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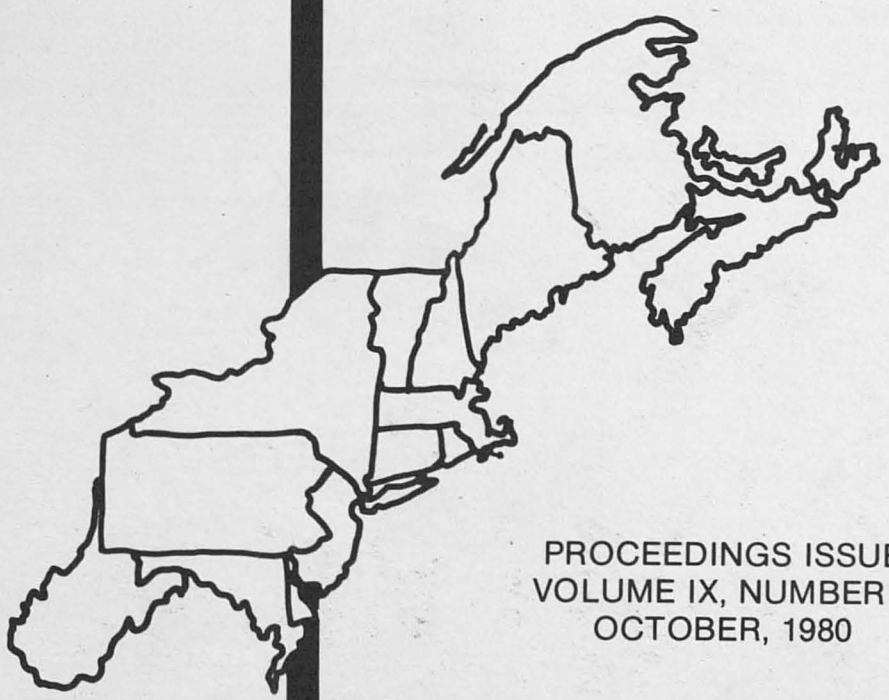

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EXPORT PROMOTION AND TRADE ADJUSTMENT ASSISTANCE PRIORITIES IN THE NORTHEAST

David Blandford, Richard N. Boisvert, and Pedro Alba

INTRODUCTION

During the past decade, the significance of international trade for the United States' economy has changed dramatically. In 1970, merchandise exports were $43 billion and accounted for five percent of the Gross National Product (GNP); merchandise imports amounted to $40 billion (U.S. Department of Commerce, Bureau of Economic Analysis). By 1977, such exports had increased to almost $120 billion and imports to $150 billion, in both cases a rate of increase almost double that for GNP over the same period.

The deficit of just over $2 billion in 1971 ended a period of over 27 years of uninterrupted favorable materials trade balances for the United States (U.S. Government). With the exception of 1973 and 1975, when small trade surpluses were registered, the 1970's have seen the balance of trade deteriorate, despite a growing trade surplus in agricultural commodities. Much of the deterioration is explained by the country's increased dependence on foreign oil.

The deterioration in the U.S. balance of trade has been accompanied by increased protectionist pressures from a number of domestic industries. Although the Carter Administration has acted in response to some of these pressures, the U.S. will have to live with higher levels of imports for some commodities. Too great a protectionist attitude could invite retaliation and threaten U.S. exports. Furthermore, foreign competition may help reduce domestic inflation.

Trade Adjustment Assistance, first introduced in the Trade Expansion Act of 1962 [P.L. 87-794] and expanded in the 1974 Trade Act [P.L. 93-618], attempts to deal with the problems created by increased import competition. Assistance is available to help businesses remain competitive or invest in related production alternatives and is also available to workers who lose their jobs as a result of import competition. Between 1962 and 1974, adjustment assistance expenditures totaled $45 million. The 1974 Trade Act expanded the benefit package, simplified the procedures for obtaining assistance, and liberalized eligibility criteria (Neumann). As a result, between 1975, the Trade Act's initial year of operation, and July of 1977, adjustment assistance payments were more than six times as large as during the prior 13 years under the Trade Expansion Act (New York Times).

The Administration's National Export Policy, announced in September 1978, is designed to assist U.S. industries to compete in foreign markets. An important characteristic of the program is its emphasis on assistance to small businesses, both in terms of financial aid and loan guarantees and an expansion of the international trade services offered by various government agencies. The Small Business Administration (SBA) is to channel up to $100 million of its loan guarantees to small export businesses and $20 million of the Commerce and State Departments' budgets are earmarked to assist small and medium-sized businesses in their marketing efforts abroad (U.S. Government, p. 62).

