free City College of New York, the mecca for the upward bound children of East European Jewish immigrants, the vast majority of college students in mid twentieth-century America were from the middle and upper classes. Community colleges not only expanded access to more people but also shifted the institutional purpose. The shift was made due in large part to the fact that today fewer people go to college for the sake of learning. Vocationalism is the order of the day for many students, who use college for job getting, job

certifying, and job training. The old value of a liberal education has become supplemental. For many, it is an adjunct to be picked up incidentally, if at all, along the way to higher paying employment (pp. 19-20).

Cohen and Brawer pointed out that community colleges are struggling to find ways of educating students whose prior learning has been dominated by nonprint images. The belief that a person unschooled in the classics was not sufficiently educated, died hard in the nineteenth century; now the ability to read anything is suffering a similar fate in an era when most messages are carried by wires and waves (p. 26). Additionally the authors agreed with most writers on community colleges by suggesting that education is an essential expenditure for economic growth. However, if community colleges are to foster economic growth, they must provide trained workers. The more they provide trained workers, the more they will be looked upon to fit those trainees to the jobs that are available (p. 124).

The authors noted that community colleges are becoming more distinct from the rest of higher education. "They are more likely to be terminal than transfer more vocational than general education" (p. 230). Finally, in a defense of college rather than corporate education, Cohen and Brawer wrote that on-the-job training alone would narrow educational opportunities by focusing the learner's attention solely on the tasks to be performed, and it would shift the burden of

payment to business corporations that might not benefit if the trained workers chose to take positions with competitors (p. 360).

Cohen and Brawer's point of view is also endorsed by Dorothy Knoell and Charles McIntyre in Planning Colleges for the Community. Stressing the need for planning and flexibility in an age of declining rates of enrollment and dwindling financial resources, they argued that program goals reflect philosophies about the relationship of the individual to society and the importance of the individual interests in relation to manpower needs. The community college is interested in educating the whole person, not simply the labor-force portion of the person (p. 112).

As early as 1960, before most community colleges were founded, Leland Medsker advocated linkages with the business community in The Junior College: Progress and Prospect. We must remember that the book was written at a time when the business community was highly supportive of higher education. With this in mind, Mr. Medsker noted that employers did not agree on what constituted the best preparation for a job and that this lack of unanimity existed even at various managerial levels at the same company. Of further concern was the fact that technological advances were making it impossible for an educational institution of any kind to duplicate the costly and highly intricate machines and techniques of a rapidly changing industry. His solution was

to promote cooperative ventures with industry, which could make its irreplaceable facilities the laboratory of the school. Further, he argued that if training for mid-level occupations was to be more important in the future, the two year college should continue to be a logical agency to do the training. Then Mr. Medsker warned that if junior/community colleges did not meet this responsibility, the alternative would be another type of institution (pp. 114-117).

Why not link a college education to success in the marketplace? As Kenneth B. Hoyt former Associate Commissioner for Career Education in the United States Office of Education and others wrote in Career Education: What Is It and How to Do It: "In America we demonstrate achievement, gain in social estimation and confirm necessary feelings of self worth ... through our labor market roles and activities [W]ork then becomes not only the primary source of income, but also of self esteem ..." (p. 17). Continuing they wrote "preparation for successful working careers should be a key objective of education" (p. 22). The authors added, "... [C]ourse offerings ... for vocational education should be based on a combination of expressed student interests, labor market conditions, and national, regional, and state statistics reflecting projected occupational demand for workers" (p. 130). They also noted that few college students intend to use their education simply to learn how to lead the "good life". They seek to learn something that will give

them a return on their investment and attain the "good life" through gainful employment. The community college, because it offers both college transfer and terminal occupational education programs, represents an ideal setting for technician training (p. 131). However, they did not stop there, they added another important ingredient for improving vocational education by advocating linkage with the business community:

"... [I]f goals of career education are to be attained, it is essential that work experience in non education occupations be provided for those who now work as educators ... They know little more about the realities of low level, white collar and clerical jobs or of technical and professional jobs outside the education industry. This can be accomplished in two ways a) sabbatical leaves and/or summer programs to acquire work experience, or b) a more profitable approach, an exchange program between educators and the occupational community - educators would work on jobs outside of education and non educators would take their place in the classroom" (p. 150).

This theme of working closely with the business sector was picked up by Roger Yarrington, Vice President of the American Association of Community Junior Colleges. In an article entitled "Lifelong Education Trends in Community Colleges", he called for cooperation between educators, businessmen, and unions to promote local manpower needs analyses, job training, and placement services. He advocated working closely with training directors of local unions and industries to analyze training needs and to develop education

programs to meet industry specifications through both pre-service and in-service experiences (p. 91).

One state, North Carolina, has long been doing what Vice President Yarrington advocated. Recognizing the need to improve its educational institutions to attract industry, that state established goals for its community college system to accomplish that purpose. Goal #3 is "to provide for industry, agriculture and business ... the preservice and inservice manpower training" (p. 1 North Carolina Community College System Report). More than 150 curricula which provide job entry skills have been developed and implemented. The continued emphasis is placed on developing curricula to meet occupational need and thereby reduce the manpower shortage within the state (p. 19). The plan also called for coordinated assistance for the development of manpower resources in the state. In this scheme the community colleges would be provided with long range information on the education and training needs of North Carolina's people and economy in order to plan properly (p. 66). North Carolina has been aggressive and successful in promoting economic growth and diversifying its industries by fostering cooperation between industry and education.

Relating Work and Education, edited by Dyckman Vermilye contains numerous articles on the value of such cooperation. James O'Toole, in his article "The Purposes of Higher Learning: An Introduction," stated that American society has

chosen to question the value of higher education in terms of its relationship to work. Though relating education to work was not the way educators have chosen to undertake such an important reckoning, Dr. O'Toole said that it is an appropriate role for all types of institutions of higher education and all types of people. Work, he wrote, encompasses most of the basic questions that need to be analyzed in exploring the purposes of higher education (p. 3).

Burton J. Bledstein, Professor of History at the University of Chicago, in his article "Reassessing General Education" made a similar point. He said that education for its own sake sounded like an admirable ideal, and it might succeed as an adjunct of the educational experience but for most middle and upper class American families, higher education was a considerable financial investment from which practical returns in the form of an occupation were expected. He warned that as higher education becomes more and more expensive, middle class expectations will focus even more on careers, vocations, and results (p. 144).

In the article "Too Many College Graduates?", Lewis Solmon, executive officer of the Higher Education Institute in Los Angeles wrote that some people believe the value of a college education is decreasing and that Americans are overeducated. He dismissed those arguments and stated that they ignore the fact that the college educated still earn more than those with less education. He acknowledged,

however, that there has been a supply-demand problem with respect to college educated people which has forced people with bachelor's degrees to take jobs that have not been traditional for college graduates (p. 173). The Department of Labor projects this same situation in employment through 1990. Even respected political analyst David Broder, addressing the issue of a changing work force in his August 13, 1983 column, wrote that the technological changes taking place in our economy will require a revision of our concept of the relationship between education and work. He added that a part of worker's pay in the future will probably be time credits for further education as a stepping-stone to better jobs. These various ideas expressed in Mr. Vermilye's book and David Broder's column all point to the need for collaboration between industry and education.

Some educators, like the late Dr. Robert Hutchins, believe collaborative vocational education is not a legitimate function of colleges. Nevertheless the history of higher education in America, whether it was training ministers in colonial times or farmers in post Civil War America, has been in large measure, vocational. One of the specific functions of two-year colleges is to provide occupational education programs. Linkage with industry is, as the literature on community colleges states, an effective tool for carrying out that mission. Further, if educator-employer cooperation is to be carried out, it is

logical according to some authors, that both should be involved in the curriculum design, development and once implemented, review. (The curriculum must be kept up-to-date by some effective mechanism, whether it be a consulting arrangement with the firm, a month - a - year "sabbatical" with the firm, or curriculum review conducted once a year on-site). (Herbert Steiner "The Joint Role of Industry and Education in Human Resource Development" pp. 5-9).

Section C will review how such collaborative ventures have actually developed.

C. SCHOOL BUSINESS RELATIONS

Collaboration between academia and industry is not a new concept. The idea goes back at least to the rise of egalitarianism and the industrial revolution in the eighteenth century. The impact of those changes helped to establish the principle that education would no longer simply serve the needs of a cultured dilettante elite; its job would also be to broaden opportunities for the many and in the process provide an educated labor force for business and industry.

Over time various kinds of opportunities were developed such as the endowment of scholarships or university chairs and/or the sending of speakers on the college circuit. Keeping pace with these new arrangements were new kinds of

specialized schools that were a far cry from the traditional university model of medieval Europe. Among, but not restricted to, this type of institution were the community and junior colleges. In fact the term community college was first used in 1947 by the President's Commission on Higher Education when it referred to public junior colleges as both "community centered" and "community serving" (Mantha V. Mehallis "Curriculum Design and Evaluation" p. 9). Today, many two year colleges have dropped the label "community" or "junior" from their names and simply call themselves colleges.

Seymour Lusteran, senior research fellow at the Conference Board in New York, and Harriet Gorlin in Educating Students for Work gave an overview of some of the various roles business plays in aiding education. Many businesses are involved with cooperative education programs, offering internships, part time employment, summer employment, and/or scholarships related to specific careers. Companies also participate in career awareness programs, and conduct seminars on company premises for faculty involved in teaching business education and occupational career courses. In addition, businesses participate in personnel exchange programs, provide appropriate personnel to serve on advisory boards for cooperative education and curriculum strengthening, and participate in work study programs. The authors also suggested that a company's physical resources

should be made available to education (Education Students for Work: Some Business Roles p. 3).

Mr. Lusterman and Ms. Gorlin recommended that decision making executives involve themselves in educational programming. Corporate officials should recognize that education is related to both the needs and the affairs of their companies. They therefore ought to assume some responsibility for it. In conducting a survey of forty-four top level executives, the authors were able to elicit the following information: the role of education is to impart general work skills and competencies; the role of the employer is to impart any additional instruction and/or training which is necessary in order to adapt these skills to their particular need; and where education was not adequately preparing students, business had the obligation to encourage and support appropriate change. Executives in this survey also saw involvement with education as an instrument of recruitment. From that perspective, students participating in employment programs were considered a partly trained and screened source of future employees. This was particularly true for minorities and women, who were frequently the targets of such programs because of affirmative action.

However respondents did express a number of reservations regarding linkages. The principle problem from a business point of view was that these programs cost money, time, and effort for staff to plan, participate in, and follow up on.

As one executive complained, the programs connected with educational institutions might interfere with the real object of business - to make a profit. A second executive thought the value of programs was difficult to assess and their payoff was unknown. Another suggested that the ability to provide working experience varied with staffing needs. Therefore, he believed it was difficult to make long term commitments, particularly since the ability to contribute manpower depended on the changing availability of staff time. Still others felt they were stepping on educators' toes and noted that hostility by educators toward business still existed. Another concern raised by executives was that involvement with education raised expectations for future employment, a fact that was less likely in time of economic sluggishness.

One executive seemed to sum up the problems of collaboration with a series of statements and unanswered questions.

1. There is a lack of concern or interest at the top,
2. Most of our programs, if they can be dignified by that term, are improvised,
3. If we were serious, we'd be looking for the answers to questions we haven't even asked,
4. What are the proper and realistic objectives for the company with respect to improving the

competencies of the people coming to us for various kinds of jobs?

5. What measures should we be taking to achieve these objectives?
6. How should we try to measure results? (Lusterman and Gorlin, pp. 6-8)

Nevertheless in 1977 corporations gave over \$400,000,000 to higher education. In addition to money, many companies gave equipment and supplies including their manufactured products, used laboratory and production equipment and even such general purpose aids as movie projectors and tape machines. For example one midwestern utility has been equipping Home Economics Departments in 110 schools in its area with gas ranges since the early 1950's (Lusterman & Gorlin pp. 9-10). IBM, Boeing, and many other companies have trained college professors teaching in occupational programming. Several firms have provided jobs for professors on sabbaticals in their specific technological disciplines (Lusterman & Gorlin, pp. 56-57).

Barry Heermann, Coordinator of Marketing-Management Programs, Sinclair Community Colleges, Dayton, Ohio, in Cooperative Education in Community Colleges discussed why community colleges in particular ought to forge links with industry. He stated that those institutions could usefully be viewed as extensions of the community. Heermann saw them as institutions whose very existence is dependent on the

community and whose justification is that, beside traditional educational services, they provide programs and/or courses unique to the needs of their respective communities. He believed that community colleges ought to be integrated with the community and its vital economic and social pursuit (p. 1). In that role he saw colleges performing a variety of missions, all of which Mr. Heermann felt could easily be adapted to cooperative education. He saw that style of education as a means of creating a partnership between the college and the community (pp. 2-3).

Before describing the advantages of cooperative education, he summarized its history. Cooperative education, alternating schooling with work experience, could be traced back to the earliest civilizations. Its birth on the collegiate level stemmed from the early years of this century. In 1906, the primarily engineering college of the University of Cincinnati, concerned that many of its students were working at part-time jobs that bore neither a relationship to their career choices nor contributed to their professional education, instituted a cooperative education program. The first liberal arts college to start cooperative education was Antioch in 1922, though the work experience was not necessarily related to one's desired future occupation. The first junior college to institute such a program was Riverside Junior College in California, also in 1922. By 1973, there were over three hundred fifty cooperative

programs in two and four year colleges and technical institutes. Over two thirds of these programs did not exist before 1960 (pp. 4-5).

To a large degree, this surge in the number of programs was due to action taken by Congress that provided federal funds. By amending both the Vocational Education Act of 1963 and the Higher Education Act of 1965, federal funds started flowing by the 1970-71 academic year. While the federal money was seed money to help the programs get off the ground, a college's real commitment to this concept of education would assure that cooperative education would be funded in the college's budget (p. 7). Despite the cost, Barry Heermann saw numerous advantages. Among these was that cooperative education provided outside facilities that could not be easily duplicated on campus. It allowed the college to draw upon the resources and facilities of the whole community at no expense to the taxpayer. Further, cooperative education increased the rapport between the college and the community. The employer could offer advice and suggestions for important changes or needed innovations in curriculum. There was also an advantage to employers, for the programs could easily be adapted to provide a means of recycling employees who were in need of upgrading their skills (pp. 39-43).

The previously cited, Seymour Lusterman and Harriet Gorlin, also described cooperative education as well as listed its advantages and pitfalls. Students divided their

time between school and work by either alternating school terms or by dividing school days. The nature of the work was the same as it was when the University of Cincinnati first inaugurated cooperative education at the turn of this century; it was to complement learning experiences. Both the school and the employer collaborated on selecting and evaluating student performance. Among the establishments surveyed by the authors, the overwhelming majority expected that some of the students would become regular employees upon completion of their schooling. In fact a majority of employers interviewed by Mr. Lustermann and Ms. Gorlin believed that at least one third of the students would ultimately come into their employ. An obvious advantage to employers is that they have had the opportunity to evaluate a student's work performance. Students who performed well, could be offered employment.

However, employees of these firms saw the students as competitors and unions considered co-op and work study students as a threat to their interests. Even in nonunion shops management sometimes saw cooperative education students as a source of potential friction. As an executive of an unnamed company said: "How do you explain to your employees why you're laying people off or not rehiring and still hire students? Unions or no unions, it doesn't make sense." Another complaint raised by executives was that they had openings throughout the year, but students were available

only upon graduation. Mr. Lusterman and Ms. Gorlin speculated that these criticisms by businessmen might be one of the reasons why only 200,000 or 3% of all full time students in higher education were enrolled in cooperative education programs in 1977 (pp. 20-23). In recent years the authors noted, some corporations have raised their level of participation with education, but others, because of reduced staffing needs and tighter budgetary constraints, have contracted such activity. Cooperative education programs have been stopped or cut back because of "union problems", because they were not successful or effective, and because schools were not requesting them (pp. 9-12).

The findings of those authors confirm a study done by F. Kenneth Brasted which was published in 1953. The aim of his report, Education - Industry Relationships: A Connecticut Study with National Implications, was

- (1) to identify and to analyze the extent and nature of, and the problems involved in, the relationships ... between industry and education ... and
- (2) to indicate ... what might be of importance to both industry and education in their future relationships. (p. 1)

The author chose Connecticut because it was representative of an industrial state. From the study he hoped to develop suggestions for improving relationships for the balance of the twentieth century (p. 3). In essence he advocated for the kind of service provided by Bay State Skills Corporation. The only difference was that Connecticut did not have a state

funded agency that gave grants to help promote linkage between industry and education.

Dr. Brasted sent his questionnaire to nearly five hundred businessmen and educators with a better than sixty seven percent response. The report uncovered a wide range of linkages. I found two of his conclusions quite interesting as they relate to Bay State Skills Corporation.

...[T]he greatest need for further cooperation is the establishment of more and better two-way communication ... [I]ndustry now ... accepts the thesis ... it must actively support -- financially and through personal services - all education, both public and private, and at all levels, ... to secure personnel it needs to carry out its work....
(p. 22)

Part of the reason Bay State Skills has been successful is that it makes use of what Dr. Brasted saw as business's enlightened self interest. Through corporate membership on its board of directors, through corporate involvement in determining the need for and type of training as well as through the dialogue between industry and the educational community, the Massachusetts state agency is promoting the mutually beneficial relationship that Dr. Brasted urged back in 1952.

D. NEW LINKAGES BETWEEN INDUSTRY AND EDUCATION

Triton College, located in River Grove, Illinois, just

west of the Chicago city limits, is a two year college which established a variety of collaborations with the business and industrial community. In his remarks in a Triton College publication in 1982, President Brent Knight highlighted some of the landmark agreements the college had made. Triton and the Society of Die Casting Engineers had agreed that the National Training headquarters for the Society would be constructed on the college campus. Beginning in 1982, die cast engineers from around the country began receiving basic or upgrading of skills training using nearly \$1,000,000 worth of contemporary equipment provided by the die cast industry.

In addition the college had been designated by General Motors as one of six General Motors apprenticeship training sites in the United States. The first General Motors class of auto mechanics to graduate was in June 1983. Discussions were also underway with several other industrial, trade, and business associations for similar arrangements which would lead to an "Avenue of Training Headquarters" constructed on campus with millions of dollars of the latest equipment donated by the private sector.

The president concluded his remarks by saying that Triton College was increasingly successful in attracting a growing number of businesses to choose this college as a training facility. During the period from 1980 - 1982, the college embarked and broadened its connections with the business community via training partnerships, inaugurating

new programs in the High Tech area, diversifying its delivery systems, and servicing special markets. Triton's partnership with the Society of Die Casting Engineers (S.D.C.E.), the professional arm of a \$4,000,000,000 industry, is an example of a mutually beneficial arrangement. Both groups have benefitted from this arrangement. The S.D.C.E. had the skills of its current members upgraded and also has a constant supply of trained people ready to enter the profession. Triton received approximately \$800,000 worth of machinery and equipment from the S.D.C.E. to conduct this training program. The equipment necessary for the program was simply too expensive for the college to purchase. In an era of tight budgets and rapidly changing technology, the college would be unable to keep its equipment current. This facility demonstrates how education and training can be kept current in an era of rapidly changing technology. It also demonstrates that colleges can conduct these programs successfully.

The college's arrangement with General Motors was the result of its good reputation for training. Triton has a facility of 22,900 square feet filled with the latest equipment. Together, General Motors and Triton College provide a training experience for the students beyond what either could do alone. The students receive certification from both the college and General Motors after alternating for eleven weeks between on site and on campus training

("Triton College, 1980-1982", pp. 2-5).

In a joint sponsorship with the Employee Development Institute, Triton College conducts "tailor-made" training seminars for a wide variety of businesses in the Chicago area. The Employee Development Institute is a college operation that works with individuals employed as office personnel or in managerial and other professional capacities. In 1981, Triton offered over three hundred seminars enrolling approximately five thousand people. Initially the seminars were completely administered by the college, but now they are jointly sponsored. This has led to cooperative efforts between other business organizations and Triton, including the Society of Personnel Administrators of Greater Chicago. In addition, the college was exploring the viability of an office building to house service organizations and the conference center for regional workshops and seminars. What Triton was seeking to become is a total industrial and professional complex ("Triton College, 1980-1982", pp. 5-8). This joint sponsorship of seminars is an example of interdependence between business and education. This cooperative venture, like the previously cited examples, is the kind of collaboration that the Department of Education and the National Committee on the Excellence in Education advocate. It is an example of the "Corporate Godfatherism" that former Senator Tsongas has urged.

Triton was also moving into the "High Tech" area. Most

people might associate "High Tech" with the Silicon Valley in California or Route 128 in Massachusetts, but this college realized the social and economic implications of the technological revolution. First, the college has established a "High Tech" Committee to monitor trends and stimulate appropriate college responses. Among programs being planned at the time of the report were Robotics, Laser Technology, and Computer Assisted Design. The first program is a recognition that Robotics will be a multibillion dollar industry by 1990 and that the industry will need college trained technicians who are knowledgeable in the application of robotics to manufacturing as well as trained to repair and maintain those machines. For the Laser Technology program, the students would have a blending of electronics and laser courses, as well as training in trouble shooting and circuitry repairs. Computer Assisted Design enables drafters and engineers to design in one third the time. The college has established a computer graphics laboratory with some of the latest equipment including a Tektronix 4662, a digital plotter, and a Tektronix 4051 terminal ("Triton College, 1980-1982", p. 9).

Triton College also has developed short term courses to aid business through their Job Training Institute. These "express" courses have enrolled three thousand students attending classes for six hours per week for nine weeks. Finally, the college runs on-site contractual programs. It

knows that it is no longer enough just to inform business and industry that the college can train people and then wait for them to arrive on campus. Through its Employee Development Institute, the college goes to business and industry and offers to conduct training at a company's facility. Under this type of arrangement, Triton offers both individualized training as well as the opportunity to tailor courses to an organization's specific problems. Using on-site facilities, having the college train employees where they work, saves a company money by avoiding costly time and travel expense reimbursement. In 1981, Triton had on-site training arrangements with a number of companies including such major corporations as Stanadyne, Quasar, Borg-Warner, and Zenith. As a way to extend the program to a greater number of employers, the college began a "Triton for Training" program using direct mail and telemarketing ("Triton College, 1980-1982", pp. 12-13).

Triton College carries out a wide range of collaborative efforts with business and industry. Not as broadly involved, but equally impressive, is Manchester Community College near Hartford, Connecticut, which awards college credit for in-service training in business and industry. Late in 1977 the college and Pratt-Whitney began a new and unique program in cooperative education. The college granted thirty academic credits for either Sheetmetal or Machine Operations and Electronics to employees who completed training in one of

the aforementioned areas. The program consisted of six thousand hours of training, combining classroom instruction and on-the-job experience. Manchester Community College also offered courses at Pratt-Whitney on a contractual basis so employees who successfully completed the training program could earn an additional thirty credits. Thus employees could complete sixty credits for an Associate Degree in General Studies without attending classes on campus.

Realizing that this successful pilot program could be replicated, Manchester sought to identify other businesses and industries in Connecticut which hold in-service training programs. The college also evaluated in-service programs to ensure that only college level programs were awarded college credit. Originally the study was to be a state-wide needs assessment, and the data was made available to other community colleges and to interested organizations. Despite its initial ambition, however, Manchester quickly realized that such a project was much too large an undertaking. Instead, the college decided to identify the in-service training of only those companies that had several thousand employees and were within a 30 mile radius of the campus.

The study was begun by having staff "knock on the doors" of large corporations to learn what training programs were being conducted and to determine whether these programs were college level before offering to award academic credit. The Manchester people discovered it was necessary to call several

times and to interview different people in charge of training in various parts of the company. Forty five calls were made on the various companies in the college's service area. At each site the Manchester personnel stressed the Pratt-Whitney success and indicated the college's willingness to evaluate for college credit training programs in the fields of insurance, banking, and manufacturing.

At each company, they also discussed the possibility of developing a cooperative link for on-site courses for either certificate or degree programs. Existing college level courses would be offered on a contractual basis. If there were an agreement, the programs would be conducted on a site provided by an employer and at a time convenient for employees. The purpose of these contractual agreements with selected businesses and industries in Connecticut was to meet the educational and training requirements of both employers and employees. Following the Pratt-Whitney model, the employees could get college credits only after completing apprentice training. The college would assist the company by providing it with the courses its employees took; in turn the college was relieved of the paperwork of granting piecemeal credits as course work was completed. According to the literature, all but one of the companies were enthusiastic about the possibilities of linking up with the college. (David E. Duffy "Project for Awarding College Credit for In-Service Training in Business and Industry," pp. 1-6).

In summing up the Manchester study, Duffy reported that the knock-on-the-door approach was successful, but a mail survey did not bring spectacular results. Because the college had already formed a successful tie-in with Pratt-Whitney, it also evaluated that corporation's secretarial school and now gives Pratt-Whitney employees credit for duplicate courses. Finally, the college concluded that in-service training programs are best identified by each community college in its own service area and decided it would not award academic credit outside its area (Duffy pp. 9-13).

Another successful example of a linkage that could be classified as both a "marriage" and a "business arrangement" is John Wood Community College's Swine Confinement Program in collaboration with Kirk Structures. The college is located in rural Illinois where farming and swine raising are the principle occupations. Raising pork in confinement is an \$80,000,000-a-year industry. Yet the industry had difficulty in recruiting workers who had the necessary technical and management skills. The problem for the college was that facilities for swine raising are hard to maintain, become obsolete due to technological changes, and are expensive to replace. Kirk Structures, a manufacturer of swine confinement buildings, is located in the college's district. The company needed a trained work force and also needed to demonstrate a live operation without exposing the hogs to

disease (strange as it may seem for example, the pigs are very susceptible to bacteria).

