



TRADE ADJUSTMENT ASSISTANCE FOR FIRMS:  
RELEVANCE FOR ECONOMIC ADJUSTMENT POLICY

by

DAVID MICHAEL WEISS

Submitted to the Department of Urban Studies  
and Planning on May 28, 1984 in partial fulfillment  
of the requirements for the Degree of  
Master of City Planning

ABSTRACT

This paper evaluates the Trade Adjustment Assistance (TAA) program for firms, a federal program created by the Trade Act of 1974, which authorizes the federal government to provide up to \$4 million in financial and technical assistance to firms that have been hurt by foreign competition. The goal of the program is to make firms more competitive through management improvements, new product development, more efficient production processes, or marketing programs.

It looks at the program from two different angles, using three case studies of assisted firms in the New England region and other evidence: 1) How effective has the program been in meeting its goal of making firms more competitive? and 2) What lessons does it provide for the development of federal and state policies for dealing with the problems of troubled firms in industries facing declining competitiveness?

The paper concludes that, in spite of administrative and political problems which have reduced its efficiency, the program has had a positive impact on the economic performance of assisted firms.

A major policy conclusion of the paper is that it is possible for the government to save some troubled firms and, further, that the government should attempt to save economically viable firms as long as aid is conditioned on explicit agreements to increase the competitiveness of the firm and account for the interests of workers. The paper also points out that government policy can alter the business climate in ways that promote the economic viability of firms.

Management failure, rather than high labor costs, was found to be the most significant cause of firm failure in all three case studies. This finding implies that the competitive restructuring of American firms and industries will require,

in addition to an expanded government role, highly creative business strategies on the part of management. The paper concludes that the major competitive business strategies being adopted by U.S. firms--market niches, new product development, and modernizing the production process--may restore short-term competitiveness, but it's not clear whether these strategies will ensure long-range competitiveness.

The paper recommends that the existing TAA program could be improved by a strong federal commitment, reducing time delays, and involving employees in planning the reorganization of firms.

The paper concludes that if state programs for aiding troubled firms are to be effective, they should be able to deliver services promptly, enjoy stability, be insulated from local politics, and focus on providing technical assistance. However, the TAA program's experience suggests that states are limited in what they can do by macroeconomic factors they have no control over, such as the strength of the dollar.

Thesis Supervisor: Dr. Bennett Harrison

Title: Professor of Political Economy and Planning  
Department of Urban Studies and Planning

TABLE OF CONTENTS

Abstract.....2  
Introduction.....5  
Background and Methodology of Study.....7  
Chapter 1. The Trade Adjustment Assistance  
Program for Firms.....14  
Chapter 2. J&L Precision Bearings.....35  
Chapter 3. Abbott Machine Company.....49  
Chapter 4. Anson, Inc.....59  
Chapter 5. Evaluation of the Trade  
Adjustment Assistance Program for Firms  
and Analysis of Case Studies.....70  
Chapter 6. Policy Implications of the  
Trade Adjustment Assistance Program for Firms.....94  
Conclusion.....115  
Appendices.....118  
Bibliography.....123

## Introduction

In this paper I will analyze the Trade Adjustment Assistance (TAA) program for firms. This program, created by the Trade Act of 1974, authorizes the federal government to provide up to \$4 million in financial and technical assistance to firms that have been hurt by foreign competition. The goal of the program is to make firms more competitive through management improvements, new product development, more efficient production processes, or marketing programs.

The TAA program is important to look at because it has ten years of experience in dealing with the same issues that states and the federal government are now taking up in the current debate over industrial policy. Can troubled firms in declining industries be saved? Should they be saved? Should government take a new, expanded role in making America's industries more competitive, and if so, what strategies will work?

The main purpose of this paper is to analyze the process of firm turnarounds under the TAA program and the program's implications for economic adjustment policy, rather than conducting a rigorous program evaluation. After presenting some background information on the TAA program, I will develop three case studies of assisted firms in the New England region. Next I will perform a rough evaluation of the program, using the case studies and other evidence to determine the program's impacts and efficiency of service delivery. Then I will analyze the case studies to determine what they reveal about why firms fail and how the process of firm reorganization works

under the TAA program. The case studies also raise many issues related to competitive business strategy and industrial policy, which I deal with more fully in the final chapter.

## Background and Methodology of Study

The idea for this thesis grew out of research I performed for the Massachusetts Governors Commission on the Future of Mature Industries in the fall and winter of 1983. The Commission was grappling with the issue of how to assist firms in declining Massachusetts industries. It was considering forming a state "rescue squad" which could, through financial and technical assistance, turn around troubled but economically viable firms in order to prevent plant closings.

I was assigned to research the trade adjustment assistance program for firms because it was felt by some Commission staff that this program attempted to do exactly what the Commission proposed for the Commonwealth. Since the New England Trade Adjustment Assistance Center (NETAAC) had a track record in New England, it made sense to look at what Massachusetts policymakers could learn from its experience in designing the state's "industrial extension service."

In November and December of 1983, I conducted phone interviews with a sample of firms who'd been certified for TAA by the Department of Commerce. The firms were selected from the Department of Commerce's Certification Calendar for Firms Under Trade Act of 1974 to cover a range of industries and time periods. The purpose of these interviews was to determine the history of the firms, the impact of imports, NETAAC's diagnosis of the firm's problems, what financial and technical assistance the firms received from NETAAC and consultants, impacts of adjustment assistance on employees, the firm's evaluation of those services, and its overall evaluation of the program.

(See Appendix I for questionnaire.) I contacted 10 firms, but only interviewed 5 because the others had gone out of business or experienced a change of ownership. I interviewed by phone and in-person New England TAAC staff, consultants, and others who had researched or been involved in the program. I also conducted background research on the program.

On January 3, 1984, I submitted a memo to the Commission summarizing my findings on the TAA program for firms and discussing its relevance for the formation of a state industrial extension service.

After I decided to study the TAA program for my thesis, I approached the topic in a more in-depth and systematic way. In March and April of 1984, I conducted another round of interviews with certified firms. These firms were selected by the same process as before. I also researched the literature to find successful cases of assisted firms.

My previous research had led me to believe that the program was fraught with problems which reduced its effectiveness. These problems were mainly caused by the long time periods required for assistance (up to two years from application for certification to receipt of financial assistance) due to the federal bureaucracy, and discontinuity in the program due to continued threats to its funding by the Reagan administration.

I didn't want to focus on the horror stories of the TAA program for my thesis, although I uncovered many. Instead I wanted to focus on how the process of trade adjustment assistance



can work, how troubled firms in declining American industries can be made more competitive. I wanted to illustrate the process of turning around a business because this is one of the key issues of economic adjustment that state and federal policymakers are now groping with, and I believe that the TAA program offers some valuable lessons in this regard. I also feel that many of the problems associated with the program, since they are due to political mismanagement at the federal level, could be overcome if these same procedures were applied by state programs with a faster response time and a strong commitment to the program.

As of March 28, I had conducted interviews with another 8 firms, out of a total of 12 firms contacted. From these contacts and a literature search I came up with three case studies which I believe illustrate how the process of trade adjustment assistance for firms can work, as well as some of the more interesting problems involved in the program and the process of economic adjustment in general.

These three case studies comprise the core of my analysis of the TAA program for firms. Through conducting personal and phone interviews with management, collecting printed information provided by firms on their products, and by combing the business press for articles on these firms, I was able to assemble three in-depth portraits of the process of trade adjustment assistance. The three case studies cover firms in three different trade-impacted New England industries--miniature precision ball bearings, textile machinery, and jewelry. They also illustrate three different economic adjustment responses

in firms threatened by foreign competition--technological improvements in the production process, new product development and market niche strategies, and new and improved management.

My interview procedure attempted to get at the same questions as did my earlier round of interviews, but in greater detail. (See Appendix II for questionnaire.) These firm interviews were longer (30-60 minutes in length versus approximately 15 minutes for the first wave of interviews). They included interviews with the firms' management and TAA consultants. Two of the three firms were assisted by the NETAAC. The third received assistance from the New York State TAAC in Binghamton because the parent company of the firm is headquartered in New York, even though the assisted firm is in Massachusetts. I've included this firm in my case studies because the purpose of my thesis is more to understand the process of TAA for firms rather than conducting a narrow program evaluation of the NETAAC, and this case illustrates some interesting features of the program. In order to obtain information on this firm, a manufacturer of mini precision ball bearings, I had to assure the management and consultants of confidentiality. Therefore, I've changed the names of the firms, individuals, and locations so as not to reveal the identity of this firm. I've used the real names and locations for my other two case studies, since they wanted others to learn about what the TAA program had done for them.

Finally, I conducted another set of interviews with the federal Office of Trade Adjustment Assistance, industry analysts, trade associations, and others involved with the TAA

program in order to answer questions about the program which came up in my case studies.

Two points must be made clear about the approach taken in this thesis. First, it is really an analysis of the process of firm turnaround under the TAA program, and not a rigorous program evaluation. It is necessary to provide at least a rough evaluation of the program, but the emphasis of the paper is on how the program goes about turning around firms and the policy implications of the program. Second, this is a study of the trade adjustment assistance program for firms. There are also TAA programs for workers, industries, and communities, and the worker assistance program is probably the best known of the four. This paper is not concerned with these other programs.

I attempt to evaluate the program in terms of the impact of assistance on firms and the efficiency of service delivery. The ultimate criterion for success is whether or not trade adjustment assistance appears to have made the firms more competitive. My procedure for evaluating the program is to compare the survival rate of firms assisted by the program with the overall U.S. small business survival rate, summarize the results of my other firm interviews regarding the efficiency of service delivery, summarize other studies on the TAA program for firms, and analyze the case studies to determine the impacts of the TAA program on each firm.

I believe that the most interesting part of my thesis is analyzing the process of trade adjustment assistance as

revealed in the case studies and drawing out its implications for economic adjustment policy. This emphasis on the actual process of firm turnaround sets my thesis apart from other more quantitative studies of the TAA program. I also focus more than other studies on how the interests of workers are affected by the TAA program for firms since this is one of the program conditions and, further, I believe that this should be a quid pro quo for government assistance to private industry.

The March 1984 draft report of the Mature Industries Commission refers to some of the recommendations in my 1/3/84 memo, and it recommends the establishment of a Massachusetts Industrial Service Program to provide assistance to economically viable but troubled firms. Perhaps this document will be useful to Massachusetts state policymakers involved in the creation of this institution. Hopefully, it will also be helpful for policymakers in other states and planners concerned with economic adjustment policy at the national level.

I would like to acknowledge the following persons who assisted me in writing this thesis: Beth Siegel, Worker and Community Assistance Taskforce, Massachusetts Governors Commission on the Future of Mature Industries, who interested me in the topic and offered valuable criticism while I researched the program for the Commission and as my thesis reader; Bennett Harrison, Professor of Political Economy and Planning, Department of Urban Studies and Planning, MIT, who as my thesis advisor provided valuable feedback during the writing of my thesis; and Michael Schlein, a graduate student

in the MIT departments of economics and political science, who has just completed his master's thesis on the Footwear Revitalization Program, an industry-wide TAA program, and its relevance for industrial policy and who provided me with much useful information on the TAA program for firms.

## Chapter 1. The Trade Adjustment Assistance Program for Firms

The Trade Adjustment Assistance (TAA) program for firms is authorized by the Trade Act of 1974. The legislation also provides for assistance to industries, workers, and communities hit by imports, but this paper is concerned only with the program for firms.

### History of the Trade Act of 1974

A detailed analysis of the history of the Trade Act of 1974 is a subject worthy of an entire thesis and beyond the scope of this paper, but it is necessary to give some background here.

Some observers view trade adjustment assistance as a political concession given by free trade advocates to facilitate the passage of liberal free trade legislation and erode protectionist pressures from organized labor and industries hit by imports.<sup>1</sup>

The roots of trade adjustment assistance go back to the early 1950's. In 1953, two business lobbying organizations, the Committee for a National Trade Policy (CNTP) and the Committee for Economic Development (CED), testified before the Randall Commission in favor of a free trade policy. The chairmen of both organizations advocated the concept of providing subsidies and other aids to firms, communities, and workers who were injured by imports. They stated that the

---

<sup>1</sup>This perspective is developed in Michael Schlein, "Federal Programs for Mature Industries: Trade Adjustment Assistance and the Footwear Revitalization Program" (unpublished master's thesis, Massachusetts Institute of Technology, 1983 draft).

proposal "if adopted, could destroy the political basis of protectionism...."<sup>2</sup>

The proposal received a mixed response. Some factions of the international business community saw it as a means to promote free trade, but others were wary of such extensive government intervention in the market. Republican Congressmen (who at the time were more on the side of protectionism than the Democratic Party) strongly opposed the proposal as a threat to protectionism.<sup>3</sup>

The Trade Expansion Act of 1962 greatly enlarged the President's authority to expand free trade and contained provisions for trade adjustment assistance. The bill gave the President authority to reduce tariffs by up to 50% to increase trade between the U.S. and Common Market nations. In order to undercut protectionist opposition to this liberal trade bill, President Kennedy followed two strategies. First, he isolated textiles, the most active lobbying group for protectionism, from the rest of the protectionist opposition by providing the industry with a marketing agreement to restrict imports and expand exports.<sup>4</sup> Second, having won the support of the main protectionist opposition, his initiative provided for adjustment assistance to workers and firms who would be

---

<sup>2</sup>Bauer, Pool, and Dexter, American Business and Public Policy (New York: Prentice Hall, 1964), p. 43. Cited in Schlein, "Federal Programs," pp. 17-18.

<sup>3</sup>Bauer et al., p. 43. Cited in Schlein, "Federal Programs," p. 18.

<sup>4</sup>Robert Pastor, Congress and the Politics of U.S. Foreign Economic Policy (Berkeley: University of California Press, 1980), p. 10. Cited in Schlein, "Federal Programs," p. 24.

adversely affected by the expanded imports resulting from the lowering of trade barriers. Worker assistance included trade readjustment allowance (TRA) benefits, training assistance, and financial assistance for relocation of workers displaced by imports. Firm adjustment assistance included technical assistance, tax benefits to encourage modernization and diversification, loan guarantees, and direct loans.

The Act was supported by organized labor only because of the adjustment assistance provisions. George Meany, President of the AFL-CIO, testified in congressional hearings that "A trade adjustment assistance program is absolutely essential to a successful foreign trade policy." Opponents included representatives of import-impacted industries such as chemicals and machine tools and small businesses which supported protectionism over free trade, and not free trade with adjustment assistance.<sup>5</sup> Segments of the business community that could compete in international markets supported the bill, and these industries were the main beneficiaries of the Act. "The largest tariff reductions occurred in industries characterized by advanced technology, a high degree of product innovation, or dominated by multinational firms."<sup>6</sup>

The transformation of the U.S. economy from the growth of the 1960's to the recession of the early 1970's set the

---

<sup>5</sup>James McCarthy, Trade Adjustment Assistance: A Case Study of the Shoe Industry in Massachusetts, Federal Reserve Bank of Boston Research Report 58, 1975, pp. 9-13.

<sup>6</sup>Wilbur Monroe, International Trade Policy in Transition (Lexington, MA: Lexington Books, 1975), p. 19. Cited in Schlein, "Federal Programs," p. 25.



stage for passage of the Trade Act of 1974. By this time, many industries began to feel competitive pressures from imports, and protectionist demands from labor unions and small businesses mounted. The AFL-CIO was supporting protectionist measures (the Burke-Hartke bill, which called for a wide range of quotas and tariffs) and opposed the solution of free trade with adjustment assistance.

President Nixon's Trade Reform Act of 1973 proposed to dismantle adjustment assistance programs in 1973, but the Trade Act of 1974 passed by Congress strengthened the adjustment assistance provisions of the Trade Expansion Act of 1962. This change was a product of divisions within the Nixon administration and lobbying by segments of the international business community which still supported the concept of trade adjustment assistance. In addition, many congressmen supported TAA as a way to show their constituents that they were not insensitive to the job displacement that would result from increased competition.<sup>7</sup>

The Trade Act of 1974 loosened the eligibility criteria for industry import relief and adjustment assistance to firms and workers and it enlarged the President's authority to lower tariffs. Under the Trade Expansion Act of 1962, increased imports must have been in major part the result of trade agreement concessions before an industry could get import relief. The Trade Act of 1974 removed this link to

---

<sup>7</sup>Schlein, "Federal Programs," pp. 27-29.

concessions. Under the Trade Expansion Act of 1962, increased imports must have been the major factor of injury to an industry before it was eligible for relief. The Trade Act of 1974 stated that imports must be only a substantial cause of serious injury or the threat of injury. The bill expanded the level of benefits to workers and eliminated tax assistance to firms. It also added the new category of adjustment assistance for communities, which included technical assistance, planning grants, public works grants, and financial assistance. The Trade Act of 1974 also authorized the President to negotiate trade agreements with other countries to reduce tariff and nontariff barriers to trade and provided for relief from unfair trading practices such as foreign import restrictions, export subsidies, and dumping.<sup>8</sup>

The trade adjustment assistance provisions of the Trade Act of 1974 were amended by Congress in 1981. The amendments specified the types of technical assistance to be offered and the conditions for providing financial assistance to firms.<sup>9</sup>

#### The TAA Program for Firms

The TAA program authorizes the federal government to provide technical and financial assistance to eligible firms. It is administered by the U.S. Department of Commerce. Until

---

<sup>8</sup>U.S. Code, Congressional and Administrative News, 93rd Congress, 2nd Session, 1974 (St. Paul, MN: West Publishing Co., 1974), pp. 7200-7208.

<sup>9</sup>U.S. Code, Congressional and Administrative News, 97th Congress, 1st Session, 1981 (St. Paul, MN: West Publishing Co., 1981), 95 Stat. 890-893)

September 30, 1981, the program was administered under the Economic Development Administration (EDA), but then it was transferred to the Office of Trade Adjustment Assistance (OTAA) in the International Trade Administration (ITA).<sup>10</sup> Services are provided by 11 regional Trade Adjustment Assistance Centers (TAACs) which cover the 50 states, Puerto Rico, and the Virgin Islands.<sup>11</sup>

There are four stages in the process of trade adjustment assistance for firms: 1) Certification; 2) Diagnostic survey; 3) Adjustment plan; and 4) Implementation, consisting of technical and financial assistance.