David Blandford is an assistant professor, R. N. Boisvert is an associate professor and Pedro Alba is a graduate student, Department of Agricultural Economics, Cornell University.

The strategy recognizes the significance of small businesses in the U.S. economy. It is estimated, for example, that in 1975, over 95 percent of the more then 4.1 million manufacturing establishments in the country had fewer than 250 employees. These firms, which account for over two-thirds of all manufacturing employment, fall within the SBA classification of small businesses (U.S. Department of Commerce, 1978a; Office of the Federal Register).[1] According to MIT economist David Birch, small companies are currently the country's most important source of new jobs. He estimates that two-thirds of all the new jobs being created are in companies with fewer than 20 employees.

While this evidence supports a small business focus in trade policy, there are potentially a large number of individual firms that may wish to participate in trade promotion or assistance programs, and it may be difficult to meet their demands for financial and technical assistance. Thus, it is important to develop criteria for allocating program resources among industries. Three criteria seem to be particularly important: a) the industry's contribution to national or regional employment; b) the industry's trade prospects, in terms of its ability to supply foreign markets or adjust to increased foreign competition; and c) the importance of small businesses in the overall size structure of the industry.

The remainder of this paper develops empirical measures for these three criteria and applies them to the Northeast.[2] Its purpose is to identify a number of "priority" industries upon which limited available program resources may be concentrated. Implicit in the procedure is the assumption that the SBA and other federal agencies will allocate these funds largely on a regional basis. The degree of correspondence between regional and national priorities is also evaluated.

CRITERIA FOR TRADE PROGRAM PRIORITIES

The use of the three criteria suggested above to establish trade program priorities depends on the availability of detailed information on industrial structure, trade patterns, and the size distribution of firms. When this study was initiated the most recent information available on industrial structure and size distribution was for 1975, and for trade patterns was for 1976. Use of the 1976 trade data is desirable since they do not relate to a year of economic recession. The 1975 employment data may suffer from this limitation but the degree of bias introduced is probably not significant.

[1]The data on size distribution are based on establishments rather than firms. To the extent that some firms may have a number of small establishments whose combined employment exceeds the limit set by SBA for classification as a "small" business, these figures probably overstate slightly the importance of small businesses in the nation or a particular region. In spite of this limitation, it is necessary to equate firms and establishments throughout the paper.

[2]Because much of the funding for export promotion is through SBA, the Northeast is defined to include SBA Regions I and II, with the exception of Puerto Rico and the Virgin Islands. The states included are New York, New Jersey, Massachusetts, New Hampshire, Rhode Island, Maine, Vermont, and Connecticut. Puerto Rico and the Virgin Islands were excluded because the bulk of their exports are typically destined for markets in the continental United States. See Blandford and Boisvert.

Industrial Structure and Employment

There are three dominant trends in U.S. international trade that influence the choice of industries for analysis. These are: an increasingly strong agricultural export sector, rapidly expanding oil imports and a rising demand for manufactured exports, combined with increased import competition for a number of manufacturing industries. Increasing oil imports are perhaps more important for the Northeast than for the rest of the nation. Higher priced energy affects the costs of production in every sector. Furthermore, in all coastal states, the possibility of future employment in expanded refinery capacity for imported oil cannot be discounted; nor can employment and trade expansion resulting from the development of alternative energy sources. Forecasting such future developments is, however, beyond the scope of this paper.

Although agricultural exports are extremely important from a national perspective, they constitute only a small fraction of the exports of the Northeast. In 1977, for example, the region's agricultural exports were estimated at $215 million. New York ranked highest among all states in the Northeast, but was only 35th among all the states in the nation in terms of value of agricultural exports. In contrast, total exports of the manufactured products in the region in 1976 reached nearly $13.5 billion. New York ranked 5th among all states in the nation in terms of value of exports of manufactured goods, while four of the eight Northeastern states (New York, New Jersey, Massachusetts, and Connecticut) were among the top 15 nationally (U.S. Department of Commerce, 1978b, 1978c). The overwhelming importance of manufactured goods in the Northeast's exports suggests that any export promotion program designed to complement its existing economic structure must focus primarily on manufacturing.

Table 1 contains a summary of industrial structure on the basis of the 1972 Standard Industrial Classification (SIC) at the 2-digit level in both the United States and the Northeast. In 1975 nearly 19 percent of U.S. manufacturing employment was in the Northeast region. Manufacturing accounted for 30 percent of total nonagricultural employment in the region, the same proportion as in the nation as a whole. More importantly, regional employment in three sectors at the 2-digit level (SIC 31, 38, and 39), accounted for more than 35 percent of national employment; 6 additional 2-digit sectors include more than 20 percent of national employment. From a regional perspective, 48 percent of manufacturing employment is found in five of the 2-digit sectors (SIC 23, 27, 34, 35, 36). Because none of these sectors accounts for over 30 percent of their respective national employment, and only three account for more than 20 percent of national employment, trade policies directed at any of these aggregate sectors would have differential significance at the regional and national level.