John Wood and Kirk collaborated to create a certificate program providing hands-on training as well as lectures. The college leases a confinement building that was designed by the college specifically for use as an educational facility. The structure includes isolated observation halls, workrooms, and classrooms. Kirk Structures maintains the facility, provides faculty expertise for some courses, and actually recruits and places students with its marketing staff. The college receives income when feeder pigs are sold and has the option of moving to a more advanced facility. The company, has a tax write-off and, more importantly, a marketing feature - it can show a building and equipment in full operation by using the observation hall (Jim Upchurch and Larry Fischer "The Common Market: Using Community Based Resources...", pp. 6-8).

Another example of successful collaboration between business and education exists in Maryland. Hagerstown Junior College learned from what had been written about the benefits of interfacing with industry. They realized that involving a college with local business and industry in cooperative off-campus instruction is productive because it attracts students who might feel intimidated by the thought of taking courses on campus. In addition, learning experiences obtained in business and industry are more likely to fit many

students' needs than would the typical experience on campus.

Hagerstown Junior College and Certain-Teed Corporation began their collaborative effort in the Fall 1977. The company needed to upgrade the skills of its first line supervisory personnel. The college was concerned that its Associate Degree program in Management lacked visibility with its business-industrial target population. Management of Human Resources was the first course offered. The class was conducted in one of the company's employee canteens. The instructor, a full time faculty member at Hagerstown, accepted that facility as a teaching environment. Thirteen of the fourteen employees who enrolled, completed the course. The instructor was satisfied both that student achievement was comparable to campus-based students and that the course met existing college standards. Furthermore, the instructor felt that the course gave a validity to the Management Program that had been lacking, particularly when other first-line supervisory personnel enrolled in the program. A positive student response in a follow-up survey validated the belief that the program was mutually beneficial for the corporation as well as the college (Richard Beman & Michael Parsons "Turning the System Around: College-Corporation Cooperation for Mutual Development," pp. 1-3).

Despite this success, the college realized that a serious barrier existed between the campus and the business community. What they had to do was to remove that barrier.

Hagerstown decided that it had to act as if it were selling a product. It would meet the competition in terms of cost, quality, and timeliness of delivery. The consumer (i.e. business) would evaluate the college and either encourage or discourage other businesses from following suit. Hagerstown adopted the following criteria for linkage with the business-community:

1. evaluate your resources carefully;
2. arrange a dialogue between an instructor and an appropriate corporation person to inquire what the company needs;
3. determine if the college can fulfill those needs;
4. identify the actual person who will make the buying decision - even though this may take time;
5. sell only what you can deliver;
6. either cheerfully admit you cannot provide the service or suggest persuasively that the client redefine his needs so that you can meet them competently;
7. advertise your flexibility, by changing instructional materials, modifying your attendance policies or whatever else is necessary as long as college standards are maintained;
8. publicize your successes. Productive cooperation between colleges and the business world is a newsworthy event because of its rarity (Beman and Parsons, pp. 4-6).

Following these criteria, Hagerstown has succeeded in its efforts to collaborate with the business community. For example, in 1977 (the same year it began its off-campus instruction at Certain-Teed Corporation) Hagerstown inaugurated a return-to-industry program for its occupational faculty. This program was an outgrowth of the arrangement with Certain-Teed. Following the company's request for

on-site instruction, the college, realizing part of its mission was to service the needs of area businesses, obtained a grant to return all career faculty to industry over a five year period. The goal of the program was to reinforce, update, or expand the skills and knowledge faculty required to keep current with the changing technology within their professions. The faculty member would submit a proposal which included the name of the business or industry hosting the activity and evidence that the host agreed to participate. The faculty person was observed and evaluated on the impact that he/she had on the host facility. What generally happened was that the company assigned a low-priority, though desirable, task to the participant. By assigning a faculty member to do a task for which the host was unable to assign a full time staff person, both sides benefitted. The hitherto unfulfilled task was completed, and the faculty member learned and utilized the latest skills in his/her field. The program also increased understanding between the host facility and the college.

It should be noted that most on-site supervisors were originally apprehensive about the arrangement. When the initial summer training period was concluded, all host firms asked for a return of the original participants. By the fifth year of the program, faculty from thirteen of the college's fourteen occupational areas had participated in the program. So successful was this program that, during the

1981-1982 academic year, each community college in Maryland was provided with funds to initiate visitations to businesses or industries of one or two day's duration ("Hagerstown Junior College, Return to Industry by Career Education Faculty" Parsons and Ziegler pp. 6-11).

The Hagerstown example of industry and education collaboration, as well as the previously cited examples, raises the question of whether this is a legitimate function for colleges to perform. Many educators like the late Dr. Robert Hutchins would say no.

Since 1962 in South Carolina, there has been a tradition of using the state's technical colleges to train technicians for business and industry. The state realized it would have to have a trained labor force if it were to continue to attract northern industry seeking to escape unions. Since the South was perceived as an area of low quality schools and as a "cultural backwater", the region poured money into its postsecondary educational system. In South Carolina the principle industry is textiles. That industry, like the state's other industries, needed to train people, whether for entry-level positions or to upgrade and/or retain current employees. One of the things South Carolina's technical colleges learned was that industry, which was spending billions of dollars on training their own employees, wanted entry-level people with excellent basic skills, e.g. reading, oral communications, written communications, basic math, and

mechanical ability. To keep their curriculum current, the colleges offered custom-designed programs, enabled faculty to return to industry for short periods of time, and instituted cooperative education programs. (Craig Musick "What Employees Need in Training ...", pp. 13-15).

South Carolina's educators perceive cooperation as a two-way street. Business and industry must be willing to involve themselves and their key employees in college affairs. Involvement can mean doing one or a variety of activities. Some of these functions are: serving on advisory committees, evaluating curriculum and training methods, helping to place graduates in jobs, making speakers available to colleges, and awarding scholarships. Because of the escalating cost of replacing antiquated equipment, state colleges believe that business should project for educators corporate needs for the future and what skills will be desirable. They also believe that companies should initiate tuition refund policies. Finally, in a time of tight budgets, they believe that industry must speak on the colleges' behalf to the wider community (Don Garrison "Community Colleges and Industry: A Stronger Partnership for Human Resources Development" pp. 20-22).

Just as South Carolina's textile industry has special problems and needs, so does the high tech industry. This is a field that is continually advancing and requires that faculty keep their skills up to date. Industry executives

want technicians trained in advanced technologies such as computer applications, robotics, and lasers. They warn that if postsecondary education does not respond to high tech's needs, the educating of technicians will be taken over by in-house training programs of businesses and industries that can afford to develop and conduct them. Dean Arnold Weinstein of the Arthur D. Little institute said regarding corporate education, "...[T]he danger is that the private sector will get into education where there are profits to be made and leave the unprofitable sector to the university" (Boston Globe Saturday 8/13/83 p. 19). One way to prevent that from happening is to link colleges and other training facilities with corporations in a working partnership.

James P. Long and Catherine Warmbrod in their article for the office of Vocational and Adult Education ("Preparing for High Technology: A Guide for Community Colleges") supported collaboration between colleges and industry as a means to meet mutual needs. Contact may be initiated by either side. The authors recommended that once contact is made, a company should be given an important role on the college's advisory committee. According to the authors, a college should start working closely with one highly visible company, and then publicize its cooperative venture to encourage other companies to initiate requests.

Long and Warmbrod believed it is important to have college personnel attend conferences when industry

representatives address college leaders about high technology. They urged colleges to organize and to conduct such conferences themselves; as well as to challenge technical advisory committees to prepare two-year and four-year plans for program changes necessitated by new technology. The authors said that colleges should base their strategic planning on the technical advisory committee plans and that faculty members should receive release time to plan new programs (e.g. Piedmont Technical College in South Carolina budgeted \$32,000 for in-service and development expenses) (pp. 7-12).

Long and Warmbrod also made numerous recommendations on how to finance the acquisition of costly equipment:

1. a college should invest in staffing required for a full fledged college development office;
2. the development office prepares proposals for grants and requests for other financial services including federal seed money;
3. ask industrial representatives on advisory boards for corporate gifts from their employer;
4. upon receipt of gifts, the college president should send a thank you note to the companies;
5. corporate gifts should be well publicized unless donors object;
6. a college should try cooperative education or summer internships with industry to enable

- students to be involved with up-to-date equipment the college cannot afford to purchase;
7. programs with outdated equipment should be phased out;
 8. when programs are designed for a specific company, the college should begin offering courses for in-plant employees only;
 9. after an initial success, employees usually want more classes - but on campus. Colleges should use this opportunity to request access to the plants for nonemployee students so those people can obtain familiarity with new equipment.

An economical way for a college to start up a costly high technology program is to collaborate with a company that requests its help. Frequently such a company will finance the entire cost of the program. Once a company's needs are met, the program can be opened to the public. Sometimes the company will provide the equipment, the instructors, the students, and even help develop the curriculum (p. 13).

Mr. Long and Ms. Warmbrod made suggestions for collaboration between colleges and industry in the area of staff development and recruitment. They urged colleges to send all industry trainers annual letters of appointment as unpaid Adjunct Professors as well as to print their names in college catalogs. Colleges should also inaugurate a summer "Faculty-Return-to-Industry Program" to improve both an

instructor's knowledge of the field and the content of the courses he/she teaches (Digital and other companies often help finance such programs). They also urged that colleges seek an exchange of programs between academic and industry personnel. They had one final recommendation:

Be careful when using the words 'high tech' internally at your college. Anything new tends to threaten people and the use of catch-phrases or jargon to describe it only increases the anxiety. Whatever people fear, they usually oppose. You will probably obtain more internal college cooperation if you ignore the words 'high tech' and work to keep programs and program offerings up to date and relevant to job needs (pp. 14-17).

In Massachusetts, collaboration between industry and education flourishes. Chancellor Joseph Duffey in The Chancellor's Report (University of Massachusetts Amherst, May 1985, pp. 4-5) wrote:

... the University has actively collaborated with business, industry and state government for over a century. These collaborations have helped Massachusetts ... enjoy an economic growth ... The partnership of government, education and business has provided Massachusetts with strategies for economic development which are among the most innovative in the nation.

An example of this partnership is found in The Chancellor's Report (May, 1984, p. 17). Due to the serious national shortage of math and science teachers, the University's School of Education developed a Math/Science/Technology Education project in collaboration with the Massachusetts public school systems and the Massachusetts High Technology Council. The graduates of the

project are committed to teach for three years. "Now in its second year, the Project has received \$95,000 from the Bay State Skills Corporation, an organization charged with supporting the creation of jobs in the private sector in Massachusetts."

It would be fair to say that collaboration between business and education has come a long way since the University of Cincinnati inaugurated a cooperative education program at the start of this century. It is also true that a lot of the newer programs are an outgrowth of the concerns expressed by the American Council on Education. That agency wanted to promote greater understanding and cooperation between higher education and business and industry. The council provided the stimulus for the Greenbrier Conference on Industry-College Relations in 1963 when it brought representatives from both areas together to establish a committee to foster this goal. A resolution was adopted which stated:

Whereas, In the years ahead education and business and industry will have an increasing obligation to understand each other, now be it Resolved, That the American Council on Education establish a Committee to study the development of a closer relationship between higher education and business and industry and to take action to bring about this highly desirable result (Oscar N. Serbein Educational Activities of Business p. V).

As this review of collaborative efforts has shown, their resolution has increasingly been put into practice.

E. BAY STATE SKILLS CORPORATION

In Massachusetts, the high tech industry was having trouble finding skilled workers. The companies threatened to stop expanding in the Commonwealth unless the situation was remedied. To prevent that outcome then Governor Edward King issued an executive order in 1980 creating the Bay State Skills Commission. Its purpose was to advise the Secretary of Economic Affairs regarding the development of training and educational programs in areas of labor market demand. The Commission was the predecessor of Bay State Skills Corporation (BSSC), which was created by the legislature in July, 1981.

The Bay State Skills Corporation Act is part of the Massachusetts General Laws Chapter 40-I. Citing in its purpose that there was a critical shortage of training and educational programs necessary to meet the growing needs of business and industry for skilled employees, it also mentioned a corresponding lack of job opportunities for victims of economic dislocation, minorities, and economically disadvantaged groups. The law also recognized the limited resources available to educational institutions to meet those needs and noted that business itself could provide the support to aid these institutions. However, the legislation mentioned that educational institutions could not attract sufficient support from business and industry within the

limits of their existing resources, therefore public money might have to be expended to encourage the formation of comprehensive cooperative relationships between business and industry and educational institutions.

In establishing the Corporation in Section 1b, the legislature sought to ensure that its membership would reflect the various components of the state's economic and employment interests by specifying the types of people to be appointed. Further by staggering the initial board appointments before the regular five year terms began, it appears that the legislature desired to keep the Corporation from becoming a political football. Section 4 defines the purposes of the Corporation and with whom it is to be involved. Section 5 describes the powers of BSSC and Section 6 states how the grants-in-aid are to be expended. Section 7 provides for the dissemination of information upon approval of a grant-in-aid. Section 8 requires that the agency submit an annual report and Section 9 stipulates that the agency be subject to an annual audit like all state agencies.

The Corporation, currently located on Franklin Street in Boston has received positive reviews in articles in Training: The Magazine of Human Resources Development (May 1983) and Guidepost (10/6/83), the publication of the American Association for Counselling and Development. In "Retraining America: Solutions or Sugar Pills?" in Training (May 1983, pp. 22-29), authors Chris Lee and Ron Zemke discussed the

problems of unemployment, training and retraining. The authors noted that Congress, eager to show constituents that they were trying to help the unemployed, created the Job Training Partnership Act (JTPA). JTPA was established to replace the Comprehensive Education and Training Act (CETA), but with "increased input from the private sector". The bill would provide funds to train workers in the skills demanded in the marketplace. The authors asked whether this legislation could succeed where CETA failed and answered "no".

Lee and Zemke, however, did cite the Bay State Skills Corporation as one public/private partnership that seems to respond to the marketplace. Quoting then Secretary of Economic Affairs George S. Kariotis:

If we don't provide trained people, those companies will go to the Sun Belt and other places where they can get skilled workers.

The article noted:

Perhaps Massachusetts' move to meet business halfway is the result of hard-earned experience: 20 years ago much of the states textile industry pulled up stakes and moved South.

In addition the authors stated:

...[W]hile BSSC funds go only to educational institutions, the institutions must have a partner in the business community to qualify ... BSSC's placement rate at this stage is approximately 70%....

While Lee and Zemke wrote that JTPA would be nothing more than the much maligned CETA with a new name, they saw the

Massachusetts program as a way to create a workable partnership between the public and private sectors. It would seem the key words are "workable partnership". Federally run programs all carry a "made in Washington" label, with CETA officials making all of the decisions. The emphasis at Bay State is to promote collaboration in the planning and administrating of the programs.

Michael Harold's article in the October 6, 1983 issue of Guidepost also praised the Bay State Skills Corporation.

An economic idea ... in Massachusetts ... does address ... the problems of matching unemployed workers with positions that ... require highly specialized skills ... Its basic purpose is to award grants to educational institutions which link up with one or more private companies and Together train people for jobs in high-growth fields. (pp. 1 & 9)

The emphasis is mine, but again note that the training is a collaborative effort with industry and education joining forces. Further Susan Moulton, executive director of BSSC, was quoted as saying that it is based on the Japanese model of reinforcing lead and high growth industries. In effect, she was noting the difference between the Chrysler bailout, government helping a failing industry, and Bay State Skills Corporation which gets involved with leading industries.

An agency newsletter defines that Corporation's *raison d'etre*:

As long as government compensates its failing industries, it can at best merely slow the rate of economic stagnation American managers have long complained that when they go head to head with

Japanese and European competitors, the margin of victory is often the government support and cooperation they receive ... BSSC is one part of Massachusetts state government's commitment to generating the growth environment necessary to maintain technological preeminence.

Note, the role the government is to play is one of support for and cooperation with industry

to encourage and facilitate the formation of cooperative relationships between business and industry, labor, government, and education to develop and expand programs of skills training that are consistent with employment needs

Again note, the emphasis is on collaboration to promote economic growth. The newsletter further states that BSSC acts as a funding organization and a catalyst to the public-private training partnerships. Among its five listed features, the very first says that

business must be actively involved in planning, designing, operating, and monitoring education and training programs, so that these programs will meet their needs...

There is no statement which more clearly differentiates between the goals and objectives of BSSC and CETA/JTPA.

In the BSSC Annual Report of 1983, Secretary of Economic Affairs Evelyn Murphy listed the following information on Bay State's projects:

1. awarded \$3,224,147 to establish 77 new education and training programs
2. began to train 3,445 individuals for all levels of employment
3. became a partner with 260 Massachusetts companies and 72 educational institutions
4. became a model for public-private training partnerships replicated by other states (p. 1).

The data is amplified in detail in the report, but this summary helps to define the range of BSSC's involvement as a catalyst in promoting collaboration.

Pages 2 and 3 of the report describe the rationale for the agency. The following quotes will help illuminate why cooperation of industry, education, and government are critical to economic development:

Education has become a major part of our national agenda, and our ability to produce a skilled workforce for our growing companies has become a significant element of economic development. Colleges ... are being called upon ... to help produce the skilled workers we need.

Then noting the existence of federally funded training programs and their limitations:

... [T]he new JTPA ... has the primary responsibility to serve the social and economic needs of the disadvantaged population, rather than direct the needs of the private marketplace.

The report cites why education needs outside support and what is meant by private sector participation:

Institutions of higher education are chartered to educate for the long term. With limited dollars and changing demographics they cannot always rapidly respond to the short term needs of the marketplace; they need help ... The Corporation requires that companies participate financially and programmatically in each grant by giving staff time and expertise or equipment or space or any number of contributions which can make the program ... responsive to industry's needs.

This data reinforces the Lee/Zemke article in Training, namely that one of the reasons BSSC appears to be succeeding, whereas CETA did not, is the fact that the private sector

which is creating the jobs is also actively involved with the colleges and other institutions conducting the training.

Pages 10 and 11 of the Annual Report describe how BSSC can promote collaboration between industry and education from the start up phase of a corporation through the life cycle of a company to plant closings. Nevertheless from their literature, it appears that the agency sees itself as the cutting edge for new ideas and new industries. BSSC literature seems to emphasize that it is the catalyst in uniting industry and education in training today's workforce in knowledge based industries.

Pages 22 and 23 describe the BSSC Grant-in-aid process with a note that the grants are awarded on a competitive basis and that all proposals are reviewed by the staff and approved by the Board of Directors. A school and businesses team up for a training program before the school or training institution even obtains a Request for Proposal package. BSSC monitors the programs to ensure training goals are achieved and that graduates are placed in appropriate employment. The agency also maintains contact with the private sector partners to gauge their involvement and their view of the program's progress toward its goals. The monitoring of the program and particularly, the continual contact with the private sector partners are ways to ensure that business plays an important part in the process.

An outside evaluation of Bay State Skills Corporation

was conducted by Abt Associates of Cambridge, Massachusetts. The report entitled Business-Training Partnerships in Action: An Evaluation of the BSSC Program was presented in two parts, the first on March 15, 1983 and the second (which included Appendices to the Final Report and Project Case Studies on March 22, 1983.

While the report is extensive, there were some significant findings which I will highlight:

1. BSSC's 50/50 matching program is an innovative ... model for achieving economic development and employment objectives ... There is potential for expansion, particularly if the economy improves. Such program expansion is desirable for the Commonwealth's economy. (pi)
2. BSSC programs are responding to employer needs for training and are benefiting from strong employer support. Most employers judge the program a success thus far and would recommend it to others ... (pii)
3. The BSSC has, to date, clearly been successful in producing closer, new and probably enduring working relationships between Massachusetts' businesses and training/education institutions. This success has been accomplished in spite of a worsening economy in the past two years which has affected employer demand for additional trained personnel and occasionally the capability to follow through on commitments to local BSSC-funded programs. (piii)
4. Fully 43 percent of the 50/50 matching program employers in this sample had not had a prior relationship with the education or training institution. Overall, among the 20 sample programs, 60 percent involve new relationships. Another 20 percent have expanded, redefined, or intensified a former contact into a focused training program. (piii)
5. Employers and grantees alike are hopeful of continuing to work together after the grant. A

strong majority of employers and grantees would recommend the program enthusiastically. Preliminary results show that there is a good reason for enthusiasm. (piii)

6. Early placement statistics are too partial to interpret at this point. Data from four programs show that 88 percent of completing trainees have been placed, with training-related placements at a rate of 73 percent. Dropouts from training in these programs have accounted for about 15 percent of beginning trainees. (piv)
7. A majority of employers have formed new relationships or cemented previous relationships with training/education institutions. In almost half the cases, through BSSC, employers are involved in a public-private training venture for the first time. A clear majority of all employers, including those newly initiated to the public/private arena would recommend such skills training ventures to others. (pv)

The design established by BSSC is a very solid one which has the ability to be applied to a variety of occupations, institutions, employers, and conditions both in Massachusetts and other states. No program in the sample is so unique that it could not be replicated. When replicating such programs, the following considerations should be understood:

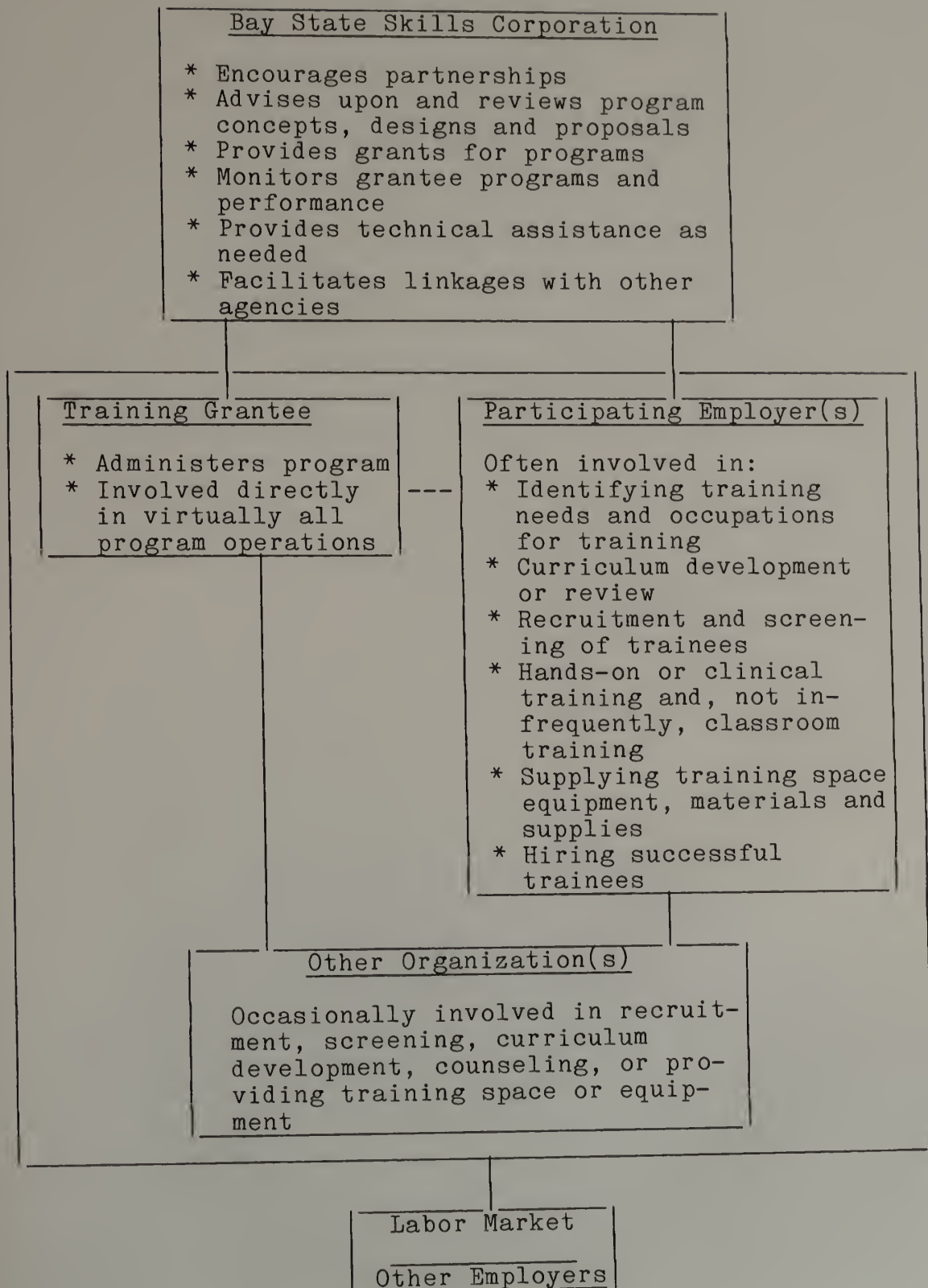
- Participation by a group of employers provides a broad and stable base of program support. On the other hand, working with one employer offers the potential to provide tailored training and makes coordination a relatively simple task.
- The programs which have sought to serve "the most in need" have experienced a higher rate of employer and/or BSSC dissatisfaction, have undergone more changes during implementation, and have had relatively more problems than other programs in meeting enrollment and/or placement goals.
- Both the 50/50 matching and targeted individuals models have worked well for displaced worker

populations, specifically people with proven work experience but with skills no longer in demand. These workers do not suffer from the lack of savvy about the world of work that makes their disadvantaged counterparts less desirable to many employers. (pp. v-vi)

THE BSSC MODEL

Emerging from the discussion of roles is a clear, though generalized, picture of the BSSC program model. Implicit in the model are the various key policy parameters of BSSC 50/50 matching programs:

- employer match and involvement in program activities;
- no limitation to disadvantaged trainees;
- funding different levels of training or retraining;
- and
- funding training in a variety of occupations and geographic regions of the Commonwealth;
- funding a wide variety of smaller programs, rather than a few large ones. (p. 15)

BSSC MODEL

Continuing with their evaluation of BSSC programs, the report noted that BSSC programs have been very successful in providing training in demand occupations. This success has been enhanced by the strategy, especially effective in difficult economic times, of funding many relatively small training programs in different occupations and in various regions of the Commonwealth. This increases the likelihood that pockets of severe geographic or employer specific demand can be met -- demand which is less vulnerable to general statewide or national changes in the economy.