#### 1) Certification

The firm must petition the Office of Trade Adjustment Assistance to be certified as eligible for assistance. The local TAAC may also make recommendations to Commerce that a firm should or should not be certified, but the final decision is made by the Department of Commerce. Under the Trade Act of 1974, Commerce has 60 days in which to make a decision regarding the firm's eligibility.<sup>12</sup>

Section 251, Title II of the Trade Act of 1974 states that Commerce will certify a firm as eligible for TAA if it

---

<sup>10</sup> Associated Research Analysis Corporation, Evaluation of the Third Year of Operation of the Trade Adjustment Assistance Center Program, July 1982, pp. 2-3.

<sup>11</sup> New England Trade Adjustment Assistance Center, Questions and Answers About Trade Adjustment Assistance for Firms, brochure, p. 1.

<sup>12</sup> Interview with Richard McLaughlin, Executive Director, New England Trade Adjustment Assistance Center, 11/28/83.

determines:

"(1) that a significant number or proportion of the workers in such firm have become totally or partially separated, or are threatened to become totally or partially separated,

(2) that sales or production, or both, of such firm have decreased absolutely, and

(3) that increases in imports of articles like or directly competitive with articles produced by such firm contributed importantly to such total or partial separation, or threat thereof, and to such decline in sales or production."<sup>13</sup>

A firm that has recently shut down its factory or is operating under bankruptcy proceedings can petition for certification.<sup>14</sup>

## 2) Diagnostic Survey

After the firm has been certified, most TAACs prepare a diagnostic survey which analyzes the strengths and weaknesses of the firm and determines its "economic viability." The New England TAAC retains 100% control over the preparation of the diagnostic survey.<sup>15</sup>

A sample diagnostic survey supplied by the New England TAAC reveals that this document consists of a description of the firm, an analysis of the industry and the firm's competitive position in that industry relative to foreign producers. It examines such features as the firm's product line, sales and marketing, product development, manufacturing processes, management and financial condition.<sup>16</sup>

---

<sup>13</sup>U.S. Code, 93rd Congress, p. 2351.

<sup>14</sup>New England TAAC, Questions and Answers, p. 3.

<sup>15</sup>Interview with McLaughlin.

<sup>16</sup>New England TAAC, Diagnostic Survey, Chairco Company.

### 3) Adjustment Plan

The adjustment plan describes the firm's strategy for recovering from the impact of imports. It is the most important document in the whole adjustment process and must be approved before the firm is eligible for further technical or financial assistance. The plan must show that the firm is aware of its strengths, weaknesses, and the problems it faces. The firm's management should be deeply involved in preparing the adjustment plan but they may be assisted by the TAAC staff or outside consultants.<sup>17</sup> The Department of Commerce won't approve assistance unless the adjustment plan deals with the diagnostic survey's analysis of the strengths and weaknesses of the firm.<sup>18</sup>

Section 252, Title II of the Trade Act of 1974 states that Commerce will approve a firm's application for adjustment assistance only if it determines that the firm's adjustment proposal:

"(i) is reasonably calculated to contribute to the economic adjustment of the firm,  
(ii) gives adequate consideration to the interests of the workers of such firm,  
(iii) demonstrates that the firm will make all reasonable efforts to use its own resources for economic development."<sup>19</sup>

The first criterion means that the adjustment plan must contain a clear strategy for capitalizing on the firm's

---

<sup>17</sup> New England TAAC, Questions and Answers, p. 3.

<sup>18</sup> Interview with McLaughlin.

<sup>19</sup> U.S. Code, 93rd Congress, pp. 2351-2352.

strengths, tackling its weaknesses, and overcoming its problems. Depending on the strategy, the plan should specify measures that will be taken in areas such as management changes or improvements, manufacturing process improvements, new product development, cost control, marketing and sales plans, or improving the financial structure of the firm. Finally, it must lay out a timetable for achieving each specific objective so the government and the firm can monitor the firm's progress.<sup>20</sup>

According to an ITA manual on how to prepare adjustment plans, the second criterion means that the plan should state:

"How the interests of the firm's employees have been taken into account in the development of the adjustment plan. This may be self-evident if all or virtually all of the employees will either maintain their employment or be offered reemployment as a result of the plan. Where this is not so or as a result of operations being relocated or closed down, the plan should describe efforts directed toward assisting employees in finding other jobs. For example, it may include assistance with relocation, training, employment counseling or the like."<sup>21</sup>

Finally, the firm must pour all of its available resources into the recovery plan and government adjustment assistance should not displace financial resources available from the firm.<sup>22</sup> According to Charles Smith, Deputy Director of Certification, OTAA, his office determines this by requiring firms to submit audited financial statements and disclose all assets and liabilities. OTAA encourages firms to use their own

---

<sup>20</sup> New England TAAC, Questions and Answers, p. 6.

<sup>21</sup> U.S. Department of Commerce, International Trade Administration, Office of Trade Adjustment Assistance, Trade Adjustment Assistance Guidelines for the Preparation and Submission of Adjustment Plans, brochure, January 1982, p. 9.

<sup>22</sup> New England TAAC, Questions and Answers, p. 6.

resources, if they have any available, sometimes even asking management to pledge their personal property as collateral for loans. Smith said that the financial assistance division of OTAA is "a bank of last resort for companies that can't get the resources themselves."<sup>23</sup>

#### 4) Implementation

The firm must implement the recommendations outlined in the adjustment plan. Implementation assistance can be provided by the local TAAC staff, who are experienced in marketing, finance, management, and production. Alternatively, a private consultant can be selected through a competitive bid process. In either case, the federal government will pay up to 75% of the cost of services. The local TAAC also monitors the progress of firms in meeting the goals of the recovery plan.

The TAAC can provide two general types of technical assistance: 1) Assistance in preparing the certification petition, diagnostic survey, adjustment plan, and loan application; and 2) Implementation assistance, including changes in management, production, and marketing systems, feasibility studies, and other services.

There is no charge for initial consultations with the TAAC regarding the program and potential eligibility. Up to three person/days of assistance in the preparation of petitions will be provided at no cost. However, when more than three

---

<sup>23</sup> Interview with Charles Smith, Deputy Director of Certification, Office of Trade Adjustment Assistance, 4/26/84.

person/days of technical assistance are requested, the firm or some other non-federal source must pay at least 25% of the cost. If the government's share of all technical assistance to be provided comes to over \$75,000, then the government's share will be increasingly reduced to less than 75%.<sup>24</sup> The federal share of technical assistance provided by all TAACs over the ten years of the program's existence has averaged \$30,000 - \$45,000 per firm.<sup>25</sup>

Eligible firms can also apply for financial assistance. Each firm may receive a maximum of \$4 million in loans and loan guarantees. This includes \$3 million in guaranteed loans, with the federal government guaranteeing up to 90% of the outstanding balance of the loan made by a commercial bank or lender. The OTAA can also make direct loans of up to \$1 million. It is OTAA policy to limit the request for financial assistance to \$3 million unless it can be demonstrated that the adjustment plan cannot succeed without more assistance. The Trade Act permits direct loan financing to be considered only if a guaranteed loan cannot be developed. It takes from four to twelve months, or longer, from the time a firm applies for certification until it receives financial assistance. The government has no interim financing available while the company waits for the government to act on its

---

<sup>24</sup>New England TAAC, Questions and Answers, pp. 7-10).

<sup>25</sup>Interview with Tom Heckman, Technical Assistance Division, Office of Trade Adjustment Assistance, 4/30/84.



financing proposal.<sup>26</sup>

For loan requests under \$500,000, the New England TAAC assists the firm in applying for Small Business Administration loans or refers them to commercial banks or institutions like Massachusetts Community Development Finance Corporation.<sup>27</sup>

Section 254, Title II of the Trade Act of 1974 states the uses of these loans and loan guarantees as:

"(1) for acquisition, construction, installation, modernization, development, conversion, or expansion of land, plant, buildings, equipment, facilities, or machinery, or (2) to supply such working capital as may be necessary to enable the firm to implement its adjustment proposal."<sup>28</sup>

Interest rates on direct loans are based on the average market yield of U.S. securities of comparable maturity, plus a charge (currently 1-1/4%) to cover overhead and probable losses. This usually results in rates below or near the prime rate. The loan repayment terms vary. Direct and guaranteed loans for fixed assets are usually made for a period no greater than the useful life of the assets, up to a maximum of 25 years. Working capital loans and loan guarantees are generally made for between five and seven years, up to a maximum of 10 years. The government's decision to approve a loan is based on the finding: "(1) that the funds required are not available from the firm's own resources; and (2) that there is reasonable assurance of repayment of the loan," according to Section 255,

---

<sup>26</sup>New England TAAC, Questions and Answers, pp. 10-15.

<sup>27</sup>Interview with McLaughlin.

<sup>28</sup>U.S. Code, 93rd Congress, p. 2352.

Title II of the legislation.<sup>29</sup> This is determined by reviewing the firm's financial position, its marketing plans, the quality of management, production plans, and technology. The quality of collateral and the availability of guarantees may also be considerations.<sup>30</sup>

### Current Status of the TAA Program

The future of the TAA program is uncertain under the Reagan administration. President Reagan has attempted to cut off all funds for trade adjustment assistance to industries, firms, workers, and communities. The President has zero-budgeted the program three times, only to have its funding restored by Congress. In the fall of 1983, Congress extended authority for the program for two more years, until September 1985. But the program was only funded through September 1984, so OTAA officials will have to lobby for more funding for fiscal year 1985. The TAA program for firms was funded at \$25 million in fiscal year 1984, compared to previous years' funding levels of \$27-\$28 million.<sup>31</sup>

Demand for the program has grown at the same time as the Reagan administration's attacks, as can be seen in Table 1. Table 1 shows the number of firms served and types of assistance provided under the program since 1975. There was a 112% increase in the number of firms certified for trade adjustment assistance from fiscal year 1982 to fiscal year 1983. As the

---

<sup>29</sup>Ibid., p. 2353.

<sup>30</sup>New England TAAC, Questions and Answers, pp. 10-15.

<sup>31</sup>Interview with Charles Smith.

program's funding has been cut, it has concentrated more on providing technical rather than financial assistance to firms, and steering clients to conventional sources of financing.<sup>32</sup>

Table 2 shows the levels of financial assistance provided to firms broken down by industry for fiscal year 1982. The decrease in the amount of financial assistance provided since 1979 is clear. The program has also been getting larger businesses for clients, so the average federal share of technical assistance has risen.<sup>33</sup>

The types of industries served by the TAA program has also changed over time. Table 3 shows number of certified firms since 1975 broken down by industry. In the three-year period from 1975-1977, firms in the apparel, footwear, handbag, and textile industries--the "labor-intensive" industries considered to be the hardest-hit by imports and in severe decline--accounted for 76% of the total number of firms assisted. In the 1978-1980 period, these industries' share of the total had shrunk to 54%; and by 1981-1983, 34%. The slice of the pie made up of firms in other industries has grown over the same period from a thin slice to 66% of the total in 1981-1983. This slice of the pie includes a wide range of industries, but over time it's been filled with growing numbers of firms in "high tech" industries such as computer manufacturing, computer peripheral equipment, cameras, photocopying equipment, and

---

<sup>32</sup>Interview with Jack Osborne, Director of Certification Division, Office of Trade Adjustment Assistance, 5/1/84.

<sup>33</sup>Interview with Heckman.

TABLE 1

## TRADE ADJUSTMENT ASSISTANCE SUMMARY AS OF DECEMBER 31, 1983

	Before FY 1980	FY 1980	FY 1981	FY 1982	FY 1983	FY 1984 To Date	Cumulative To Date
Firms Certified	504	468	293	195	413	113	1,986
Petition Acceptance to Certification (Average number of days)	45	58	54	54	57	60	52
Adjustment Plans Accepted	(-----Not Available-----)			114			
Total Firms Receiving DOC Direct Technical Assistance	161	15	0	0	0	0	176
Total Firms Assisted by TAACs*	389	653	623	523	734	772	3,694
o Pre-Certification	302	514	337	248	513	343	2,257
o Post-Certification	74	131	229	213	157	257	1,061
o Implementation	13	8	57	62	64	172	376
Total Tech. Asst. (\$000)	\$35,774	\$17,581	\$17,461	\$12,163	\$17,466	\$1,734	\$102,179
o Firms	22,237	10,563	12,859	8,695	12,989	1,336	68,679
o Industry Wide	13,537	7,018	4,602	3,468	4,477	398	33,500
Firms Receiving Financial Assistance	179	67	49	12	16	3	326
Total Loans (\$000)	\$199,903	\$72,091	\$49,784	\$19,289	\$15,784	\$5,700	\$362,551
o Direct Loans	117,845	42,032	27,904	2,527	7,849	2,700	200,857
o Guaranteed Loans	82,058	30,059	21,880	16,762	7,935	3,000	161,694

\*Double counting is unavoidable, since most firms receive more than one major category of TAAC assistance. Only completed projects are counted in FY 1979 through FY 1983; in-process projects are carried over to the next year, and inactive projects are not included.

\*Preliminary estimate

Source: Office of Trade Adjustment Assistance, International Trade Administration, U.S. Department of Commerce, 3/23/84

TABLE 2

FINANCIAL ASSISTANCE AUTHORIZED FOR  
CERTIFIED FIRMS UNDER THE TRADE ACT OF 1974  
BY CALENDAR YEAR

<u>Number of Firms</u>	<u>Industry</u>	<u>Financial Assistance Authorized</u> (\$000)
2	Machinery and Equipment	6,000
1	Textiles	3,000
1	Leather	3,000
3	Apparel	1,805
1	Metal Stampings	1,000
1	Furniture and Decorative Accessories	560
1	Handbags	500
1	Artificial Flowers	382
<u>1</u>	Electronic Components	<u>240</u>
12	TOTAL 1982	16,487
42	1981	45,904
63	1980	61,839
86	1979	104,819
67	1978	70,099
22	1977	24,267
12	1976	14,350
<u>4</u>	1975	<u>3,500</u>
308	GRAND TOTAL	341,265

Source: Office of Trade Adjustment Assistance, International Trade Administration, U.S. Department of Commerce.  
(9/21/83)

TABLE 3

FIRMS CERTIFIED ELIGIBLE TO APPLY FOR  
TRADE ADJUSTMENT ASSISTANCE  
BY INDUSTRY

Calendar Year

	<u>1975-76</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983*</u>	<u>Total</u>
Apparel & Accessories	7	28	47	150	146	71	69	63	581
Footwear	17	49	31	13	17	3	4	8	142
Metal Products	-	1	7	13	14	17	24	39	115
Communication Equipment	2	2	4	15	25	20	7	5	80
Handbags & Parts	3	16	10	20	8	9	6	9	81
Textiles	2	2	11	12	20	13	11	7	78
Wood Products	-	-	-	4	35	15	9	9	72
Food & Beverage	6	1	3	10	25	11	6	25	87
Machinery & Equipment	-	-	1	10	17	13	19	44	104
Transportation Equipment	-	-	-	6	15	9	9	12	51
Electronics	-	2	3	9	10	11	3	9	47
Giftware	1	2	1	3	16	5	9	8	45
Sporting Goods	1	-	1	11	6	5	13	7	44
Jewelry	1	2	1	8	12	2	6	10	42
Flowers & Plants	-	-	1	5	5	6	2	3	22
Fasteners	-	-	1	1	7	6	3	7	25
Furniture & Parts	-	1	-	1	8	2	4	14	30
Leather	-	-	1	3	5	-	1	1	11
Miscellaneous	<u>12</u>	<u>4</u>	<u>6</u>	<u>35</u>	<u>55</u>	<u>37</u>	<u>33</u>	<u>33</u>	<u>215</u>
Total	52	110	129	329	446	255	238	313	1,872

\*January-September 1983.

Source: Office of Trade Adjustment Assistance, International Trade Administration,  
U.S. Department of Commerce, 9/27/83

consumer electronics.<sup>34</sup>

### The New England TAAC

The New England TAAC serves the states of Massachusetts, Rhode Island, New Hampshire, Connecticut, Vermont, and Maine. It was formerly run out of the New England Regional Commission, one of eight regional commissions authorized under the Public Works and Economic Development Act of 1965 which were terminated by the Reagan administration on September 30, 1981. The New England TAAC is a private business which developed to take over management of the TAAC program.<sup>35</sup> The current director, Richard McLaughlin, has a Harvard MBA and experience as a marketing vice president and general manager for a fastener firm. Its staff is experienced in marketing, finance, engineering, and management, and includes senior business executives with 10-25 years of on-line business experience.<sup>36</sup>

The New England TAAC has assisted over 400 firms in a wide range of industries. Table 4 shows the number of firms assisted by NETAAC during fiscal year 1983 (October 1, 1982 to September 30, 1983) and fiscal year 1982 broken down by industry.

Table 5 is a state-by-state breakdown of the total number of firms assisted by NETAAC in fiscal year 1983 and the total number of employees in those firms.

---

<sup>34</sup> Interview with Osborne.

<sup>35</sup> Associated Research Analysis Corporation, Evaluation, pp. 29-30.

<sup>36</sup> Interview with McLaughlin.

NETAAC, like the TAA program as a whole, mainly deals with small businesses. Its clients vary from \$1 million to \$80 million in assets, with the largest concentration in the \$3 million to \$10 million range.<sup>37</sup>

---

<sup>37</sup> Ibid.