Even if the national and regional significance of 2-digit sectors coincided exactly, two factors make if difficult to examine international trade opportunities based on sector aggregates. First, unless the variety of items produced by the individual industries within an aggregate is explicitly recognized, export promotion programs are likely to be too general to be effective. Second, within each of the 2-digit sectors, some particular industries may be relatively unimportant. On the other hand, a seemingly unimportant aggregate sector may include an industry that is extremely important in terms of employment and export potential.

Table 2 contains employment data for 45 industries at the 4-digit level. Each of these industries employed at least 12,000 persons in 1975. This is an arbitrary cut-off point, but it represents an attempt to define industries whose contribution to the Northeast's economy is great enough for them to be potential targets for trade-related federal programs.

Table 1.
1975 Manufacturing Employment

1972 SIC Code	Sector Name	*United States* Rank	1975 Employment	2-Digit as Percent of Total	*Northeast* Rank	1975 Employment	2-Digit as Percent of Total	2-Digit as Percent of Same Sector of U
20	Food and Kindred Products	4	1,452,444	8.4	8	177,432	5.5	12.2
21	Tobacco Manufacturers	20	66,119	0.4	20	758	a	1.1
22	Textile Mill Products	10	812,259	4.7	14	119,336	3.7	14.7
23	Apparel and Other Textiles	6	1,185,550	6.9	3	300,580	9.2	25.4
24	Lumber and Wood Products	14	568,116	3.3	18	43,053	1.3	7.6
25	Furniture and Fixtures	17	395,184	2.3	17	51,151	1.6	12.9
26	Paper and Allied Products	12	585,344	3.4	12	129,646	4.0	22.1
27	Printing and Publishing	8	1,081,730	6.3	4	268,506	8.3	24.8
28	Chemicals and Allied Products	9	839,116	4.9	9	176,745	5.4	21.1
29	Petroleum and Allied Products	19	145,291	0.8	19	10,258	0.3	7.1
30	Rubber and Plastic Products	11	587,951	3.4	13	120,050	3.7	20.4
31	Leather and Leather Products	18	225,870	1.3	16	84,405	2.6	37.4
32	Stone, Clay and Glass Products	13	576,648	3.3	15	91,396	2.8	15.8
33	Primary Metals	7	1,156,257	6.7	11	136,293	4.2	11.8
34	Fabricated Metal Products	5	1,400,876	8.1	5	245,175	7.5	17.5
35	Machinery, Except Electrical	1	2,076,434	12.0	1	375,132	11.5	18.1
36	Electric and Electronic Equipment	3	1,572,884	9.1	2	371,226	11.4	23.6
37	Transportation Equipment	2	1,588,215	9.2	7	195,268	6.0	12.3
38	Instruments and Related Products	15	517,752	3.0	6	206,478	6.4	39.9
39	Miscellaneous Manufacturing	16	405,116	2.3	10	148,224	4.6	36.6
	Totals	NA	17,239,196	100	NA	3,251,112	100	18.9

Sources: U.S. Department of Commerce, 1977 a-h, 1978a.

a = less than 0.1 percent
NA = not applicable

Table 2.
Employment in Selected Manufacturing Industries in the Northeast and their National Trade Performance