The frequency of pretraining employer commitments and/or strong intentions to hire successful trainees is evidence of effectiveness, as are preliminary placement statistics. Moreover, in the opinion of most participating employers (90 percent), the skills acquired by trainees will be "very enduring" in increasing their competitiveness in the job market. BSSC (and particularly the 50/50 matching program) is very effective in helping employers meet their labor market demand and, thus, in serving economic development objectives in the Commonwealth. (p. 18)

HIRING COMMITMENTS AND INTENTIONS

Although BSSC does not require them, employer hiring intentions and commitments (keeping in mind the current likelihood that employers will in fact be able to honor them)

are impressive, particularly among sample 50/50 matching programs. In six of the thirteen sample 50/50 matching programs (three other programs mainly provide advanced or upgrading training to participants who are already employed), employers have signed commitments to hire successful program trainees. In three other cases, employers have expressed strong intentions to hire graduates, and in each case there is a likelihood that they will. Even in the four programs where no commitments or strong intentions to hire were expressed, there is some likelihood that at least some graduates will be hired by participating employers. (p. 21)

Of particular interest in this report, are the placement statistics for the ABCD program since the two Boston banks and the trainees hired from this program were a part of the interview/questionnaire for this dissertation. The ABCD training in accounting, bookkeeping, clerical and related skills for two Boston banks has completed several of its seven planned training cycles. Of the fifty nine trainees who had completed cycles as of the end of December, 1983 thirty nine (sixty percent) had been placed with participating banks. Two others had been placed in non-bank positions; one held a temporary bookkeeping job, and one was "on hold" due to maternity. The other sixteen were awaiting openings at the banks or awaiting job interviews ... (p. 23).

Today BSSC prefers to fund programs with multiple employers. However, when this assessment was conducted, BSSC

programs involved one employer or many. Note that one of the single employer's cited, AVCO, was another of the companies studied in this dissertation.

SINGLE EMPLOYER VERSUS MULTIPLE EMPLOYERS

The BSSC program design can involve one employer or many. The sample programs include matches with one employer in thirty percent of the cases, with a majority, however, involving groups of employers. Employer groups range from two participants to fifty five (University of Massachusetts, VIP). In general, either arrangement can work well, but each has different strengths. Participation by a group of employers provides a broad and stable base of program support. With such a group, grantees have a pool from which to request contributions, and therefore diminish potential burden

Working with a single employer, such as the Greater Lowell Regional Vocational Technical School (GLRVTS) has done with AVCO ... offers the potential to provide tailored training to the needs of one employer and further makes coordination a relatively simple task for the grantee. However, unless hire commitments are absolutely firm, the program runs the risk of having a narrow base of support which could be eroded by declining economic conditions, personality clashes, or inappropriate assumptions arrived at

by too few actors. To avoid this risk, GLRVTS, aware that AVCO might not be able to absorb all graduates of the plastics technician course, sought to involve the University of Lowell to provide training experience that would prepare trainees not only for AVCO positions, but also, if necessary, for positions in other local firms needing similar, but not identical skills. (pp. 33-34)

SERVING "THE MOST IN NEED"

The philosophy of some of the programs, both 50/50 matching and targeted individuals, is to serve "the most in need" or participants who are most disadvantaged in seeking employment. While such a goal is a worthy one, it is not necessarily complementary to the BSSC mandate to serve employers. Nor is it cost-effective in slack economic times, since such individuals often need longer and broader based training. These programs have experienced a higher rate of employer and/or BSSC dissatisfaction, have undergone more changes during implementation, and have had relatively more problems than other programs in meeting enrollment and/or placement goals.

ABCD, for example, has had a continuing problem satisfying participating banks' expectations about the employability of trainee candidates. They have also had trouble enrolling candidates who were qualified for both CETA

and bank employment demands, and have therefore had to change their plan from running eight cycles (of twenty five each) to running seven (of twenty each) in order to attempt to meet project performance goals. Fully twenty four percent of enrollees in the last cycle dropped out -- a very costly loss. (p. 35)

F. PERSONNEL SUPERVISION

One of the reasons Bay State Skills Corporation wants the private sector partners involved in the training process is to ensure that trainees will find employment. Once employed, do their supervisors find that BSSC trainees perform their assigned tasks as well as a company's other employees? A reading of literature of personnel supervision will provide some guidelines.

Richard Barrett in Performance Rating (pp. 33-34) defined PERFORMANCE as how one goes about one's work i.e. working hard, following instructions, planning, and taking responsibility. According to Robert Mathis and John Jackson, University professors and authors of Personnel: Contemporary Perspectives and Applications (p. 283) PERFORMANCE APPRAISAL is determining how well employees do their jobs and communicating that information to them.

Pfiffner and Fels, in The Supervision of Personnel;
Human Relations in the Managment of Men (pp. 275-276)

describe the role of the supervisor vis a vis his subordinates:

... that the quantity and quality of production is inextricably bound up with a supervisor's ability to relate to his work group. In the superior-subordinate relationship, conversation is not restricted to only sweet words of praise for a job well done. The supervisor's job ... requires telling subordinates ... they need to improve. The subordinate ... cannot develop as an employee without having some bench mark by which to measure.

Since it is the responsibility of the supervisors to evaluate employee on the job performance, a supervisor is in the position to determine whether BSSC trained employees perform their job as well as other employees.

Paul Hersey and Kenneth Blanchard in their book Management of Organizational Behavior, described a management style that appears to be in place at Digital, based on interviews conducted by this writer at Digital facilities in Bedford, Massachusetts and Nashua, New Hampshire:

What a manager expects of his subordinates and the way he treats them largely determine their performance and career progress [A] unique characteristic of superior managers is their ability to create high performance expectations that subordinates fulfill (p. 191)

The authors later state:

[I]n attempting to help an individual or group mature ... a leader must first delegate some responsibility to the follower(s) and then reward as soon as possible (p. 195)

Stephen Robbins discussed a similar theme in Personnel: The Management of Human Resources:

... [J]ust because a person has ability does not

ensure that he will perform satisfactorily on the job. The other critical dimension is motivation [M]anagers ... should be interested in ... getting the job done Performance is a vital component of expectancy theory [W]e must be concerned with the linkage between effort and performance, and between performance and rewards. (pp. 218-219)

One note of interest is that a high percentage of employees who underwent training through a BSSC program for two Boston banks received promotions based on their job performance, while the remainder have received periodic salary increases.

In the area of job satisfaction and employee behavior, Misters Herbert Chruden and Arthur Sherman discussed data based on an analysis of twenty studies of job satisfaction and employee behavior:

... [T]here is a consistent negative correlation between measures of job satisfaction and turnover. The higher an employee's satisfaction, the less likely resignations will occur ... The relationship between job satisfaction and absenteeism is also negative [T]he employee with high job satisfaction is less likely to be absent frequently, particularly for unexcused reasons. (p. 260)

They cited another study which found that there was no simple relationship between job satisfaction and job performance.

However, the report noted

The quality of the employee's performance may result in the receiving of rewards that provide satisfaction [M]anagement thus effects satisfaction through appropriately structuring the rewards and the ways that they will be viewed by the employee. (pp. 260-261)

The questionnaire distributed to BSSC graduates included a section on job satisfaction and job dissatisfaction.

In more recent book of management by Kenneth Blanchard and Spencer Johnson, The One Minute Manager (p. 39), the authors describe more succinctly the role of the manager: "Help people reach their full potential, catch them doing something right." Again, the manager, through his/her role of evaluating subordinates, knows whether BSSC trained personnel handle instructions as well as other employees. He/she can compare whether BSSC trained employees handle their daily routine as well as non BSSC trained personnel.

As William McGehee and Paul Thayer state in Training in Business and Industry

In a company employing approximately 6,000 workers, 13.5% of the employees were transferred to jobs requiring some training, and 9.5% were promoted to jobs requiring ... extensive training. (p. 10)

Therefore, it is the supervisors who know if BSSC trained employees receive the same rate of promotion as personnel in similar positions.

In summary, this material provides the reader with literature on collaboration and personnel supervision as well as a comprehensive description of Bay State Skills Corporation. This material also provides the theoretical framework for the questions that were asked in the interviews as well as those found in the questionnaire. Both instruments are in the section on methodology along with literature on qualitative research.

CHAPTER III

METHODOLOGY

A. PROCEDURES

A survey inquiry was used at seven companies to determine the success of the Bay State Skills Corporation training program, the number of those trained who were still employed, and the on-the-job performance of the graduates of the BSSC programs.

The companies were chosen using the following criteria: To minimize the need for travel, the researcher selected companies located within a fifty mile radius of Boston. In order to obtain a more complete picture, companies were chosen in which, trainees hired were representative of the range of BSSC job training contracts, from unskilled people to advanced training programs. Finally in order that employer perception of the on-the-job performance of BSSC trained employees be more meaningful, the companies had to hire a minimum of five trainees who remained in their employ for at least six months.

Eleven administrators of those companies were interviewed. These people had been involved with the training program, were the personnel directors who had hired the trainees, and/or were their current supervisors.

Standardized open-ended interviews were conducted as one method of gathering data. In some interviews, follow-up questions were asked to elicit a more complete response.

Information on former trainees' perceptions of the value of BSSC training was obtained by means of a questionnaire sent to Bay State graduates hired and still employed by the seven companies. All the companies had policies forbidding revealing addresses, so they forwarded the questionnaires to their employees. Sixty-five percent of the questionnaires were returned.

B. SURVEY INSTRUMENTS

The literature on personal evaluation was essential in helping me structure the interview questions. Organizations exist to achieve objectives, and the degree of success individual employees have in reaching this end is important in determining overall organizational effectiveness. The achievement of objectives is a definition of performance and thus a method of evaluating personnel. (Stephen P. Robbins, Personnel: The Management of Human Resources p. 217)

The instrument used was open-ended (i.e. the questions were designed neither for a simple yes-no response nor for a graduated response pattern of choices such as 1-5). The researcher chose this method after reading at random a dozen books on qualitative research from Dr. Arthur Eve's syllabus

for EDUC P861 Case Studies in Educational Administration. All the authors believe this method to be superior to a standardized instrument because it enables the interviewee to provide a wider, richer and more detailed response to the questions.

The following are some supportive comments for qualitative research and data analysis:

"[F]ield work gives us information on people acting under constraints....[F]lexible procedures allow us to test our conclusions repeatedly and in a variety of ways" (H.S. Becker p. 62)

"...[O]pen, long, familiar questions are expected to obtain the best reporting...."(Bradburn, Sudman & Associates p. 18)

"...[O]ne of the virtues of good interviewers is that they are flexible and can appropriately adjust their behavior and speech to situations they find themselves in...." (Bradburn, Sudman & Associates pp. 171-172)

quoting Erickson (1977)

"...[Q]ualitative research...describes key incidents in...relevant descriptive terms and places them in some relation to wider social context using a key incident as a concrete instance of workings of abstract principles of social organization." (Cook and Reichardt p. 36)

"...[A] major characteristic of participant observation and interviewing is its non-standardization." (Doby, Suchman, Francis, McKinney & Dean p. 225)

"...[O]pen interview by opening with factual non threatening questions....[I]nterview should stick with fruitful areas once they open up even if it means sacrificing other subjects...[I]nterviewer should try to re-direct interview to more fruitful areas when useful data is not emerging ... [I]nterviewer should wind up interview before respondent becomes tired [I]t is risky to stretch a regular interview over forty five minutes." (Doby, Suchman, Francis, McKinney & Dean pp. 240-249)

"Ask HOW? not WHY? Avoid asking people why they have done something when you really want to find out how it came about ... Why questions receive a justification of currently

available vocabulary of motives." (Habenstein p. 38)

"...[I]nterviewer can do much to establish tone of interview by clarifying at the outset the purposes of the inquiry and by defining his role as well as that of interviewees," (Merton, Fiske, and Kendall pp. 171-172)

"...[I]nterviewer also explains that he is not involved in the situation to be discussed" (Merton, Fiske, and Kendall p. 173)

"Researcher believes everything and nothing simultaneously [N]od yes to every statement ... a sign of understanding not agreement" (Schatzman and Strauss p. 69)

"[O]ver decades ... formal interview with standardized questions is not particularly useful to field researcher; requires variation and nuance lost in questionnaire." (Schatzman and Strauss p. 72)

"...[N]o more important tactic, than to communicate that informant's views are acceptable and important." (Schatzman and Strauss p. 74)

"...[L]onger interviews are preferable, can be extended a few minutes by closing note book or shutting off the tape ..." (Schatzman and Strauss p. 84)

"...]Q]ualitative data is exceedingly complex and not readily convertible into standard measurable units of objects seen and heard [D]ata will vary ... look for linking material ..." (Schatzman and Strauss pp. 109-110)

In the Focused Interview by Merton, Fiske, and Kendall, the authors stated that the interviewer should clarify at the outset that the interviewees are being asked to provide data which can be analyzed to yield uniformities.

Having clarified that purpose, the interviewer should have responses that enable such an examination. H.W. Becker in Part 5: "Data Analysis and Presentation of Findings" in his book Sociological Work, stated " ... [W]hat is expected is that the conclusions of one neither explicitly nor implicitly contradict the other..."

Among the questions asked the interviewees were whether their companies were involved with the training program and whether they found the training helpful in attracting workers. The executives were asked from their perception how effectively BSSC trainees performed their jobs compared to other employees. The concluding question was whether their companies would hire other BSSC graduates.

The following is the instrument used for the executive interviews.

THE INSTRUMENT

DATE

COMPANY

PERSON INTERVIEWED

POSITION

1. Were you involved with the Bay State Skills Corporation training program? If so how?
2. Was the company involved with the training program? If so how?
3. What prompted the company to participate in the training program?
4. What prompted your company to hire some of the graduates?
5. Has the company found the training helpful in attracting workers?
6. COMPARISON QUESTIONS
 - a.) How many BSSC trained employees are still working

for your company?

- b.) How do BSSC trained employees compare with employees trained by your company or other training agencies?
 - c.) How well do BSSC trained employees handle instruction compared with non BSSC trained personnel?
 - d.) How well do BSSC trained employees handle their daily routine compared to non BSSC trained personnel?
 - e.) Do BSSC trained employees receive the same rate of promotions as personnel in similar positions?
7. Would you recommend that your company be involved with future BSSC training programs?
8. Would you hire other BSSC graduates?

Regardless of the type of program or anticipated decision, evaluators should strive to use multiple measures from more than one source.

When the same implication is drawn from a variety of sources, the evaluation will be received with greater credibility ... The use of multiple sources of information is one of the basic characteristics of valid and useful evaluations. (Posavac and Carey Program Evaluation: Methods and Case Studies pp. 53 & 72)

Having prepared a qualitative instrument for person to person interviews with corporate supervisors of BSSC trained personnel, the researcher also prepared a quantitative questionnaire for personnel themselves to help validate the research.

The questionnaire distributed to the graduates of Bay State Skills Corporation training programs has five parts. Part I, Descriptive Information, includes questions on such

issues as sex, age, race, and employment history. Part II consists of questions on the training program - how they learned of it, how the graduates would rate the programs, and the services that the programs provided in addition to classroom instruction. Part III has questions on job description; Part IV pertains to job satisfaction; and the last part is a check list of future plans. Wherever there is the option to check off "other", respondents were asked to specify. The following is the questionnaire.

QUESTIONNAIRE:

Directions: Place an X in the correct space.
For some questions you may prefer to
write your response in the space
provided.

PART I DESCRIPTIVE INFORMATION

1. What is your sex?
 Male Female
2. What is your age category?
 18-24 25-29 30-49 50 and over
3. What is your race?
 White
 Black
 Hispanic
 Asian
 American Indian
 Other (please specify) _____
4. What was your source of income prior to enrolling in the
educational-job training program?
 I was employed at a higher paying position than I
am now
 I was employed at a lower paying position than I
am now
 I was in another job training program
 I was getting unemployment compensation

_____ I was on welfare

_____ Other (please specify)

5. What was your highest level of education prior to enrolling in the educational-job training program?

_____ Grade 9

_____ Grade 10

_____ Grade 11

_____ Grade 12

_____ Some College

_____ College Graduate

6. How long have you been employed by this company since completing the educational-job training program? _____

7. Have you had a pay raise since you completed the training?

_____ Yes _____ No

If yes, please state your salary at the completion of the training and your current salary _____

PART II QUESTIONS ON THE TRAINING PROGRAM

1. How did you learn about the training program?

_____ Advertisement

_____ Employer

_____ Church/School/Social Agency

_____ Friend/Neighbor/Relative

_____ Social Worker/Welfare Office

_____ Other (please describe) _____

2. What made you apply to the program?

_____ To get a better job

_____ To get a job

_____ To increase job skills

_____ Other (please describe) _____

3. How would you rate the training program as compared to other job preparations you have had?

_____ As Good _____ Better Than _____ Not As Good

4. How would you rate the teaching as compared with any other kinds of teaching you have had?

_____ As Good _____ Better Than _____ Not As Good

5. How well did the educational-job training program prepare you for the first job you had after the training?

_____ Well Prepared _____ Prepared _____ Poorly Prepared

6. What kinds of help did the educational-job training program provide in addition to classroom instruction?

Check (X) Whatever Applies

_____ Tutoring

_____ Personal Counseling

_____ Resume Writing

_____ Job Interview Techniques

_____ Employment Information with Specific Companies

_____ Nothing

7. If you had not had this training, do you feel you would

have gotten your present position with this company?

_____Yes _____No

PART III JOB DESCRIPTION

1. What position were you hired for? _____

2. Please describe what you did. _____

3. What is your current position? _____

4. Please describe what you do. _____

5. Is there an opportunity for changing positions within
the company?
_____Yes _____No
6. Is there an opportunity for promotion with the company?
_____Yes _____No
7. Do you need additional education to be eligible for
promotion within the company?
_____Yes _____No

PART IV JOB SATISFACTION

1. What do you like most and least about your job? _____

2. What do you like most and least about the company? _____

3. What do you like most and least about your fellow
workers? _____

PART V FUTURE PLANS

1. What do you see yourself doing in five years?
- _____ Remain at my current position
- _____ Seek a similar position at another company
- _____ Prefer a different line of work with this or
another company
- _____ Seek additional educational training to improve
chances for promotion within this company
- _____ Return to college full-time for a degree
(Please briefly describe the purpose)
- _____
- _____ Retire

C. PILOT TESTING

The executive interview questions were reviewed by both behavioral faculty and administrators with supervisory responsibility, including the president of the college, for possible questions as well as for clarity and structure. Several recommendations on wording and sequencing were adopted (e.g. using an a to e format for Question 6 regarding BSSC graduates on-the-job performance).

The questionnaire was reviewed by five behavioral and developmental faculty colleagues for language clarity. Also the questionnaire was pilot tested by seventy one students in five groups. Fifty three were full time day division students who were nearly all in the 18-24 age range category, with most of them holding part time jobs. The remaining students were enrolled in the evening division. Most of them were middle aged women who worked full time and had husbands and children at home. After reviewing their responses, the researcher modified some of the language and sequencing of questions. The present language was reviewed again by two of the above mentioned behavioral faculty.

The changes and recommendations incorporated in the questionnaire were:

1. Keep the wording simple.
2. Where there were only three or four responses, place the choices in horizontal order.

3. Change Amerindian to American Indian.
4. Use PLEASE before SPECIFY.
5. For consistency use the phrase EDUCATIONAL - JOB TRAINING PROGRAM when referring to the training.
6. The wording of Question 7 in Part I.
7. In Part II changing the responses to questions 3 and 4 to AS GOOD, BETTER THAN, NOT AS GOOD.
8. In Part II changing the wording of questions 4 and 5.
9. In Part II changing the entire wording in Question 6 from "What support services did the training program provide? to "What kinds of help did the educational-job training program provide in addition to classroom instruction?"
Check whatever applies.
10. In Question 6 the option of NOTHING was added to the choices.
11. Consolidating PART IV from 6 questions to 3 questions.

D. COLLECTION OF THE DATA

1. The Interview

Mr. Christopher Brennan, Assistant Director of Bay State Skills Corporation, offered to send letters of introduction

for me once I had selected the facilities that fit the previously stated criteria. I spent five days (January 17, 23, 31, February 7, 25, 1985) reviewing the files at the BSSC offices at 101 Summer Street in Boston with a Staff Consultant, Ms. Ro Adrienne Davidson. In addition, I spoke with other staff consultants who, like Ms. Davidson, has been involved with BSSC contracts. Bay State allowed me complete access to all their documents, including providing me with a personal copy of the Abt Evaluation. After the staff prepared and submitted its recommendations for the BSSC Board of Directors meeting in May of 1985, the letters of introduction were sent on July 10, 1985, with copies mailed to me at my home address (see Appendix). I waited one week before making telephone calls to arrange appointments for the interviews.

The first person I contacted was an official at New England Art in Abington, Massachusetts. He did not think a person-to-person interview was necessary, so I conducted the interview by phone on Wednesday July 17, 1985 from 9:05 - 9:35 A.M. I sent him a letter thanking him for his time on July 18, 1985 (see APPENDIX). The remaining nine individuals agreed to be interviewed in their offices. The interviews were scheduled as follows:

1. Veterans Hospital - Boston, MA; Wednesday 7/24/85 at
11 A.M.
2. Digital (documentation) - Nashua, NH; Friday

7/26/86 at 2 P.M. and 3 P.M.

3. Bank of New England - Boston, MA; Thursday 8/1/85 at 9 A.M.
4. Digital (purchasing) - Bedford, MA; Friday 8/2/85 at 9 A.M.
5. Gould, Inc. - Andover, MA; Monday 8/5/85 at 2 P.M.
6. AVCO - Wilmington, MA; Tuesday 8/6/85 at 11 A.M. and 12:30 P.M.
7. Shawmut Bank of Boston - Boston, MA; Thursday 8/8/85 at 2 P.M.

Again, since the weight of the reviewed literature supported the open-ended interview for more accurate responses, that was the method employed. The interviews were conducted on an "in and out" basis of thirty-sixty minutes in length. With the permission of the interviewees, seven of the interviews were taped. The two interviews at AVCO were not taped; that particular facility is involved with defense contracts, therefore, for security reasons, company policy forbids on site tape recording and photography. All the interviewees were assured of the confidentiality of the interview. There was an analysis of the meetings both for what was said and for any non-verbal clues that appeared to the interviewer to support or modify the verbal responses. Impressions of the interviews were recorded as soon as possible so that the images were still fresh in the interviewer's mind.

2. THE QUESTIONNAIRE

The companies selected had hired one hundred and seventy five graduates of BSSC training programs. Of that number, one hundred were still employed by those firms. As mentioned earlier, all the companies agreed to distribute the packet to their employees. The interviewees were shown the material which included: a.) a letter to each of the graduates explaining the purpose of the questionnaire (see Appendix), b.) the questionnaire, and c.) a self-addressed stamped envelope. The packets were given to each interviewee at the conclusion of the interview. They handled the distribution and, although this was the summer vacation period, I began receiving completed questionnaires within a week after they were distributed. The mailings slowed to a trickle after Labor Day with the last one arriving in November while the data was being entered in the computer. Although the rate of return varied from company to company, sixty-five BSSC graduates completed the questionnaire for a response rate of sixty-five percent.

E. DATA ANALYSIS

The results of the data gathered through interviews and questionnaires were handled in the following manner:

1. Transcribing the Interviews

The seven tape recorded interviews were transcribed verbatim. The work was tedious and time consuming. I spent the greater part of two weeks in August transcribing. At that point I decided to hire a stenographer to do the work. She transcribed and typed all the tape recorded interviews. I checked her copies with the tapes to ensure that the work was accurate. In addition, she typed my notes from the telephone interview as well as the memoranda from the two interviews at AVCO. With the exception of one interviewee who moved to the Pacific northwest, all the interviewees were sent copies of the transcriptions and were informed that if they wished to make corrections to please return them within two weeks (see Appendix).

2. Coding the Interview Information

It is important that the evaluator not pretend that all findings are equally credible.

The writer bears some responsibility to help the reader sort out the strengths and weaknesses of various parts of the description and analysis. Qualitative analysis does not have the parsimonious statistical significance tests of quantitative analysis ... in qualitative analysis the analyst must make judgments that provide clues for the reader as to the writer's belief about variations in the credibility of different findings ... (Alkin, Daillak, and White p. 343).