TABLE 4

NETAAC-ASSISTED FIRMS BY SIC CODE  
(OCTOBER 1, 1982 - SEPTEMBER 30, 1983)

<u>PRODUCT GROUP/SIC CODE</u>	<u>CASES</u>	<u>PERCENT</u>	<u>PERCENT (IN 1982)</u>
Food & Kindred Products (2000-2099)	1	.88	.8
Textile Mill Products (2200-2299)	8	7.08	13.4*
Apparel & Other Finished Products Made From Fibers & Similar Materials (2300-2399)	15	13.27	16.8*
Lumber & Wood Products Except Furniture (2400-2499)	6	5.31	5.0
Furniture & Fixtures (2500-2599)	3	2.65	.8*
Rubber & Misc. Plastic Products (3000-3099)	6	5.31	3.4
Leather & Leather Products (3100-3199)	10	8.85	11.9*
Asbestos (3200-3299)	1	.88	0
Primary Metals Industries (3300-3399)	3	2.65	3.4
Fabricated Metal Products, Except Machinery & Transportation Equipment (3400-3499)	17	15.04	10.1*
Machinery, Except Electrical (3500-3599)	14	12.39	2.5*
Electrical & Electronic Machinery & Supplies (3600-3699)	9	8.00	10.9
Measuring Instruments; Photographics; Medical & Optical Goods; Clocks (3800-3899)	7	6.19	6.7
Misc. Manufacturing Industries (Jewelry, Silverware & Novelty Items) (3900-3999)	12	10.62	10.0
Other (5119-5147)	<u>1</u>	<u>.88</u>	<u>3.4</u>
Total Cases	113	100.00	84.1

\*Some Significant Shifts in Caseload by Industry

Source: New England Trade Adjustment Assistance Center, 12/83

TABLE 5

NETAAC-ASSISTED FIRMS  
(OCTOBER 1, 1982 - SEPTEMBER 30, 1983)

CONNECTICUT

Employees: 400  
Firms: 4

MAINE

Employees: 2,526  
Firms: 9

MASSACHUSETTS

Employees: 7,453  
Firms: 71

NEW HAMPSHIRE

Employees: 1,307  
Firms: 10

RHODE ISLAND

Employees: 1,472  
Firms: 13

VERMONT

Employees: 368  
Firms: 6

TOTAL NUMBER OF EMPLOYEES: 13,526  
TOTAL NUMBER OF FIRMS: 113

Source: New England Trade Adjustment Assistance Center, 12/83

## Chapter 2. J&L Precision Bearings

J&L Precision Bearings, a manufacturer of miniature precision ball bearings, has a plant in Shopsbury, Massachusetts and is a subsidiary of General Bearing of Upper Falls, New York. The firm shut down in 1980. It was certified for TAA in March 1982 and has received financial and technical assistance to modernize its plant and equipment. The plant will be relocated to New York state after it is retooled.<sup>38</sup>

### Industry Analysis

Ball and roller bearings are an invisible but essential part of an industrial economy that make its machinery turn. They are used to reduce friction in everything from automobiles and farm equipment to personal computers, and are considered a strategic component for defense production. Because bearings are such an integral part of the economy, the industry's prosperity depends on the performance of the economy.

The industry can be roughly divided into two markets: large, heavy-duty bearings used in industries like auto and steel, and miniature precision bearings, defined as bearings with an outside diameter of less than 3/8" or 30mm.

---

<sup>38</sup>This case study is based on interviews with Arnold Cunningham, Operations Manager, J&L Precision Bearings, 3/19/84 and 4/25/84, and John Nevin, Comptroller and Vice President, General Bearing, 3/22/84 and 4/27/84. The names of persons, firms, and cities have been changed to protect the confidentiality of the firm. The names of states are real. Unless otherwise cited, the information in this case study comes from these interviews.

Mini precision bearings are actually a very sophisticated "high tech" product built to high design and engineering standards.<sup>39</sup> They are also used in "high tech" applications, such as computer periphery equipment and automatic bank teller machines. For example, they make bank check processing machines run smoother so the checks don't get mutilated. The bearings have defense applications such as guidance systems and instrumentation. In fact, mini precision bearings are considered one of the 17 strategic components by the U.S. Department of Defense. There is a federal law that the bearings must be domestically produced, so the United States is not dependent on foreign suppliers in case of war.<sup>40</sup>

The mini precision bearing industry is highly competitive. The leading U.S. producers are: New Hampshire Ball Bearing; Barden in Connecticut; Miniature Precision Bearing in New Hampshire; and a division of the Japanese firm, Nippon Precision Bearing, which built a plant in Chatsworth, California after the defense law was passed.

Taking the ball and roller bearing industry as a whole, the U.S. Department of Commerce reports that 1983 shipments

---

<sup>39</sup>Daniel Nossiter, "Not the Same Old Grind: Bearings Makers Ready to Roll Across the Board," Barron's, 6/20/83, pp. 15 and 33.

<sup>40</sup>Both Nevin and Cunningham referred to this law but could not identify it. They both said that the law was one of the reasons why the J&L plant had to be saved. I've been unable to positively identify this law, but it could be part of the Defense Production Act of 1950, which requires manufacturers of strategic components to set aside reserves to assure defense contractors of a stable supply when needed for defense production. Cited in Jacques Gansler, The Defense Industry (Cambridge, MA and London, England: The MIT Press, 1980), p. 67.

decreased about 8% from 1982 levels, reflecting declines in such major markets as steel, farm and construction equipment, oil field equipment, machine tools, aircraft, and railroad equipment. Improvements in the automotic market in 1983 (which represents about 30% of total sales) prevented a further decline in sales. Total 1983 employment in the industry dropped 9% from 1982 levels to 40,500 workers.

The industry faces significant foreign competition. The ratio of imports to new supply (the sum of product shipments plus imports) fell to about 12.3% in 1983, down from 14% in 1982. Japan is the leading importer. Other major importing countries are West Germany, the United Kingdom, and Canada.

The Department of Commerce projects that the future outlook for the industry depends on recovery in other sectors of the U.S. economy and productivity improvements within the industry. In 1984, industry shipments of ball and roller bearings are expected to increase about 9%. Differences in quality have not been a significant factor in the U.S. competitive position in recent years. However, manufacturers worldwide can produce bearings to the same dimension and tolerance standards as U.S. firms, and imports are expected to compete strongly in U.S. markets, especially in the small to medium-sized bearing segments. Commerce concludes that "if U.S. bearing manufacturers expect to remain profitable and continue to compete in the world market, they must increase productivity by major capital investment in new modern machinery."<sup>41</sup>

---

<sup>41</sup>U.S. Department of Commerce, "Ball and Roller Bearings," U.S. Industrial Outlook 1984 (Washington, D.C.: U.S. Government Printing Office, 1984), pp. 24-4 - 24-6.

Some U.S. producers are offering "just-in-time" delivery programs, which save their customers on inventory carrying costs, as a competitive strategy. Some manufacturers of mini precision bearings are also banking on the development of new computer-assisted machine tools which will increase the efficiency of their operations and open up new markets for their product.<sup>42</sup>

### History of the Firm

J&L Precision Bearings is 25 years old. It was a privately-held company until it was acquired by General Bearing in 1981. No production is taking place at the Shopsbury plant while it's being retooled, but when it does start up, J&L will produce bearings up to 30mm in size and with a bore of 1/8" to 1/4".

J&L was mismanaged or underfinanced for most of its 25-year history, according to Cunningham. Cunningham, a former employee of New Hampshire Ball Bearing, and another employee of the same firm worked at J&L from 1979 to 1980. When he came to J&L, the machinery was in bad need of repair. Existing repairs were of the "paper clips and rubber bands" type. The management had assured him when he came on that the company had enough cash to operate, but it didn't. According to John Nevin, Comptroller and Vice President of General Bearing, J&L had lost money in the last 4-5 years of operation. When it closed, J&L had been losing \$100,000

---

<sup>42</sup> Nossiter, "Not the Same Old Grind," p. 33.

per year on the plant.

Cunningham began working on repairs in 1979, and the firm improved slightly. Within the first month of operations after he arrived, the plant went from a money-losing to a profitable position. On the first day he started working on the plant it turned out only 3,000-4,000 units/day. By the time it closed, it was turning out 10,000 units/day.

But this increase in production was not enough to save J&L. The firm received a one-two blow from the recession and foreign competition. The management had survived by spreading the firm's debt around to its vendors, but this tactic failed when the national economy dropped off in 1980. Bearings were in short supply before the recession and J&L's competitive strength had been that it could deliver ball bearings within very short time periods. For example, it could deliver 5,000-6,000 bearings in a period of 4-6 weeks. This meant that the firm was able to get a premium price for its product. When the recession hit, the larger companies had more supply and moved in on J&L's market. Foreign competition also reduced J&L's selling price to the point where its production costs were greater than the price of the finished product. The firm was especially hard hit by Japanese competition. Cunningham thinks there was some dumping by European firms, since European bearings were selling for \$.39-\$.40 which J&L had to sell for \$1.10-\$1.15.

J&L ceased manufacturing in December 1980. Over 100 employees in the workforce were let go.

In September 1981, General Bearing acquired the corporate structure of J&L. J&L was involved in Chapter 11 proceedings at the time. General Bearing is a 15-year-old privately-held company headquartered in Upper Falls, New York. [Nevin would not disclose General Bearing's annual sales or number of employees.] The company makes bearings of 3" outside diameter or less and premium radial ball bearings. It serves the manufacturer's market, building bearings to customer specifications.

General Bearing purchased J&L because of the quality of its product, the small size of the firm, and a desire to broaden General Bearing's product line. According to Nevin, only nine firms in the world are capable of producing as high quality mini precision bearings as J&L. The bearings have a 10,000 of an inch tolerance measurement and can spin at half a million revolutions per minute or more. General Bearing was also attracted to J&L because of its small size. General Bearing wanted a small company because it wanted to control its operations as tightly as possible. J&L was also much cheaper than acquiring, say, an automobile bearing plant, which would cost \$40-\$60 million. General Bearing already had a business relationship with J&L, as its vice president for manufacturing worked for J&L in the late 1960's to early 1970's.

#### Assistance Received by the TAA Program

In December 1981, General Bearing talked to the New York State TAAC in Binghamton. The New York State Small Business Administration had referred the company to the TAA program.

Before applying for TAA, General Bearing sent its accounting



staff to check out J&L's plant to make sure it was economically viable. The pre-diagnostic survey was combined with the certification process. J&L was certified in March 1982.

Nevin described the main problems with the firm as revealed in the diagnostic survey: 1) Most importantly, the manufacturing operation was too small to compete in today's market. It did production runs of 3,000-4,000 bearings. According to Nevin, a firm can't produce such a small batch and remain competitive in today's market. Bearing manufacturers have to spread their overhead over runs of 10,000 bearings to be profitable; 2) The production unit was too small and disorganized, resulting in bottlenecks in the production process. An analogy for the types of production problems J&L ran into would be an auto plant that produces two frames but only one body; 3) The production technology was "somewhat antiquated"; 4) Management wasn't informed about or didn't have the money to finance new production techniques; 5) Because of the firm's continual operating deficit, it couldn't afford to make a formal marketing plan. J&L did not target its marketing and sales, and catered to whoever needed its product at the time.

General Bearing prepared a business plan for J&L, and this was converted into the adjustment plan with the assistance of the New York State TAAC. After a competitive bid process involving 4-5 consultants, Cunningham and his associate were contracted by the New York State TAAC to provide technical assistance to J&L. They were hired in June 1983 to do what Nevin termed "pre-production planning"--setting up standard

operating procedures, investigating manufacturing techniques, and making recommendations. It took a little over one year from the time of certification to receipt of technical assistance. Under the assistance plan from the New York State TAAC, General Bearing has also been going through the organizational and business plans for J&L.

The RFP for consultant work requested quotes for the following tasks: a quality control manual; machine rebuilding and maintenance; set-up trouble-shooting; physical lay-out plans; cycle times for the production process; production control; engineering drawing control; tooling; and rebuilding equipment.

Cunningham and the other consultants have made significant progress in retooling the plant. So far they have updated all tooling, checked out the machines for OEM specifications, repaired leaks in the hydraulic system, aligned the machinery, and replaced the plant's old heat treating facility. They checked the balance of the plant, making sure that if there are five machines for one operation then there are also five machines for complementary operations. They also changed the motor generator in the plant so production workers don't have to shut down six machines in order to change the speed of the spindle.

There were originally many manual operations in the plant, which they have automated. For example, they designed automatic loading machines and automatic guaging machines.

Cunningham and his associate contracted to do a part of

this work and they hired other consultants for the automation and other tasks.

General Bearing will also receive financial assistance from the TAA program, but Nevin would not disclose the amount. It will go into future operations and will finance fixed assets and working capital. It would have taken about two years to receive financial assistance after certification.

#### Impacts of Assistance

The Shopsbury plant will be shut down after retooling and General Bearing plans to build a new plant in the Upper Falls, New York metropolitan area. The plant will be located at a high-technology industrial park associated with a technology-oriented university in the area. Construction begins in April 1984 and General Bearing plans to begin operations in late September to early October of 1984. Nothing will be left at the Shopsbury plant.

When asked why General Bearing was relocating the plant, Nevin responded that "The operation as it exists in Shopsbury is obsolete. It's antiquated. It can't be brought up to date. It's expensive, old, and dirty." He added, "There's absolutely no way that we could cost-justify the Shopsbury plant." He also said that the Shopsbury plant is two-story, which presents problems because the structure vibrates too much for high-precision machining. Their new plant will be one-story. High taxes and construction costs in Massachusetts also entered into his firm's decision. He stated that industrial land costs \$110,000-\$120,000/acre in Shopsbury, versus only

\$30,000/acre in the new location. This is a consideration because the new facility is on a 7 acre site and is costing the company \$1 million. General Bearing also decided to move the plant closer to its headquarters "to consolidate our operations," Nevin said. He said that they'd considered several areas: the metropolitan area around Shopsbury, a site in North Carolina, and a site in Marriot, Massachusetts. His company chose the Upper Falls metro area because "It provides many of the big city advantages without the detriments," he said. By detriments, he meant "urban decay" and long commute times because of traffic congestion. He noted that the new location is beautiful, and that employees can be out in the country in only 15 minutes.

A letter from the high-tech park where General Bearing is moving the plant states (in reference to General Bearing and two other new tenants): "Please note that all three of these companies were located in other high-tech areas of the country and chose \_\_\_\_\_ Technology Park as the site which offered them the best possible opportunities."<sup>43</sup>

Cunningham feels that the new plant will meet the competition, not on a large scale, but in terms of the market share they want. In the beginning of operations, the firm will be a few pennies off from its competitors because its customers will start out purchasing in small quantities. For example, if New Hampshire Ball Bearing can sell an R-4 bearing for \$.51, General Bearing will initially sell the same product

---

<sup>43</sup>Letter from Anne Kerwin, Administrative Assistant, \_\_\_\_\_ Technology Park, 4/17/84.

for \$.53-\$.54. Cunningham's three-year plan calls for General Bearing capturing 5% of the market share in its first three years of operation. One product the new plant will produce is "rotary components"--pre-packaged bearings ready for installation in the machine by the user. This product will give the company a competitive edge because the majority of damage to bearings comes from mishandling.

When asked if the new plant would be competitive, Nevin responded "absolutely." The company will not only meet but beat the competition in some areas by specializing in market niches. General Bearing's market niche is based on batch size and speed of product delivery. It produces for manufacturers who need less than 10,000-20,000 bearings a year. The requirements of these manufacturers are too big for the local job shops but too small for the bid producers. General Bearing's inventory services also mean it can deliver its products fast. The industry average for inventory turnover is four times a year, but General Bearing turns over its inventory less than twice a year. "We're the last stopgap before you go to the distributors," Nevin said. General Bearing can offer diverse quantities and qualities of bearings as fast as a distributor but at manufacturer's prices. This is a competitive advantage because manufacturers have to wait 8-9 months to get bearings from other suppliers, and a company is in trouble if it miscalculates its needs.

The new plant will have 55 employees by the first year. General Bearing will add a second shift early in the second

year and by the end of the year, the company plans to have 100-125 employees. By the third year, it projects 150 employees.

Nevin said that many of the former employees of the Shopsbury plant were absorbed into the local workforce. Seven of them are presently working at J&L rebuilding the plant. Cunningham is attempting to locate and call back all skilled employees of the Shopsbury plant. It's anticipated that 10-12 set-up and master set-up persons from the old plant will be hired at the new Upper Falls plant, if the firm can locate them. This rehiring of former employees is not due to any contractual obligation from the TAA program, Cunningham said, but rather to the need for skilled workers. It takes a lot of training to become a good bearing maker and if the company can pick up people who already have the skills, this will make training new plant employees easier for Cunningham.

General Bearing will rely on the New York labor force for the balance of its employment needs. General Bearing has worked out an agreement with the New York State TAAC to give preferential treatment in hiring to trade-impacted employees in the metropolitan area surrounding Upper Falls. This region is a trade-impacted area, and most of the trade-impacted workers are women in the clothing industry. Nevin said that General Bearing prefers to train its own employees and that there will be training since the industry requires highly skilled labor.

[The J&L plant was not unionized when it shut down, so I

could not contact a union to get their side of the story. Cunningham said that there was a union "a long time ago" (before he got there), but he didn't know what union.]

#### Management's Evaluation of the TAA Program

When asked to evaluate the TAA program, Cunningham restated the question in terms of whether the New York State TAAC was instrumental in allowing General Bearing enough time to shut down and upgrade the plant. He thought that General Bearing made a good decision to take the time to reorganize the firm, rather than starting up operations with the old, inefficient plant and equipment. He guessed that it is costing General Bearing \$35,000-\$50,000/month to keep the plant shut down, including rent and salary for the consultants and toolmakers.

Nevin stated that General Bearing could have done this reorganization on its own, without assistance from the TAA program. But he said the benefits of the TAA program are that "It assists you in changing the types of lending to fund these projects." It means that firms can get loans with a longer amortization period. "It has a very positive effect on a company's capital position," he said. He said there were benefits to having the government stand behind his company when going to bankers. But he also said that some people would disagree with this assessment and would call the program a "pain in the ass."

Nevin said that he got along with the TAAC staff. He rated the quality of their services as better than the local

bank but no comparison to sophisticated Wall Street financiers.  
He rated the consultants as "excellent across the board."

His major complaint was that the program is "massively time consuming." As he put it, "For companies that are about to go over the edge, by the time these folks can act, they would go over the edge."



