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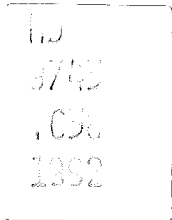
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A Defense Dependency Analysis for the Greater Bath, Brunswick and Topsham Area

August 1992



Produced by the Capital Coastal Council of Governments

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
1. Executive Summary	1
2. Defense Dependency in Maine: A State Perspective	5
3. An Economic Overview (for the Bath-Brunswick Labor Market Area)	17
4. Strategy Recommendations (for the Bath-Brunswick Labor Market Area)	25
5. Conclusion	36
6. Appendix	37
A. Bath-Brunswick Labor Market Area	39
B. Oversight Committee Membership List	40
C. Reduction Scenarios	41
D. Business Survey Summary	46

1. EXECUTIVE SUMMARY

Introduction

As a part of the State Planning Office's (SPO) effort to analyze defense dependency in the state, the Office contracted with organizations in the York County area, in the greater Bath-Brunswick area, and in the Lewiston-Auburn area. SPO contracted with Capital Coastal Council of Governments (CCCOG) in the Bath-Brunswick area to conduct the regional defense dependency analysis. CCCOG started their work in April 1992. This report summarizes the results of that analysis at the regional level.

Defense activities dominate the economy in the greater Bath, Brunswick and Topsham area. Brunswick Naval Air Station (BNAS), located in Brunswick, employs approximately 800 civilians and has approximately 3,200 military personnel assigned to the base. The majority of those individuals reside in the Bath-Brunswick Labor Market Area (BBLMA). (*The Bath-Brunswick Labor Market Area is defined in Appendix A.*) Bath Iron Works (BIW), the largest employer in the State of Maine, has its main facility and corporate headquarters in Bath. BIW employs over 9,000 in the Bath-Brunswick Labor Market Area; over half of those workers live in the BBLMA.

The payroll for BIW equals over \$295,500,000 (1991 figures), while the company does \$183,400,000 in contracts with Maine firms (FY 1992). BNAS has a total payroll of \$78,000,000 (\$18M civilian payroll; \$60M military payroll in 1990-91 figures) and does over \$44,700,000 in contracts with Maine firms.

While decisions at the national level will probably lead to continued defense reductions that will adversely impact the Bath-Brunswick Labor Market Area, the businesses and the municipalities within this area must begin to look at economic diversification and conversion now in order to ameliorate these negative impacts.

This report attempts to assess the nature of the defense dependency at the regional level and includes strategic recommendations to address the potential disruption in the economy and the dislocation of workers.

Goal

The long-term recommendation for the Bath-Brunswick-Topsham area can be stated simply: The area needs to have the development strategy and infrastructure in place to attract new business and to retain and expand existing business to minimize the impact of the proposed and pending defense cuts.

Currently, neither the resources nor the institutions are in place to position the region to pro-actively encourage economic diversification. The strategic recommendations

outlined below require the commitment of capital investment on the part of the municipalities, the state and the federal government at a time when capital expenditures are being reduced, not expanded. If the area is successful in implementing these strategies, it will be positioned to be pro-active prior to any reduction/elimination of BNAS and/or BIW.

Economic And Community Development Issues

As this report demonstrates the Bath-Brunswick Labor Market Area (BBLMA) is heavily dependent upon the defense industry. The area's two largest employers are Brunswick Naval Air Station (BNAS) and Bath Iron Works (BIW). The economic base beyond these two employers is predominantly retail and services.

Therefore, the loss or reduction of BNAS and/or BIW will have a disproportionate impact on the area. In addition, the increased demand for community and municipal services will occur precisely at a time when the funding support for services is severely limited. Given this, what steps can be taken to ameliorate the impacts of a potential shut-down or reduction?

The area identified in this analysis has historically not been served by the traditional community and economic development mechanisms that exist in other regions in the state. The region is not covered by any Economic Development District (as defined and authorized by the federal Economic Development Administration). This has meant that the municipalities in the area have been unable to access EDA's Public Works funds that support major development infrastructure initiatives, such as airport expansions, industrial development parks, etc. as well as targeted programs that serve an area when a "Sudden and Severe Economic Dislocation" (SSED) occurs.

Although business membership and community civic groups have organized to work on economic conversion and development issues (the Topsham Economic Development Committee, the Brunswick Economic Conversion Task Force, the Bath Economic Development Task Force), the area has no multi-municipal or regional development corporation whose primary function is to develop a strategy to retain and expand businesses in the area as well as to promote the area to businesses outside the region and the state. Nor does the region have access to the resources of a Metropolitan Planning Organization for transportation planning issues, which are critical underpinnings for any development activities in a region.

The lack of an overall economic and community development strategy and organization was not a particular issue during the "boom" years of the 1980's. However, since the recession in late 1989-90 and with the impending defense cuts looming, the lack of a cohesive economic and community development strategy and entity has arisen as a much greater concern.

A major assumption of this report is that the area's best response to potential defense cuts is to diversify its economic base as significantly as possible prior to major defense cuts occurring. Given the fact that BIW has work at approximately its current level of production until 1997 and that BNAS may be on the base closing list in 1993 or in 1995, the region has between two and five years to be pro-active on its own behalf.