Michael Patton offers a similar opinion in his more recent book Qualitative Evaluations Methods. The writer

must have faith in his own analysis and must present data so others can verify and validate

the findings. Look for rival and competing themes quickly - failure to find strong supporting evidence for alternative explanations increase confidence in the original. (pp. 326-327)

The data to be coded in the material under discussion are the seven transcribed interviews, the telephone interview and the two interviews based on the researcher's note taking.

Construction of a coding frame for many open-ended questions is usually an eclectic process. It is in part derived ... from the actual responses to the questions in the survey ... once a coding frame has been established for a study, filling in the data matrix is a matter of applying the frame to the observations. (Selltiz, Wrightsman, and Cook pp. 442-443)

A set of response categories was developed for each question listed in the interview instrument. To present a wider range of options in the groupings, the option of "other" and "not applicable" were added. Numbers were used for the set of code designations. To aid in placing the data in the proper categories, coding guidelines were developed for the questions. That, and a complete interview coding form may be found in the Appendix.

To ensure the objectivity of the coding process, a colleague teaching in the behavioral sciences agreed to act as second coder for the interviews. The codings were done independently. The second coder was given a brief overview of the study. "Checking reliability in the coding process itself is also vital [D]ifferent coders should classify the same material in the same way." (Selltiz et al p. 445)

3. Analysis of the Questionnaire

Since a normal response rate to questionnaires is ten to fifteen percent, I expected to receive ten to fifteen returns. With that limited number I would have analyzed the data on my own. As I received sixty five completed questionnaires (a sixty five percent response rate) the data was entered into and analyzed by a computer. The system used was The Analysis Management Programs.

To fit the parameters of the program, the format of the questionnaire was converted to forty-four variables. Where responses to questions were descriptive, and would have a range of responses, the programmer and researcher consigned responses to categories. For example, PART III questions 1 and 2 correspond to variable 26. Thirty-three of the respondents worked for two Boston banks. Although few of them had the same job title, using the description of their work, the programmer and researcher classified most of them as clerks. The response to question 3 in PART III was used for variable 27, "Was it a job change?". From the respondent's description of their current position and in some cases a look back at their current salary, the programmer and researcher determined whether an individual received a promotion (variable 28).

The three questions on job satisfaction were converted to six variables (32-37) alternating "what do you like most..., what do you like least...". Their responses were so

varied that the programmer and researcher categorized them under such headings as ATMOSPHERE, BENEFITS, CHALLENGING, and SELF PACED (some of the categories in variable 32 "What do you like most about the job?").

The computer run consisted of 1.) Survey Results by company and 2.) a Comparison of Companies "B" and "G" - the two Boston Banks involved in the joint training program sponsored by BSSC and the Boston based social agency, ABCD. In addition T tests were run on the following:

1. Sex and salary with equal time on the job.
2. Race and salary with equal time on the job.
3. Sex and salary by company.
4. Pay rates for companies "B" and "G".

Correlation tests were run between pay and time on the job by education. Analyses were run on previous salary, present salary, and time on the job.

An analysis and interpretation of the data obtained from the interviewes and questionnaires will be found in the next chapter.

CHAPTER IV

FINDINGS

This chapter focuses on two aspects of the study: 1.) an analysis of interview responses of the administrators of the eight companies which hired graduates of Bay State Skills Corporation training programs concerning graduates on-the-job performance; and 2.) an analysis of the employees' questionnaire regarding their perception of the Bay State program, as well as their attitudes about their employment.

ANALYSIS OF INTERVIEW RESPONSES: THE FIRST FIVE QUESTIONS

The ten interviews were conducted in July and August of 1985. With the exception of the two interviews at the AVCO facility in Wilmington where, due to defense work, taping was not allowed, the interviews were recorded.

Seven of the interviewees had been involved with the Bay State Training program; three had not. The responses regarding how they were involved were:

- a.) conducted on-the-job training in the clinical area
- b.) "I helped with the conception," also oversaw the training and selected the trainees
- c.) "I set up all training programs and set up manpower planning."
- d.) "I was on the advisory board at Bentley College

Technical Writing Certificate Program."

- e.) "I was involved with the start-up of the ABCD program in 1981."
- f.) "I coordinated interviews, ... participated in the interviewing process, ... helped to design ... that process, ... spent time ... in meetings, ... status reports with BSSC, ... identifying changes ... to the curriculum."
- g.) looked over the training program.

Seven of the eight companies were involved with the training program. The interviewees were asked to state how their companies were involved with the training. Their responses were:

- a.) "the clinical location training for the last two months of the program"
- b.) "the company provided equipment, machinery, supplies, on-the-job training, technical instruction on Saturdays"
- c.) "in addition to the advisement, also took interns into our technical writing department for several months"
- d.) "on-the-job training for interns"
- e.) "primarily in equipment"
- f.) "paid the administrator's salary, donated \$25,000.00 in cash, donated equipment and renovated a classroom"
- g.) "contributed the funding for a second classroom, as well as the equipment and textbooks; provided bank personnel who conducted orientation programs."

The third question was: "What prompted the company to participate in the training program?" Following the recommendations of the literature cited in chapter three, the responses were placed in four categories. Several of the

administrators cited more than one reason for their company's participation. The results were as follows:

- a.) eight people cited a labor need
- b.) two people cited a lack of a company training program
- c.) two people said that their companies became involved by referral
- d.) four people saw their company involvement was one of social responsibility

As the totals show, the primary reason most of the companies participated in the training program was a manpower need. Several administrators suggested there were labor shortages in their work area. That problem was a principle reason for the establishment of Bay State Skills Corporation.

Question four was: "What prompted your company to hire some of the graduates?" The coding procedure allowed for six categories and again some management personnel gave more than one reason. The responses were:

- a.) one person cited an agreement with BSSC
- b.) three people said that the program was cost effective
- c.) one person suggested that the company was pleased with the internship program
- d.) six people cited labor needs
- e.) one person came under the other category as that company was involved in an in-house upgrading of employees
- f.) no response fit the not applicable category

Again, as in the previous question, the primary reason for

hiring graduates of BSSC training programs was labor needs.

The fifth question asked: "Has the company found the training helpful in attracting workers?" The responses were an unanimous vote of support for the Bay State training programs. Five of the interviewees gave an unqualified yes; three respondents qualified their yes, saying, it depended on the manpower needs of the company or the market demands.

QUESTION SIX: THE COMPARISON QUESTIONS

Bay State Skills Corporation knows that 86% of the graduates of the programs they fund, are placed in training related jobs. However, the Corporation had no long term job statistics or job performance rating on their trainees until this survey.

Question 6A asked "How many BSSC trained employees are still working for your company?" Of the 175 trainees hired by these companies, 100 of them or 57.1% are still on the job (See TABLE 1) and a substantial number of those trainees (as will be discussed later in this chapter) have received promotions to more responsible positions. (Nearly 82% of the Bay State graduates who responded to the questionnaire have been on-the-job for two years or more).

TABLE 1 (N = 175)

NUMBER OF BSSC TRAINED EMPLOYEES STILL ON THE JOB			
COMPANY	NUMBER HIRED	NUMBER STILL WORKING	% STILL WORKING
AVCO	34	20	60%
BANK OF NEW ENGLAND	45	22	49%
DIGITAL (BEDFORD)	2	2	100%
DIGITAL (NASHUA)	3	3	100%
GOULD	24	20	83%
NEW ENGLAND ART	10	2	20%
SHAWMUT	54	25	46%
VETERANS HOSPITAL	9	6	66.7%
TOTALS	175	100	57.1%

The second comparison question asked how BSSC trained employees compared with employees trained elsewhere. Six respondents said that they compared as well as other employees, two replied that they were better than employees trained elsewhere, and two did not have access to those employee evaluations.

Question 6C asked: "How well do BSSC trained employees handle instruction compared to non BSSC trained personnel?" Six supervisors stated that trainees handled their instruction as well as other personnel; one answered better than; and three did not have access to that information.

The next question asked "How well BSSC trained employees handled their daily routine compared to non BSSC trained personnel". Six administrators said that trainees handled their daily routine as well as non-BSSC trained personnel; two said that BSSC graduates handled their daily routine better than other employees; and two no longer had direct contact with BSSC people.

The last comparison question asked: "Do BSSC trained employees receive the same rate of promotion as other personnel in similar positions?" Four managers stated that BSSC trained personnel received promotions at the same rate as other personnel; four said that the rate of promotion for BSSC people was better than average; and two replied that they did not have access to that data.

In answering the four questions comparing Bay State people to other employees, all administrators said that BSSC people did as well as or better than other employees in comparable positions. No one responded that the BSSC trained people were not as good as other employees.

CLOSING THE INTERVIEW: THE FINAL QUESTIONS

After asking the comparison questions the researcher asked the ten managers if they would recommend that their company be involved with future BSSC training programs. They responded yes unanimously, seven of them without

qualification. The interviewees from the two banks involved in the ABCD/BSSC training program had the most qualifications. They expressed concern about the higher than normal rate of attrition. The Shawmut spokesperson said that in future training programs, the bank would want more say in running the day to day program.

The last question of the interview was: "Would you hire other BSSC graduates?" Again the responses were unanimously affirmative. Six managers gave unqualified yesses; four had qualifications. The latter said that if the quality of training was maintained or if the graduates possessed the necessary skills or ability for the job, they would be hired.

SOCIAL ISSUE QUESTIONS

While reviewing contracts in preparation for the interview, the researcher noted that some of the contracts had specified goals for attracting women, minorities and/or the unemployed. Some firms had high rates of attrition. During the interviews, some managers cited problems with employees from culturally deprived backgrounds. Therefore, the interviewees from those institutions (AVCO, the Bank of New England, New England Art, the Shawmut Bank, and the Veterans Hospital were asked questions concerning those issues. For purposes of coding and presentation of the data, the responses were consigned to three categories with some

companies offering more than one reason.

The companies (except the Veterans Hospital) were asked the reasons for and their success with hiring women, minorities, and the unemployed. AVCO did not meet the contractual goal for the groups mentioned. Both interviewees employed by that firm were asked about this failure. There responses were:

We tried to recruit at minority centers in Lowell and Lawrence, but got almost no response.

We had a high drop-out rate from women and people on public assistance. AVCO went all out to hire women, people on public assistance and minorities. Women don't want to be in this field. Transportation is a problem; there are no busses or trains, people need a car to get to work here.

The banks met their hiring goals for the ABCD/BSSC program. Both officers were asked if their banks participated in the ABCD/BSSC program because they did not have enough minority employees. The Bank of New England stated,

We haven't met our goals with our level of minority employees We ... believe for the company to be successful, it needs to be responsible to its community ... where the highest concentration of minorities live

The Shawmut officer replied, "We saw it as a way to reach the minority community and also to provide us with a much-needed source of labor." The New England Art Company representative cited the difficulty in attracting and keeping employees from

the economically depressed Fall River area because of a lack of transportation. The individual mentioned how five people who were hired were forced to quit when the person on whom they depended for a ride decided not to take the job.

In summary, the responses to the question regarding the reasons for and success of recruitment of minorities, women and the unemployed can be categorized as follows:

- a.) two company officials cited "minimal response to recruiting"
- b.) two company officials cited a need for minority employees
- c.) two company officials mentioned transportation problems
- d.) one management person said that women were uninterested in the occupation

The two banks and the New England Art Company were asked the reasons for their high rates of attrition. The Bank of New England officer stated,

...[T]he attrition rate is over 50%; the normal bank turnover is 25% [M]any left because of frustrated expectations; ... the bank did some miscuing as it related to our curricula.

The response by the New England Art representative was,

the company is located in Abington ... [T]hey (the employees) came from the Fall River area ... [M]ost didn't like the sixty mile commute; ... the shift starts at 7 A.M. ... many are dependent on others for commuting; ... most would have stayed if the company was located in Taunton

Shawmut's official said,

The rate was 55% The overall bank turnover at non-exempt jobs is 30% [M]any of them were not ready for work; ... single parents ... have to make babysitting arrangements; ... mostly a lot of women, they got ... overwhelmed ... decided it was easier to work closer to home

For the question regarding attrition rates, the answers were categorized as follows:

- a.) one manager cited family problems
- b.) one manager claimed it was a miscuing in curricula
- c.) one manager said it was a transportation problem.

The last of the social issue questions dealt with on the job problems encountered by women, minorities, and the unemployed. The question was asked of the two banks, the new England Art Company, and the Veterans Hospital. The Bank of New England officer replied,

Rather than having a chip on their shoulders, some were not ... able to read the environment; ... they lacked the flexibility ... one gains ... through lots of different kinds of experiences; ... not understanding ... the norm in the business world.

The response of the New England Art Company manager was,

...[T]he program might not show what the total industry is like, ... some of the jobs are tedious [Employees] came from a hard-pressed area, many had chips on their shoulder; the local people [i.e. Abington area] were not interested in their problems

The Shawmut respondent stated,

These are multi-problemmed families and the bank can only be so flexible [T]here is going to have to be a lot more attention paid to support once they come into work for day care, social

workers, health care [Y]ou just don't go from being on welfare to being in the world of work The government is going to have to make that transition a little easier.

The manager at the Veterans Hospital said,

... I fear there have been certain individuals who have a chip on their shoulder and it wasn't so much against this place, it was against society itself.

The answers for the job problems question were coded as follows;

- a.) two respondents cited a "chip on the shoulder against society"
- b.) two respondents saw the problem as a lack of different experiences
- c.) two respondents stated there was a miscuing in curricula (i.e. the training didn't provide the trainees with a complete understanding of the job)
- d.) one respondent mentioned that transitional help from the government is necessary.

DATA ANALYSIS OF QUESTIONNAIRE

PART I DESCRIPTIVE INFORMATION

A questionnaire packet for each of the 100 Bay State graduates still on the job was given to the management interviewees who agreed to distribute the material to their employees. Sixty-five questionnaires were returned for an

overall response rate of 65% though the rate of return varied from company to company.

Table 2 lists the number of responses by company, the response rate per company, and the percent of the overall responses by company.

TABLE 2 (N = 65)

RESPONSE RATE PER COMPANY

COMPANY	% OF BSSC EMPLOYEES RESPONDING PER COMPANY	# OF BSSC EMPLOYEES RESPONDING PER COMPANY	% OF ALL RESPONSES BY COMPANY
AVCO	40%	8	12.3%
BANK OF NEW ENGLAND	81.8%	18	27.7%
DIGITAL (BEDFORD)	100%	2	3.1%
DIGITAL (NASHUA)	66.7%	2	3.1%
GOULD	75%	15	23.1%
NEW ENGLAND ART	100%	2	3.1%
SHAWMUT	60%	15	23.1%
VETERANS HOSPITAL	50%	3	4.6%
TOTAL	65%	65	100.0%

Since a normal rate of response to questionnaires is in the 10-15% range, the researcher attributed the 65% response rate to the trainees strong positive feelings for the BSSC training - a belief which was validated by the survey. Further, the cover letter to each of those trainees indicated

that the information would be helpful in the planning of future job training programs.

The data shown in Table 3 is consistent with employment patterns throughout the United States. Both men and women are represented in all types of employment situations. However, men tend to be concentrated in the higher paying manufacturing companies while women tend to be clustered in the lower paying bank and service industries. The exception is in the high tech area which found women well represented, though the sampling is so small that the data cannot be considered conclusive.

TABLE 3 (N = 65)

RESPONSE BY SEX PER COMPANY AND BY PERCENT

COMPANY	# MALES	% OF ALL MALE RESPONSES	# FEMALES	% OF ALL FEMALE RESPONSES
AVCO	6	20.7%	2	5.6%
BANK OF NEW ENGLAND	7	24.1%	11	30.6%
DIGITAL (BEDFORD)	--	0.0%	2	5.6%
DIGITAL (NASHUA)	1	3.4%	1	2.8%
GOULD	10	34.5%	5	13.9%
NEW ENGLAND ART	2	6.9%	--	0.0%
SHAWMUT	2	6.9%	15	36.1%
VETERANS HOSPITAL	1	3.4%	3	5.6%
TOTALS	29	44.6%	36	55.4%

Note the small number of females in manufacturing represented by AVCO and Gould, Inc. In the case of AVCO, the contract goals called for high employment of women (50%) while the actual number of women who enrolled in the program was 16% and the percentage of women hired and still on the job, was even lower. According to the AVCO interviews, women simply were not interested in that type of employment, though the employment supervisor gave his female staff very high marks for job performance.

The age of the respondents is relatively young, so that

the Commonwealth will receive dividends on its investments for years to come. Only one of the 65 respondents was over 50 years old. Forty percent of the respondents (26 people) were in the 30-49 age category; 29.2% (19 people) fell in the 25-29 age bracket; and another 29.2% were in the 18-24 year old group.

At a time when increasing numbers of high paying jobs are located in the suburbs, where the automobile is virtually the only mechanized conveyance available for commuting, the employment statistics by race point out a problem affecting society. Black and Hispanic employment in the facilities surveyed was confined to locations accessible by public transportation (TABLE 4).

TABLE 4 (N = 65)

RACE BY EMPLOYER

EMPLOYER	WHITE		BLACK		HIS- PANIC		ASIAN		OTHER	
	% BY EMPL- OYER	% BY EMPL- OYER	% BY EMPL- OYER	% BY EMPL- OYER	% BY EMPL- OYER	% BY EMPL- OYER	% BY EMPL- OYER	% BY EMPL- OYER	% BY EMPL- OYER	% BY EMPL- OYER
AVCO	8	100%	--	0%	--	0%	--	0%	--	0%
BANK OF NEW ENGLAND	6	33.3%	9	50%	2	11.1%	1	5.6%	--	0%
DIGITAL (BEDFORD)	2	100%	--	0%	--	0%	--	0%	--	0%
DIGITAL (NASHUA)	2	100%	--	0%	--	0%	--	0%	--	0%
GOULD	13	86.7%	--	0%	--	0%	2	13.3%	--	0%
NEW ENGLAND ART	2	100%	--	0%	--	0%	--	0%	--	0%
SHAWMUT	5	33.3%	8	53.3%	1	6.7%	--	0%	1	6.7%
VETERANS HOSPITAL	--	0%	3	100%	--	0%	--	0%	--	0%
TOTAL RESPONSES	38	58.5%	20	30.8%	3	4.6%	3	4.6%	1	1.5%

In the AVCO contract, the minority target employment was 40%. The number of minorities who applied to the program did not come close to approaching that figure and the company has no minority employees on its staff from the Bay State training program.

The Bay State trained employees were asked to indicate their source of income prior to enrolling in the educational-job training program. Their responses were as follows:

- a.) 32 were employed at a lower paying position,
- b.) 15 checked the option other,
- c.) 10 were on welfare,
- d.) 6 were getting unemployment compensation,
- e.) 2 were employed at higher paying position.

The responses in the other category for source of income were coded by the researcher and the programmer into the following: child support, supported by husbands, unemployed but not eligible for unemployment compensation, part time employment, or self employed.

The respondents were asked to check their highest level of education prior to enrolling in the educational-job training program. The most frequent responses were grade 12 and some college, with twenty two trainees checking each of those categories. (See TABLE 5.) Only four respondents, 6.5% of the total, did not have at least a high school education, whereas thirteen, or 21.3% of the respondents were

TABLE 5 (N = 61)

LEVEL OF EDUCATION

EMPLOYER	GRADE 10	% OF COM- PANY	GRADE 11	% OF COM- PANY	GRADE 12	% OF COM- PANY	SOME COLL- EGE	% OF COM- PANY	COLLEGE GRADUATE	% OF COM- PANY
AVCO	--	0%	--	0%	2	25%	4	50%	2	25%
BANK OF NEW ENGLAND	1	5.6%	--	0%	7	38.9%	8	44.4%	2	11.1%
DIGITAL (BEDFORD)	--	0%	--	0%	--	0%	--	0%	1	100%
DIGITAL (NASHUA)	--	0%	--	0%	--	0%	--	0%	2	100%
GOULD	1	7.7%	1	7.7%	4	30.7%	6	46.2%	1	7.7%
NEW ENGLAND ART	--	0%	--	0%	--	0%	1	50%	1	50%
SHAWMUT	1	7.2%	--	0%	7	50%	3	21.4%	3	21.4%
VETERANS HOSPITAL	--	0%	--	0%	2	66.7%	--	0%	1	33.3%
TOTAL RESPONSES	3	4.9%	1	1.6%	22	36.1%	22	36.1%	13	21.3%

college graduates.

The graduates of BSSC training programs were asked how long they had been employed by their company since completing the educational job training program. The responses were given for each employer at six month intervals (including the percent) ranging from six months to forty eight months. The largest response was for twenty four months followed by thirty six months. (See TABLE 6.) Only Gould, Inc., which was upgrading the skills of its employees, had workers employed for more than thirty-six months. Those figures reflect the fact that Bay State Skills Corporation is a relatively new agency. More significant is the fact that, though some of these employers had high rates of attrition, nearly 85% of BSSC graduates have been employed by their companies for over eighteen months - more than enough time for the companies to evaluate the success of the training program. As the administrator at Gould, Inc. stated, "the program has been cost effective" - not an unimportant point for companies interested in the bottom line.

TABLE 6 (N = 59)

TIME ON PRESENT JOB BY MONTHS

EMPLOYER	6		12		18		24		30		36		42		48	
	MON- THS	%	MON- THS	%	MON- THS	%	MON- THS	%	MON- THS	%	MON- THS	%	MON- THS	%	MON- THS	%
AVCO	2	25%	1	12.5%	--	0%	2	25%	2	25%	1	12.5%	--	0%	--	0%
BANK OF NEW ENGLAND	--	0%	--	0%	--	0%	7	38.9%	4	16.7%	7	38.9%	--	0%	--	0%
DIGITAL (BEDFORD)	--	0%	--	0%	1	100%	--	0%	--	0%	--	0%	--	0%	--	0%
DIGITAL (NASHUA)	--	0%	--	0%	2	100%	--	0%	--	0%	--	0%	--	0%	--	0%
GOULD	--	0%	--	0%	--	0%	7	58.3%	--	0%	3	25%	1	8.3%	1	8.3%
NEW ENGLAND ART	--	0%	2	100%	--	0%	--	0%	--	0%	--	0%	--	0%	--	0%
SHAWMUT	--	0%	--	0%	--	0%	4	30.8%	3	23.1%	6	46.1%	--	0%	--	0%
VETERANS HOSPITAL	1	33.3%	--	0%	--	0%	2	66.7%	--	0%	--	0%	--	0%	--	0%
TOTALS	3	5.1%	3	5.1%	3	5.1%	22	37.2%	9	15.3%	17	28.8%	1	1.7%	1	1.7%

Bay State trainees were asked if they had received a pay raise since they began working for their current employer. Of the graduates who responded to this question, 57 or 96.6% of the respondents had received a pay raise. Those who responded "yes" were asked to state their salary at the completion of the training and their current salary. Some of those responses were in hourly wages, others in weekly, biweekly or monthly - and a few listed their annual salary. All salaries were converted to an annual rate to have a basis for comparison. The researcher and programmer arbitrarily applied the following formula: the work week was measured at 40 hours per week, times 52 weeks or 2,080 working hours per year. Salaries listed by hourly pay rates were multiplied by 2,080 hours, weekly salaries by 52, biweekly by 26, and monthly salaries by 12. All the salary data provided by the respondents was entered into the computer.

The minimum salary that BSSC people earned at the completion of the training was \$4,576.00 while the maximum was \$24,500.00. The mean income was \$11,442.25; the median income was \$10,296.00; and the mode was \$12,480.00. Ninety five percent of the responses ranged between \$10,166.93 and \$12,717.57. The current salaries showed a significant increase - the minimum salary was \$9,100.00, with the maximum at \$28,500.00. The mean salary rose nearly \$4,000.00 to \$15,310.79; the median salary to \$14,066.00; and the mode to \$13,000.00. (See TABLE 7). Ninety five percent of the

salaries now fall between \$14,035.84 and \$16,585.74. (See FIGURES 2 & 3 for an analysis of past and current salaries per year by number of cases).