### Chapter 3. Abbott Machine Company

Abbott Machine Company is a manufacturer of textile machinery based in New Hampshire. The company suffered dramatic decreases in market share and employment from the 1950's to the 1980's as imports penetrated its market. Abbott received technical and financial assistance from the New England TAAC over a three-year period to develop a new state-of-the-art textile winding machine.<sup>44</sup>

#### Industry Analysis

The U.S. textile machinery industry has experienced a deep decline in its share of both the domestic and international market since the 1960's. Between 1960 and 1970, the U.S. share of the domestic textile machinery market dropped from 93% to 67%. In the same period, U.S. share of the international market slipped from 16% to 10%.<sup>45</sup> Employment in the U.S. industry has dropped steadily from about 26,000 in 1977 to less than 17,000 workers in 1983.<sup>46</sup>

---

<sup>44</sup>This case study is based on interviews with Derrick Smith, President, Abbott Machine Company, 3//22/84, and Kathi Smith, co-owner of Abbott, 4/30/84, and "Abbott Machine Moves Ahead With Winder," New Hampshire Business Review, 9/82, p. 11. Unless otherwise cited, the information in this case study comes from these sources.

<sup>45</sup>U.S. Department of Commerce and Data Resources, Inc. Cited in American Textile Machinery Association/Economic Development Administration, Opportunities and Strategies for U.S. Textile Machinery Manufacturers to Improve Their Competitive Positions in Domestic and Foreign Textile Markets - 1980-1985, May 1981, p. 12.

<sup>46</sup>U.S. Department of Commerce, "Textile Machinery," U.S. Industrial Outlook 1984 (Washington, DC: U.S. Government Printing Office, 1984), p. 23-11.

The domestic share of the market controlled by U.S. manufacturers of textile machinery has been reduced by movement of the textile industry overseas and imports. Between 1967 and 1981, imports as a percentage of total textile machinery purchased by U.S. textile firms grew from 19% to 42%. This import competition has not come from low-wage countries.<sup>47</sup> In 1983, the major foreign suppliers were: West Germany, 36% of imports; Switzerland, 26%; Japan, 15%; Italy, 6%; and France and the United Kingdom, 4% each.<sup>48</sup>

The textile industry has shifted increasingly to the developing countries, but the fragmented structure of the U.S. textile machinery industry places it at a competitive disadvantage for capturing these growing markets. Third World countries with booming textile industries are interested in purchasing "turn-key plants" which come with all the machinery necessary to begin production. Fragmentation of the U.S. industry means that individual companies tend to specialize in the production of only one type of equipment.<sup>49</sup> Until 1983, not one U.S. manufacturer could supply a complete yarn mill.<sup>50</sup> Western European producers, in contrast, are able to supply a wide range of equipment, either individually or in marketing consortiums with other companies. In some cases,

---

<sup>47</sup> Beth Siegel, 1984 draft report on the specialty machinery industry in Massachusetts written for the Massachusetts Governors Commission on the Future of Mature Industries, p. 3.

<sup>48</sup> U.S. Department of Commerce, "Textile Machinery," p. 23-11.

<sup>49</sup> Siegel, draft, pp. 3 and 5.

<sup>50</sup> U.S. Department of Commerce, "Textile Machinery," p. 23-11.

Western European governments assist their domestic producers in packaging turn-key facilities for export.<sup>51</sup> The governments of Western Europe and Japan also assist exports by offering financing, loan guarantees, insurance, and research and development support to their textile machinery industries.<sup>52</sup> U.S. exports were only 20-30% of total output between 1972 and 1983. In contrast, Western European manufacturers export at least 95% of their total output.<sup>53</sup>

The main cause for the decline of the U.S. textile machinery industry has been its lack of technological innovation relative to foreign manufacturers, according to many industry analysts. This criticism of the U.S. textile industry extends as far back as the 1940's, when the May 1944 issue of Fortune Magazine criticized the industry for being more interested in the more profitable repair, parts, and accessories aspects of the business than investing in developing technologically competitive products.<sup>54</sup>

The U.S. Department of Commerce projects that 1984 shipments (exports plus domestic sales) of textile machinery will rise only about 5% over 1983 levels. This figure assumes increased demand for yarn and warp preparation equipment, a market niche where U.S. producers maintain technological

---

<sup>51</sup>Siegel, draft, pp. 5-6.

<sup>52</sup>American Textile Machinery Association, Toward Equity in International Trade, December 1981, pp. 26-51.

<sup>53</sup>Siegel, draft, p. 3.

<sup>54</sup>Ibid., p. 4.

parity with their overseas competitors.<sup>55</sup>

The future of the U.S. textile machinery industry, according to Commerce and other analysts, depends on three factors: 1) Expanding R&D programs to design new equipment that is technologically competitive with imports; 2) Developing cooperative marketing strategies; and 3) The exchange rate. The relative strength of the U.S. dollar has placed U.S. manufacturers at a competitive disadvantage in both the domestic and global markets. The Department of Commerce predicts that the industry will remain based in the industrially advanced nations because of the high levels of technological innovation required for the new generations of equipment, such as computer-controlled monitoring of production equipment and robotics.<sup>56</sup>

#### History of the Firm

Abbott Machine Company is a 54-year old manufacturer of yarn winding machines (which transfer yarn from little packages onto big packages) based in Wilton, New Hampshire. Abbott also has a manufacturing facility in Greenville, South Carolina. The firm introduced the first automatic knotting machine (which automatically ties knots between different yarns, so as to reduce labor requirements) to the textile

---

<sup>55</sup>U.S. Department of Commerce, "Textile Machinery," p. 23-12. Yarn and warp preparation equipment prevents the yarn from breaking during the weaving process, when the fibers are subjected to high stress levels. Explained in Ann Collier, A Handbook of Textiles, 2nd ed. (Oxford, New York, Toronto, Sydney: Pergamon Press, 1974), pp. 98-99.

<sup>56</sup>U.S. Department of Commerce, "Textile Machinery," pp. 23-11 - 23-12 and Siegel, draft, p. 8.

industry in the late 1940's and has supplied equipment to major textile manufacturers like J.P. Stevens and Burlington Mills. Abbott is one of only two major winding machine manufacturers left in the United States.

Derrick Smith, President of Abbott Machine, and his wife Kathi Smith purchased Abbott in 1978. By this time, Abbott's market share and employment levels had dropped significantly, as imports moved in on the market for textile machinery. Abbott's share of the market plunged from a peak of 25-30% in the 1955-1960's period to only 3% in the 1970's and '80's. And this 3% is a highly specialized market share. In the past, Abbott manufactured textile winding machinery for cotton yarns, but the technology for winding these finer counts of yarns (for example, shirting) "got ahead of Abbott," according to Kathi Smith, co-owner of Abbott. Abbott's machines were still competitive for the heavier yarns, like carpet yarns, so the firm was forced to specialize in the manufacture of equipment for carpet yarns. Employment dropped from the 1955 peak of 350 workers to today's level of 100 workers. The largest drop in employment occurred in the late 1960's. Currently the firm does \$3 million in annual sales. The firm's financial records were too disorganized when the Smiths purchased the company for them to figure out past sales levels.

According to Derrick Smith, import competition has come from German, Italian, and more recently, Japanese manufacturers. Abbott's market share shrank drastically in the 1960's when

European manufacturers began to penetrate the U.S. market with more costly but more automated and technologically advanced machines. By the time the Smiths purchased Abbott, the firm's sales consisted primarily of replacement parts for Abbott winders--a market that was bound to shrink as more U.S. textile mills switched over to European products.

When the Smiths purchased Abbott in 1978, they realized that the company's future depended on developing and marketing a winding machine that would be fully competitive with foreign products. Abbott engineers began designing a cone winding machine that would offer the features needed by textile manufacturers--high speed winding, fast retie of breaks in the yarn, and electronic yarn controls.

#### Assistance Received by the TAA Program

The Smiths contacted the New England TAAC in 1979 for help in developing and financing the project. Derrick Smith heard about the program through an advertisement the New Hampshire state economic development office had sent to all small businesses in the state.

The diagnostic survey prepared by the NETAAC revealed the following problems with Abbott: 1) Abbott suffered from declining market share. It had become an aging parts business serving its old customers. The percentage of orders that went for new equipment had dropped from 80% to 20%; 2) it suffered from declining employment because Abbott had not made technological advances to keep up with the competition; and 3) its recovery hinged on developing a new winding machine.

Abbott received \$233,000 in technical assistance from the NETAAC. Derrick Smith said that his firm did most of the R&D work on the new machine, but it subcontracted some of the engineering work. After a competitive bidding process involving three firms, NETAAC hired an engineering and product development consulting firm, Butler Service Group, Inc., of Plaistow, New Hampshire in 1980 for assistance in engineering and testing the new machine. Butler was chosen because of the firm's specialized skills in electronics, noise levels, and dust control. It took six months from time of certification to receipt of technical assistance.

Abbott also received a \$1 million federal loan for working capital and financing the development of the machine.

The final product of the three years of R&D work performed by Abbott, NETAAC, and the consultants is the Model 81 winder, a state-of-the-art "high tech" textile winding machine. The Model 81 features winding speeds up to 2,000 yards per minute (compared to an earlier generation of Abbott equipment, the DB10, with a winding speed of 1,200 yards per minute); fast retie cycle (10.8 seconds); electronic yarn cleaner and knot monitor; and a microprocessor to assure that doffing, retieing, and bobbin changing actions are interlocked and performed smoothly and to provide counting information. In addition, the machine can handle all standard cheese and cones, and each winding unit has its own knotter.<sup>57</sup>

---

<sup>57</sup> Abbott Machine Company, Abbott Machine Model 81 Winder, brochure.

The new machine was ready to go. Abbott installed the first machine in the premises of one of its customers in 1982. The company showed a prototype of the machine at the American Textile Machinery Exhibition in Greenville, South Carolina, in the fall of 1982.

### Impacts of Assistance

Then, what could have been a successful turnaround of a troubled company was set back by the strong U.S. dollar. Derrick Smith reported that his firm had developed the machine within certain parameters for production costs and selling price. After Abbott introduced its product onto the market in September 1983, the strong dollar affected the exchange rate so much that the Italian firm of Savio could offer a similar product for \$400/spindle and \$20,000/machine cheaper than Abbott could produce it. Savio also enjoys a competitive advantage because it is financed by the Italian government.

Derrick Smith says Abbott is just "sitting in limbo," waiting for the U.S. dollar to weaken. He says the dollar was the only factor that prevented Abbott's success.

"We had a better machine than anyone else."

Sales of the Model 81 winder are on hold. Abbott repurchased the machine it had installed with the customer because, as Derrick Smith said, in his business manufacturers have to supply parts to customers and it seemed "ridiculous" to supply parts to just one customer. Abbott installed one machine for a mill test, and "It worked out quite well," Kathi Smith said. The New Hampshire plant is currently



producing replacement parts for and manufacturing its old machines, which still have some uses.

Derrick Smith believes that if the dollar stabilizes and Abbott does its marketing right, then the company can regain its old 20-25% share of the market. He believes that if the firm had been successful, its employment probably would have tripled. He had looked for additional factory space down south in anticipation of growth and found the Greenville location.

[Abbott is not unionized, so I was unable to confirm Smith's story on employment impacts of TAA with the workers.]

#### Management's Evaluation of the TAA Program

Derrick Smith feels that Abbott would still be in business if it hadn't received TAA, but "in a very different way," he said. [Producing old machines and replacement parts for a declining market, as it is currently doing, but with no prospects for growth.]

When asked whether Abbott could have developed the Model 81 winder without the TAA technical and financial assistance, Kathi Smith responded, "We had no means to finance the project. I don't believe so." She added that Abbott did not have the engineering capabilities needed to develop the new product.

Derrick Smith is a great believer in the TAA program, "if there is a viable product." He rated it as an "excellent" program. "The only bad thing in the whole thing was the rate of exchange." He couldn't think of any improvements to be

made in the program.

He evaluated the NETAAC staff and consultants as very good. His only minor complaint was that many of the NETAAC staff were "political" and were hard to reach when elections were coming up because they worked on campaigns.

He believes that the government should provide assistance to private firms, "if they're going to stimulate free trade, which they are." Since the government gives massive subsidies to big corporations like Lockheed, it should also provide support to small businesses.

## Chapter 4. Anson, Inc.

Anson, Inc. is a Providence, Rhode Island jewelry manufacturer specializing in the production of men's costume jewelry. In the late 1970's to early 1980's Anson, like many other jewelry firms in Rhode Island, was badly hit by import competition. The company, also troubled by a history of poor management, was forced into Chapter 11 in 1982. New management, assisted by a \$3 million loan guarantee and technical assistance from the New England TAAC, has reorganized Anson into a growing, successful company. The TAA package was the object of intense political lobbying in the state, and Anson's turnaround received considerable coverage in the Rhode Island media.<sup>58</sup>

### Industry Analysis

The jewelry industry plays an important role in the Rhode Island economy.<sup>59</sup> The recession of the late 1970's produced a major shakeout of the industry, and many Rhode Island companies failed. In 1981, jobs in the jewelry industry made up 17.9% of total manufacturing employment in the state, down from the 1978 peak of 22.9%. Between 1978 and 1981, employment in the Rhode Island jewelry industry dropped from 30,900 to

---

<sup>58</sup>This case study is based on an interview with Joseph Carpinteri, Chief Executive Officer, Anson, 4/2/84 and Gwynne Morgan, "New Ownership, Federal Loan Buoying Anson," The Providence Sunday Journal, 11/13/83, Section F. Unless otherwise cited, the information in this case study comes from these sources.

<sup>59</sup>This analysis of the Rhode Island jewelry industry is summarized from Rhode Island Strategic Development Commission, The Greenhouse Compact: Cultivating Rhode Island's Fourth Economy, 1983, Vol. 1, pp. 199-228.

22,800. These figures include employment in all areas of the jewelry industry--costume jewelry, precious metals, findings, and specialty products.

Rhode Island also plays a major role in the national jewelry industry, especially in certain market segments. In 1981, Rhode Island had 29% of total jewelry employment in the U.S., and 46.9% of the costume jewelry employment.

Costume jewelry is the largest segment of the Rhode Island jewelry industry, accounting for 48% of total jewelry employment in the state in 1981. Women's jewelry is the largest component of this segment in Rhode Island, but also included are men's jewelry, novelties, and seasonal ornaments. The key characteristics of the costume jewelry industry are that it is seasonally cyclical and dependent on rapidly changing fashion trends.

The Rhode Island and national jewelry industries have been hard hit by European and Asian imports. In 1983, 21% of the costume jewelry sold in the U.S. came from abroad, mainly Hong Kong, Taiwan, and Korea; 25% of the precious jewelry was imported, mostly from Italy, according to the Manufacturing Jewelers and Silversmiths of America.<sup>60</sup>

Lower end costume jewelry (inexpensive earrings, for example) is generally a low-skilled, low-wage industry involving lots of assembly work. Higher-end jewelry production (for the high-fashion market), in contrast, employs a much

---

<sup>60</sup> Don Lessem, "Coping With Foreign Competition," Ocean State Business, 11/83, p. 21.

higher proportion of skilled laborers for design, tooling, and fabrication.

Low-end costume jewelry is especially vulnerable to low-wage foreign competition because its production process is characterized by low design requirements and high-volume, long assembly runs. It is harder for low-wage foreign countries to copy high-fashion American jewelry items when fashions change so rapidly and the production process for high-end jewelry is typified by short, small-volume runs, and a high skilled labor content.

A recent analysis of the Rhode Island jewelry industry projected that employment will decline due to market stagnation and increasing imports from low-wage countries. Rhode Island firms that do survive will specialize in the higher-end lines, where they have the competitive edge of lead times, design content, toolmaking requirements, and quality. Another competitive strategy for Rhode Island firms is the provision of "services" to buy the loyalty of their direct retail customers. This means that jewelry firms provide services formerly done by the retail store's own employees, such as displays, restocking, inventory control, recordkeeping, and even guaranteed sales.

#### History of the Firm

Anson is one of the oldest jewelry manufacturers in the U.S. It was at one time considered a leader in the jewelry industry. The company was founded in 1939 by Olof Anderson, a tool maker who built the present plant at Cranston

Industrial Park in the Providence metropolitan area about 20 years ago. The plant covers 4 acres under one roof and is the largest men's jewelry manufacturing facility in the country, according to Joseph Carpinteri, Chief Executive Officer of Anson.

At present, Anson has about 350 employees and does annual sales of \$15 million. Anson has seven divisions: 1) Men's jewelry, the largest division; 2) writing instruments; 3) Merchandising, made up of showrooms and mass merchandising; 4) Multi-media. An example would be Christmas bells sold by American Express and advertised in "junk mail"; 5) industrial division. For example, this division makes 5-year pins for employees of companies like General Electric and Westinghouse; 6) box division. Anson makes all its own boxes for its use, as well as boxes for high-select customers like the Franklin Mint, and for precision instruments and high-quality personal computer boards; 7) contract. This is mainly men's jewelry on bid from the military, such as collar bars and tie tacks.

Carpinteri blamed Anson's decline on the management practices of Anderson, in addition to intense import competition and the recession. Anderson ran the shop singlehandedly with no delegation of authority to middle management. The company refused to sell directly to major retail chains, insisting instead on its historical practice of selling through wholesalers. The company had run 90 to 120 days late in paying its bills for years before its Chapter 11 petition. The final blow came when Hospital Trust National

Bank refused, after 40 years, to advance any more credit to the firm. On September 3, 1982, Anson was forced into bankruptcy.

Carpinteri, a packaging wholesaler with real estate experience, contacted Anson in the second week of September. What he found was a company in very bad shape. Imports had hit every item of jewelry Anson made, from the low to high end. Import competition wasn't a quality problem, but rather due to labor cost differences, Carpinteri stated. Asian manufacturers would violate trademarks and copy American products, then look for a merchandiser in the U.S. Anson's sales had declined from \$20 million in 1980 to \$11.5 million in 1982. The workforce had been slashed from a high of 600 to 187 employees, and they'd been forced to take a 20% cut in pay. Anson owed between \$2.5-\$3 million to trade creditors and over \$2 million to Rhode Island Hospital Trust National Bank. The firm had no internal controls. For example, in the men's jewelry line alone there were over 1,500 different styles, or stockkeeping units (SKUs).