1972 SIC Code	Industry Name	Northeast[1] 1975 Employment	Rank	US Rank	Δ(I/S)[2] 1976/72	Δ(E/S)[3] 1976/72	Relative Trade[4] Performance	Size Structure[5]
35	Machinery, Except Electrical	375,132	(44)[6]					
3511	Turbines, turbine generator sets	18,765	41	106	1.4	2.8	Positive+	58
3541	Machine tools, metal cutting types	19,716	36	66	1.6	1.1	Negative+	86
3559	Special industry machinery, nec.	21,972	27	53	0.8	1.5	Positive	88
3562	Ball and roller bearings	22,219	26	97	0.9	1.3	Positive	46
3573	Electronic computing equipment	48,170	7	11	NA	1.2	Positive	63
3579	Office machinery, nec.	14,618	58	140	1.2	1.2	NA	72
3585	Refrigeration and heating equipment	20,080	32	22	NA	1.8	Positive	79
36	Electric and Electronic Equipment	371,226	(56)					
3613	Switchgear and Switchboard Apparatus	12,421	66	69	NA	2.0	Positive	76
3621	Motors and generators	14,834	57	48	1.2	1.8	Positive+	69
3643	Current carrying wiring devices	16,344	50	121	1.5	1.4	Negative+	74
3662	Radio and T.V. communication equipment	102,642	1	5	4.0	1.7	Negative+	74
3674	Semiconductors and related devices	28,847	17	38	1.9	1.7	Negative+	75
3679	Electronic components, nec.	34,025	11	43	2.1	1.5	Negative+	89
23	Apparel and Other Textiles	300,580	(23)					
2311	Men's and boy's suits and coats	26,999	21	40	1.9	NA	Negative	76
2331	Women's and misses' blouses and waists	12,293	69	80	1.3	NA	Negative	95
2337	Women's and misses' suits and coats	30,024	15	83	1.4	NA	Negative	95
27	Printing and Publishing	268,506	(10)					
2731	Book publishing	26,785	22	85	0.8	1.2	Positive	89
34	Fabricated Metal Products	245,175	(19)					
3443	Fabricated plate work (boiler shops)	12,850	64	27	NA	1.4	Positive	92
3484	Small arms	16,275	52	244	0.5	1.0	Positive+	39
3494	Valves and pipe fittings	17,830	42	39	1.6	1.5	Negative+	75
38	Instruments and Related Products	206,478	(88)					
3811	Engineering and scientific instruments	16,726	46	100	1.0	1.2	Positive	84
3823	Process control instruments	12,398	67	139	NA	1.2	Positive	78
3825	Instruments to measure electricity	14,984	56	72	NA	1.2	Positive	80
3841	Surgical and medical instruments	17,692	44	108	1.5	1.4	Negative+	77
3842	Surgical appliances and supplies	13,875	60	99	1.4	1.3	Negative+	88
3851	Ophthalmic goods	16,346	49	183	1.6	1.6	NA	83
3861	Photographic equipment and supplies	72,716	3	35	1.3	1.2	Negative+	84
3873	Watches, clocks and watchcases	16,489	47	147	1.7	10.0	Positive+	77
37	Transportation Equipment	195,268	(81)					
3711	Motor vehicles and car bodies	16,286	51	6	1.1	1.8	Positive+	66
3714	Motor vehicle parts and accessories	27,914	18	3	1.1	1.2	Positive+	83
3721	Aircraft	39,349	10	7	1.0	1.3	Positive	54
3724	Aircraft engines and engine parts	54,178	6	29	0.6	1.1	Positive	55
3728	Aircraft equipment, nec.	19,717	35	25	0.6	1.4	Positive	82
28	Chemicals and Allied Products	176,745	(12)					
2869	Industrial organic chemicals, nec.	20,735	30	42	1.2	1.1	Negative+	68
39	Miscellaneous Manufacturing	148,224	(51)					
3911	Jewelry, precious metal	21,362	28	146	2.2	1.4	Negative+	96
3944	Games, toys and children's vehicles	15,248	54	116	1.3	1.8	Positive+	87
3961	Costume jewelry	18,902	40	213	1.5	2.5	Positive+	93

Table continues next page

Sources: U.S. Department of Commerce, 1972a,b, 1976a,b, 1977a-h, 1978a.

NA = not applicable

[1]Estimates of employment were derived using size distribution at the 4-digit level and average employment in each size category for all manufacturing. Estimates were adjusted to ensure consistency with 2-digit totals. The industries included in this table are those in which employment is 12,000 persons or greater, and for which the values of imports or exports in either 1972 or 1976 were greater than 5 percent of the value of domestic production (shipments). Industries which do not meet these criteria were excluded either because of their limited significance in terms of employment or in terms of their contribution to foreign trade. Listed industries are ranked from high to low on the basis of manufacturing employment in the Northeast and the nation.

[2]This is the 1976 ratio of imports to domestic shipments divided by the 1972 ratio of imports to domestic shipments.

[3]This is the 1976 ratio of exports to domestic shipments divided by the 1972 ratio of exports to domestic shipments.

[4]Relative trade performance is:
positive if $\Delta(I/S) \leq 1$ and $\Delta(E/S) > 1$, the ratios indicate an improvement in the trade balance; negative if $\Delta(I/S) > 1$ and $\Delta(E/S) \leq 1$, the ratios indicate a worsening of the trade balance; and positive*[negative*] if $\Delta(I/S)$ and $\Delta(E/S)$ are both greater than 1 or less than 1 and $\Delta(E/S) > \Delta(I/S)$ [$\Delta(E/S) < \Delta(I/S)$]. These cases are ambiguous because exports and imports as a fraction of shipments are moving in the same direction. These changes have opposite effects on the trade balance, but because of the valuation problem one can only infer whether the relative shift is favorable [unfavorable].

[5]Percentage of firms with fewer than 100 employees.