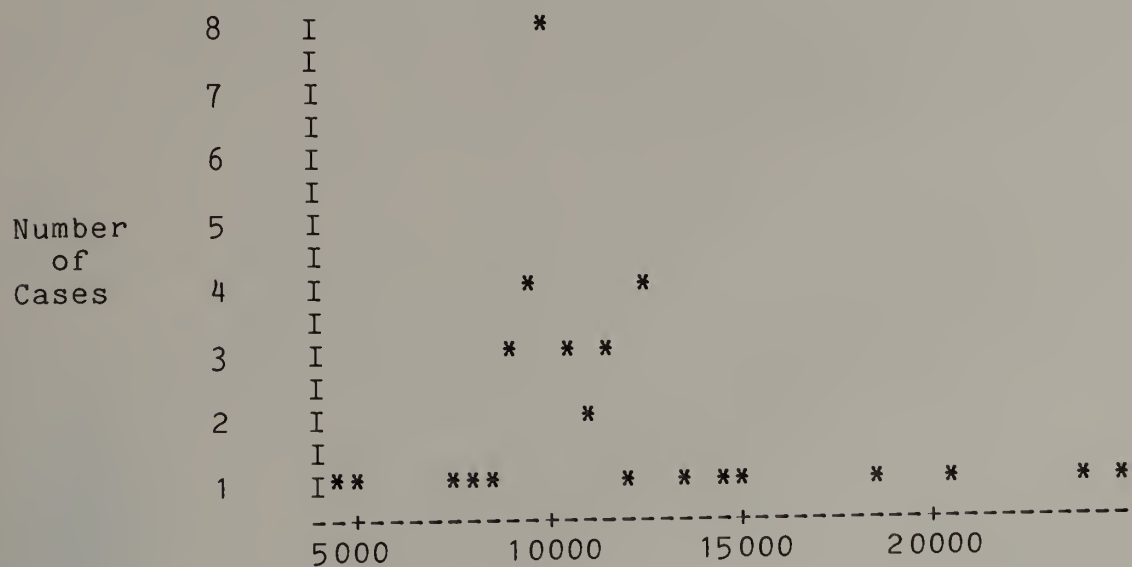
TABLE 7 (N = 40 PREVIOUS SALARY AND 42 CURRENT SALARY)

ANALYSIS OF PREVIOUS & CURRENT SALARY PER YEAR AT 2,080 HRS

SALARY	MINIMUM	MAXIMUM	MEAN	MEDIAN	MODE
PREVIOUS	\$4,576	\$24,500	\$11,442.25	\$10,296	\$12,480
CURRENT	\$9,100	\$28,500	\$15,310.77	\$14,066	\$13,000

ANALYSIS OF PREVIOUS SALARY

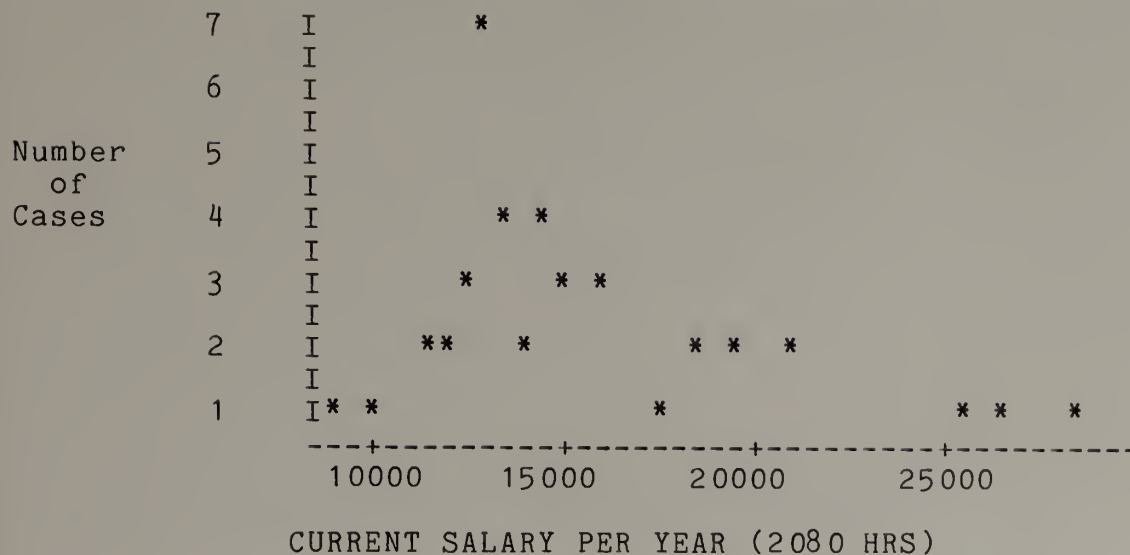
FIGURE 2



PREVIOUS SALARY PER YEAR (2,080 HRS)

ANALYSIS OF CURRENT SALARY

FIGURE 3

PART II QUESTIONS ON THE TRAINING PROGRAM

The questions in this section dealt with former trainees' perception of the program. How did they hear of it? Why did they apply? How would they rate the training and teaching? What services did the programs provide in addition to the classroom instruction? Would they have gotten their position with their employer without the training?

Sixty-one of the trainees answered the question on how they learned about the training program. Twenty-three, nearly 38% learned of the program through advertisements; fifteen received personal referrals from friends, neighbors, or relatives, the employer was the source of information for fourteen BSSC graduates. These fourteen from Gould Inc., a company whose BSSC funded contract with Northern Essex

Community College, called for upgrading the skills of company employees. The remaining responses were scattered - four heard about the program through church, school, or social agencies; two were referred to the program by their case workers; and three learned about the Bay State program from newspaper articles or mailings.

All sixty-five BSSC graduates responded to the question of what made them apply. (See TABLE 8.) Sixty-two replies were fairly evenly split among the first three choices: twenty trainees checked "to get a better job," nineteen selected "to get a job," and twenty-three answered "to increase job skills." Three trainees chose "other": two of them wanted a career and the third wrote that the individual liked being paid to write.

TABLE 8 (N = 65)

WHY THE RESPONDENT ENTERED THE TRAINING PROGRAM								
COMPANY	BETTER JOB		GET A JOB		INCREASE JOB SKILLS		OTHER	
	#	%	#	%	#	%	#	%
AVCO	5	62.5%	2	25%	1	12.5%	--	0%
BANK OF NEW ENGLAND	5	27.8%	6	33.3%	7	38.9%	--	0%
DIGITAL (BEDFORD)	--	0%	1	50%	1	50%	--	0%
DIGITAL (NASHUA)	--	0%	1	50%	--	0%	1	50%
GOULD	8	53.3%	--	0%	6	40%	1	6.7%
NEW ENGLAND ART	--	0%	--	0%	1	50%	1	50%
SHAWMUT	2	13.3%	7	46.7%	6	40%	--	0%
VETERANS HOSPITAL	--	0%	2	66.7%	1	33.3%	--	0%
TOTALS	20	30.8%	19	29.2%	23	35.4%	3	4.6%

The Bay State programs were well rated by their graduates. The ABCD/BSSC trainees gave the training program its highest marks, with the Bank of New England employees slightly more positive than the Shawmut group. Only one of the sixty-five respondents (a miniscule 1.5%) thought the training program was inferior to other job preparations the individual has had. (See TABLE 9.)

TABLE 9 (N = 65)

RATING THE TRAINING PROGRAM						
COMPANY	AS GOOD #	% OF TOTAL RESP- ONSES	BETTER #	THAN % OF TOTAL RESP- ONSES	NOT AS #	GOOD % OF TOTAL RESP- ONSES
AVCO	5	62.5%	3	37.5%	--	0%
BANK OF NEW ENGLAND	5	27.8%	13	72.2%	--	0%
DIGITAL (BEDFORD)	2	100%	--	0%	--	0%
DIGITAL (NASHUA)	--	0%	2	100%	--	0%
GOULD	12	80%	2	13.3%	1	6.7%
NEW ENGLAND ART	1	50%	1	50%	--	0%
SHAWMUT	6	40%	9	60%	--	0%
VETERANS HOSPITAL	1	33.3%	2	66.7%	--	0%
TOTALS	32	49.2%	32	49.2%	1	1.5%

One additional comment regarding TABLE 9 - The Digital supervisors gave their BSSC trained employees high marks for job performance. All of those employees rated the training program better than the typical job preparation program.

The teaching staff for the training programs also received strong positive support from their former students. Only two of the graduates believed the teaching they experienced in their respective training programs was not equal to the kind of teaching they had experienced previously. Thirty-six graduates thought the teaching was as

good as any they had experienced, while twenty-seven (46.5% of the total) believed it was better than teaching they had previously experienced. (TABLE 10.)

TABLE 10 (N = 65)

RATING THE TEACHING

COMPANY	AS GOOD		BETTER THAN		NOT AS GOOD	
	#	% OF	#	% OF	#	% OF
	TOTAL RESP- ONSES BY COMPANY		TOTAL RESP- ONSES BY COMPANY		TOTAL RESP- ONSES BY COMPANY	
AVCO	7	87.5%	1	12.5%	--	0%
BANK OF NEW ENGLAND	7	38.9%	11	61.1%	--	0%
DIGITAL (BEDFORD)	1	50%	1	50%	--	0%
DIGITAL (NASHUA)	1	50%	1	50%	--	0%
GOULD	12	80%	2	13.3%	1	6.7%
NEW ENGLAND ART	1	50%	--	0%	1	50%
SHAWMUT	7	46.7%	8	53.3%	--	0%
VETERANS HOSPITAL	--	0%	3	100%	--	0%
TOTALS	36	55.4%	27	41.5%	2	3.1%

Again, as in rating the program in general, the ABCD/BSSC graduates gave more "better than" responses than the group as a whole, with the Bank of New England employees giving slightly higher marks than their fellow trainees from the Shawmut Bank. Note also the very strong support for the teaching by the hospital employees who went through the

Dimock Street training program - a response that matches the interview response of their supervisors.

The last of the three rating questions asked the graduates how well the training program prepared them for employment. (See TABLE 11.) Of the sixty-five respondents, only one of the trainees felt he/she was poorly prepared; the rest divided their responses between well prepared (thirty) and prepared (thirty-four). Note that the total of four negative responses to these questions were from four separate individuals.

TABLE 11 (N = 65)

PREPARATION FOR FIRST JOB AFTER TRAINING

COMPANY	WELL PREPARED		PREPARED		POORLY PREPARED	
	#	% BY COM-PANY	#	% BY COM-PANY	#	% BY COM-PANY
AVCO	3	37.5%	5	62.5%	--	0%
BANK OF NEW ENGLAND	10	55.6%	8	44.4%	--	0%
DIGITAL (BEDFORD)	1	50%	1	50%	--	0%
DIGITAL (NASHUA)	1	50%	1	50%	--	0%
GOULD	2	13.3%	13	86.7%	--	0%
NEW ENGLAND ART	--	0%	2	100%	--	0%
SHAWMUT	10	66.7%	4	26.7%	1	6.7%
VETERANS HOSPITAL	3	100%	--	0%	--	0%
TOTALS	30	46.2%	34	52.35%	1	1.5%

As in the previous rating questions the ABCD trainees rated their job preparation higher than did the group as a whole. Likewise, the Dimock Street trainees, now working at the Veterans Hospital, gave the same high marks for their job preparation as their supervisors had done in the interview.

The responses to the questions on support services provided by each training program produced a variety of responses even within programs. Respondents were asked to check whatever applied, with a maximum of five possible areas to check. There was also a place to check if no supplemental services were available. (See TABLE 12.)

TABLE 12 (N = 65)

SUPPLEMENTAL SERVICES PROVIDED BY EDUCATIONAL-JOB TRAINING PROGRAM

COMPANY	TUTORING	PERSONAL COUNSELING	RESUME WRITING	JOB INTERVIEW TECHNIQUES	EMPLOYMENT INFORMATION WITH SPECIFIC COMPANY	NOTHING
AVCO (8)	3	4	6	6	4	--
BANK OF NEW ENGLAND (18)	4	7	18	16	9	--
DIGITAL (BEDFORD) (2)	1	--	1	--	--	--
DIGITAL (NASHUA) (2)	1	1	2	2	2	--
GOULD (15)	--	2	--	--	--	12
NEW ENGLAND ART (2)	--	--	1	--	1	--
SHAWMUT (15)	2	3	13	10	7	1
VETERANS HOSPITAL (3)	1	2	3	2	2	--
TOTALS (65)	12	19	44	36	25	13

The number of BSSC trained employees in each company who responded to the survey is in parentheses in the box with the company's name. Without any follow-up data, it is impossible for example to explain why only seven of the eighteen Bank of New England employees and three of the fifteen Shawmut employees believed that personal counseling was provided. Did ABCD make it clear to the trainees that personal counseling was available, or did those ten trainees feel a need for counseling and seek it on their own?

More perplexing is the one Shawmut employee who felt the program offered no supplementary supports. Another Shawmut employee noted on the questionnaire that all graduates of the program were guaranteed a job. This is corroborated in the interview with a Shawmut Vice President. In response to the researcher's question: "What prompted the bank to hire them? There was not an absolute commitment was there?", the vice president answered: "There was an absolute commitment. If they made it through the program, they were guaranteed a job at Shawmut Bank."

The high rate of Gould employees who checked the block "nothing" is understandable since this was a company sponsored training program to upgrade the skills of in-house employees. As it was, two Gould employees did avail themselves of personal counseling.

The last question in Part II of the Questionnaire asked the trainees whether they felt they would have been hired by

their companies without the BSSC job training programs. Of the fifty-eight graduates who responded to that question, an overwhelming 84.5% answered that the Bay State program was indispensable. Forty-nine graduates felt that they would not be employed in their current positions without that training. That percentage holds true for Gould employees also, a company that was experiencing a significant reduction in force during the training period.

PART III JOB DESCRIPTION

The first two questions asked the respondents to state the position for which they were hired and to describe what they did. The job descriptions enabled the programmer and researcher to assign the respondents to ten job categories. For example, thirty-three of the respondents worked for the banks. Although few of them had the same job title, using the description of their work, the coders were able to classify most of them as clerks. Similarly, Gould, Inc. has different levels of assemblers and testers, but for the purposes of this study, all, were simply assigned to those two categories.

The ten job classifications for this study were:

1. Assembler
2. Clerk
3. Data Entry

4. Marketing
5. Press Operator
6. Secretary
7. Technical Writer
8. Technician
9. Temporary
10. Tester

See TABLE 13 for job classification by company.

TABLE 13 (N = 58)

EMPLOYMENT CLASSIFICATION BY COMPANY

COMPANY	ASSEM- BLER	CLERK	DATA ENTRY	MARKET- ING	PRESS OPER- ATOR	SECRE- TARY	TECH- NICAL WRITER	TECH- NIC- IAN	TEMP- ORARY	TEST- ER
AVCO	--	--	--	--	--	--	--	8	--	--
BANK OF NEW ENGLAND	--	10	--	--	--	1	--	--	4	--
DIGITAL (BEDFORD)	--	--	--	1	--	--	--	--	--	--
DIGITAL (NASHUA)	--	--	--	--	--	--	2	--	--	--
GOULD	9	1	--	--	--	--	--	--	--	3
NEW ENGLAND ART	--	--	--	--	2	--	--	--	--	--
SHAWMUT	--	14	1	--	--	--	--	--	--	--
VETERANS HOSPITAL	--	--	--	--	--	--	--	2	--	--
TOTALS	9	25	1	1	2	1	2	10	4	3

Respondents were then asked to state their current position and describe what they do. While most of the former trainees remained in the same broad categories of occupation (i.e. clerk or assembler) their responsibilities and job classifications had increased. Nearly seventy-six percent of the respondents indicated that they had a change in job classification. Further, the four employees in temporary positions at the Bank of New England were now permanent employees. In addition, many of the remaining 24.6% who reported no change, were seen by their supervisors as having much greater responsibilities. For example, the AVCO employment supervisor said that the normal progression to a senior technician takes 10-15 years, but that he expected the Bay State group to achieve that level in 5-7 years. Likewise, one of the technical writers at Digital listed "no change" in his position, yet his supervisor said that he had been promoted to a project leader. The supervisor added that a promotion within a year and a half of employment is "pretty aggressive."

Based on the current job classifications, the description of what they do, and in some cases on current salary comparisons, it was possible to determine the number of trainees who had received a promotion. (See TABLE 14.) Fifty trainees responded to that question; 76% of them had received promotions, a rate that was at least comparable to

other employees. A number of the remaining trainees were not promoted only because there were no openings.

TABLE 14 (N = 50)

PROMOTIONS BY EMPLOYER IN NUMBER AND PERCENT

RESP- ONSE	AVCO		BANK OF NEW ENG- LAND		DIG- ITAL (BED- FORD)		DIG- ITAL (NAS- HUA)		GOULD		NEW ENG- LAND ART		SHAWMUT		VETE- RANS HOSP- ITAL		TOTAL	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
YES	4	100%	12	100%	--	0%	--	0%	13	100%	--	0%	9	60%	--	0%	38	76%
NO	--	0%	--	0%	1	100%	2	100%	--	0%	2	100%	6	40%	1	100%	12	24%
TOTALS	4	8%	12	24%	1	2%	2	4%	13	26%	2	4%	15	30%	1	2%	50	100%

The trainees responded nearly unanimously in the affirmative to the question of whether there is an opportunity for changing positions within the company. Fifty-four of the fifty-seven trainees (94.7%) who answered this question believed there is that opportunity and, from their job descriptions, many of them had afforded themselves of that chance.

A slightly smaller percentage saw an opportunity for promotion within the company. This is particularly important to companies since it is most cost effective to promote from within and to hire new employees at entry level positions. Of the fifty-eight respondents, fifty-one checked that there was an opportunity for promotion within their company. Almost half of the "no" responses were from AVCO, a company which requires a long probationary period before giving a promotion. (See TABLE 15.)

In the last question in that series, the trainees were asked if they would need additional education to be eligible for promotion within the company. Thirty-eight respondents (66.7%) said that they would need additional education to be promoted, nineteen (33.3%) said they would not need any further education to receive a promotion.

TABLE 15 (N = 58)
 OPPORTUNITY FOR IN-HOUSE PROMOTION

RESP- ONSE	AVCO	BANK OF NEW ENG- LAND	DIG- ITAL (BED- FORD)	DIG- ITAL (NAS- HUA)	GOULD	NEW- ENG- LAND ART	SHAWMUT	VEETE- RANS HOSP- ITAL	TOTAL									
#	%	#	%	#	%	#	%	#	%									
YES	5	62.5%	14	93.3%	1	100%	2	100%	13	92.9%	1	50%	14	93.9%	1	100%	51	87.9%
NO	3	37.5%	1	6.7%	--	0%	--	0%	1	7.1%	1	50%	1	6.7%	--	0%	7	12.1%
# AND OF TOTAL RESPONSES	8	13.8%	15	25.9%	1	1.7%	2	3.4%	14	24.1%	2	3.4%	15	25.9%	1	1.7%	58	100%

PART IV JOB SATISFACTION

The section on job satisfaction was included in the questionnaire to elicit responses on how the trainees felt about their chosen careers. Was their employment merely a paycheck? Did they like what they were doing? Did they have any goals for the future? Would they want to remain with their company?

There were three questions in this series:

1. What do you like most and least about your job?
2. What do you like most and least about your company?
3. What do you like most and least about your fellow workers?

The three questions were converted into six responses, alternating "what do you like most ..." with "what do you like least" A number of the respondents had no dislikes. Even when trainees mentioned both likes and dislikes, the latter categories were relatively minor. Further, the responses to these questions were so varied that the programmer and researcher coded them under broad categories.

The coders arrived at ten classifications for the responses to the question, "What do you like most about the job?"

1. Atmosphere
2. Benefits

3. Challenging
4. Co-Workers
5. Dealing with people
6. Environment
7. Interesting
8. Monday
9. Self paced
10. Time (it took to accomplish the task)

Approximately two thirds of the sixty-five respondents answered this part of the question. By far the most popular answer was "interesting", particularly among Bank of New England and Gould employees. Altogether nineteen of the respondents, 44.2% of the total, described their job in this manner. (See TABLE 16.)

Only thirty-one trainees wrote a response to what they liked least about the job. Again the coders took the variety of responses and arrived at ten categories:

1. Boring
2. Commuting
3. Too few responsibilities
- 4.irate customers
5. Limited promotional opportunities
6. Long hours
7. Monday
8. No product informaton
9. Special tasks

10. Tedious

Tedious and boring were the most frequent responses, nine and eight respectively (See TABLE 17), [but nowhere near in the range of response as "interesting" evoked in the previous question] (TABLE 16.)

TABLE 16 (N = 43)

WHAT RESPONDENTS LIKED MOST ABOUT THE JOB

COMPANY	ATMOS- PHERE	BENE- FITS	CHALLEN- GING	CO- WORK- ERS	DEALING WITH PEOPLE	ENVIRON- MENT	INTERES- TING	MON- DAY	SELF- PACED	TIME
AVCO (8)	--	1	--	1	--	--	2	1	2	1
BANK OF NEW ENGLAND (14)	2	--	--	--	3	2	5	--	2	--
DIGITAL (BEDFORD) (-)	--	--	--	--	--	--	--	--	--	--
DIGITAL (NASHUA) (2)	--	--	1	--	--	--	1	--	--	--
GOULD (7)	--	--	1	--	--	--	6	--	--	--
NEW ENGLAND ART (2)	2	--	--	--	--	--	--	--	--	--
SHAWMUT (7)	2	--	--	--	1	--	3	--	1	--
VETERANS HOSPITAL (3)	1	--	--	--	--	--	2	--	--	--
TOTALS (43)	7	1	2	1	4	2	19	1	5	1
% OF TOTALS	16.3%	2.3%	4.7%	2.3%	9.4%	4.7%	44.2%	2.3%	11.6%	2.3%

TABLE 17 (N = 31)

WHAT RESPONDENTS LIKED LEAST ABOUT THE JOB

COMPANY	BOR- ING	COMM- UTE	TOO FEW RESPON- SIBILI-	IRATE CUST- OMERS	LIMIT- ED PRO- MOTIONS	LONG HOURS	MON- DAY	NO PRO- DUCT INFO	SPEC- IAL TASKS	TED- IOUS	TOTAL
AVCO	3	--	1	--	1	--	1	--	--	--	6
BANK OF NEW ENGLAND	2	--	--	1	--	2	--	--	2	1	8
DIGITAL (BEDFORD)	--	--	--	--	--	--	--	--	--	--	--
DIGITAL (NASHUA)	--	--	--	--	--	1	--	--	--	1	2
GOULD	1	--	--	--	--	--	--	1	--	2	4
NEW ENGLAND ART	--	1	--	--	--	--	--	--	--	1	2
SHAWMUT	2	--	--	--	--	--	--	--	1	4	7
VETERANS HOSPITAL	--	--	--	--	--	--	--	--	2	--	2
TOTALS	8	1	1	1	1	3	1	1	5	9	31
% OF TOTALS	25.8%	3.2%	3.2%	3.2%	3.2%	9.7%	3.2%	3.2%	16.1%	29%	100%

Thirty eight trainees answered the question concerning what they liked most about their employer, a response rate of 58.5%. The coders took the myriad of responses and assigned them to ten categories:

1. Benefits
2. Challenging
3. Environment (i.e. overall atmosphere)
4. Flex time
5. Policies of the company
6. Prestige
7. Promotional opportunity
8. Security
9. Variety
10. Work environment (job related only)

Nearly half of the respondents chose "benefits" as the thing they liked most about their company. That fact was particularly true for AVCO, the banks, and the Gould Company. (See TABLE 18.)

TABLE 18 (N = 38)

WHAT RESPONDENTS LIKED MOST ABOUT THE COMPANY

COMPANY	BENE- FITS	CHALLENGING	FLEXIBLE TIME	COMPANY POLI- CIES	ENVI- RON- MENT	PRES- TIGE	PROMO- TIONAL OPPOR- TUNITIES	SEC- UR- ITY	VARI- ETY OF TASKS	WORK ENVI- RON- MENT	TOTAL
AVCO	5	--	--	--	--	--	--	--	--	1	6
BANK OF NEW ENGLAND	5	--	1	--	--	2	--	--	1	--	9
DIGITAL (BEDFORD)	--	--	--	--	--	1	--	--	--	--	1
DIGITAL (NASHUA)	1	--	--	--	1	--	--	--	--	--	2
GOULD	3	--	--	--	2	1	--	1	--	--	7
NEW ENGLAND ART	--	1	--	--	1	--	--	--	--	--	2
SHAWMUT	3	--	--	1	--	--	2	2	--	--	8
VETERANS HOSPITAL	1	--	--	--	2	--	--	--	--	--	3
TOTALS	18	1	1	1	6	4	2	3	1	1	38
PERCENT OF TOTAL RESPONSES	47.4%	2.6%	2.6%	2.6%	15.8%	10.5%	5.3%	7.9%	2.6%	2.6%	100%

The question "What do you like least about the company?" provoked the widest range of responses (ten), with the fewest number of responses to the first four questions in this battery. Further, the answers tended to be scattered throughout the choices established by the programmer and researcher. In the opinion of the researcher, the responses indicate no overall dissatisfaction with the companies. Given company investment in employee development, these responses appear, on the whole, to be good news to the employers. (See TABLE 19.)

The responses for the above mentioned question are:

1. Bureaucracy
2. Commute
3. Company policy
4. Discrimination
5. Limited promotions
6. No comment
7. No pension
8. Pay scales
9. Reverse racism
10. Unequal pay
11. Working summers

The researcher found three employee responses to be of particular interest. In the interview with the then Vice President of Personnel and Affirmative Action of the Bank of New England, the researcher asked the officer if the bank

participated in the ABCD job training program because it did not have enough minority employees. Her response was, "I'd say it's not a problem The company believes ...it needs to be responsible to the community." One of the black males in responding to the question of what he liked least about the company wrote, "In my department I don't like the way the supervisor discriminates against women and minorities."

In a similar question to a Shawmut Vice President, the response was, "Yes, I think we saw it as a way to reach the minority community and also to provide us with a much-needed source of labor." The bank has apparently been successful. One of its white female employees, in describing what she liked least about the company, stated that she believes the bank practices reverse discrimination.

One other response to this question is worth noting. A female employee at the Bank of New England does not like working summers because she feels guilty that she can not be home with her children. The bank's flexi-time job staffing does not allow for leaves of that duration.

The last question in this series were, "What do you like most about your fellow workers?" and "What do you like least ...?" These questions had the fewest responses: three answers for what they liked best and four categories for what they liked least. Their responses to these questions were the easiest for the programmer and researcher to code. One additional comment before presenting the data - far more

trainees answered "what they liked best" (forty-two), than "what they liked least" (nineteen).