Carpinteri was confident that with good management and controls, smokestack industries like Anson could be saved. He said that Anson would never be a "glamorous high-growth, high-tech" industry, but it could be a "bread and butter" company.

Carpinteri began structuring a deal to purchase Anson. His ownership of Anson was confirmed by the federal bankruptcy court on May 11, 1983. He and some other investors bought 81.5% of Anson for \$1.25 million, with the remaining share of

stock held by Anderson's family.

#### Assistance Received by the TAA Program

Carpinteri worked on reviving the company, with the assistance of the New England TAAC. He contacted the NETAAC in the fall of 1982. He'd always known about the program from working in the Boston area. Anson was the first firm in Rhode Island to apply for TAA.

NETAAC staff came down to Providence to look at the plant, and their diagnostic survey showed that management and lack of controls were the main problems with the firm. There was no middle management. Since all the inventory and sales figures had been performed manually, the firm didn't know, of thousands of items that were going out of the plant, which items were making and which were losing money. They hadn't costed anything for 15 years, and many items were priced at 10-40% below profitable levels.

Anson received a \$142,000 grant from the TAA program for the adjustment plan, which Carpinteri, NETAAC, and consultants worked on.

Technical assistance was provided in two phases--first, to get the "front house" (accounting and management information systems) in order; secondly, to reorganize the "back house" (costing and production). Carpinteri wrote up a scope of work proposal, and consultants were hired after a 2-3 month competitive bidding process. It took 3 months from time of certification to receipt of technical assistance.

NETAAC management and accounting experts helped organize



the accounting and management information systems for Anson. One of the most significant improvements was installing a new computer, for which NETAAC hired an outside consultant, and establishing a new accounting system. The Andersons had purchased an IBM mainframe computer ten years ago. Unfortunately, according to Carpinteri, "It was very powerful but didn't do anything." So Anson installed a new NCR 94 mainframe computer, paid for with some of the financing made possible by the \$3 million TAA loan guarantee, that is more compatible with its needs. NETAAC and management reorganized the firm's accounting system so that each division reports its profits and losses separately. Accounts receivable and payable were loaded on the computer. In order to make controls more manageable, NETAAC and management also cut the number of different styles offered from 3,000 down to 750. When all the systems are set up, the new computer will keep track of about 90% of Anson's total sales and inventories.

Now that NETAAC and management have gotten the front house in order, they are working on improving costing and production standards, for which they've hired teams of industrial engineers and other consultants. The consultants have costed all the firm's costs of doing business. Prices were raised 30-40%, and now Anson can be sure that everything that is shipped out will bring in a profit.

Industrial engineers also introduced laser technology into the plant. The laser equipment was purchased with some of the federal funds. Currently, this technology is only

used in the company's writing division. Anson's new management is confident that this new technology promises growth for its "recognition and incentive products" division (for example, key rings, tie tacks, and cuff links sold directly to corporations), currently about 30% of sales, because it allows the manufacturer to engrave names or company logos on "any surface" in seconds.

Management and NETAAC have also improved Anson's marketing and sales programs and products. Anson now sells directly to major retail chains such as J.C. Penney, Sears, Zale's, Gordon's, and Robinson's, and this accounts for 20% of sales. Anson has also changed its markup procedure, offering an additional 20% markup, on top of the 50% markup offered by most manufacturers to retail stores, in order to win space. The firm has upgraded the quality of its packaging to a velveteen covered metal box, which comes with the cheapest to the most expensive items Anson sells. The company has redesigned its writing instrument line, and is selling the products in prestigious stores like Tiffany and Neiman-Marcus. Finally, Anson is setting up a nationwide force to sell its boxes and countertop displays to jewelry and general merchandise stores. Recently, Sears, Roebuck and Co. placed Anson displays into 340 Sears stores.

All of these changes were made possible by the TAA technical assistance and a \$3 million federal loan guarantee which Anson received under the TAA program. The backing of the federal government gave private lenders more confidence

in Anson, but it still wasn't easy raising funds, Carpinteri said. He was turned down by seven banks. They told him, "The jewelry and textile business were losing business. They went down the tubes once, they're not going to be there." Finally, "at the nth hour," in June of 1983 Fleet Credit Corporation came through with a \$3 million loan. Carpinteri assembled a total financing package of \$5 million, arranging the other \$2 million himself. The \$3 million is guaranteed and collateralized by the federal government. It is for 12% (1.5% above prime at the time) over 7 years.

#### Impacts of Assistance

The reorganization plan has improved Anson's performance significantly. Carpinteri started with a troubled but economically viable company in September of 1982, and by March of 1983, the firm was showing a profit every month. By the summer of 1983, he'd "cut out the hemorrhaging" and gotten the firm on a consistent basis. As of April 1984, less than one year after he purchased the firm, sales were up to \$15 million. He's aiming for \$20 million in annual sales this fiscal year.

Anson had only 165 employees when it was forced into bankruptcy in September 1982. By December 1983, employment had grown to 500 workers. In April 1984 there were 340-360 employees. [The decline was due to the cyclical nature of production in the costume jewelry industry.] The number of employees is growing and Carpinteri projects 500 employees by June 1984. Eventually, he believes that Anson will have 500-600 employees, making it one of the largest employers in

Rhode Island.

Carpinteri proudly stated that he turned the company around without firing one person and that he'd actually raised wage and salary levels of employees. He does not believe in the strategy of slicing costs to reorganize a firm, "like the Harvard MBA stories," as he said.

Morale among employees is up, according to Carpinteri. Anson has instituted an evaluation system and all employees have received wage and salary increases, based on this evaluation system. Productivity has increased substantially, but Carpinteri could not give any figures. The company trained in-house people to operate its new laser technology, rather than hiring from the outside.

[Anson is not unionized, so I could not confirm these statements on the impacts of reorganization on the firm's employees.]

When asked if he thought that Anson was competitive with imports, Carpinteri said that it will never be competitive with imports. The firm is only competitive because of the "programs" and services it can offer which foreign producers can't. Rather than selling one item of jewelry, Anson will manufacture a program of 100 different items to sell to stores, thus making sure that stores carry a representative selection of its merchandise. He believes that when all their new systems are completed in six months, Anson will be highly competitive with imports and its market share will increase.

Carpinteri had several offers to buy the firm during the

reorganization, but he has no plans to sell Anson.

#### Management's Evaluation of the TAA Program

Carpinteri believes that the TAA program was critical to Anson's recovery. "Without the technical assistance and the money, there'd be no Anson," he said.

"The company was dying, going down the tubes," he said. He stated that if he and Rhode Island legislators hadn't been so persistent down in Washington, the company wouldn't have made it. Rep. Claudine Schneider and Sen. John Chaffee lobbied on Anson's behalf. Carpinteri and the legislators used this argument: "Do you want 400 unemployed people in the streets?" Carpinteri also testified in Washington in support of the TAA program when its funding was threatened because he feels it did such a good job with his firm.

He got along well with the NETAAC staff and consultants. He described the program as "terrific," and his only suggestion for improvement was that NETAAC hire a public relations person. As he said, Rhode Island has lost over 30,000 jobs in his industry alone, but nobody knows about the program.

When asked whether he felt the government should provide assistance to firms, he replied, "I think they have to." He feels that the government has to do something to make firms and industries like his more competitive.

## Chapter 5. Evaluation of the Trade Adjustment Assistance Program for Firms and Analysis of Case Studies

The statistics presented in Chapter 1 show that, at least in terms of number of firms assisted, the TAA program has had a large impact nationally and on the New England region. But what impact has this assistance had on the competitiveness of firms and how efficient has the program been in delivering its services? This chapter will evaluate the TAA program for firms and analyze the three case studies. My procedure for evaluating the program is to look at the survival rate of firms assisted by the program, summarize the results of my other firm interviews regarding the efficiency of service delivery, summarize other studies on the TAA program for firms, and analyze the case studies to determine the impacts of the TAA program on each firm. I will also discuss some of the industrial policy issues the cases raise. The next chapter will discuss these industrial policy issues in greater depth, looking at the relevance of the TAA experience for economic adjustment policies at the federal and state level.

### Impacts of the TAA Program on Firm Survival

The loan default rate of firms assisted by the TAA program has improved over time. The program had a very high loan default rate when it was under the EDA. Approximately 65% of the companies which received TAA loans through 1981 went into default. But after 1981, when it was transferred to the ITA, officials tightened the program's loan criteria and encouraged firms to seek financing from private lenders.

Most importantly, the TAA program shifted its focus from financial to technical assistance.<sup>61</sup>

There are some methodological problems in determining the survival rate for TAA-assisted firms. Some firms receive financial assistance only, some technical assistance only, and some both. There will be different survival rates for each group. Further, some of the firms that are "on death's doorstep" when they come to the program require large amounts of financial assistance, and these firms will drag down the average survival rate if they fail. Another problem is whether liquidations and changes of ownership should be considered as firm failures.<sup>62</sup>

But given these methodological problems, survival rate figures have been developed for the program. Daniel Fennell, Director of the Mid-Atlantic TAAC, working with the Office of Trade Adjustment Assistance, compiled data from all 11 TAACs in 1983 showing the number of firms assisted and the number still surviving during the period from fiscal year 1979 to fiscal year 1983 (to date and estimated). The data include firms which received technical, financial, or technical and financial assistance. Firms which experienced a change of ownership but were still in business were counted as survivors.<sup>63</sup>

---

<sup>61</sup>Elizabeth Wiener, "As It Begins To Help, Trade Adjustment Faces The Axe," The Boston Globe, 7/11/83, p. 25.

<sup>62</sup>Interview with Arthur Levine, Financial Loans Division, EDA, U.S. Department of Commerce, 4/27/84.

<sup>63</sup>Interview with Daniel Fennell, Director, Mid-Atlantic TAAC, 5/18/84.

Table 6 shows the survival rate figures for the U.S. and for the states served by the New England TAAC. The survival rate for firms assisted by all 11 TAACs during this period is 84%. The survival rate for NETAAC-assisted firms is 94%.<sup>64</sup>

<sup>64</sup>In order to derive a rough benchmark for success of the program, these survival rates can be compared to the overall U.S. small business survival rate.

Table 7 shows the survival rate for small businesses for periods of 4, 9, and 10 years after start-up as a function of initial employment size. In order to be as conservative as possible and to exclude "Mom and Pop" operations that would be expected to have a high failure rate, I will use the figures for firms with 101-500 employees. The survival rates for this group of firms are: beyond 4 years, 56%; 9 years, 37%; and 10 years, 28%.

TABLE 7

THE PROPORTION OF FIRMS THAT SURVIVE BEYOND 4, 9, AND 10 YEARS AFTER START-UP, AS A FUNCTION OF INITIAL EMPLOYMENT SIZE

<u>Initial Size (Employees)</u>	<u>Proportion That Survive</u>		
	<u>Beyond 4 Years</u>	<u>Beyond 9 Years</u>	<u>Beyond 10 Years</u>
1-20	.374	.173	.086
21-50	.536	.352	.262
51-100	.557	.364	.274
101-500	.564	.368	.283
500 and over	.677	.425	.357

Source: Harvey A. Garn and Larry C. Ledebur, The Estimation of Development Impacts (Washington, D.C.: The Urban Institute, March 1981), p. 26; calculated from table 4-6 in David Birch, The Job Generation Process, (Cambridge, Mass.: MIT Program on Neighborhood and Regional Change, 1979), based on data for 1969-76; cited in Barry Bluestone and Bennett Harrison, The Deindustrialization of America (New York: Basic Books, 1982), p. 223.



TABLE 6

SURVIVAL RATE OF FIRMS ASSISTED BY  
THE TRADE ADJUSTMENT ASSISTANCE PROGRAM  
(FOR FISCAL YEAR 1979, 1980, 1981,  
1982, 1983 TO DATE AND ESTIMATED)

<u>Location</u>	<u>Number of Firms Assisted</u>	<u>Number of Firms Surviving Fiscal Year 1983</u>	<u>Survival Rate</u>
U.S.	2,240	1,877	84%
Connecticut	65	59	
Maine	28	28	
Massachusetts	247	233	
New Hampshire	53	47	
Rhode Island	33	33	
Vermont	15	14	
New England Subtotal:	441	414	94%

Source: Daniel Fennell, Director, Mid-Atlantic TAAC, 5/18/84

## Efficiency of Service Delivery

Table 8 summarizes the results of my 10 other firm interviews. (Please refer to "Background and Methodology of Study," pp. 7-10.) I've divided the firms into categories of positive, neutral, and negative experiences with the program based on a subjective evaluation of their responses. Three had a positive experience, one a neutral experience, and six negative experiences with the program.

Ten firms is too small a sample to make any scientific conclusions about the program. But some very clear patterns do emerge from the interviews and they were confirmed in conversations with other people connected to the program. Five of the six firms with negative experiences expressed frustration over the long time period required for assistance, or because they'd gone through lots of paperwork and never got anything out of the program. One of the three firms

---

64(continued)

There are methodological problems in comparing the TAA firm survival rates with the overall U.S. small business survival rate. It could be argued that firms 3, 5, or 10 years after start-up are different from TAA-assisted firms, which may have been stable performers for a long time and only recently experienced business problems as a result of import competition. And the biggest problem with interpreting Fennell's data is that there is no way of knowing whether TAA or some other factor was responsible for the 84% survival rate. It would probably be more valid to compare the TAA survival rate with the survival rate of firms in the high risk, troubled firm loan portfolio of a commercial bank during the same time period.

But, given these methodological problems, the comparison does give a crude basis for evaluating the program. An 84% survival rate is a significant improvement over the 28-54% survival range for small businesses as a whole. This test indicates that the TAA program has had a positive impact on the performance of small businesses.

TABLE 8

## FIRM'S EXPERIENCES WITH TAA PROGRAM

<u>Firm and Location</u>	<u>Product</u>	<u>Certified</u>	<u>Comments on TAA Program</u>
(POSITIVE EXPERIENCE)			
May Optical Co. Wareham, MA	Plastic eyeglass frames	1980	Received financial and technical assistance for sales and marketing, very beneficial to firm
Parker Metal Corp. Worcester, MA	Television antennas, shopping carts, fasteners, and other hardware	1981	Received technical assistance for manufacturing and cost programs, beneficial to firm
Mohawk Industries, Inc. Adams, MA	Stoves	1981	Received technical assistance for upgrading product and marketing, beneficial to firm
(NEUTRAL EXPERIENCE)			
Jones & Vining, Inc. Braintree, MA	Shoe lasts and soles	1981	President wasn't sure if firm received any assistance, or only minimal
(NEGATIVE EXPERIENCE)			
Joan Fabrics Corp. Lowell, MA	Upholstery fabrics and textile machinery	1980 (Withdrawn)	Firm went through a lot of paperwork because local TAAC said it would be certified, but then Department of Commerce determined that its market had not been hit by imports

<u>Firm and Location</u>	<u>Product</u>	<u>Certified</u>	<u>Comments on TAA Program</u>
The Berlyn Corp. Worcester, MA	Thermoplastic machinery	1980	Told that the program had fallen apart and never received any assistance
Bedford Manufacturing Corp. Fall River, MA	Women's clothing	1982	Went through a lot of paperwork but received no assistance because firm could not raise the 25% matching funds required for technical assistance
Julius & Sons, Inc. Boston, MA	Men's leather coats and jackets	1980	Filled out all the paperwork but never got any assistance
Silin Manufacturing Co. Boston, MA	Women's dresses and aprons	1980	Went through a lot of work but never got anything out of the program
Leon Clothing Manufacturing, Inc. Boston, MA	Men's coats	1980	President/Treasurer said that a \$10,000 technical assistance grant for new technology was approved, but assistance never came through because of Reagan administration's changes in program; had to deal with three different TAAC directors over 12-18 month period; gave up in frustration

Source: Firm Interviews

with positive experiences also complained about the timing. Two of the six firms with negative experiences stated that their problems were directly related to instability in the program caused by the Reagan administration.

The most frequently expressed complaint about the program is that it takes too long. This is problematic because timing is a critical factor for business turnarounds. Frequently, managers fail to recognize potential problem areas or assume that they know their business "better than anyone else." By the time the management of a troubled firm seeks outside help, minor problems may have become serious or even fatal.<sup>65</sup>

Gary Brooks, a consultant with the Pace Consulting Group of Hartford, Connecticut, a management consulting firm which has worked with the New England TAAC, stated that the time factor was the most serious problem with the whole program. He said that, on average, firms don't receive any assistance until a minimum of nine months after application, by which time many firms have already gone bankrupt. For example, a Massachusetts furniture company which Pace managed for the program went bankrupt because, even though banks were "extremely cooperative," the TAA process took two years.<sup>66</sup> NETAAC's own figures state that the average processing time, from certification petition submission to receipt of loan funds, is 14-15 months.<sup>67</sup>

---

<sup>65</sup>Ron Nolan, "The Business Doctors," Connecticut Business Review, September 1982.

<sup>66</sup>Interview with Gary Brooks, Pace Consulting Group, 12/29/83.

<sup>67</sup>New England TAAC, New England Trade Adjustment Assistance Center, Inc., Annual Report, October 1, 1982 - September 30, 1983, p. 5.

John Nevin of General Bearing also complained about the "massively time consuming" process required for the TAA program.