[6]Number in parentheses is the percent of 2-digit employment represented by listed 4-digit industries.

Table 2 (continued).
Employment in Selected Manufacturing Industries in the Northeast and their National Trade Performance

1972 SIC Code	Industry Name	Northeast[1] 1975 Employment	Rank	US Rank	Δ(I/S)[2] 1976/72	Δ(E/S)[3] 1976/72	Relative Trade[4] Performance	Size Structure[5]
3999	Manufacturing industries, nec.	19,819	33	71	0.9	1.3	Positive	96
33	Primary Metals	136,293	(14)					
3312	Blast furnaces and steel mills	19,720	34	1	0.9	1.3	Positive	61
26	Paper and Allied Products	129,646	(25)					
2621	Paper mills, except building paper	32,096	14	24	0.9	1.4	Positive	46
30	Rubber and Plastic Products	120,050	(15)					
3069	Fabricated rubber products	17,734	43	45	NA	1.4	Positive	80
32	Stone, Clay and Glass Products	91,396	(14)					
3291	Abrasive products	13,089	62	190	1.1	1.2	Positive+	80
31	Leather and Leather Products	84,405	(41)					
3143	Men's footwear, except athletic	13,933	59	98	1.2	NA	Negative	33
3144	Women's footwear, except athletic	20,470	31	87	1.5	NA	Negative	53
24	Lumber and Wood Products	43,053	(31)					
2499	Wood products, nec.	13,482	61	82	1.1	1.7	Positive+	96

Sources: U.S. Department of Commerce, 1972a,b, 1976a,b, 1977a-h, 1978a.

NA = not applicable

[1]Estimates of employment were derived using size distribution at the 4-digit level and average employment in each size category for all manufacturing. Estimates were adjusted to ensure consistency with 2-digit totals. The industries included in this table are those in which employment is 12,000 persons or greater, and for which the values of imports or exports in either 1972 or 1976 were greater than 5 percent of the value of domestic production (shipments). Industries which do not meet these criteria were excluded either because of their limited significance in terms of employment or in terms of their contribution to foreign trade. Listed industries are ranked from high to low on the basis of manufacturing employment in the Northeast and the nation.

[2]This is the 1976 ratio of imports to domestic shipments divided by the 1972 ratio of imports to domestic shipments.

[3]This is the 1976 ratio of exports to domestic shipments divided by the 1972 ratio of exports to domestic shipments.

[4]Relative trade performance is:
positive if $\Delta(I/S) \leq 1$ and $\Delta(E/S) > 1$, the ratios indicate an improvement in the trade balance; negative if $\Delta(I/S) > 1$ and $\Delta(E/S) \leq 1$, the ratios indicate a worsening of the trade balance; and positive$^+$ [negative$^+$] if $\Delta(I/S)$ and $\Delta(E/S)$ are both greater than 1 or less than 1 and $\Delta(E/S) > \Delta(I/S)$ [$\Delta(E/S) < \Delta(I/S)$]. These cases are ambiguous because exports and imports as a fraction of shipments are moving in the same direction. These changes have opposite effects on the trade balance, but because of the valuation problem one can only infer whether the relative shift is favorable [unfavorable].

[5]Percentage of firms with fewer than 100 employees.

[6]Number in parentheses is the percent of 2-digit employment represented by listed 4-digit industries.

Trade Prospects

The 45 industries listed in Table 2 are also those in the Northeast for which foreign trade is potentially important. Because regional import/export data do not exist, potential importance was identified on the basis of national information. International trade was defined to be unimportant for an industry if the ratios of both imports and exports to domestic shipments in 1972 and 1976 were less than 0.05.[3]

The next step is to evaluate future trade prospects for these industries. Theoretically, this could be done by utilizing trade information at the state, regional, national or world level. While trade statistics at the state or regional level indicate historical participation, they do not necessarily reflect current or future trade potential. Simply because a particular industry in a region has not been active in international markets, does not imply that the potential for doing so does not exist. It seems preferable to use national information to evaluate future trade prospects.

It is tempting to use current values of imports and exports as an indicator of trade potential, but a one year "snapshot" of trade patterns cannot distinguish among those products whose trade has grown in the past and then stabilized, and those that are expanding at the present time. Trends in the values of imports and exports are equally misleading, in the sense that they are too sensitive to general inflation and do not account for changes in relative prices of commodities.