TABLE 19 (N = 37)

WHAT RESPONDENTS LIKED LEAST ABOUT THE COMPANY

COMPANY	BUREAU- CRACY	COMM- UTE	COM- PANY POL- ICY	DIS- CRIM- INA- TION	LIMI- TED PRO- MOTIONS	NO COM- MENT	NO PEN- SION	PAY SCA- LES	REV- ERSE RAC- ISM	UN- EQU- AL PAY	WORK- ING SUM- MERS	TOTAL
AVCO	4	--	--	--	2	1	--	--	--	1	--	8
BANK OF NEW ENGLAND	1	1	2	1	3	--	--	--	--	--	1	9
DIGITAL (BEDFORD)	1	--	--	--	--	--	--	--	--	--	--	1
DIGITAL (NASHUA)	1	--	1	--	--	--	--	--	--	--	--	2
GOULD	2	1	2	--	--	--	1	1	--	--	--	6
NEW ENGLAND ART	--	--	--	--	1	--	--	--	--	--	--	1
SHAWMUT	2	--	1	--	1	--	--	4	1	--	--	9
VETERANS HOSPITAL	--	--	1	--	--	--	--	--	--	--	--	1
TOTALS	11	2	7	1	7	1	1	4	1	1	1	37
PERCENT OF TOTAL RESPONSES	29.7%	5.4%	18.9%	2.7%	18.9%	2.7%	2.7%	10.8%	2.7%	2.7%	2.7%	100%

To the question "What do you like most about your fellow worker?" nearly two thirds of the sample responded - citing competence, friendly or writing no comment. (See TABLE 20.)

TABLE 20 (N = 42)

WHAT RESPONDENTS LIKED MOST ABOUT CO-WORKERS

COMPANY	COMPETENCE	FRIENDLY	NO COMMENT	TOTAL
AVCO	1	4	2	7
BANK OF NEW ENGLAND	--	14	--	14
DIGITAL (BEDFORD)	--	--	--	--
DIGITAL (NASHUA)	--	2	--	2
GOULD	--	8	--	8
NEW ENGLAND ART	--	2	--	2
SHAWMUT	--	6	--	6
VETERANS HOSPITAL	--	3	--	3
TOTALS	1	39	2	42
PERCENT OF TOTAL	2.4%	92.9%	4.8%	100%

The nearly unanimous choice of "friendly" is a good omen for the companies. Pleasant relations with fellow workers help to reduce employee turnover.

The question which elicited the fewest responses (29.2% of the sampling) was - "What do you like least about co-workers?" The answers were coded into four categories:

backstabbing, no comment, sexism, too few of the opposite sex. The most frequent response was backstabbing, cited in fifteen of nineteen responses. (See TABLE 21.)

Two notes of interest are associated with this question. First, a female respondent at AVCO commented on the sexist remarks by her overwhelmingly male colleagues. This was a company that had set a goal with the BSSC contract of 50% female trainees and wound up with a 16% female complement. The then Director of Training noted in the interview, "AVCO went out of its way to hire women Women don't want to be in the field." Part of the reason may be that there are so few women employed in AVCO's manufacturing division.

A male employee at Gould Inc. cited the paucity of women working in the company's manufacturing sector as the thing he liked least about his co-workers.

TABLE 21 (N = 19)

WHAT RESPONDENTS LIKED LEAST ABOUT CO-WORKERS

COMPANY	BACK STAB- BING	NO COMMENT	SEXISM	TOO FEW FEMALES	TOTAL
AVCO	2	2	1	--	5
BANK OF NEW ENGLAND	5	--	--	--	5
DIGITAL (BEDFORD)	--	--	--	--	--
DIGITAL (NASHUA)	2	--	--	--	2
GOULD	--	--	--	1	1
NEW ENGLAND ART	1	--	--	--	1
SHAWMUT	5	--	--	--	5
VETERANS HOSPITAL	--	--	--	--	--
TOTALS	15	2	1	1	19
PERCENT OF TOTAL RESPONSES	78.9%	10.5%	5.3%	5.3%	100%

PART V FUTURE PLANS

The last part of the survey asked the Bay State graduates what they saw themselves doing in five years. There were six possibilities from which to choose. One of the respondents added a seventh category. Some of the trainees checked more than one place, indicating some uncertainty about their future plans. Altogether, there were eighty-two responses to this question although three people left this section blank.

The sampling indicates a significant degree of job mobility. Only six respondents were content to remain in their current positions; on the other hand, only eight disliked their companies enough to seek employment elsewhere. Approximately 56% would seek additional educational training to improve their chances for promotion with their current employers. Seven trainees are considering returning to college to matriculate as full time students, usually in an area related to their current occupations (e.g. bookkeeping to accounting). Only two trainees in this sampling, selected retiring as one of the several options each checked. (See TABLE 22). With sixty-two respondents selecting eighty-two possible choices, the average response rate was 1.4 replies per respondent.

TABLE 22 (N = 82)

FUTURE PLANS

COMPANY	REMAIN CURRENT POSITION	SAME JOB DIFFER- ENT EMPL- OYER	JOB CHANGE PRE- SENT EMPL- OYER OR ELSE- WHERE	MORE EDUC. FOR CURR- ENT EMPL- OYER	PROMO- TION CURR- ENT EMPL- OYER	COLLEGE FULL TIME	RETIRE	TOTAL
AVCO	--	1	--	7	--	2	--	10
BANK OF NEW ENGLAND	1	2	5	13	--	2	1	24
DIGITAL (BEDFORD)	1	--	1	1	1	--	--	4
DIGITAL (NASHUA)	--	--	--	2	--	--	--	2
GOULD	2	2	--	10	--	--	--	14
NEW ENGLAND ART	--	1	--	--	--	1	--	2
SHAWMUT	1	2	6	11	--	2	1	23
VETERANS HOSPITAL	1	--	--	2	--	--	--	3
TOTALS	6	8	12	46	1	7	2	82
PERCENT OF TOTAL RESPONSES	7.3%	9.8%	14.6%	56.1%	1.2%	8.6%	2.4%	100%

COMPARING THE ANSWERS OF BANK OF NEW ENGLAND AND SHAWMUT
WORKERS

The researcher had the program run for the responses of the employees of the two Boston banks that hired graduates of the ABCD program. The purpose of the comparison was to determine if there were significant differences in their responses, since a substantially larger percentage of Bank of New England employees (81.8%) returned the questionnaire, compared to a still impressive 60% of Shawmut employees. The researcher theorized that the larger volume of Bank of New England responses meant a more positive image of the training program and possibly a more favorable image of their employer. The comparative analysis would confirm both of those theories.

Much of the data produced nothing startling. Nearly three quarters of the respondents were female. However, the Bank of New England responses were 60% female to 40% male, while at the Shawmut, female replies outnumbered male by a rate of 6.5 to 1.

The racial breakdown was interesting, since 81.8% of the minority respondents were employed by the banks. See TABLE 23 for the racial breakdown at each bank.

TABLE 23 (N = 33)

RACE BY EMPLOYER

COMPANY	WHITE		BLACK		HISPANIC		ASIAN		OTHER		TOTAL	
	#	%	#	%	#	%	#	%	#	%	#	%
BANK OF NEW ENGLAND	6	33.3%	9	50%	2	11.1%	1	5.6%	--	0%	18	54.5%
SHAWMUT	5	33.3%	8	53.3%	1	6.7%	--	0%	1	6.7%	15	45.5%
TOTALS	11	33.3%	17	51.5%	3	9.1%	1	3%	1	3%	33	100%

Only one third of the bank respondents were white; the minority response was two thirds of the total, with blacks making up 51.5% of all completed questionnaires from the two banks. Test results comparing salaries for blacks and white will be dealt with later in this chapter. No test was done on Hispanics, Asians, or the "other" category since the small sampling would render any comparison meaningless.

To the question of prior source of income, there was no significant difference in the responses from employees of either bank. None of these trainees had been employed at higher paying jobs. In fact, only ten trainees in this sampling were employed when the training program began. The balance were receiving some sort of aid, whether it was unemployment compensation, welfare payments, child support, alimony, or at home as housewives. This particular program achieved rather notable success. Twenty three trainees, who had no visible means of support prior to the training program are now productive members of the Commonwealth's job force.

On the average Bank of New England employees had a higher level of education than Shawmut employees prior to

enrolling in the job training program. Ten of the eighteen Bank of New England employees had some college training or were college graduates, while six of the fourteen Shawmut employees attended college. The higher levels of educational attainment of Bank of New England employees is probably the reason that the bank's employees started at higher salary levels and continue to be paid more than Shawmut employees.

Eight of the fourteen Bank of New England employees received starting salaries ranging from \$10,192 - \$12,220 per year; only one of the Shawmut employees began with a salary over \$10,000 per year (\$10,400). The salary gap continues; the median salary for Bank of New England respondents was \$14,560; for the Shawmut Bank it was \$12,324. Bank of New England salaries ranged from \$13,000 to \$17,732 a year; Shawmut employees' earnings started at \$9,776 and went only to \$14,092 a year. Thus no Shawmut employee earned as much as the median salary for Bay State trainees employed by the Bank of New England.

The Bank of New England employees had a slightly more positive perception of the ABCD/BSSC training program (TABLE 24.) By a more than three to one margin the Bank of New England employees responded that the Bay State training is better than other job preparations; the Shawmut employees chose this response by a six to four margin.

TABLE 24 (N = 33)

COMPARING BANK EMPLOYEE PERCEPTION OF TRAINING PROGRAM

COMPANY	AS GOOD		BETTER THAN		NOT AS GOOD	
	#	%	#	%	#	%
	OF TOTAL RESPONSES		OF TOTAL RESPONSES		OF TOTAL RESPONSES	
BANK OF NEW ENGLAND	5	27.8%	13	72.2%	--	0%
SHAWMUT	6	40.0%	9	60.0%	--	0%
TOTALS	11	33.3%	22	66.7%	--	0%

When it came to rating the teaching, Bank of New England trainees again had a slightly more positive perception than did the Shawmut respondents. By a more than six to four margin, the former rated the teaching better than average; only 53.3% of the Shawmut group rated the teaching better than average. (See TABLE 25.)

TABLE 25 (N = 33)

COMPARING BANK EMPLOYEE PERCEPTION OF THE TEACHING

COMPANY	AS GOOD		BETTER THAN		NOT AS GOOD	
	#	%	#	%	#	%
	OF TOTAL RESPONSES		OF TOTAL RESPONSES		OF TOTAL RESPONSES	
BANK OF NEW ENGLAND	7	38.9%	11	61.1%	--	0%
SHAWMUT	7	46.7%	8	53.3%	--	0%
TOTALS	14	42.4%	19	57.6%	--	0%

Only in the category of job preparation did the Shawmut respondents give the Bay State program higher ratings than did the Bank of New England. Two thirds of the Shawmut respondents thought the Bay State program prepared them well for their first job; only 55.6% of the Bank of New England employees agreed. (See TABLE 26.)

TABLE 26 (N = 33)

COMPARING BANK EMPLOYEE PERCEPTION OF JOB PREPARATION

COMPANY	WELL PREPARED		PREPARED		POORLY PREPARED	
	#	%	#	%	#	%
	OF TOTAL RESPONSES		OF TOTAL RESPONSES		OF TOTAL RESPONSES	
BANK OF NEW ENGLAND	10	55.6%	8	44.4%	--	0%
SHAWMUT	10	66.7%	4	26.7%	1	6.7%
TOTALS	20	60.6%	12	36.4%	1	3%

SUPPLEMENTAL SERVICES

The questions regarding employees' perceptions of the training program indicated that Bank of New England employees tended to regard the ABCD/BSSC more highly. This trend continued in the battery of options regarding supplemental services offered by the training program. More Bank of New England than Shawmut employees perceived the educational-job training program as offering ancillary services. Of greater significance however, are the differences within each group

rather than between the employees of both banks. The question asked the respondents to check whatever applied. From the variety of responses, it is impossible to determine whether trainees checked only what they had personally experienced, or whether some were simply not aware that other services might be available. (See TABLE 27.)

The results indicated overwhelmingly that the employees believe they would not have their present jobs without Bay State training. Again, Bank of New England respondents tended to reflect a more positive opinion of BSSC than did Shawmut employees. One third of the Shawmut responses indicated that the program was not helpful in procuring their jobs; no Bank of New England employees thought that.

TABLE 27 (N = 33)

COMPARING BANK EMPLOYEE PERCEPTIONS OF SUPPLEMENTAL SERVICES

COMPANY	TUTOR- ING	PERSONAL COUNSEL- ING	RESUME WRITING	JOB INTER- VIEW TECH- NIQUES	EMPLOY- MENT INFOR- MATION WITH SPECI- FIC CO.	NOTHING	MAXIMUM # OF RE- SPONSES TO ANY PART OF QUEST- IONS
	#	#	#	#	#	#	#
BANK OF NEW ENGLAND	4	7	18	16	9	--	18
SHAWMUT	2	3	13	10	7	1	15
TOTALS	6	10	31	26	16	1	33

COMPARING BANK EMPLOYEES JOB SATISFACTION

Based on the number of responses to this battery of questions, the researcher is of the opinion that the Bank of New England employees exhibit a greater degree of satisfaction with their jobs and with their fellow workers. Over 75% of Bank of New England employees responded to the "what they liked most" questions; fewer than half of them answered the "what they liked least" question. (See TABLE 28.) Slightly less than half of the Shawmut workers replied to each of these questions. However, a slightly higher percentage of Shawmut than Bank of New England employees answered the question about "what they liked most about the company." The responses to the positive and negative aspect of job and company were scattered for both groups with the exception of pay scale at the Shawmut.

The most frequently cited "dislike" of Shawmut (four out of nine) by its employee was "pay". It is not surprising that no Bank of New England employees complained of pay since (as discussed earlier) these workers began at higher salaries and continue to earn substantially more money. A positive note for both companies is that few respondents from either bank were unhappy with their fellow workers. Both groups saw their fellow workers as "friendly", while the least desirable trait was "backstabbing."

TABLE 28

COMPARING JOB SATISFACTION OF BANK EMPLOYEES

TABLE 28A (N = 21)

WHAT RESPONDENTS LIKE MOST ABOUT THE JOB		
COMPANY	# OF FAVORABLE REPLIES	% OF TOTAL RESPONSE
BANK OF NEW ENGLAND	14	77.8%
SHAWMUT	7	46.7%
TOTALS	21	63.6%

TABLE 28B (N = 15)

WHAT RESPONDENTS LIKE LEAST ABOUT THE JOB		
COMPANY	# OF UNFAVORABLE REPLIES	% OF TOTAL RESPONSE
BANK OF NEW ENGLAND	8	44.4%
SHAWMUT	7	46.7%
TOTALS	15	45.5%

TABLE 28C (N = 17)

WHAT RESPONDENTS LIKE MOST ABOUT THE COMPANY		
COMPANY	# OF FAVORABLE REPLIES	% OF TOTAL RESPONSE
BANK OF NEW ENGLAND	9	50%
SHAWMUT	8	53.3%
TOTALS	17	51.5%

TABLE 28D (N = 18)

<u>WHAT RESPONDENTS LIKE LEAST ABOUT THE COMPANY</u>		
<u>COMPANY</u>	<u># OF UNFAVORABLE REPLIES</u>	<u>% OF TOTAL RESPONSE</u>
BANK OF NEW ENGLAND	9	50%
SHAWMUT	9	60%
TOTALS	18	54.5%

TABLE 28E (N = 20)

<u>WHAT RESPONDENTS LIKE MOST ABOUT CO-WORKERS</u>		
<u>COMPANY</u>	<u># OF FAVORABLE REPLIES</u>	<u>% OF TOTAL RESPONSE</u>
BANK OF NEW ENGLAND	14	77.8%
SHAWMUT	6	40%
TOTALS	20	60.6%

TABLE 28F (N = 10)

<u>WHAT RESPONDENTS LIKE LEAST ABOUT CO-WORKERS</u>		
<u>COMPANY</u>	<u># OF UNFAVORABLE REPLIES</u>	<u>% OF TOTAL RESPONSE</u>
BANK OF NEW ENGLAND	5	27.8%
SHAWMUT	5	33.3%
TOTALS	10	30.3%

COMPARING BANK EMPLOYEES' FUTURE PLANS

Employees at both banks demonstrated a high degree of upward mobility. Few wish to remain at their current

position. A fair number from each group would like to change positions. Almost no one wished to return to college fulltime or to retire. By far, the overwhelming choice of both groups was to seek additional educational training to improve their chances for promotion with their current employer. (See TABLE 29.) Several respondents checked more than one choice; thus there were forty-seven responses from thirty-three respondents.

TABLE 29 (N = 47)
 COMPARING FUTURE PLANS OF BANK EMPLOYEES

COMPANY	REMAIN CURRENT POSITION	SAME JOB DIFFERENT EMPLOYER	JOB CHANGE PRESENT EMPLOYER OR ELSEWHERE	MORE EDUC- ATION FOR PRO- MOTION CURRENT EMPLOYER	COLLEGE FULL TIME	RETIRE	TOTAL
BANK OF NEW ENGLAND	1	2	5	13	2	1	24
SHAWMUT	1	2	6	11	2	1	23
TOTALS	2	4	11	24	4	2	47
% OF TOTAL RESPONSES	4.25%	8.5%	23.4%	51.1%	8.5%	4.25%	100%

T TESTS ON SEX AND SALARY BY AGE FOR THE BOSTON BANKS

T tests were run on the trainee response from the banks to compare salaries for males and females in each of the four age categories on the questionnaire. The bracketing was 18-24, 25-29, 30-49, and 50 and over. Since nearly three times as many women (24) had responded to the survey as men (9), the sampling of males in the three oldest categories was too small for any meaningful comparisons. However, in the 18-24 category there were five males and seven females.

Since some respondents reported their salaries on a weekly basis and others on an hourly basis, all salaries were figured on a 52 week, 40 hour per week basis. Weekly salaries were multiplied by 52; hourly salaries were calculated by multiplying a 40 hour work week by 52 weeks. The 2,080 hour was multiplied by the hourly wage rate to provide the researcher with an annual salary. The five males earned a mean salary of \$15,255.60, while the seven females averaged \$11,625.71. Thus the mean salary for males was \$3,629.89 more than the mean salary for females. In the one tailed T Test, anything smaller than 0.05 would be statistically significant. The one tailed test was 0.012 and the two tailed test was 0.024. The pay differential between men and women, (the women earning 76% of their male counterparts) is only marginally better than the societal ratio. (TABLE 30.)

TABLE 30

T TEST ON SEX AND SALARY BY AGE FOR THE BOSTON BANKS

AGE	NUMBER OF CASES (N)		PROBABILITY OF T		FEMALE EARNING AS PER-CENT OF MALE EARNING	MEAN SALARY	
	MALE	FEMALE	ONE TAIL	TWO TAIL		MALE	FEMALE
18-24	5	7	0.012	0.024	76%	\$15,255.60	\$11,625.71

T TESTS ON SEX AND SALARY BY COMPANY

T tests were run on the trainee response from all the companies surveyed to compare salaries for males and females regardless of age. The only companies with sufficient numbers of males and females for meaningful test results were AVCO and Bank of New England. While males earned more than the females at each facility, the results in both the one and two tailed tests revealed that the salary differentials were not statistically significant.

At AVCO the mean salaries were \$16,036 for four males and \$14,950 for two females. The mean differential was \$1,086 - the one tailed test was 0.401 and the two tailed test was 0.802. The mean salaries for males and females at the Bank of New England were virtually identical. The mean salary for the five men was \$14,997.20 and \$14,644.40 for the ten women. The result of the one tailed test was 0.315 and of the two tailed, it was 0.629. (See TABLE 31.)

TABLE 31

T TEST ON SEX AND SALARY BY COMPANY

COM- PANY	NUMBER OF CASES (N)		PROBABILITY OF T		FEMALE EARNING AS PER- CENT OF MALE EAR- NING	MEAN SALARY	
	MALE	FEMALE	ONE TAIL	TWO TAIL		MALE	FEMALE
AVCO	4	2	0.401	0.802	93.2%	\$16,036.00	\$14,950.00
BANK OF NEW ENGLAND	5	10	0.315	0.629	97.6%	\$14,997.20	\$14,644.40

T TESTS ON RACE AND SALARY BY AGE FOR THE BOSTON BANKS

T tests were run on the trainee response from the two Boston banks to compare salaries for whites and blacks in each of the four age categories on the questionnaire. The sampling was sufficient in all age categories, except 50 and over, for statistically meaningful results. In all age categories, the mean salary for whites was greater than the mean salary for blacks. However, the results of all T tests indicated the results were not statistically significant.

The mean salary for six whites in the 18-24 age group was \$13,975.33. The mean salary for five blacks, at \$11,870.00, was 85% of what whites earned. Thus the pay gap is much narrower than the societal differential for blacks and whites.

In the 25-29 age category, the mean salary was \$19,760

for four whites and \$15,340 for two blacks. Black workers earned nearly 80% of what white workers earned. Once again the pay gap was narrower than for the society as a whole. Likewise, the T Test results were not statistically significant.

The thirteen whites in the 30-49 age group had a mean salary of \$16,493.62, while the seven blacks had mean salary of \$13,548.86 or 82% of what caucasians earned. As in the previous tests, the results are not statistically significant. (See TABLE 32.)

TABLE 32

T TEST ON RACE AND SALARY BY AGE FOR THE BOSTON BANKS

AGE	NUMBER BY RACE (N)		PROBABILITY OF T		BLACKS EARNING AS PER-CENT OF WHITE EARNING	MEAN SALARY	
	WHITE	BLACK	ONE TAIL	TWO TAIL		WHITE	BLACK
18-24	6	5	0.137	0.273	85%	\$13,975.33	\$11,870.00
25-29	4	2	0.184	0.369	80%	\$19,760.00	\$15,340.00
30-49	13	7	0.078	0.156	82%	\$16,493.62	\$13,548.86

T TESTS ON RACE AND SALARY BY TIME ON THE JOB FOR THE BOSTON BANKS

T Tests were run on the trainee response from the two Boston banks to compare salaries for whites and blacks with

equal time on the job. The differential between black and white workers was greater for those employed 18-24 months than for those employed over 24 months. The reasons for the narrowing of the gap were that the median salary for whites declined and the median salary for blacks rose. The decline of white salaries in the over 24 months employed category is partially due to the fact that there were few men in the over 24 month sampling. The earlier T tests on salary by sex revealed a statistically significant difference between the earnings of males and females at the banks.

The mean salary for the ten whites on the job for 18-24 months was \$17,128.50; for the six blacks it was \$12,946.67. Blacks earned 75% of white salaries, marginally better than the societal difference. The T tests results were just marginally not significant (one tailed test 0.056 and two tailed test 0.113)

The sixteen people who were employed by the banks were equally divided between whites and blacks. The black workers' median salary of \$14,007.50 was 94% of the white workers' median salary of \$15,035.50. The T tailed tests were not statistically significant (0.286 and 0.572) (See TABLE 33.)

TABLE 33

T TEST ON RACE AND SALARY BY TIME ON THE JOB
FOR THE BOSTON BANKS

EMPLOYMENT BY MOS.	NUMBER OF RACES (N)		PROBABILITY OF T		BLACK EARNING AS PER-CENT OF WHITE EARNING	MEAN SALARY	
	WHITE	BLACK	ONE TAIL	TWO TAIL		WHITE	BLACK
18-24	10	6	0.056	0.113	75%	\$17,128.50	\$12,946.67
Over 24	8	8	0.286	0.572	94%	\$15,035.50	\$14,007.50

T TESTS ON RACE AND SALARY BY GRADE LEVEL FOR THE BOSTON BANKS

T tests were run on the Bay State graduate response from the two Boston banks to compare salaries for black and white workers with equal levels of education. Tests were also run to compare salaries of black males and black females with equal educational achievements.

The sampling in this series of tests was smaller than the others, with only the "grade 12" and "some college" choices having enough responses to conduct tests. T tests were run for high school graduates at the Bank of New England, for high school graduates at the Shawmut Bank, and for the combined results.

The mean salary for four whites with a high school degree at the Bank of New England was \$14,963; for the two

blacks it was \$13,806. Blacks earned 92% of the white workers' salary. The T tests were not statistically significant. At the Shawmut, the mean salary was \$12,870 for the two white high school graduates and \$12,237.33 for the three black graduates. Black high school graduates at the Shawmut were earning 95% of the white salaries. The T test results were not statistically significant. The median white salary for the combined group was \$14,265.33 and \$12,864.80 for the blacks. Blacks earned 10% less than whites. Again, the statistical test results were not significant. (See TABLE 34.)

The researcher noted earlier in this chapter that the higher pay received by Bank of New England employees was due to their higher educational attainment. However, T tests conducted on high school graduates at both banks revealed that even with the same levels of education, Bank of New England employees regardless of race, earned more than their counterparts at Shawmut. The median salary for both black and white workers at the Bank of New England exceeded the median salary of workers of both races at the Shawmut Bank.

TABLE 34

T TEST ON RACE AND SALARY WITH A HIGH SCHOOL DIPLOMA
FOR THE BOSTON BANKS

EMPLOYER	NUMBER OF CASES (N)		PROBABILITY OF T		BLACK EARNING AS PERCENT OF WHITE EARNING	MEAN SALARY	
	WHITE	BLACK	ONE TAIL	TWO TAIL		WHITE	BLACK
BANK OF NEW ENGLAND	4	2	0.061	0.122	92%	\$14,963.00	\$13,806.00
SHAWMUT	2	3	0.314	0.629	95%	\$12,870.00	\$12,237.33
TOTAL	6	5	0.055	0.111	90%	\$14,265.33	\$12,864.80

There was not enough of a sampling to run a T test comparing earnings of blacks and whites with some college experience at each bank. In a role reversal, the mean salary of the two whites (\$12,844) was 95% of the four black workers' salary (\$13,546.50). Again the statistical results were not significant. The reason for this aberration from traditional wage patterns is the place of employment. As already noted, Bank of New England employees, regardless of race, were paid more than their equally educated counterparts at Shawmut.