A comparison with Small Business Administration loan programs will help put this 14-15 month TAA waiting period in perspective. The SBA's 7a loan program provides two types of financial assistance: 1) Loan guarantees, where the SBA guarantees 90% of a maximum \$500,000 loan from private lenders; and 2) Direct loans for up to \$150,000. Funds can be used for "any good business purpose." According to John McKinney, Loan Officer, Boston district office, U.S. Small Business Administration, processing time for loan guarantees is 10 days; for direct loans, 3 weeks. SBA also offers a faster turnaround loan guarantee program, the certified lender program, where the bank does all the work. This only takes 3 days to process.<sup>68</sup>

The Reagan administration's attack on the TAA program also appears to have seriously reduced its efficiency. The uncertainty over the program's future has produced heavy staff turnover at local TAACs, thus reducing their efficiency. This is attested to in the experiences of one firm which had to deal with three different TAAC directors over an 18-month

---

<sup>68</sup> Interview with John McKinney, Loan Officer, Boston district office, SBA, 4/30/84. Another source, who was involved in an evaluation of the SBA 7a loan program, indicated that actual loan processing times are longer than these figures indicate. The certified lender program is faster than other SBA loan programs, and was created to overcome historical problems of time delays. (Interview with Beth Siegel, who helped conduct a study of the SBA 7a loan program for Counsel for Community Development, Cambridge, MA, in May 1983, 5/19/84.)

period beginning in 1980.<sup>69</sup> The New England TAAC has had two different directors in fiscal year 1983.<sup>70</sup>

The Reagan administration has also hampered the ability of TAACs to publicize their services. In September 1981, a "policy decision" prohibited TAACs from making direct contacts with firms, which had been up to then their almost exclusive channel for informing potential clients of the available assistance. According to Charles Smith, Deputy Director of Certification Division, his office was told that the Reagan administration wanted to save money and the TAA program was being too aggressive about getting firms into the program.<sup>71</sup> Now TAACs have to rely on indirect contacts such as referrals from former clients and organizations such as state economic development agencies, industry associations, Chambers of Commerce, banks, and CPAs.<sup>72</sup> Joseph Carpinteri's statement that the NETAAC needs to hire a public relations person because nobody has heard of the program in Rhode Island indicates that this constraint does reduce the efficiency of the program.

#### Other Studies of the TAA Program

There is one other major study of the TAA program relevant to firm assistance. It studied the impact of adjustment assistance benefits to workers and firms in the Massachusetts shoe industry. The problem with this study is that it looked

---

<sup>69</sup> Interview with Edward Bernard, President and Treasurer, Leon Clothing Manufacturing, Inc., Boston, MA, 3/14/84.

<sup>70</sup> New England TAAC, Annual Report, p. 24.

<sup>71</sup> Interview with Charles Smith, 4/26/84.

<sup>72</sup> Associated Research Analysis Corporation, Evaluation of the Third Year, p. 7.

at benefits under the Trade Expansion Act of 1962, which had much stricter eligibility requirements than the Trade Act of 1974, and the study focused more on assistance to workers than firms. Nevertheless, it concluded that TAA had positive short-term effects on two of the three firms studied. The third firm shut down two and one half years after qualifying for assistance. The study found that the program was limited by two factors: 1) It was relatively inaccessible because of its stringent eligibility criteria; and 2) Most businesses weren't interested in the program if they were on the verge of closing and saw no future for the industry.<sup>73</sup>

#### Analysis of Case Studies

Now I would like to analyze what the three case studies illustrate about the impacts of the program and larger issues of business strategy and industrial policy.

#### J&L Precision Bearings

The reorganization of J&L illustrates several points about business strategies for turnarounds. Its problems were caused by bad management. It is primarily a case of modernizing the production process in order to make a firm more competitive with imports. This fits with the Department of Commerce's recommendations to make the industry more competitive. It also involves a change of ownership and a market niche strategy.

---

<sup>73</sup>McCarthy, The Shoe Industry in Massachusetts, pp. 127-135.



The firm received both technical and financial assistance from the TAA program. In addition to the diagnostic survey and adjustment plan, technical assistance was provided by consultants who modernized the production process at the old plant. The financial assistance will be used for future operations and to finance fixed assets and working capital. It's not clear what this means, but presumably it will be used for purchasing equipment and operating the new plant. This will make sure that the firm can finish the job of modernizing its production process (installing modern equipment at the new plant) and is not limited by financial factors once its production process has been brought up to date.

It is impossible to predict what the impact of the TAA program will be on J&L's competitive position, since it hasn't begun production yet. However, given the new management and the massive upgrading of its production process, it's safe to say that J&L will be in a better position to take on the competition than before.

General Bearing's market niche strategy--specializing in fast delivery times at low prices--may give the company an initial competitive edge when the new plant opens, but it is questionable how long it will last. General Bearing is not the only bearing manufacturer pursuing this strategy. Federal Mogul, which manufactures for a different market segment of the bearing industry (trucks, cars, and farm equipment) is also basing its growth strategy on "just in time" delivery

programs. In the past, Mogul would ship in large batches once a month to its customers, but now it delivers smaller batches several times a week. Mogul's philosophy is that the bearings manufactured by different producers are basically the same, so it needs to concentrate on "non-product variables" like sales and service to stay ahead of the competition.<sup>74</sup> Growing numbers of U.S. firms, especially in the auto industry, are demanding the "just in time" inventory method, a business strategy developed by the Japanese. This is because the currently high real level of interest rates gives companies an incentive to keep inventories as lean as possible.<sup>75</sup> General Bearing may be able to gear its relatively small production capacity to a narrow strategic target (flexible production and fast delivery times), thus enjoying a cost advantage over rival firms which are competing more broadly. But if the demand for fast delivery programs grows, the difference between General Bearing's strategic target and the market as a whole will narrow. Other manufacturers of mini precision bearings may copy General Bearing's strategy or even outdo General Bearing by finding submarkets within General Bearing's strategic target.<sup>76</sup>

Whatever the impact, I think that the assistance provided to General Bearing is an example of a bad public subsidy on

---

<sup>74</sup>Nossiter, "Not the Same Old Grind," p. 33.

<sup>75</sup>"Business Gets a Grip on Inventories," Business Week, 5/14/84, pp. 38-39.

<sup>76</sup>Michael Porter, Competitive Strategy (New York: The Free Press, 1980), pp. 38 and 46.

two scores. First, it is an unnecessary subsidy. Nevin himself stated that General Bearing could have reorganized the firm on its own, without the TAA program. It's possible that General Bearing violated the provision of the program that "the firm will make all reasonable efforts to use its own resources for economic development." If so, this constitutes an abuse of the program. But it also violates a fundamental economic development principle that scarce public funds should not be used to displace financial resources available from the private sector.

Secondly, the subsidy is questionable because it finances a plant relocation. According to Charles Smith, Deputy Director of Certification for the OTAA, the Trade Act of 1974 does not prohibit providing assistance to firms that are relocating plants. "But," Smith said, "If a relocation was involved, we'd look very carefully at what they plan to do for the workers." He gave moving expenses as an example. "We don't want them creating employment in one area and unemployment somewhere else," he added.<sup>77</sup>

It could be argued that since TAA is a federal and not a state program, it shouldn't matter if a firm uses public funds to move a plant to another state. As long as it's not moved overseas, jobs will still be created for American workers.

But it's not clear why public funds for a program designed to increase the competitiveness of U.S. firms should

---

<sup>77</sup> Interview with Charles Smith, 4/26/84.

be used to assist plant relocations, unless the firm can prove that relocation is necessary in order to make the firm more competitive. In this case, Nevin's reasons seem to be legitimate from the perspective of his firm's profitability. Industrial land in the new site costs one-fourth as much as at the old site. The two-story structure vibrates too much for precision machining. He claimed that taxes and construction costs were higher in Massachusetts, and that General Bearing wanted to consolidate its operations. He also listed quality of life factors for the new location. There is no way of determining whether the plant could have been competitive in the Massachusetts location without access to information on the firm's cost structure and the market for mini precision bearings. Given that the plant is moving, the arrangement worked out with the New York State TAAC to hire and train trade-impacted workers in the new location seems like an equitable plan. Nevertheless, this seems to be an area for potential abuse of the program, especially if there are labor problems at the original plant. The interests of the former employees would be better served if General Bearing reopened the Shopsbury plant after retooling and offered them their old jobs back. But this illustrates one problem with the TAA program for firms from labor's point of view: It is primarily a business subsidy program, so the interests of assisted firms' employees, even though they must be taken into account in the adjustment plan, are only a secondary consideration.

It's also interesting that the reorganization plan does not seem to have given "adequate consideration to the interests of" the firm's workers with regard to rehiring. While General Bearing plans to rehire 10-12 of the original employees (if they're willing to move out of state), the only reason stated was to reduce the firm's training costs.

Cunningham's statement that the TAA program gave General Bearing enough time to make the old plant more competitive-- it "slowed down" the rapid forces of economic change--is significant for my later discussion of economic adjustment policy.

#### Abbott Machine

Abbott's problems were also caused by management failure. The previous management failed to reinvest enough in research and development to keep its products competitive with foreign producers. It is a striking example of how public assistance can be provided for new product development to turn around a firm in an industry suffering from massive decline. Unfortunately, it also illustrates the importance of macroeconomic variables (the exchange rate) on the outcome of microeconomic policy. Abbott is a vivid example of how the relative strength of the U.S. dollar is hurting the ability of U.S. manufacturers to compete with foreign producers.

The TAA program provided technical and financial assistance to Abbott. In addition to the diagnostic survey and adjustment plan, technical assistance was provided by consultants who did the research and development work on the

new textile winding machine. The \$1 million federal loan was used for working capital and financing the development of the machine.

Two questions must be answered to determine the impact of the TAA program on Abbott: 1) Would Abbott's product be technologically competitive if it weren't for the strong dollar? and 2) Could Abbott have developed the new product without the TAA program?

Textile machinery industry specialists provided some answers to the first question. Thomas Jackson, a textile machinery industry analyst with the U.S. Department of Commerce, was familiar with Abbott, but not with the Model 81 winder. He did state, however, that he believed Smith's story that the exchange rate was the cause of the company's problems. He couldn't say whether technology or the price of the dollar was the more important factor in explaining the competitive problems of firms in the industry, but he did say that "The price of the dollar is one of the major factors in their inability to compete." When asked how many firms are in Abbott's position--a good product, but hurt by the strength of the dollar, he responded, "To be more or less exact, just about all of them." He admitted, however, that in some market segments such as shuttle looms the American product is technologically inferior to foreign machines.<sup>78</sup>

Harry Buzzerd, Executive Vice President of the American

---

<sup>78</sup>Interview with Thomas Jackson, U.S. Department of Commerce, 4/24/84.

Textile Machinery Association (ATMA), would not comment on Abbott's position because he said the ATMA represents the interests of all its members and does not promote one product over another. When asked if there were many other textile machinery industry firms in Abbott's position, he responded, "There's absolutely no question that in '81-'82, it [the market for U.S. firms] was depressed for several reasons. First, the depressed world market. And second, the high value of the dollar."<sup>79</sup> Buzzerd also stated, "If I recall correctly, the Abbott winder was marketed at the worst time possible in terms of the textile industry's economic circumstances."<sup>80</sup>

These comments by industry analysts support Derrick Smith's claim that the exchange rate was responsible for the firm not being competitive. The only way to really determine if the Model 81 winder is fully competitive technologically is to call textile machinery customers and consultants. The problem with this method is that Abbott hasn't sold the Model 81 to any customers yet, so no meaningful comparisons could be made.

Kathi Smith answered the second question when she said that Abbott had neither the financial or technical capacity to develop the Model 81 winder on its own.

---

<sup>79</sup> Interview with Harry Buzzerd, Executive Vice President, American Textile Machinery Association, 4/25/84.

<sup>80</sup> Letter from Harry Buzzerd, 4/27/84.

## Anson

Management failure was clearly the most significant cause of Anson's problems and its revival was due to major changes in the way the firm is managed. Its competitive strategy also relies on market niches, improved sales and marketing programs (such as provision of "services" that can't be matched by foreign producers), new products, and new production processes (laser technology).

It is too early to predict the long-run impact of the TAA program on the firm, but Anson appears to be a truly remarkable case of a firm reorganization. The TAA technical assistance provided Anson with teams of consultants in the areas of management and controls. One problem in determining the impact of the program is that even though Carpinteri stated that Anson would not have survived without the TAA program, the process of reorganization involved so many changes that it's hard to isolate what was caused by TAA from what was caused by dynamic new management. The TAA technical assistance was at least partly responsible for installing the new computer, improving accounting systems, costing products, new technology, and marketing and sales programs. The \$3 million federal loan guarantee gave private lenders enough confidence to invest in Anson. Carpinteri stated that his firm was turned down by seven different banks. Without this financing, made possible by the backing of the federal government, Anson could not have possibly emerged from bankruptcy.



Some will argue that Anson's turnaround was so successful because it already held a large share of its different market niches, and its experience could not be repeated too many times. The case for this argument is not compelling. Taking Anson's writing instrument division as an example, its market share in this niche can't be too large because the company faces formidable competition from such industry giants as Cross, Mont Blanc, Parker, and Papermate, all of whom produce for the high end of the pen market. Anson's success is related to much more than a market niche strategy, as its reorganization involved extensive changes in management and controls to streamline the company into a more efficient operation. Also, a small firm which targets its production and marketing capacity on a market niche may enjoy cost advantages over larger firms like Anson, which attempt to cover a wide range of markets.

The employment impacts of the introduction of the new laser technology need to be investigated further. If the technology displaces labor, will the increase in productivity made possible by the laser technology give such a boost to Anson's market share in its "recognition and incentive products" division that share-related increases in employment will offset any decreases in employment related to automation?

One of the most striking features of Anson's turnaround--and the aspect that sets it apart from the firm reorganizations described in the pages of Business Week--is the fact that Carpinteri saved the company without firing one single person.

He's actually raised the wage and salary levels of employees since the company started showing a profit. This runs contrary to the dominant argument made by American management that sacrifices by labor--in the form of massive layoffs and wage and benefit concessions--will be necessary in order to restructure U.S. industry into a new "lean and mean" version that can compete in the international marketplace.

### Management Failure and Firm Failure

These three case studies each illustrate some unique aspects of the economic adjustment process, but they also share one very interesting feature: In all three cases, management failure was the most significant cause of the firms' problems. J&L had been seriously mismanaged and underfinanced, according to both Cunningham and Nevin. The previous management had not made advances in the firm's production process needed to keep up with the competition, and they had developed no marketing or sales strategy. Abbott suffered because the previous management had not invested in developing new products that would be competitive with imports, according to the Smiths. This firm's problems support the general analysis of the textile machinery industry that lack of technological innovation, rather than labor cost differentials, is the main cause of the decline of the U.S. industry. Management failure was also a major cause of Anson's bankruptcy. Carpinteri did admit that low-wage competition was the cause of the firm's troubles with imports, and the

recession of the early 1980's was clearly a factor in the firm's demise. But it is interesting that with new management and TAA technical and financial assistance to improve management and controls, the firm has recovered and is growing, even though competition from low-wage countries has not subsided.

This conclusion is also confirmed by the statements of Richard McLaughlin, Executive Director of NETAAC, that the main sources of problems for client firms are: 1) Management; 2) Market; or Management failure to reinvest enough to keep up plant and equipment.<sup>81</sup>

This finding is so striking because the inability of American firms to compete against foreign producers is frequently blamed on high labor costs. High labor costs were mentioned as a problem in only one of the three case studies, Anson, and even there Carpinteri laid the blame principally on poor management. Some more enlightened factions of the business community have criticized American managers for focusing too much on the bottom line rather than taking a long-range view,<sup>82</sup> but "excessive" labor costs remains the dominant explanation for why American firms can't compete with foreign producers. Management uses this argument to demand wage concessions from labor in firms and industries threatened by foreign competition.

---

<sup>81</sup> Interview with McLaughlin, 11/28/83.

<sup>82</sup> Robert Hayes and William Abernathy, "Managing Our Way to Economic Decline," Harvard Business Review, July-August 1980, pp. 67-77.

Of course, it is true that low-wage foreign producers will have the competitive edge when it comes to mass production of standardized products using low-skilled labor and widely available technology. It's also true that the U.S. cannot compete in integrated steel production at United Steelworkers wage levels when South Korean steel workers earn less than \$3/hour. But as my case studies show, U.S. firms in some industries can remain competitive by strategies other than slashing labor costs.

These three case studies are also relevant to the question of what should be done to assist troubled firms in declining industries. There is a popular belief that the decline of "sunset" industries is inevitable, and that nothing can or should be done to "bail out" failing firms and industries. My case studies disprove the myth that nothing can be done to turn around troubled firms. Whether or not anything should be done--and if so, under what conditions, especially when public funds are involved--is another issue that will be taken up in the next section.

### Summary Evaluation

To conclude my evaluation of the TAA program for firms, it is a program which can be of benefit to troubled firms in import-impacted industries, but it suffers from serious administrative and political problems. The survival rate of firms assisted by the program is 84% nationally. The technical and financial assistance provided by the program has succeeded

in making some firms more competitive through changes in management, improvements in the production process, new product development, or market niche strategies. However, the long time periods required for receipt of assistance and instability and uncertainty over the future of the program caused by the Reagan administration's attempts to eliminate it have reduced its efficiency.

## Chapter 6. Policy Implications of the TAA Program for Firms

The experience of the TAA program for firms raises many questions relevant to the current debate over national and state industrial policy. The beauty of analyzing a program like TAA is that it allows one to bring such discussions away from the abstract level of "picking winners and losers" and "free trade versus protectionism" and to look at these important questions more concretely. In this final chapter, I would like to consider two sets of questions: 1) What lessons does the TAA program for firms provide for developing economic adjustment policies at the national level? Should the government attempt to save troubled firms in declining industries and if so under what conditions? What is economic viability? What are the limits of competitive strategies? How could the existing TAA program for firms be improved? and 2) What does this federal program imply for the design and limitations of state industrial policies to assist troubled firms in mature industries?

### TAA and National Economic Adjustment Policy

I define economic adjustment policies as policies that make it easier for firms, industries, workers, and communities to adjust to structural changes in the economy.

There are three major economic adjustment policies possible for dealing with the problems of firms in older industries: 1) Providing assistance to speed up the exit of firms from an industry; 2) Implementing protectionist measures without requiring the firm to become more competitive; and 3) Providing

assistance to make firms and industries more competitive with imports. This obviously is the approach taken by the TAA program for firms.