To circumvent the valuation problem, changes in the value of exports and imports between 1972 and 1976 have been compared to changes in the value of manufacturing production (domestic shipments) over the same period. To illustrate, consider special industrial machinery (SIC 3559) in Table 2. In this case, the ratio of imports to shipments in 1976 was lower than in 1972, thus, the value of imports increased more slowly during this period than the value of production. This information is summarized in the table by the indicator $\Delta(I/S)$, which is the 1976 ratio of imports to domestic shipments divided by the corresponding ratio for 1972. Since $\Delta(I/S)$ is less than unity (0.8) it is reasonable to infer that the U.S. was importing relatively less special industrial machinery in 1976 than in 1972. Import competition decreased. The relative position of the industry in terms of imports improved.

Exports may be analyzed in an analogous fashion. Because the 1972 ratio of exports to shipments is less than the 1976 ratio of exports to shipments, the indicator $\Delta(E/S)$ for SIC 3559 is greater than unity. The value of exports rose faster than the value of shipments; it is reasonable to infer that the U.S. was exporting relatively more special industrial machinery in 1976 than in 1972. Exports had expanded in relative terms.

[3]Manufacturing industries in the Northeast employing at least 12,000 persons in 1975 accounted for 56 percent of all manufacturing employment. The 45 industries in table 2 account for 33 percent of total manufacturing employment.

These ratios form the basis for an overall evaluation of trade prospects at the 4-digit SIC level. If $\Delta(I/S)$ is less than unity and $\Delta(E/S)$ exceeds unity, then imports relative to domestic shipments have fallen and exports relative to domestic shipments have increased. The change in the overall trade position is therefore "positive." If $\Delta(I/S)$ is greater than unity and $\Delta(E/S)$ is less than unity, the situation is reversed and the change in the trade position is "negative." When both indicators are either greater than *or* less than unity, the net change in the trade position is ambiguous. For example, if both indicators exceed unity, both exports and imports have increased relative to shipments. The former implies an improvement in the trade position while the latter suggests deterioration. The ambiguity is compounded by yet another valuation problem. The absolute values of exports and imports in available sources of statistics are not strictly comparable. Exports are valued at U.S. ports while imports are valued in foreign ports of origin. To ensure comparability, an estimate of transport costs to the United States would have to be derived for imports.

Despite these difficulties, a tentative judgment on changes in the overall trade position is made. For example, in the case of motors and generators (SIC 3621) both indicators are greater than one but $\Delta(E/S)$ exceeds $\Delta(I/S)$. This has been interpreted as a "positive" change in the trade position.

Size Structure

A final factor is the prevalence of small businesses in the industries. The choice of an employment criterion to define small businesses is not a simple matter. For different purposes (e.g., loans or government procurement) the SBA itself often uses different size criteria for the same industry. Because the President's proposed export promotion program concentrates on loans and loan guarantees, one relevant classification would seem to be the equivalent size standards currently used for determining the eligibility of manufacturing firms for SBA loans and other forms of financial assistance (Office of the Federal Register, pp. 283-86). These standards range from 250 to 1,500 employees, reflecting the fact that a firm which may be considered large in one industry may be relatively small in another industry.

In the context of trade-related programs, there may be some justification for an absolute rather than a relative indicator of smallness. Regardless of the type of industry, there is probably some minimum firm size, as measured by employment, necessary for the effective development of export markets without public assistance. The ability to adjust to import competition may also be more directly related to absolute size than to type of industry. Because program resources are likely to be limited, effective use of available finance requires that industries with the greatest "degree of smallness" be identified. Although the choice of any criterion is arbitrary, a standard of fewer than 100 employees is used as the primary indicator of the importance of small businesses. This standard seems to differentiate effectively on the basis of size structure, and was among those recommended for use in studying business problems at a Small Business Data Needs Workshop sponsored by SBA, November 8, 1978. The percentage of firms with fewer than 100 employees is given in Table 2.[4]

[4]This criterion does not necessarily guarantee that employment in these firms accounts for the majority of total employment in the industry. The proportion of industry employment in small business could be adopted as an additional criterion for allocating program resources. Because data are unavailable in many cases, this would require extensive estimation.

FOREIGN TRADE PRIORITY INDUSTRIES

By combining the three criteria outlined above: contribution to employment, trade prospects, and prevalence of small businesses, foreign trade "priority" industries can be identified for the Northeast. According to the criteria adopted, an industry should be given priority in the development of export promotion programs if: a) total employment in the industry is over 12,000 persons; b) trade performance (prospects) is "positive;" and c) the proportion of firms (establishments) with less than 100 employees is at least 75 percent. The identification of an import priority industry is also based on (a) and (c) but involves "negative" trade performance (prospects).

On the basis of these criteria, 11 export priority industries and three import priority industries are identified. Details on employment and size structure in these industries are given in Table 3. Total employment in the industries in 1975 was almost 265 thousand persons or roughly eight percent of total regional manufacturing employment. The industries were made up of just over 4,600 firms, 90 percent of which had less than 100 employees in 1975.