A final T test was run comparing the salaries at each bank of black males having some college training with equally educated black females. The mean salary of the two males was \$14,821; the mean salary of the two females was \$12,272, with

the women earning 83% of the male income. While the difference is substantially less than the national average, the figures reflect the pay differentials between the two banks rather than the sexual differences. As in the other tests, the statistical results were not significant. (See TABLE 35).

TABLE 35

T TEST ON SEX AND SALARY FOR BLACKS WITH SOME COLLEGE EXPERIENCE AT THE BOSTON BANKS

NUMBER CASES (N)		PROBABILITY OF T		FEMALE EARNING AS % OF MALE EARNING	MEAN SALARY	
MALE	FEMALE	ONE TAIL	TWO TAIL		MALE	FEMALE
2	2	0.275	0.551	83%	\$14,821.00	\$12,272.00

A note of caution - these T tests are based on a very small sampling. The pay scales do not necessarily reflect what the banks pay all their employees. Further, only 33 of the 47 Bay State graduates employed at the two banks chose to respond to the questionnaire. Of that number, only 25 were willing to divulge their current salary. While the salary differentials between the sexes and the races are better than the societal average, they reflect the responses to this survey only. The data ought not to be compared to broader samplings.

ANALYSIS OF RESPONSES - CROSS TABULATIONS

A number of different cross tabulations were run to see if there were any correlation between responses to particular groupings of questions. The first run was of males and their response to variable 14 ("What made you apply to the program") and to variable 41 under future plans ("Seek additional educational training to improve chances for promotion within this company") with how they rated the training program as compared to other job preparations. (See TABLE 36.) Checking the percentage of the response of each individual with the probability of chance, the data indicated that there was no correlation in the way the respondents answered those questions.

TABLE 36

CROSS TABULATIONS - ANALYSIS OF RESPONSES:
WHY DID PARTICIPANT JOIN THE PROGRAM/ WILL APPLICANT SEEK
MORE EDUCATION FOR PROMOTION WITH HOW RESPONDENT
LIKED THE TRAINING

	NUMBER OF MALES (N)	PROBABILITY OF CHANCE
TRAINING AS GOOD	15	0.782
TRAINING BETTER	12	0.787

A second cross tabulation was run for the responses of males at each company who had checked variable 41 ("Seek additional educational training to improve chances for a

promotion within this company") to see how they rated the training. Again, the figures did not reveal any correlation between the responses. (See TABLE 37.) A third cross tabulation analyzed the male response to how they rated the training with each of the supplemental services listed previously in TABLE 12. Here, as in the other two runs, there was no correlation in the way the respondents answered those questions.

The same tests were run for females with the same results. (See TABLES 38 and 39.) Likewise those same cross tabulations were run for three of the age categories individually (18-24, 25-29, 30-49). In the 18-24 age category those who indicated they will seek more education for promotion also rated the training program "better than", in all other categories the percentages were not statistically significant. (See TABLE 40.)

Cross tabulations were then run by race. The responses by whites and blacks indicated there was no correlation between their responses. However, this run showed that more than twice as many whites entered the training program to get a better job as did blacks (whites 42.9%, blacks 20%). The percents by race were virtually reversed when people checked that they had entered the program to get a job (whites 23.8%; blacks 40%). (See TABLE 41). Those figures tend to parallel unemployment statistics, which show that black unemployment is substantially higher than white unemployment.

TABLE 37

ANALYSIS OF RESPONSES - CROSS TABULATION OF COMPANIES/
HOW RESPONDENT LIKED THE TRAINING WITH WILL APPLICANT
SEEK MORE EDUCATION FOR PROMOTION

NUMBER OF MALES (N)	TRAINING		PROBABILITY OF CHANCE
	AS GOOD	BETTER	
21	11	10	0.324

TABLE 38

CROSS TABULATIONS - ANALYSIS OF RESPONSES:
WHY DID PARTICIPANT JOIN THE PROGRAM/WILL APPLICANT
SEEK MORE EDUCATION FOR PROMOTION WITH
HOW RESPONDENT LIKED THE TRAINING

	NUMBER OF FEMALES (N)	PROBABILITY OF CHANCE
TRAINING AS GOOD	16	0.264
TRAINING BETTER	18	0.471

TABLE 39

ANALYSIS OF RESPONSES - CROSS TABULATION OF COMPANIES/
HOW RESPONDENT LIKED THE TRAINING WITH WILL APPLICANT
SEEK MORE EDUCATION FOR PROMOTION

NUMBER OF FEMALES (N)	TRAINING		PROBABILITY OF CHANCE
	AS GOOD	BETTER	
22	8	14	0.313

TABLE 40

CROSS TABULATIONS - ANALYSIS OF RESPONSES:
 WHY DID PARTICIPANT JOIN THE PROGRAM/WILL APPLICANT
 SEEK MORE EDUCATION FOR PROMOTION WITH
 HOW RESPONDENT LIKED THE TRAINING

AGE	TRAINING BY NUMBER ([N])		PROBABILITY OF CHANCE	
	AS GOOD	BETTER	AS GOOD	BETTER
18-24	7	11	0.350	0.084
25-29	13	5	0.879	1.000
30-49	10	14	0.435	0.742

TABLE 41

CROSS TABULATIONS - ANALYSIS OF RESPONSES:
 WHY DID PARTICIPANT JOIN THE PROGRAM/WILL
 APPLICANT SEEK MORE EDUCATION FOR PROMOTION
 WITH HOW RESPONDENT LIKED THE TRAINING

RACE	TRAINING BY NUMBER ([N])		PROBABILITY OF CHANCE	
	AS GOOD	BETTER	AS GOOD	BETTER
WHITE	21	15	0.432	0.930
BLACK	10	9	0.223	0.413

One last cross tabulation was run by company comparing what employees who planned to remain on the job liked most about their company. The most popular response for almost all the companies was benefits, with 58.1% of the responses. Environment and prestige were tied for second with 12.9% each. The remaining responses were scattered.

CORRELATION BETWEEN PAY, TIME ON THE JOB AND EDUCATION

As a prelude to the final tests examining the correlation between pay, time on the job and education, an analysis was run on the BSSC graduates time on their present job. Fifty nine or 90.8% of the respondents provided that information on the questionnaire. The results are shown in figures 4,5, and 6 on the following three pages. The data is presented in three different ways. Figure 4 gives statistics in columns by time on present job, the number of responses, the percent of each response in the total, and the cumulative response. The material in figure 5 presents the material on a graph; the number of cases by the time on present job. The sixth figure is a bar graph of time on present job.

ANALYSIS OF TIME ON PRESENT JOB

FIGURE 4

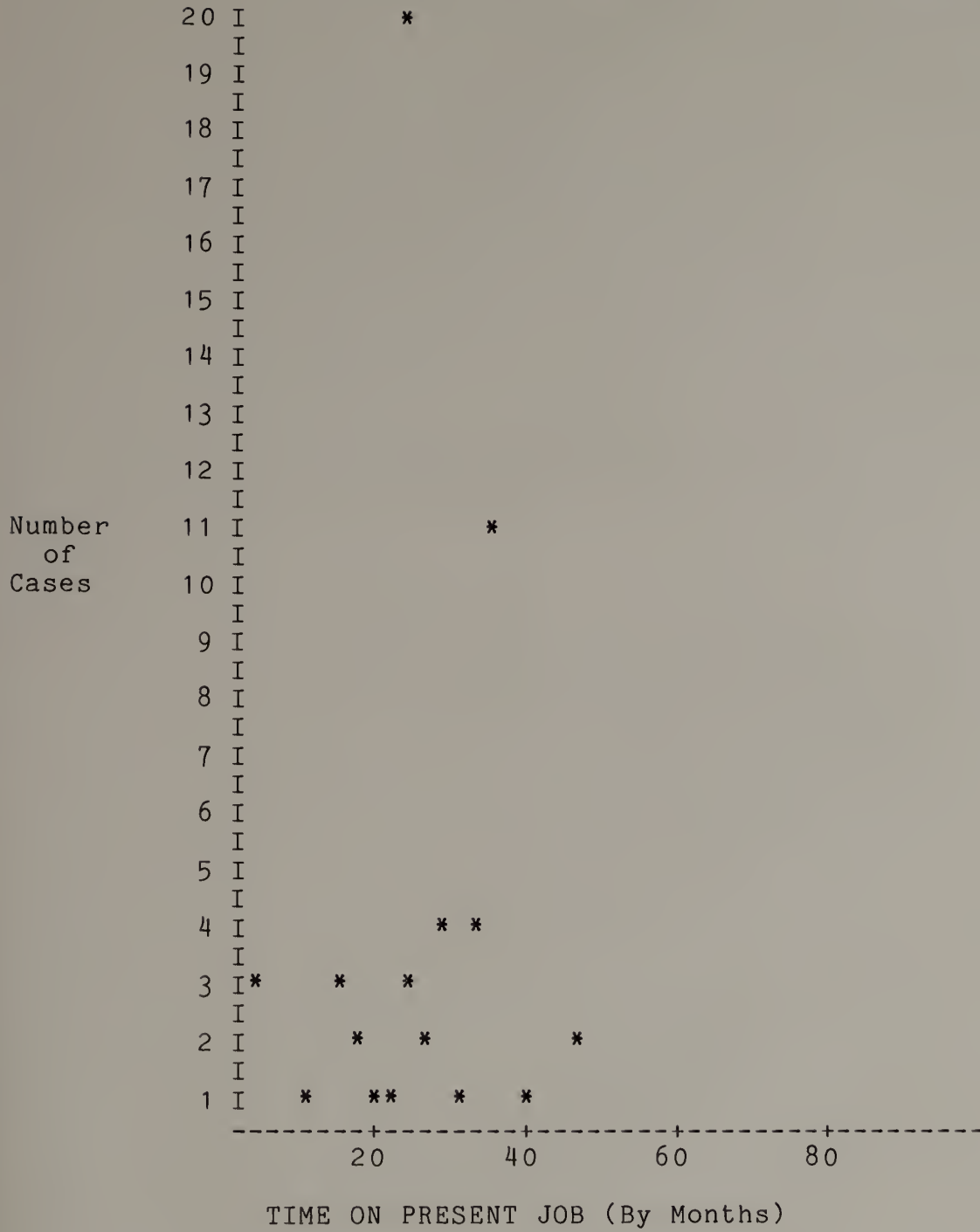
TIME ON PRESENT JOB (By Months)	Number of Respondents	Percent	Cumulative
6 =	3	5.1%	5.1%
12 =	1	1.7%	6.8%
15 =	2	3.4%	10.2%
16 =	1	1.7%	11.9%
18 =	2	3.4%	15.3%
20 =	1	1.7%	16.9%
22 =	1	1.7%	18.6%
24 =	20	33.9%	52.5%
25 =	1	1.7%	54.2%
26 =	2	3.4%	57.6%
28 =	2	3.4%	61.0%
30 =	4	6.8%	67.8%
32 =	1	1.7%	69.5%
34 =	4	6.8%	76.3%
36 =	11	18.6%	94.9%
40 =	1	1.7%	96.6%
48 =	2	3.4%	100.0%
Total	<u>59</u>	<u>100.0%</u>	<u>100.0%</u>

Missing cases = 6

Response percent = 90.8%

ANALYSIS OF TIME ON PRESENT JOB

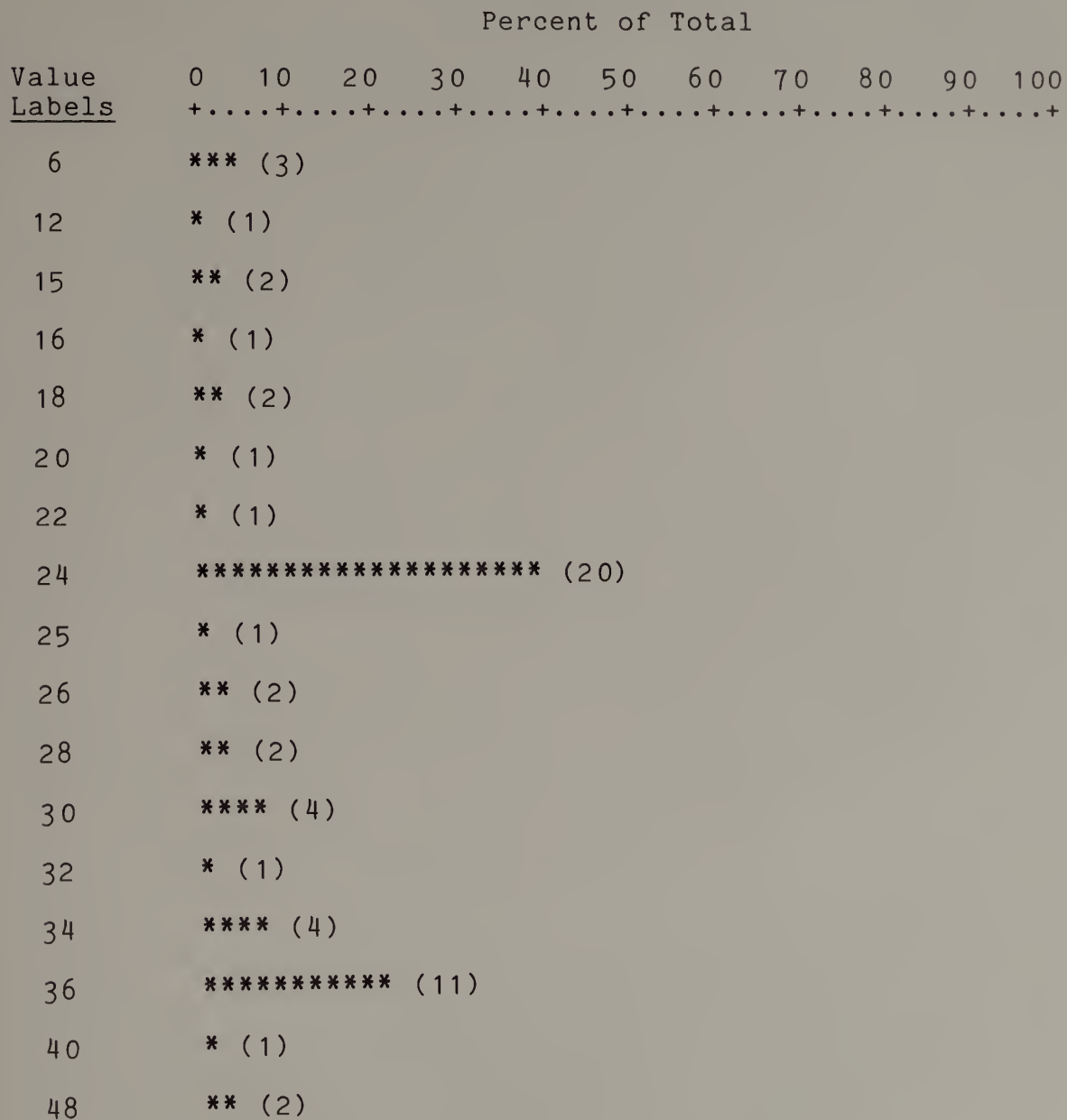
FIGURE 5



ANALYSIS OF TIME ON PRESENT JOB (Continued)

FIGURE 6

Bar Graph of TIME ON PRESENT JOB (By Months)



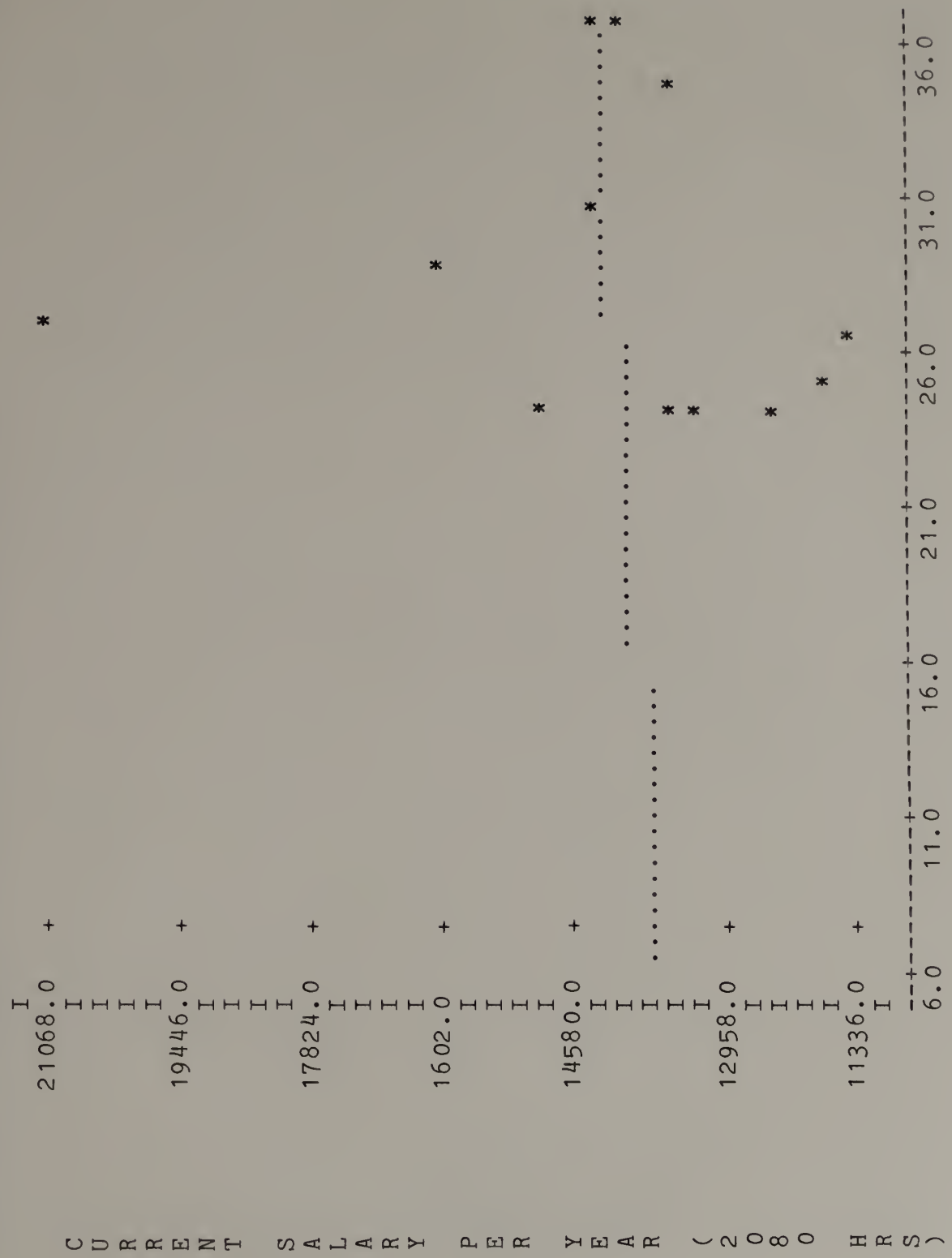
The test for pay and time on the job for high school graduates (12 equals a high school diploma) showed there was no correlation. The data was scattered. Most people had been employed in their present positions for twenty-four months, with salaries ranging from \$11,335 to \$21,068. (See FIGURE 7.) Similarly, there proved to be no correlation between pay and time on the job for people with some college training (13 equals some college education). Once again the data was too scattered. (See FIGURE 8.)

With a correlation coefficient of -0.457 , there was a mild negative correlation between pay, time on the job, and a college degree (16 equals a baccalaureate degree). (See FIGURE 9.)

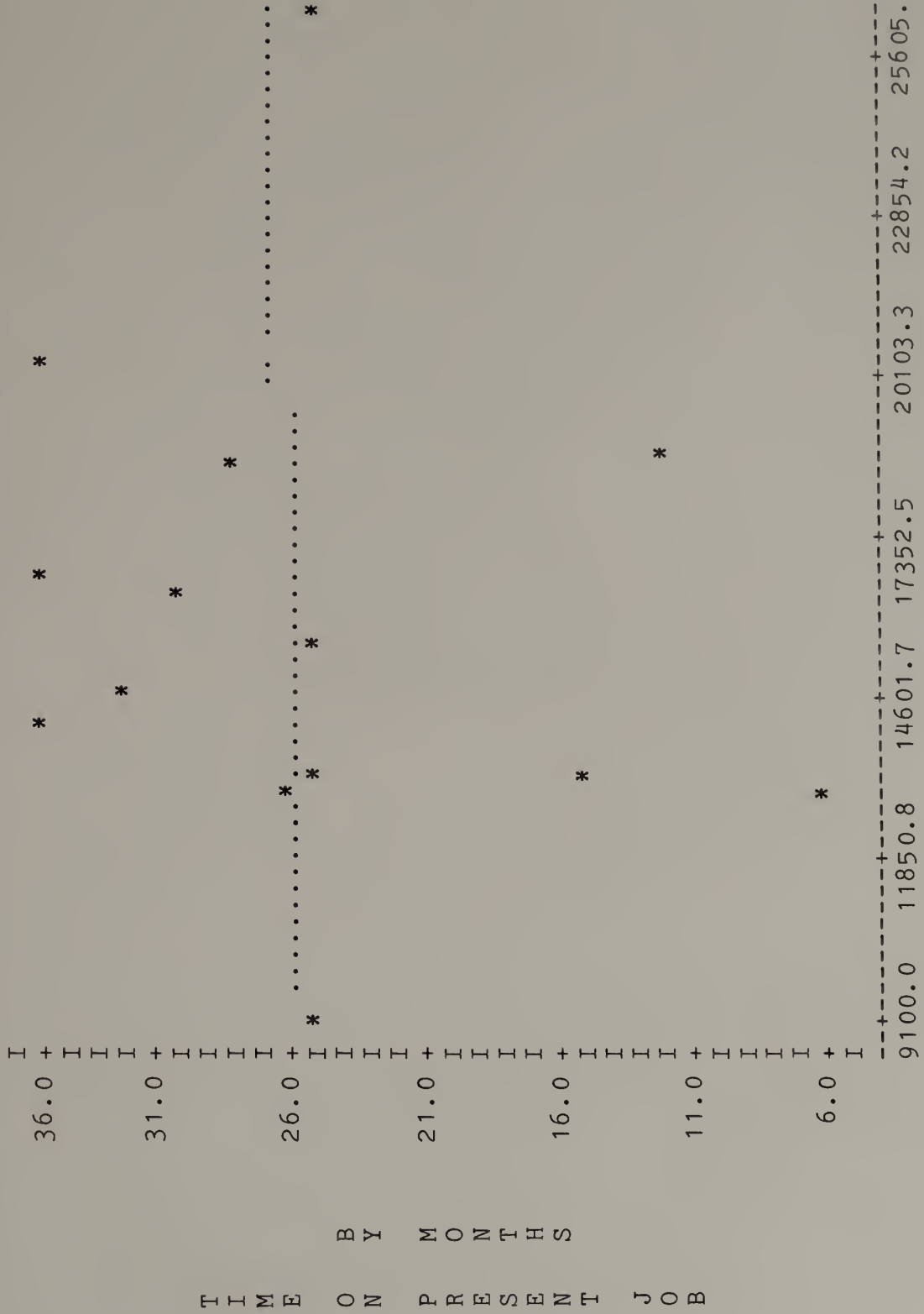
Since only forty-one of the fifty-nine respondents who listed their time on the job also provided their salary data, the sampling for the correlation tests was smaller.