Some economists point to the "hypermobility of capital" --the rapid speed at which capital moves--as the major cause of the problems of deindustrialization in America. Capital is moving too fast for firms, industries, communities, and workers to adjust to structural changes in the economy.<sup>83</sup> The TAA program plays the important role of "slowing down" the velocity of capital to a socially manageable rate, to provide breathing space for U.S. firms to be reorganized on a more competitive basis.

#### Should the Government Try to Save Troubled Firms?

The TAA program for firms certainly has a mixed track record. Administrative and political problems have reduced its efficiency, but it appears to have improved the competitive position of small businesses in import-impacted industries. It demonstrates that it is possible to turn around firms. This begs the question: Should the government intervene to save troubled firms in import-impacted industries? This issue has been cast in the media spotlight today--in terms of who voted for and against the Chrysler loan guarantee--as the two leading contenders for the Democratic presidential nomination, Walter Mondale and Gary Hart, debate industrial policy. The TAA program gives some answers to these questions.

---

<sup>83</sup>Barry Bluestone and Bennett Harrison, The Deindustrialization of America (New York: Basic Books, 1982), pp. 105-107.

There are at least four arguments for why the government should assist troubled firms, like the TAA program does:

1) Trade policies made by the federal government, through their effects on the relative prices of commodities, have major impacts on the ability of U.S. firms and industries to compete and on the security of workers and communities. Even though U.S. consumers benefit from the lower prices made possible by "free trade," according to the neoclassical model, national free trade policies result in a welfare loss for some groups in society, and these groups should somehow be compensated; 2) If it's possible for adjustment assistance to make firms more competitive, then assistance should be provided. Besides increasing the competitiveness of American industry, it will save jobs and avert the other impacts of plant closings on workers and communities; 3) An industry may be considered so vital to national security that it must be saved. The miniature precision ball bearing industry is one example; steel and machine tools are often cited as others; 4) Other nations assist their firms and industries with R&D support, cooperative marketing arrangements, below-market financing, and export subsidies. If the U.S. is to be competitive in international markets, then it must do the same.

There are basically two arguments leveled against providing government assistance to firms: 1) "Bailing out" "dying" firms and industries is inefficient from an economic point of view. Critics on the right argue that firms that can't survive the discipline of the market should go under.



Critics on the left are concerned about "lemon socialism," that supporting industrial dinosaurs will be a drain on public resources; 2) There is no need to interfere in the free market because the unfettered "invisible hand" of capitalism will produce the best outcome for everybody. The government should not erect barriers to free trade or prop up dying industries. The U.S. should be purged of losing industries like apparel, footwear, and textiles and specialize in those industries where it has a comparative advantage. The argument goes that the U.S. will export its computers, financial services, and beef to Japan and it will buy Japanese autos, steel, and consumer electronics. It is argued that some groups will suffer adjustment pains, but capital should be allowed to flow to its most efficient uses. Nations will produce what they're best at and free trade will bring U.S. consumers lower prices. This is the position held by the Reagan administration and it drives the administration's attempts to eliminate trade adjustment assistance to firms, industries, workers, and communities.

In response to the first criticism, it is true that if the government channels investment and technical assistance to firms and industries, there is a real danger of rewarding inefficiency if it's not done properly. However, if the basic criterion used by the TAA program--that the firm must be economically viable--is applied to government assistance programs, this will lessen the danger of rewarding inefficiency. (Please refer to "What is Economic Viability?" pp. 100-102.)

And if aid is absolutely conditioned on a well-defined program to restructure the firm so it is more competitive, then it will promote economic efficiency.

There are three problems with the free trade argument. First, the global marketplace does not operate under conditions of free trade anymore. The neoclassical notion of "comparative advantage" on which the Ricardian concept of free trade relies has broken down with the increasing mobility of capital and the ability of nations to transform their comparative advantage by technological means. The "factor endowments" which were thought to determine a nation's comparative advantage--labor, capital, and resources--are no longer fixed. Further, governments intervene to change the competitive positions of their domestic firms and industries.<sup>84</sup> As the case of Abbott Machine illustrates, Japan and Western European governments promote exports by their textile machinery producers with R&D subsidies, financing, guarantees, and marketing consortiums. And the massive R&D subsidies given by the U.S. Department of Defense to American industry can hardly be described as a free market system.

Secondly, the argument breaks down because it's not clear that these structural changes in the economy are a desirable or even a possible outcome. Current research on the "disappearing middle" indicates that the U.S. would experience a drastic decline in its standard of living

---

<sup>84</sup>Rob Kuttner, "The Free Trade Fallacy," The New Republic, March 28, 1983, pp. 16-20.

if its manufacturing base erodes and is replaced by a high-tech, service economy. Besides, a service economy is unsustainable if it does not have a manufacturing base to provide services to.

Third, it's not clear that the U.S. does have a comparative advantage in the "winning" industries that free trade proponents would like to see sweep the nation's economy free of the "losers." As discussed in Chapter 1, the TAA program has been serving an increasing number of firms in industries categorized as winners by some--computer manufacturing, computer peripheral equipment, photocopying equipment. Apparently, even these industries need adjustment assistance to remain competitive with foreign producers. Surely, the free trade proponents wouldn't argue that computer manufacturing is a "dying" U.S. industry and should be allowed to fail. To do so would undermine their whole argument that the U.S. economy will prosper by specializing in these products.

While I argue the general case for government assistance, the decision to assist individual firms can only be made on a case-by-case basis. If feasibility studies show that a firm can be saved, then public dollars may be justified. The social costs of a plant closing should be taken into account when the government is deciding whether or not a firm should be allowed to fail, but I can see no rationale for burdening management, employees, the community, or the taxpayers with a firm that has no chance of survival. However, if a plant closing is inevitable, then adjustment

assistance should be provided to workers and communities.

If the federal government is going to provide technical or financial assistance to private firms, what quid pro quos should assistance be conditional upon? The TAA program suggests two conditions: 1) Aid should be conditioned on an explicit contract between the government and management (and labor? See "Improving the TAA Program for Firms," pp. 105-6.) that the firm will be reorganized to be more competitive; and 2) Aid should truly account for the interests of the firm's employees.

#### What is Economic Viability?

It is important to look more critically at the notion of "economic viability" since this is the condition which determines whether assistance will proceed past the diagnostic survey in the TAA program and because I argue that only economically viable firms should be considered for government assistance.

When a government program for assistance reviews firm's applications, it will find some cases where firms clearly are not economically viable. The plant and equipment may be so outdated that it can't possibly be updated to competitive levels given the resources available under the government program. There may be no market for the firm's product, or the product may be vastly technologically inferior to competing products. The financial structure of a firm may be so heavily burdened with debt that it just can't survive unless it has a massive infusion of equity capital.

But all cases may not be so clear-cut, and there is a danger in defining economic viability too narrowly. The major point is that public policy and planning can change the business environment in ways that affect the viability of firms. An industry-wide assistance program could establish a center to pioneer in the research and development of new production technologies and make these technologies available to individual firms that could not afford to develop the technology on their own. In this case, public intervention and economies of scale change the rules of the game so that firms in a declining industry can become economically viable. (Please see description of Footwear Revitalization Program, pp. 106-107.) The government can create markets for products where they didn't exist before. The U.S. Department of Defense does this with its massive R&D subsidies to industry to develop new, defense-related products and its procurement policies which provide a steady source of demand for firms' products. These public policies, now used mainly in the defense sector, could be applied to other sectors of the economy. For example, if the federal government were committed to building the nation's mass transit systems, this would open up whole new markets and expand existing markets for troubled firms in the machine tool, transportation, steel, and auto industries that might otherwise be written off as not economically viable. Public assistance programs can provide firms with the capacity to develop new products for which there is a market or push firms into

focusing on a market niche. Finally, public equity capital can breathe new life into companies burdened with debt.

In some cases, public intervention can make firms economically viable that would otherwise be written off as unviable and unworthy of assistance by a narrow approach to analyzing firms.

### The Limits of Competitive Strategy

The U.S. industrial system is experiencing sweeping changes in the ways in which firms and industries are meeting the challenge of international competition. The plans of General Motors and Toyota to engage in a joint venture at the Fremont, California plant illustrates only one of the possibilities. In my case studies, I have discussed some of the problems with the current strategies of U.S. firms to remain competitive in a world of increasing global competition. These issues need to be discussed further, since promoting increased competitiveness is the rationale for the whole TAA program and I also argue that government assistance to private industry should be conditioned on plans to increase the competitiveness of firms. I can't predict what the impacts of these business strategies will be but it's important to at least ask some questions.

There is a downside to each of the competitive business strategies being pursued by U.S. firms and industries, as illustrated in the case studies. The TAA program appears to have increased the short-run performance of firms, but will these strategies work in the long run and what will be their

employment impacts?

The problem with the market niche strategy, as MIT economist Lester Thurow notes, is that, first, the niche isn't all that big, and secondly, it's not just the Japanese that are competing for the same market niche as U.S. producers, but many other nations as well. For example, if Rhode Island jewelry manufacturers target the high end of the jewelry market in order to avoid competing with low-wage Asian countries for the low end, they will be competing intensely with Italian companies, which have also targeted the high fashion jewelry market niche.<sup>85</sup> This raises the question of how long a market niche strategy will provide a firm with a competitive edge. Nevertheless, this strategy is a growing trend, whether the targeted sector is a product (pre-packaged mini precision ball bearings ready for installation) or a service ("just in time" delivery systems).

The major problem with modernizing the production process is that it displaces labor. This raises two issues: 1) Will the technology increase the productivity of the firm so much that it is propelled into a much higher market share, and increases in employment due to increased market share will offset displacement of labor due to automation? 2) Is it better to lose some of a plant's workforce from automation rather than having to shut down the entire plant? Or is it better to cut excess capacity in an industry by closing down

---

<sup>85</sup>Lecture, Lester Thurow, Professor of Economics, MIT, given at MIT Department of Urban Studies and Planning, 4/23/84.

inefficient plants rather than losing the entire industry? This is the argument being made by the Mitterand government in its plans to rationalize the French steel industry.

The strategy of U.S. firms to maintain their competitive edge by new product development grows increasingly difficult when other major competing nations have the same technological capabilities. The textile machinery industry provides an example. All of the leading producers--Japan, Western Europe, and the U.S.--have the potential to be at the high innovation stage of the product cycle.

The case of Abbott also illustrates that what any one firm can do is limited by macroeconomic forces beyond its control, such as the relative strength of a nation's currency.

Finally, competitive strategies run the risk of turning into a game between nations of "who can pay its workers the lowest wage."<sup>86</sup> This runs contrary to the goals of economic development--to raise people's standard of living.

Policy makers need to be asking these questions when developing economic adjustment policies based on promoting the competitiveness of firms and industries.

#### Improving the TAA Program for Firms

How could the TAA program for firms be reorganized so it would more efficiently achieve its objective of restoring the competitiveness of firms and safeguard the interests of employees at the same time?

---

<sup>86</sup>Kuttner, "The Free Trade Fallacy," pp. 19-21.



First, the program must be guaranteed stability. This will not happen under the present administration. A more certain future for the program would reduce staff turnover at TAACs and allow federal administrators to plan for improving the efficiency of the program. Also, firms would be more interested in investing the necessary time for the program if they knew it would be around.

A Democratic administration could put the program on more solid ground, but the long time periods required for firms to receive assistance will remain unless the program is radically reorganized. There are no easy answers to this problem. If there were, they would have already been implemented because timing has been a complaint since the Trade Expansion Act of 1962.

One possibility is for the TAACs to be authorized to provide both financial and technical assistance. The biggest delays in the program seem to be related to provision of financial assistance, and bureaucratic delays with Washington appear to be the main cause of the timing problem. The Department of Commerce could distribute funds to the 11 TAACs, and the TAACs would decide who gets financial assistance and distribute the loans and loan guarantees. There would have to be strong public oversight of the TAACs in order to avoid abuse of the program.

I feel that the firm's employees should be more involved in the adjustment assistance plan. The TAA program does not always score too high on accounting for the interests of firms'

employees because it is primarily a business subsidy program. The primary concern is restoring the profitability of firms, which is assumed to benefit the workers. Even though management must show how its adjustment plan considers the interests of the firm's employees, this is only a secondary consideration. On economic efficiency grounds, workers may have valuable ideas on how to make the firm more productive. On equity grounds, the workers will be most directly affected by the impact of the reorganization plan. The adjustment assistance process could be an attempt at "tripartitism" at the level of the firm. This raises the interesting possibility of whether a group of workers could use the TAA program to save an economically viable plant that management planned on abandoning. Employees probably would not want to wait two years for federal financial assistance, but the technical assistance which the program can deliver faster is one possible option for workers considering buyouts of import-impacted firms.

It could be argued that industry-wide trade adjustment assistance would be more effective than providing assistance to individual firms, since the problems of firms are related to the problems of the industry. A recent study of the Footwear Revitalization Program (FRP), an industry-wide TAA program instituted under the Carter administration in 1977, concluded that this program succeeded in raising investment and productivity levels in the industry for the two years following the FRP. The FRP took a comprehensive approach to the industry's problems. It included teams of specialists

to work with individual firms, streamlined trade adjustment assistance, an export promotion campaign, the development of new technologies (computer-aided stitching), a footwear research center, loans and loan guarantees, and an orderly marketing agreement. The program encouraged the domestic industry to target the high fashion end of the shoe market, rather than attempting to compete with low-wage producers for the low end of the market. The American Shoe Center also offered individual firms the benefits of economies of scale, by making accessible new production technologies that individual firms could not afford to invest in on their own. Unfortunately, the increased productivity in the industry was overshadowed by the increasing strength of the dollar beginning in 1980. The current Industry-Wide TAA program contains some of the same elements as the FRP, but it lacks the strategic planning focus which made the FRP a success.<sup>87</sup>

In conclusion the TAA program for firms shows that it is possible to save troubled firms. I argue that the federal government should provide assistance to economically viable troubled firms (or firms that can be made economically viable) as long as aid is conditioned on increasing the competitiveness of the firm and accounting for the interests of employees. While the business strategies used to turn around the firms in my case studies may restore competitiveness in the short run, the long-range impacts are uncertain. The existing TAA program could be more effective if it enjoyed a strong federal

---

<sup>87</sup>Michael Schlein, Memo to the Commission on the Future of Mature Industries, 2/84, pp. 2-4.

commitment, delivered services more promptly, and involved workers more in the restructuring of firms.

### State Industrial Policy

A number of states are proposing policies to assist distressed firms in mature industries, including Massachusetts, Rhode Island, California, Ohio, and Michigan. This paper has shown that the TAA program for firms can restore the competitiveness of some firms. However, its effectiveness is severely limited by administrative and political problems. Until the program is reorganized, I feel that the TAA program for firms should be viewed by state economic development planners as one tool in their policy kit available to assist troubled firms, but its administrative problems prevent it from being the powerful policy tool that state governments need to gain some control over the direction of their economies.

Nevertheless, I think the TAA program provides some important lessons for the design and limitations of state industrial policy. First, if state programs are to succeed, they must be able to deliver services fast and they must enjoy some stability.

The TAA experience also provides some lessons on the eligibility criteria for provision of assistance to firms. Presumably, a state (or federal) industrial policy program for aiding firms would have broader eligibility criteria than import competition, but the firms to be aided will probably be the same industries that are facing import

competition.

The most basic criterion for eligibility should be economic viability of the firm. States should conduct studies similar to the TAAC's diagnostic surveys to determine whether a firm is economically viable or not. If a feasibility study shows that it is not viable, then I feel there is no economic or social rationale for assisting such firms. However, states may be able to implement policies which change the rules of the game for defining economic viability. For example, a state could establish a product development fund (similar to the Connecticut Product Development Corporation) to assist firms in developing new products for which there are markets. If the firm is to be allowed to close, then adjustment assistance should be provided to the firm's employees and the community.

If a state government with limited resources has to choose between assisting two firms of equal economic viability, then the state should select the firm which promises the most benefits to its economic development. The Greenhouse Compact plan for Rhode Island proposes to target state assistance to promote the development of high-wage industries--a radical break from traditional state economic development policy.<sup>88</sup> As the federal TAA program becomes more strapped for funds, it should also consider targeting assistance to firms that offer higher quality of employment.

---

<sup>88</sup>Rhode Island Strategic Development Commission, The Greenhouse Compact: Executive Summary, p. 29.

State programs must also be insulated from politics. Otherwise, decisions regarding aiding firms will be made based on lobbying by industry associations, firm management, patronage, and other noneconomic considerations. The program should be staffed by qualified persons with business experience who can make technical decisions. If these conditions are not met, especially if the program is viewed as a "political" process, it will not be as effective.

Besides the reasons I gave earlier for why government should attempt to save economically viable but troubled firms, I think there is an additional justification for state governments. Almost all state governments are currently pursuing strategies to attract "high tech" industries. Recent research shows that the number of jobs that will be generated by these industries will not offset employment losses in other sectors of the economy. Further, the industries promote a bifurcated labor force, with a small number of good jobs for highly trained people and larger numbers of low skill, low wage jobs.<sup>89</sup> The research also indicates that high tech industries are not all high growth, so they are not the uniform employment generators as is commonly believed.<sup>90</sup> Given these problems with high tech development, states should pursue balanced growth strategies for economic development,

---

<sup>89</sup> Ann Markusen, "High Tech Jobs, Markets and Economic Development Prospects: Evidence from California," Built Environment, Vol. 9, No. 1, pp. 18-21.

<sup>90</sup> Amy Glasmeier, Peter Hall, and Ann Markusen, "Can Everyone Have a Slice of the High-Tech Pie?" (Metropolitan High-Technology Industry Growth in the Mid 1970's), Department of City and Regional Planning, UC-Berkeley, 1983, pp. 7-8.

and not just go after "winners." State economic development programs must create good new jobs whenever possible, but the retention and expansion of employment in existing firms must be a high priority, especially if existing jobs are relatively high skill and high wage jobs.