Employment in the 11 export priority industries in 1975 was approximately 195,000, or roughly six percent of all manufacturing employment in the Northeast and 18 percent of the employment in the industries where trade is a non-negligible proportion of domestic shipments (Table 2). Of the 3,068 firms involved, 88 percent have fewer than 100 employees. Over 64 percent of the firms have fewer than 20 employees. Seven of the eleven industries are involved in the manufacture of relatively high technology items such as machinery or scientific instruments. Three of the industries represented are in SIC 2-digit sectors for which the Northeast accounts for over 35 percent of employment nationally.

Employment in the three import priority industries is only 35 percent of that in the export priority group. Just over 91 percent of all businesses in the group have fewer than 100 employees; roughly 47 percent have fewer than 20 employees. All firms in the import priority group are in the garment industry. Although the Northeast's share of total national employment in this industry has been declining; it is still over 25 percent. Thus as import competition, particularly from developing countries, continues to intensify the Northeast still faces significant adjustment problems.

Although it is realistic to assume that federal trade-related assistance would be administered on a regional basis and would recognize regional priorities, it is important to consider the extent to which these priorities would contribute to maximizing the net gain from trade at the national level e.g., benefits from trade expansion less the costs of import adjustment. It is difficult to evaluate fully this issue but a first approximation is to compare export/import priorities in the Northeast with these at the national level, based on similar criteria. Table 4 contains national trade priority industries. The criteria on which they were selected differ in only one respect from those employed for the Northeast. Because manufacturing employment in the Northeast is approximately one-fifth that of the nation, the employment criterion was set at 60,000 employees. On this basis 10 export priority and 2 import priority industries were identified. Both of the import priority industries are included in the Northeast list and 7 of the export industries are also included in the list. This significant degree of correspondence illustrates that at least in industries dominated by small businesses, national and regional interests can be accommodated simultaneously.

Table 3.
Export and Import Priority Industries in the Northeast

1972 SIC Code	Industry Name	Employment	Total # of Firms	# of Firms by Employment Size Class 1-4	5-19	20-99	100-249	250-499	Over 500
	Export Priority Industries[1]								
2731	Book Publishing	26,785	489	186	153	96	28	12	14
3559	Special Industry Machinery, nec.	21,972	324	87	113	85	20	9	10
3585	Refrigeration and Heating Equipment	20,080	122	19	37	40	12	8	6
3999	Manufacturing Industries, nec.	19,819	968	400	360	174	26	6	2
3728	Aircraft Equipment, nec.	19,717	109	19	43	27	12	6	2
3069	Fabricated Rubber Products	17,734	244	51	71	74	31	12	5
3811	Engineering and Scientific Instruments	16,726	204	49	63	60	20	8	4
3825	Instruments to Measure Electricity	14,984	168	40	41	53	23	4	7
3443	Fabricated Plate Work (Boiler Shops)	12,850	240	45	85	90	11	5	4
3613	Switchgear and Switchboard Apparatus	12,421	123	26	26	42	16	7	6
3823	Process Control Instruments	12,398	77	14	21	25	10	3	4
	Sub-total	195,486	3,068	936	1,013	766	209	80	64
	Import Priority Industries[1]								
2337	Women's and Misses' Suits and Coats	30,024	890	160	264	424	34	6	2
2311	Men's and Boys' Suits and Coats	26,999	293	59	77	88	38	21	10
2331	Women's and Misses' Blouses and Waists	12,293	354	40	122	173	16	3	0
	Sub-total	69,316	1,537	259	463	685	88	30	12
	Grand Total	264,802	4,605	1,195	1,476	1,451	297	110	76

Source: Based on Table 2 and U.S. Department of Commerce. 1977a-h; Employment and Size Structure for 1975.

[1]Selection based on: (a) total employment greater than 12,000; (b) unambiguous positive (export) or negative (import) trade performance; and (c) proportion of firms with fewer than 100 employees at least 75 percent.