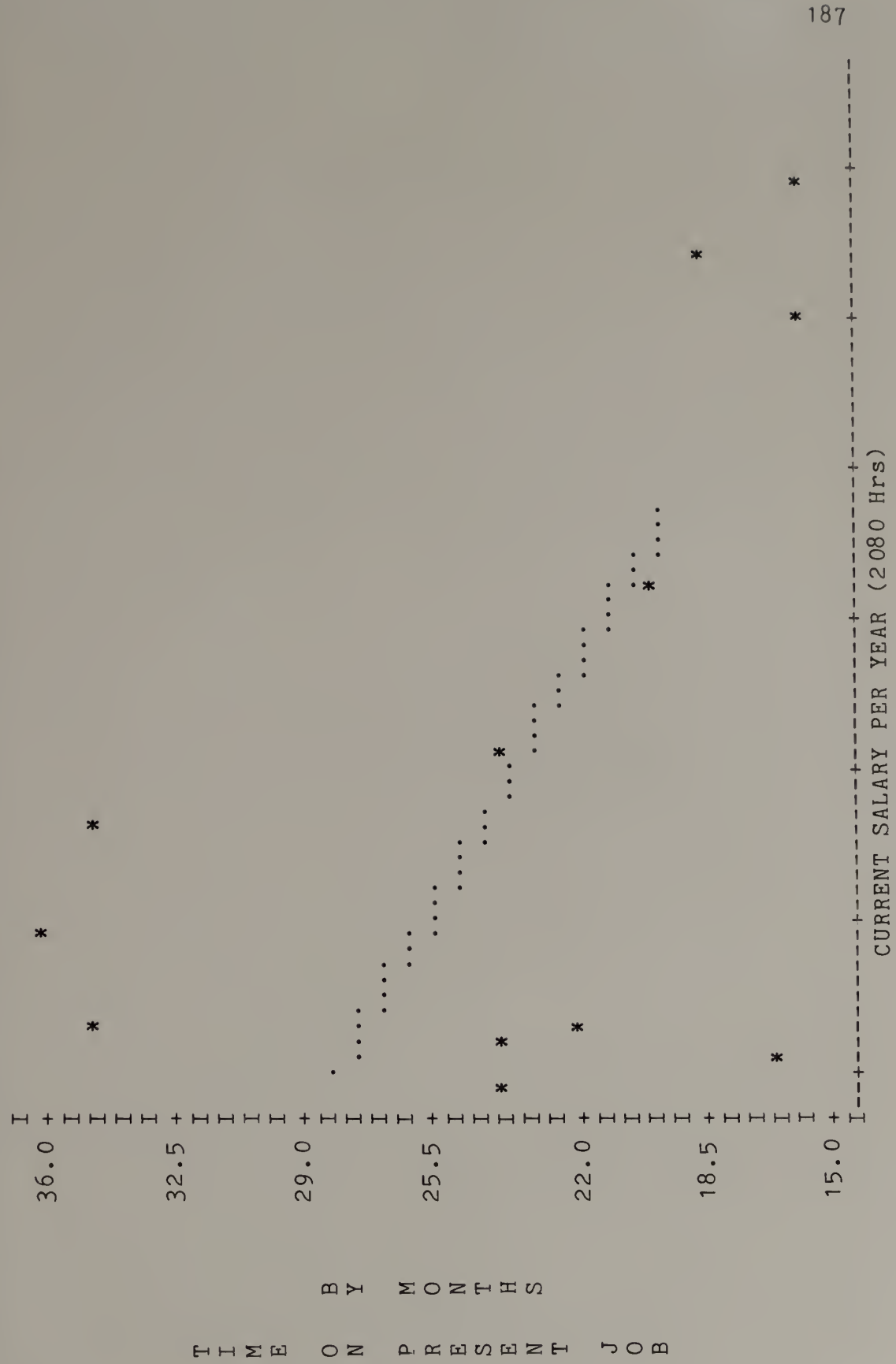
CORRELATION BETWEEN PAY AND TIME ON JOB FOR EDUCATION = 12

FIGURE 7



CORRELATION BETWEEN PAY AND TIME ON THE JOB FOR EDUCATION = 13





CHAPTER V

SUMMARY, CONCLUSIONS, RECOMMENDATIONS AND IMPLICATIONS

The purpose of this study was to investigate the on-the-job performance of graduates of some of the Bay State Skills Corporation training programs. Through personal interviews with corporate executives, data was compiled on the following: why the company participated in the training program, (where applicable); what prompted the company to hire graduates of those programs; and whether this is a helpful way to attract workers. In addition, employers were asked how many trainees they still employed. Management personnel were asked how BSSC trained employees handled instruction and performed their daily tasks compared to other employees. Whether BSSC graduates were promoted at the same rate as other personnel employed in similar positions was also examined.

Where appropriate, companies that had specific goals in their contracts for hiring women, minorities or the unemployed were asked why they failed to achieve that target. Firms that had higher than normal attrition rates for BSSC trainees were asked why. In addition, employers were requested to cite any on-the-job problems experienced by some of the BSSC graduates.

Toward the close of the interviews, management personnel were asked whether they would recommend that their companies be involved with future BSSC training programs. The final interview question was whether they would hire other BSSC graduates.

The interviews were conducted between July 17, 1985 and August 8, 1985. Only the interview with New England Art Company was conducted over the telephone, the remaining interviews were conducted in the offices of the interviewees. In the opinion of the researcher, all the respondents were quite candid and none gave any cues that modified those answers.

Former trainees who were still working for the companies where the interviews were conducted were requested to complete a questionnaire. In addition to demographic data, the BSSC graduates were requested to list both their initial and current salaries.

The graduates were asked how they learned of the program and why they applied to it. The respondents were requested to rate the job preparation and the teaching in the program, and to identify from a list the supplemental help the educational-job training program provided. They were then asked if, in their opinion, they could have gotten their present position without BSSC training. Former trainees were asked both to describe their job and whether there were opportunities for promotion within their companies. Finally,

there were questions regarding job satisfaction and graduates' future plans.

Tests were run comparing the levels of education of the trainees hired by the two banks. Starting and current salaries for the banks were compared. Comparisons were run on how the respective bank employees rated the training program and the teaching in that program. Job satisfaction at the banks was also compared, as were salaries for male and female workers, and salaries by age and race. Tests were run comparing salaries for white and black bank workers with equal levels of education. A comparison was done on why blacks and whites entered the training program.

The questionnaires were distributed in sealed envelopes by management personnel. All the interviewees had been provided with a copy of the material in that packet. The completed questionnaires were returned between July and November 1985.

The results of this study will be found in the next section.

SUMMARY OF FINDINGS

The following data is a summation of the ten interviews with management personnel at eight of the facilities which hired some BSSC graduates.

1. Half of the respondents cited a need for labor as

the principal reason their companies participated in the training program. The balance of the answers were divided between companies believing they had social responsibility to the community, the lack of company training programs or a referral by colleagues at other companies.

2. Labor needs was the most frequently cited reason for hiring Bay State graduates. Some of the firms mentioned an acute shortage of trained personnel in their area. Cost effectiveness was the second most frequently given reason for hiring the former trainees. The balance of the answers was scattered.

3. One hundred of the one hundred seventy five graduates are still with the same employers. Three of those companies experienced high attrition rates with Bay State graduates. The reasons for the higher than normal attrition rate at the two Boston banks and the New England Art Company will be addressed later in this chapter.

4. All supervisors of BSSC trained personnel said that the former trainees handle both instruction and their daily job performance as well as, or better than, other employees in similar positions.

5. The responses on the issue of promotion were divided evenly. Half the managers said that Bay State graduates received promotions at the same rate as other employees and half said their promotion rate was better than average.

6. AVCO was unable to meet its contractual goal for

hiring women and minorities. The company said that women were not interested in becoming plastic technicians. Attempts to recruit minorities in Lowell and Lawrence were generally unsuccessful. The facility is not accessible by public transportation and few minority workers, due to low income owned cars.

7. The reason for high attrition rates were as follows:

- a.) Bank of New England cited frustrated expectations and a miscuing of curriculum. (e.g. Some of the trainees wanted to be accountants rather than clerks based on the limited training they had in accounting).
- b.) New England Art mentioned that trainees might not have been made aware during the training that some of the jobs are tedious, that the commute is long and that a car is necessary.
- c.) Shawmut Bank said that many of the former trainees were not ready for work, that a large number of them were women head-of-households who were overwhelmed by the responsibility of the home and a job.

8. Explanations for on-the-job problems encountered by target people were:

- a.) Bank of New England thought the problem was that many BSSC graduates had limited work experience and did not understand the norms of the business world.
- b.) New England Art Company believed that workers from a depressed region had chips on their shoulders.
- c.) Shawmut Bank thought that help was needed when people moved from the welfare rolls to the labor force.

d.) Veterans Hospital also believed some individuals had chips on their shoulders against society.

9. All interviewees would recommend their companies become involved with future BSSC training programs.

10. All management personnel would hire graduates of other BSSC training programs.

The following information was gathered from the questionnaire responses of sixty-five graduates of the BSSC training programs that were surveyed.

1. Sixty-three of the respondents had smaller incomes prior to enrolling in the BSSC program. Slightly more than half worked at lower paying fulltime jobs; the rest worked part time, were unemployed, were on welfare, or received some other type of support.

2. Nearly 85% of the Bay State graduates who responded to the questionnaire have been on-the-job for two years or more.

3. The starting salaries at the completion of the training programs ranged from \$4,576-\$24,500; their current salaries range from \$9,100-\$28,500.

4. Eighty-five percent of the respondents heard of the training program through advertisements in newspapers; from friends, neighbors, or relatives; or through their employers.

5. Twenty-three of the BSSC graduates applied to the program to increase their job skills. Twenty former trainees entered the program to get a better job, while nineteen

graduates registered for the program to get a job. The remaining three graduates enrolled for a career change.

6. The respondents were evenly divided on their rating of the training program. Thirty-two graduates said it was "as good as" other job preparations; thirty-two said it was "better than" other training programs; only one rated it "not as good."

7. When asked to rate the teaching in the program, thirty-six BSSC graduates said it was "as good", twenty-seven rated it "better than average," and only two graduates said it was "not as good".

8. Thirty respondents thought they were well prepared for their job because of the training program. Thirty-four graduates answered that they were prepared, and only one former trainee thought he/she was poorly prepared.

9. The BSSC graduates chose from a list those supplemental aids they believed the educational job training program provided. Their responses in declining order were: Resume Writing, forty-four; Job Interview Techniques, thirty-six; Employment Information with Specific Companies, twenty-five; Personal Counseling, nineteen; and Tutoring, twelve. Thirteen former trainees said the program offered no supplemental help.

10. Almost 85% of the respondents felt they could not have gotten their present jobs without the training program.

11. The most common job classifications for former

trainees were; clerk, twenty-five; technician, ten; and assembler, nine.

12. Nearly 88% of the respondents believed there was opportunity for promotion within their company.

13. The leading choice for job satisfaction by the graduates was "interesting" - the choice of 44.2% of the respondents.

14. "Benefits" was the number one choice of the respondents (47.4%) in answering what they liked most about the company.

15. Nearly 93% of the former trainees thought their co-workers were friendly.

16. Forty-four (56.1%) of the respondents wanted to seek additional educational training to improve their chances for promotion within their company.

17. Comparing the two Boston banks involved in the ABCD/BSSC training program, Bank of New England employees had a higher level of education when they entered the training program and began their jobs at higher salaries. According to the salary data provided by the respondents, that wage gap has not merely continued, but widened.

18. A greater percentage of Bank of New England employees rated the training program and the teaching "better than average" than did the Shawmut employees.

19. The Bank of New England employees had a more favorable attitude toward their company and were less unhappy

about their salaries.

20. Men tended to earn more money than women engaged in similar lines of work at the same company, though the gap is less than the societal norm.

21. Whites earned more than blacks in all age categories though there was less difference than the societal norm.

22. Bank of New England employees, regardless of race, earned more than their counterparts at Shawmut with the same levels of education.

23. Whites were more than twice as likely to have entered the training program to get a better job than blacks. Blacks were more than twice as likely to have entered the training program to get a job than whites.

CONCLUSIONS

The following conclusions can be drawn from the findings in this study:

1. Labor need was the principle reason why companies were involved both with training programs and with hiring graduates of those programs.

2. The results of these interviews provide BSSC with the first hard, long-term job placement statistics for its trainees.

3. BSSC graduates handle instructions, perform their

daily tasks, and are promoted "the same" or "better than" other employees in similar positions.

4. The absence of public transportation and lack of automobile ownership are major impediments for minority and economically disadvantaged people to get higher paying jobs in the suburbs.

5. Some training programs do not present or inform the trainees about all the day-to-day task of jobs.

6. Trainees cannot move directly from the welfare rolls to the workforce without transitional support services.

7. Management personnel have positive opinions about BSSC. They would recommend that their companies become involved with future programs, and they would hire future BSSC trainees.

8. Ninety-seven percent of the former trainees improved their earnings after graduating BSSC training programs.

9. Trainees applied to the programs in almost equal proportions to increase their job skills, to get a better job, or simply to get a job.

10. Respondents were nearly unanimous regarding the high quality of training, teaching, and job preparation of the BSSC programs.

11. Not all the trainees have a clear view of what, if any, supplemental aids were offered by the job training programs.

12. Most respondents were pleased with their jobs,

their companies, and their fellow workers.

13. A majority of BSSC graduates wanted more education to improve promotional opportunities.

14. More education meant higher salaries at the two Boston banks.

15. Bank of New England employees had a more positive attitude toward BSSC and their employer than Shawmut workers.

16. Men earned more than women in similar occupations at the same company and whites earned more than blacks, though in each case the differential was less than the societal norm.

17. The differing reasons why whites and blacks entered the training programs reflected their respective employment situation in American society (i.e. black unemployment is twice the white rate, and therefore blacks are more likely to enter training programs that will help them get marketable skills for a job).

RECOMMENDATIONS AND IMPLICATIONS

Based on the findings, conclusions and a review of the literature, particularly the material on collaboration, the following recommendations are made to Bay State Skills Corporation:

1. Persons responsible for the development and implementation of curricula in the training program should

ensure that, when instructors have little or no experience in the business world, guest lecturers with that expertise instruct students on day-to-day experiences they could expect to encounter. The trainees would be exposed to both the practical as well as the theoretical approach before beginning their internships.

2. Trainees with little or no prior employment experience have to be informed at the beginning of the training program that supervisors will sometimes ask them to perform tasks that go beyond the job description. The trainees need to understand that such requests are part of the normal business routine and not that their employers are taking advantage of them.

3. The training programs should not raise unreasonable expectations. Trainees must clearly understand that successful completion of a training program prepares them for a specific job. Limited exposure to more involved instruction does not prepare a trainee for a more responsible position. (e.g. a few hours of instruction in auditing and accounting principles for clerk or junior accounting positions does not qualify an individual to become an auditor or accountant).

4. Trainees should have a clear understanding of what, if any, supplementary supports are available during the training program.

5. The contracting companies must be assured constantly

of the quality control in a program, so that they will hire graduates and continue to participate in future programs.

6. BSSC staff must improve their contact with private sector partners beyond monthly board meetings in order to gauge their partners' involvement and view of a program's progress. Further, a survey of private sector partners should be conducted upon the completion of a training program with an eye toward improving future programs.

7. Programs aimed at the employment of target groups (e.g. women, minorities or welfare recipients) should provide transitional support services. People with little or no prior employment can not simply be thrust into the job market without help while they are adjusting to this new experience. This is particularly true for single parent families. Services that should be provided include, but are not limited to, day care, social workers, and Medicaid benefits. The maintenance of support services during a transitional period will prevent the trainees from being overwhelmed by crises and thus they will be less likely to quit or be dismissed from their jobs. These services will require government involvement either through direct payments to recipients, negative income taxes, or through tax credits to businesses so that the employer is encouraged to provide services for its employees.

8. When trying to recruit "target people" (e.g. women, minorities, or people on public assistance), the recruiting

team should include personnel with whom the target people can identify.

9. Popular and necessary programs such as the Bristol Community College printing program should be offered at satellite campuses close to centers of printing employment outside of southeastern Massachusetts. This would lower job turnover, since the cost and time spent on commuting would diminish.

10. Transportation must be made available to the poor, the minorities, and the disadvantaged to enable them to reach jobs in suburbs not serviced by public transportation. This would require direct government aid through subsidies to public or private transit systems or by tax credits to business.

11. The long term success of BSSC depends upon education; that is the critical component. A supervisor of the ABCD training program said that many of the trainees lacked a high school education. Over two-thirds of the ABCD trainees still on the job returned the questionnaire. Fewer than 13% of the respondents did not have a high school diploma. The researcher concludes that most of the people no longer with either bank did not graduate from high school. Yet the Bank of New England official stated that bank jobs are requiring "a higher degree of sophistication." Based on that comment, the researcher recommends that trainees without a high school diploma need additional education and tutoring

before entering the job training programs if they are to succeed in the labor market. Remedial reading, writing, and mathematics courses should be taught. Training in interpersonal skills should be provided, also, as well as both academic and personal counseling. This initial and additional cost will reduce the turnover rate, which in the long run will reduce company expenditures.

12. Training program dropouts should be surveyed as soon as they are officially withdrawn from a program to learn why they did not complete the training.

13. All newly graduated trainees should be surveyed for their suggestions on program improvement. The graduates are well qualified to comment on the strengths and weaknesses of the training program.

SUGGESTIONS FOR FURTHER RESEARCH

This dissertation has examined only part of the picture. Additional areas of study that might be investigated are:

1. The remaining job training programs and companies.
2. The training institutions with whom the Corporation was a partner, for their perceptions of the program.
3. The opinions of the several thousand graduates of Bay State's other training programs who are also still on-the-job.
4. The opinions of the graduates of training programs

who are no longer on-the-job. Did the training raise unwarranted expectations that simply could not be fulfilled?

5. The opinions of dropouts from BSSC programs. Why did they not complete the training? Was there a problem with the training itself?

6. The success of other states which have replicated the Bay State model.

APPENDIX A

LETTER OF INTRODUCTION TO A
CORPORATE OFFICIAL

BSSC

Bay State Skills Corporation
101 Summer Street, 2nd Floor
Boston, MA 02110
(617) 292-5100

July 10, 1985

Your participation in a Bay State Skills Corporation funded program has demonstrated that partnerships between education/training institutions and private industry do work. The economic growth and development of this State has been impacted by your active involvement with the creative collaborative ventures that have been encouraged and supported by BSSC. Ninety-one percent of BSSC program graduates are successfully employed in Massachusetts' workforce.

Mr. Robert Greenblatt, after researching the employment trends of Massachusetts, has decided to conduct a follow-up study of some BSSC program graduates for his Doctoral dissertation. Mr. Greenblatt expects to:

- interview Training Directors/Supervisors of former trainees
- interview, where applicable, Directors of Corporate contributions
- submit a questionnaire to a sampling of former trainees.

Although this activity is independent of the Corporation, I am soliciting your cooperation with Mr. Greenblatt in the spirit of partnership. The information he gathers will be made available to BSSC and can be made available to you as well, if you wish.

Please allow this communication to serve as an introduction to Mr. Greenblatt. He will be contacting you in the near future to request an appointment.

Thank you in advance for your attention to this matter.

Sincerely,

Christopher J. Brennan
Assistant Director

/dp

APPENDIX B

THANK YOU LETTER TO TELEPHONE INTERVIEWEE

July 18, 1985

Dear

Thank you for discussing the Bristol Community College/Bay State Skills Training program for printing operators with me on Wednesday July 17, 1985. When all the data is completed, I will end you a copy.

I have also enclosed the questionnaires, which you have agreed to distribute, to _____ and _____ . A letter of explanation and a self-addressed, stamped envelope is included with each packet.

Thanks again, I remain

Sincerely yours,

Robert H. Greenblatt

APPENDIX C

LETTER TO BSSC GRADUATES

DEAR

I am taking a survey of people who were trained as clericals or accounting clerks by ABCD and Bay State Skills Corporation in conjunction with the Shawmut Bank of Boston and the Bank of New England.

The information you give me will be helpful in planning future job training programs. I appreciate your taking the 10 minutes necessary to answer the enclosed questionnaire. Please return it to me in the stamped, self-addressed envelope as soon as possible.

Thank you for your help. Your cooperation is gratefully appreciated.

Sincerely yours,

Robert H. Greenblatt

APPENDIX D

LETTER TO INTERVIEWEES

December 31, 1985

Dear

I've enclosed a copy of the interview we had this past summer. If you wish to make any corrections of the transcript, please send them to me within two weeks.

Thank you,

Robert H. Greenblatt

P.S.

The data from the questionnaire was entered into the computer and I have received the first run. Once the program is complete, probably around March 1, I'll provide you with a copy.

APPENDIX E

CODING GUIDELINES FOR INTERVIEWS

CODING GUIDELINES FOR INTERVIEWS

For QUESTIONS 1 and 2 the options are:

YES
 NO
 OTHER or DON'T KNOW
 NOT APPLICABLE

For yes answers a maximum of a one line description on how the individual or the company was involved with the training program.

For QUESTION 3

LABOR NEED (labor pool, job pool, labor shortage,
 manpower need)
 NO COMPANY TRAINING PROGRAM
 REFERRAL (referred by a sister agency)
 SOCIAL RESPONSIBILITY (socially conscious company)

For QUESTION 4

AGREEMENT WITH BSSC
 COST EFFECTIVE
 INTERNSHIP PROGRAM
 LABOR NEEDS (looking for a few good people, had the
 openings)
 OTHER or DON'T KNOW
 NOT APPLICABLE

For QUESTION 5

ENTHUSIASTIC YES (great benefit, unqualified yes,
 absolutely, or great program)
 YES WITH QUALIFICATIONS (depending on need or skill,
 market demands)
 NO
 OTHER or DON'T KNOW
 NOT APPLICABLE

For QUESTION 6A

STATISTICAL DATA

For QUESTION 6B

AS WELL AS (worked out incredibly well, program among
 the best, equal to, about the same)
 BETTER THAN (70% better, progress faster than normal)

NOT AS GOOD
 OTHER or DON'T KNOW (no basis for comparison, no
 knowledge)
 NOT APPLICABLE

For QUESTION 6C

AS WELL AS (take direction very well, self-starters,
 came up to speed quickly, fairly similarly)
 BETTER THAN
 NOT AS GOOD
 OTHER or DON'T KNOW (no knowledge, none whatsoever)
 NOT APPLICABLE

For QUESTION 6D

AS WELL AS (very well, at least as good, all things
 being equal, no major differences)
 BETTER THAN (a lot better, yes by extrapolation)
 NOT AS GOOD
 OTHER or DON'T KNOW (no knowledge, work autonomously,
 not involved with day-to-day
 management)
 NOT APPLICABLE

For QUESTION 6E

AS WELL AS (normal progression)
 BETTER (progression more dramatic, pretty aggressive,
 probably better than average)
 NOT AS GOOD
 OTHER or DON'T KNOW (would not be surprised, did not
 check their performance)
 NOT APPLICABLE (did not respond)

For QUESTION 7

UNQUALIFIED YES (I have, go that route again)
 QUALIFIED YES (if there's a need, if same quality,
 willing to take a risk, more say in
 training)
 NO

For QUESTION 8

UNQUALIFIED YES (would go back, better than general
 labor pool, we do, definitely)
 QUALIFIED YES (if maintained same philosophy and
 quality, if company involved with
 training, if they have the skills)

NO

For QUESTION 9 (multiple options per company are possible)

NEED FOR MINORITY EMPLOYEES
MINIMAL RESPONSE TO RECRUITMENT
TRANSPORTATION DIFFICULTIES
WOMEN UNINTERESTED IN THE OCCUPATION

For QUESTION 10 (multiple options per company are possible)

FAMILY PROBLEMS
MISCUING IN CURRICULA
TRANSPORTATION

For QUESTION 11 (multiple options per company are possible)

CHIP ON SHOULDER
LACK OF DIFFERENT EXPERIENCES
MISCUING IN CURRICULA
TRANSITIONAL HELP NECESSARY FROM GOVERNMENT

APPENDIX F

INTERVIEW CODING FORM

INTERVIEW CODING FORM

QUESTION 1 Were you involved with the Bay State Skills Corporation Training program? If so, how? List the method of each individuals involvement with the training program.

YES
NO
OTHER/DON'T KNOW
NOT APPLICABLE

QUESTION 2 Was the company involved with the training program? If so, how? List the method of company involvement.

YES
NO
OTHER/DON'T KNOW
NOT APPLICABLE

QUESTION 3 What prompted the company to participate in the training program?

LABOR NEED
NO COMPANY TRAINING PROGRAM
REFERRAL
SOCIAL RESPONSIBILITY

QUESTION 4 What prompted your company to hire some of the graduates?

AGREEMENT WITH BSSC
COST EFFECTIVE
INTERNSHIP PROGRAM
LABOR NEEDS
OTHER/DON'T KNOW
NOT APPLICABLE

QUESTION 5 Has the company found the training helpful in attracting workers?

UNQUALIFIED YES
QUALIFIED YES
NO
OTHER/DON'T KNOW
NOT APPLICABLE

QUESTION 6A How many BSSC trained employees are still working for your company?

STATISTICAL DATA

QUESTION 6B How do BSSC trained employees compare with employees trained by your company or other training agencies?

AS WELL AS
BETTER THAN
NOT AS GOOD
OTHER/DON'T KNOW
NOT APPLICABLE

QUESTION 6C How well do BSSC trained employees handle instruction compared with non BSSC trained personnel?

AS WELL AS
BETTER THAN
NOT AS GOOD
OTHER/DON'T KNOW
NOT APPLICABLE

QUESTION 6D How well do BSSC trained employees handle their daily routine compared to non BSSC trained personnel?

AS WELL AS
BETTER THAN
NOT AS GOOD
OTHER/DON'T KNOW
NOT APPLICABLE

QUESTION 6E Do BSSC trained employees receive the same rate of promotions as personnel in similar positions?

AS WELL AS
BETTER THAN
NOT AS GOOD
OTHER/DON'T KNOW
NOT APPLICABLE

QUESTION 7 Would you recommend that your company be involved with future BSSC training programs?

UNQUALIFIED YES
QUALIFIED YES
NO

QUESTION 8 Would you hire other BSSC graduates?

UNQUALIFIED YES
QUALIFIED YES
NO

QUESTION 9 (multiple options may apply to a company)

How successful was your company in meeting its contractual goals in hiring women, minorities and/or the unemployed?

MINIMAL RESPONSE TO RECRUITMENT
NEED FOR MINORITY EMPLOYEES
TRANSPORTATION PROBLEMS
WOMEN UNINTERESTED IN THE OCCUPATION

QUESTION 10 (multiple options may apply to a company)

To what do you attribute the high rate of attrition among women, minorities and/or the unemployed?

FAMILY PROBLEMS
MISCUING IN THE CURRICULA
TRANSPORTATION PROBLEMS

QUESTION 11 (multiple options may apply to a company)

What problems did women, minorities and/or the unemployed encounter on-the-job?

CHIP ON SHOULDER
LACK OF DIFFERENT EXPERIENCES
MISCUING IN THE CURRICULA
TRANSITIONAL HELP FROM GOVERNMENT IS NECESSARY

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