The federal program also reveals some of the limitations of state industrial policy. The first point is that most state governments will not have the financial resources necessary to turn around some of their most distressed firms. Few states can afford the \$3 million loan guarantee given to Anson, for example. Financial assistance may be affordable in some cases. The best bet for states is to concentrate on providing technical assistance to firms. Similar to the TAA program, technical assistance can be provided for checking the economic viability of the firm and diagnosing its problems, developing a plan to improve the firm's performance, and making the necessary changes in management, products, the production process, or marketing. States should tap into the TAAC's consultant network in order to line up consultants with a good track record. This technical assistance will increase the firms' chances of survival. It will reduce the perceived risks of investing in these firms and make it easier for them to obtain financing. States can also help firms obtain financing from existing sources--the SBA, commercial banks, venture capitalists, and public development finance institutions.

One of the most important--and discouraging--lessons of the TAA program for state industrial policy makers is what

state governments can and can't do. State governments may attempt to increase the exports of their industries, but these programs will be ineffective if states have no control over national trade or macroeconomic policies. State governments can potentially deliver services to troubled firms faster than the bureaucratic TAA program, but they can't control the exchange rate--and this may impose the greatest limitation on what states can do to revive their industries. The trade weighted value of the dollar has increased 44% since 1980. This puts U.S. firms at a competitive disadvantage both in international and domestic markets.<sup>91</sup> The strength of the U.S. dollar is the main reason why Abbott has not been able to market its product, even with the development of a technologically competitive product. Unfortunately, Abbott is not an isolated case. Spokespersons from the Department of Commerce and the American Textile Machinery Association said that the exchange rate is largely responsible for the non-competitive position of almost all firms in the U.S. textile machinery industry today. A researcher with the Massachusetts Governors Commission on the Future of Mature Industries has concluded that the strong U.S. dollar is the number one reason why Massachusetts companies are having trouble competing in their markets today, even companies that are at the cutting edge of innovation in their industries.<sup>92</sup> MIT economist Lester Thurow has stated that industrial policies

---

<sup>91</sup>Mature Industries Commission, March 1984 Draft, p. 8.

<sup>92</sup>Interview with Siegel, 4/27/84.



cannot work unless the federal government does something to control the exchange rate.<sup>93</sup>

Export programs are a part of many of the state industrial policy plans, and they are doomed to failure unless the value of the dollar falls. The centerpiece of Rhode Island's Greenhouse Compact plan is a strategy for promoting the growth of "traded" industries, industries which export their products out of state.<sup>94</sup> This strategy makes good sense in terms of the greater economic benefits traded industries bring to a regional economy. But these industries will be at a competitive disadvantage in both world and domestic markets as long as the dollar remains strong. It's not clear whether the products of the new industries envisioned for Rhode Island will be shipped overseas, but even if they are competing with imports in domestic markets they will be at a price disadvantage.

In sum, the implications of the TAA program for state industrial policy makers are that: Programs should be able to deliver services promptly, on a stable basis, and insulated from politics, and they should concentrate on providing technical assistance. Programs should have strict eligibility criteria related to economic viability of the firm, but state and federal policies may be able to make firms economically viable. However, all of these design features may be overshadowed by the fundamental inability of states

---

<sup>93</sup>Thurrow, lecture, 4/23/84.

<sup>94</sup>Rhode Island Strategic Development Commission, The Greenhouse Compact: Executive Summary, pp. 29-32)

to improve the competitive position of their industries when they have no control over macroeconomic factors like the strength of the dollar. This suggests that the federal government, by stabilizing currency, will have to take the initiative in creating a climate in which state or national economic adjustment policies can work.

## Conclusion

In this paper I have looked at the TAA program for firms from two different angles. First, how effective has the program been in meeting its goal of making firms more competitive? Secondly, what lessons do the program's ten years of experience provide for the development of federal and state policies for dealing with the problems of troubled firms in industries facing declining competitiveness?

My evaluation of the program concluded that, in spite of severe administrative and political problems, it has had a positive impact on the economic performance of assisted firms. Bureaucratic delays have produced long time periods for receipt of assistance. The Reagan administration's attacks on the program have created high staff turnover and uncertainty about the program's future. Both factors have reduced the program's efficiency of service delivery. Nevertheless, the 84% survival rate of firms assisted by the program is much higher than the survival rate of U.S. small businesses as a whole. And the program appears to have improved the competitive positions of the three firms in my case studies.

The case studies demonstrate a variety of strategies for firms to improve their competitive positions--management improvements, market niches (for products or services), new product development, and modernizing the production process.

The major policy conclusion of this paper is that it is possible for the government to save some troubled firms and, further, that the government should attempt to save economically viable firms as long as aid is conditioned on

explicit agreements to increase the competitiveness of the firm and account for the interests of workers. The paper also pointed out that government policy can alter the business environment to make some firms economically viable.

Management failure was found to be the most important cause of firm failure in all three case studies. This finding implies that the competitive restructuring of American firms and industries will require, in addition to an expanded role for government, highly creative business strategies on the part of management that respond to the rapidly changing conditions for doing business in an international market. One problem is that, although the competitive strategies adopted by U.S. firms and promoted by the TAA program have restored short-term competitiveness, it's not clear whether these strategies will ensure long-range competitiveness.

I recommended that the existing TAA program could be improved by a strong federal commitment, reducing time delays, and involving workers in planning the reorganization of firms.

The TAA program offers some guidelines for the design of industrial policies at the state level, but its experience also suggests that states are limited in what they can do by macroeconomic factors they have no control over, such as the strength of the dollar. This suggests that some aspects of industrial policy can only be planned at the federal level.

Finally, the broad goals of increasing the competitiveness of U.S. firms and industries and easing the adjustment pains

of workers and communities to structural economic change might be better achieved if the United States developed a coherent national industrial policy rather than relying on programs like trade adjustment assistance to save the victims of fragmented U.S. trade and industrial policies.

## APPENDIX I

### Questionnaire for Firms

#### Background on Firm:

1. What does your firm produce?
2. What is the total dollar amount of your firm's assets?
3. How many employees?

#### Assistance:

1. How did you hear about the TAA program?
2. How long did it take you to be certified after you applied?
3. What problems caused you to apply for TAA?
4. What were the main problems with your firm, as revealed in the diagnostic survey prepared by the New England TAAC (management, market, etc.)?
5. The adjustment plan:
  - a. Did you have problems preparing it?
  - b. Did NETAAC assist you in preparing it? Consultants?
  - c. Could you summarize the adjustment plan?
6. What types of technical assistance did NETAAC provide?  
Did you use outside consultants, too? How did that work out?
7. What financial assistance was provided? Did you experience any delays in receiving the loans?
8. If you hadn't received assistance, would you still be in business?
9. Since receiving TAA, have your sales improved? Productivity? (numbers)

10. As a result of adjustment assistance, have you made any changes affecting your labor force (layoffs, expansion, retraining, relocation, higher or lower wages)? Are any such changes planned?

11. Did you get along with the TAAC staff?

12. In general, how would you describe your experience with the TAA program? How could it be improved?

## APPENDIX II

### Questionnaire for Firms

#### Background on Firm:

1. What does your firm produce?
2. Size of firm
  - a. Total sales (range will do)
  - b. Number of employees

#### Assistance:

1. How did you hear about the TAA program?
2. Why did you go to the TAA program? (Probe to get a sense of firm's condition, impact of foreign competition)
3. Did the TAAC conduct a pre-diagnostic survey? If so, what did it show?
4. What were the main problems with your firm, as revealed in the diagnostic survey prepared by NETAAC?
5. What were the main points of the adjustment plan?
  - a. Did you have problems preparing it?
  - b. Did NETAAC assist you? Consultants?
6. How was the recovery plan implemented?
  - a. What types of technical assistance did NETAAC provide?  
Did you use outside consultants, too? Were you involved in choosing the consultants? How long after certification did you receive technical assistance?
  - b. What financial assistance was provided? How long did it take to receive loans after certification?



7. What impact has the assistance had on your firm?
  - a. If you hadn't received assistance, would you still be in business?
  - b. Describe changes in your firm's position since receiving TAA--financial, sales, productivity, market share. Is your firm more competitive with imports now?
  - c. To what extent do you attribute these changes to TAA?
8. (Probe to get a sense of how the recovery plan affected the interests of firm's workers)
  - a. As a result of adjustment assistance, have you made any changes affecting your labor force (layoffs, expansions, higher/lower wages, automation, deskilling)?
  - b. Are any changes planned?
  - c. If the recovery plan included new technologies for plant, did it include provisions for training? If plan involved layoffs, any provisions for retraining? Relocation assistance for laid-off employees?
9. How would you evaluate the services provided by the TAAC?
  - a. Did you get along with staff?
  - b. How helpful/professional were their services?
10. Evaluate services provided by consultants:
  - a. Did you get along with consultants?
  - b. How helpful/professional were their services?
11. In general, how would you describe your experience with the TAA program? How could it be improved?
12. What do you think about the government providing assistance to private firms?

13. Is there anyone else I should talk to about your firm's experiences with TAA? Is your plant unionized? (If yes, get union contact.)

14. Do you have any printed information on your firm (annual reports, promotional materials on products) or press clippings describing your experiences with the TAA program?

## BIBLIOGRAPHY

### Publications

- Abbott Machine Company, Abbott Machine: Model 81 Winder, brochure.
- "Abbott Machine Moves Ahead with Winder," New Hampshire Business Review, 9/82, p. 11.
- American Textile Machinery Association, Toward Equity in International Trade, December 1981.
- Associated Research Analysis Corporation, Evaluation of the Third Year of Operation of the Trade Adjustment Assistance Center Program, July 1982.
- Bauer, Pool, and Dexter, American Business and Public Policy (New York: Prentice Hall, 1964).
- Bluestone, Barry, and Harrison, Bennett, The Deindustrialization of America (New York: Basic Books, 1982).
- "Business Gets a Grip on Inventories," Business Week, 5/14/84, pp. 38-39.
- Buzzerd, Harry, Executive Vice President, American Textile Machinery Association, correspondence, 4/27/84.
- Collier, Ann M., A Handbook of Textiles, 2nd edition (Oxford, New York, Toronto, Sydney: Pergamon Press, 1974).
- Gansler, Jacques, The Defense Industry (Cambridge, MA, London England: The MIT Press, 1980).
- Glasmeier, Amy, Hall, Peter, and Markusen, Ann R., "Can Everyone Have a Slice of the High-Tech Pie?" (Metropolitan High-Technology Industry Growth in the Mid 1970's), Department of City and Regional Planning and Institute of Urban and Regional Development, UC-Berkeley, 1983.
- Hayes, Robert H. and Abernathy, William J., "Managing Our Way to Economic Decline," Harvard Business Review, July-August 1980, pp. 67-77.
- Kerwin, Anne M., Administrative Assistant, \_\_\_\_\_ Technology Park, New York, correspondence, 4/17/84.
- Kuttner, Rob, "The Free Trade Fallacy," The New Republic, March 28, 1983.
- Lessem, Don, "Coping with Foreign Competition," Ocean State Business, November 1983, pp. 21-22.

- McCarthy, James E., Trade Adjustment Assistance: A Case Study of the Shoe Industry in Massachusetts, Federal Reserve Bank of Boston Research Report 58, June 1975.
- Markusen, Ann R., "High-Tech Jobs, Markets, and Economic Development Prospects: Evidence from California," Built Environment, Vol. 9, No. 1, pp. 18-28.
- Monroe, Wilbur, International Trade Policy in Transition (Lexington, MA: Lexington Books, 1975).
- Morgan, Gwynne, "New Ownership, Federal Loan Buoying Anson," The Providence Sunday Journal, 11/13/83, Section F.
- New England Trade Adjustment Assistance Center, New England Trade Adjustment Assistance Center, Inc., Annual Report, October 1, 1982 - September 30, 1983, December 1983.
- New England TAAC, Diagnostic Survey, Chairco Company.
- New England TAAC, Questions and Answers About Trade Adjustment Assistance for Firms, brochure.
- Nolan, Ron, "The Business Doctors," Connecticut Business Review, September 1982.
- Nossiter, Daniel, "Not the Same Old Grind: Bearings Makers Ready to Roll Across the Board," Barron's, 6/20/83, pp. 15 and 33.
- Pastor, Robert, Congress and the Politics of U.S. Foreign Economic Policy (Berkeley: University of California Press, 1980).
- Porter, Michael, Competitive Strategy: Techniques for Analyzing Industries and Competitors (New York and London: The Free Press, 1980).
- Report of the Governor's Commission on the Future of Mature Industries, March 1, 1984, draft.
- Rhode Island Strategic Development Commission, The Greenhouse Compact: Cultivating Rhode Island's Fourth Economy, Executive Summary, Volumes 1 and 2, 1983.
- Schlein, Michael, "Federal Programs for Mature Industries: Trade Adjustment Assistance and the Footwear Revitalization Program," unpublished master's thesis at the Massachusetts Institute of Technology, 1984 (1983 draft).
- Schlein, Michael, Memo to the Commission on the Future of Mature Industries, February 1984.

Siegel, Beth, The Specialty Machinery Industry, draft, 1984.

U.S. Code, Congressional and Administrative News, 93rd Congress, 2nd Session, 1974 (St. Paul, MN: West Publishing Co., 1974).

U.S. Code, Congressional and Administrative News, 97th Congress, First Session, 1981, (St. Paul, MN: West Publishing Co., 1981).

U.S. Department of Commerce, Bureau of Industrial Relations, "Ball and Roller Bearings," U.S. Industrial Outlook 1984 (Washington, DC: U.S. Government Printing Office, 1/84).

U.S. Department of Commerce, Bureau of Industrial Relations, "Textile Machinery," U.S. Industrial Outlook 1984 (Washington, DC: U.S. Government Printing Office, 1984).

U.S. Department of Commerce, Economic Development Administration, Opportunities and Strategies for U.S. Textile Machinery Manufacturers to Improve Their Competitive Positions in Domestic and Foreign Textile Markets - 1980-1985, Final Report, September 1, 1979 - December 30, 1980, prepared by the American Textile Machinery Association, May 1981.

U.S. Department of Commerce, International Trade Administration, Office of Trade Adjustment Assistance, Certification Calendar for Firms Under Trade Act of 1974, 1983.

U.S. Department of Commerce, ITA, OTAA, Certification Division, Report on Adjustment Assistance for Calendar Year 1982, Prepared for the Twenty-Seventh Annual Report on the U.S. Trade Agreements Program, 9/2/83.

U.S. Department of Commerce, ITA, OTAA, Trade Adjustment Assistance Guidelines for the Preparation and Submission of Adjustment Plans, brochure, January 1982.

Wiener, Elizabeth, "As It Begins To Help, Trade Adjustment Faces the Axe," The Boston Globe, 7/11/83, p. 25.

## Interviews

- Berlyn, Jerry, President, The Berlyn Corporation, Worcester, MA, 12/22/83, phone.
- Bernard, Edward, President and Treasurer, Leon Clothing Manufacturing, Inc., Boston, MA, 3/14/84, phone.
- Brooks, Gary, The Pace Consulting Group, Hartford, CT, 12/29/83, phone.
- Burke, Charles, Treasurer, Joan Fabrics Corporation, Lowell, MA, 12/23/83, phone.
- Buzzerd, Harry, Executive Vice President, American Textile Machinery Association, 4/25/84, phone.
- Carpinteri, Joseph, Chief Executive Officer, Anson, Inc., Providence, RI, 4/1/84, personal.
- Consiglio, Mr., Parker Metal Corporation, Worcester, MA, 12/28/83, phone.
- Cunningham, Arnold, Operations Manager, J&L Precision Bearings, Shopsbury, MA, 3/19/84, personal and 4/25/84, phone.
- Fennell, Daniel, Director, Mid-Atlantic TAAC, Philadelphia, PA, 5/18/84, phone.
- Heckman, Tom, Technical Assistance Division, Office of Trade Adjustment Assistance, International Trade Administration, U.S. Department of Commerce, Washington, D.C., 4/30/84, phone.
- Jackson, Thomas, U.S. Department of Commerce, 4/24/84, phone.
- Kaplan, Lorraine, Treasurer, Bedford Manufacturing Corporation, Fall River, MA, 12/28/83, phone.
- Klein, Roland, Industrial Cooperatives Association, Port Washington, NY and former employee of Metro New York TAAC, 12/28/83, phone.
- Levine, Arthur, Financial Loans Division, Economic Development Administration, U.S. Department of Commerce, 4/27/84, phone.
- May, Stewart, President, May Optical Company, Inc., Wareham, MA, 12/28/83, phone.
- McFadden, Debbie, Director, Adams Community Development Corporation, Adams, MA, 3/14/84, phone.

McKinney, John, Loan Officer, Small Business Administration,  
Boston District Office, 4/30/84, phone.

McLaughlin, Richard, Executive Director, New England TAAC,  
Boston, MA, 11/28/83, personal.

Nevin, John, Comptroller and Vice President, General Bearing,  
Upper Falls, NY, 3/22/84 and 4/27/84, phone.

Osborne, Jack, Director of Certification Division, OTAA, ITA,  
U.S. Department of Commerce, 5/1/84, phone.

Papermaster, David, Senior Financial Examiner, Economic  
Development Administration, U.S. Department of Commerce,  
5/1/84, phone.

Schnaper, M., President, Julius & Sons, Boston, MA, 3/19/84,  
phone.

Siegel, Beth, Worker and Community Assistance Taskforce,  
Massachusetts Governors Commission on the Future of Mature  
Industries, Boston, MA, 4/27/84 and 5/19/84, phone.

Silin, Morton, Silin Manufacturing Company, Boston, MA,  
3/14/84, phone.

Smith, Charles, Deputy Director of Certification, OTAA, ITA,  
U.S. Department of Commerce, 4/26/84, phone.

Smith, Derrick, President, Abbott Machine Company, Wilton, NH,  
3/22/84, phone.

Smith, Kathi, Co-owner of Abbott Machine Company, 4/30/84,  
phone.

Thurrow, Lester, Professor of Economics, Massachusetts Institute  
of Technology, lecture given at MIT's Department of Urban  
Studies and Planning, 4/23/84.

Vaule, Jr., Sven, President, Jones & Vining, Inc., Braintree,  
MA, 3/21/84, phone.