Table 4.
Export and Import Priority Industries in the United States

1972 SIC Code	Industry Name	Employment	Total # of Firms	# of Firms by Employment Size Class 1-4	5-19	20-99	100-249	250-499	Over 500
	Export Priority Industries[1]								
2011	Meat Packing Plants	160,145	2,299	651	777	553	178	79	61
2421	Sawmills and Planing Mills, General	149,154	6,874	2,831	2,517	1,268	197	42	19
3728	Aircraft Equipment nec.	116,914	624	111	182	185	72	34	40
3443	Fabricated Plate Work (Boiler Shops)	114,022	1,492	225	432	587	169	42	37
3069	Fabricated Rubber Products, nec.	91,399	1,108	214	289	367	155	54	29
3559	Special Industry Machinery, nec.	79,692	1,250	289	427	362	105	33	34
2411	Logging Camps and Logging Contractors	74,199	11,134	7,648	3,026	401	35	15	9
3613	Switchgear and Switchboard Apparatus	65,781	559	126	141	165	67	30	30
3999	Manufacturing Industries, nec.	64,806	2,749	1,196	977	455	85	25	11
3825	Instruments to Measure Electricity	64,161	598	146	157	177	68	24	26
	Sub-total	980,273	28,687	13,437	8,925	4,520	1,131	378	296
	Import Priority Industries[1]								
2331	Women's and Misses' Blouses and Waists	60,812	944	100	203	462	145	31	3
2337	Women's and Misses' Suits and Coats	60,460	1,315	233	335	617	95	33	2
	Sub-total	121,272	2,259	333	538	1,079	240	64	5
	Grand Total	1,101,545	30,946	13,770	9,463	5,599	1,371	442	301

Source: U.S. Department of Commerce, 1978a; Employment and Size Structure for 1975.

[1]Selection based on: (a) total employment greater than 60,000; (b) unambiguous positive (export) or negative (import) trade performance cf. Table 2; and (c) proportion of firms with fewer than 100 employees at least 75 percent.

POLICY IMPLICATIONS

This analysis suggests that small businesses in the Northeast face both opportunities and problems as the result of international trade. As international markets expand, government programs to help industry capitalize on the opportunities become increasingly important. The central assumption of this paper is that criteria must be established to determine inter-industry priorities for the allocation of scarce public financial resources to promote exports and facilitate adjustment to increased imports. In the Northeast, the necessity for such criteria is readily illustrated.

The Administration's export promotion policy provides for the channeling of up to $100 million of the SBA's loan guarantees to small export businesses and an earmarking of $20 million of Commerce and State Departments' budgets to assist small business export promotion. If it is assumed that such finance will be allocated regionally on the basis of population then the Northeast could expect to receive roughly 18 percent of the total or $18 million in loan guarantees and $3.6 million in program funds. If the total amount of $21.6 million were to be allocated across all firms (in manufacturing sectors with more than 12,000 employees) which meet current SBA small business criteria and for whose products exports were recorded in 1976, the amount available per firm for both loan guarantees and program delivery would be approximately $792. Even if one were to assume that only 25 percent of these firms were interested in securing loans or participating in the promotion programs, the funds available per firm would still be less than $3,168. Given these small amounts, it would be difficult to prepare educational materials, provide market analysis, promote industry specific markets or products, or hold industry workshops for the large number and variety of eligible firms. Thus, unless funding is increased significantly, it is clear that "priority" industries for export promotion expenditure must be identified in order to make the most effective use of available finance.

This paper demonstrates the use of three important criteria, contribution to employment, trade prospects, and a more restrictive definition of small business, to determine priorities. On the basis of these criteria, 11 export priority industries are identified. In terms of the example given above, the amount available per firm is increased to $7,956. If only 25 percent of these firms expressed an interest in these programs, nearly $31,823 would be available per firm. By using the more restricted definition of "small business" than the one currently adopted by the SBA for its loan programs, a reasonable level of financial assistance could be targeted to those firms facing an absolute size disadvantage in international markets. These criteria could also be used to set priorities for aid to small businesses facing increased import competition. Specifically, the SBA could consider import competition as an additional factor in the administration of its existing programs.

The methodology adopted in this paper to establish priorities is suggested as a first approximation. Other socio-economic and political factors could be brought to bear in determining the final priority list; it could also be expanded simply by relaxing the three criteria discussed above. However, this brief analysis does demonstrate the value and feasibility of substantial disaggregation in the identification and selection of target industries.[5]

The fact that the "export priority" industries identified are primarily in high technology fields is significant. Since the 1950's, the Northeast's share of all manufacturing employment has been declining, however in relative terms its share of high-wage durable manufacturing employment has increased. These changes have led to effective utilization of the relatively high-skilled labor pool in the Northeast; both rural and urban areas in the region have benefited (cf. Boisvert, 1976). They have also contributed to a reduction in the number of families below the poverty level in the region (cf. Boisvert, 1975). Export promotion assistance will contribute to these favorable trends.

The "import priority" industries identified are textile-related. These industries have been at a comparative disadvantage in the Northeast for many years. Increasing competition from imports has merely accelerated their decline. Funds provided through the trade adjustment assistance program can potentially facilitate regional employment shifts, that would probably occur anyway due to domestic regional competition.

[5]A more extensive discussion of the methodology, its advantages and disadvantages, and ways in which it might be further refined is contained in Blandford and Boisvert.

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