Priorities

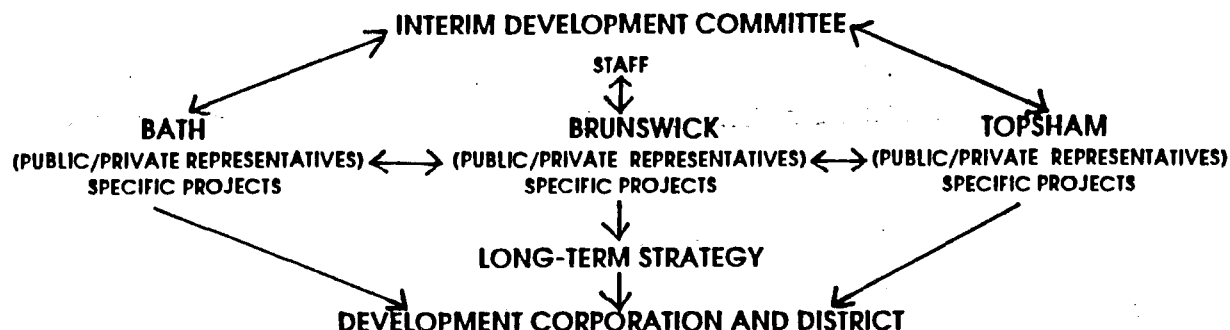
CCCOG worked with an Oversight Committee throughout the development of this report. (See Appendix B. for membership list.) The Committee saw several of the recommendations outlined in the Strategy Recommendations section (see Page #25) as priorities. (A flow-chart outlining the process to implement these priorities is included below.)

These priorities are summarized as follows:

1. Establish an Interim Development Committee, modeled on the Oversight Committee, with representation from the public and private sectors from Bath, Brunswick and Topsham. The Interim Development Committee would have the responsibility for: (a) working with the State's Defense Task Force; and (b) for implementing the recommendations outlined in this report. (NOTE: Two of the representatives from the existing Oversight Committee have been appointed to the State Task Force: Wanda Plummer, Brunswick Chamber Director, and David Gleason, Gleason Real Estate in Brunswick and Chair of the Brunswick Economic Conversion Task Force.) The Interim Development Committee would need at least one full-time staff person, initially funded by EDA pass-through funds to SPO and then to the Committee;
2. The Interim Development Committee would develop a long-term development strategy for the area. This development strategy would provide the context within which services (business finance and counseling, development planning, business technical assistance such as marketing, and municipal infrastructure projects to support business development) would be provided to municipalities and businesses for economic diversification within the area; and,
3. The Interim Development Committee would work to ensure the designation of the area as an Economic Development District, under the Economic Development Administration, and the creation of a multi-municipal development corporation. The creation of the corporation and the designation of a district would provide the resources (staffing and funding) to implement the long-term development strategy.

While the Oversight Committee established these three items as priorities, it must be emphasized that all of the recommendations, outlined in Section 4, are critical to the area's successful response to defense reductions and to the goal of economic diversification. The human capital issues and recommendations, as well as the other community and economic development recommendations, are all part of a comprehensive effort to prepare the area for continued economic well-being.

FLOW-CHART



Conclusion

Finally, this report focuses primarily on the public sector initiatives that can impact the economy. The assumptions behind this focus are two-fold: first, it is the public sector (e.g. the Department of Defense) which in large part has generated the contracts which now are being reduced. And, in response to the disruption of local and regional economies due to defense reductions, it is the public sector that will be dedicating funds to avert or ameliorate these economic disruptions; and, second, while business drives the economy, the public sector can impact the business environment with its policies and programs. This report assumes that the public sector can develop policies and programs which can enhance the business environment -- allowing businesses to relocate, to grow, and to diversify.

Therefore, the references to the private sector (business and industry) are indirect. The strategy recommendations are all targeted to enhancing the economy through public sector approaches to business growth and diversification. Recommendations for education and training, for example, focus on the systems which provide those services with the full knowledge that the individuals whose skills are improved then go to work in the private sector. Recommendations for development activities also assume that if the necessary and relevant public infrastructure (roads, sewer, water, etc.) is in place, businesses are more likely to view an area positively.

No one initiative will "solve" the defense dependency problem in this area; many coordinated activities can go a long way to making the Bath-Brunswick-Topsham area a good place to live and work now and in the foreseeable future.

2. DEFENSE DEPENDENCY IN MAINE: A STATE PERSPECTIVE

(NOTE: This report, produced by CCCOG for the Bath-Brunswick-Topsham area, was developed as a part of the State Planning Office's state-wide defense dependency analysis. Included in this section are portions of SPO's Interim Report released in March 1992; these excerpts provide a state-wide context for the discussion of defense dependency in the greater Bath-Brunswick-Topsham area. Employment at BNAS and BIW continues to decline; thus, the numbers reported in the SPO Interim Report of March 1992 are slightly higher than in the CCCOG report.)

Introduction

In July of 1990, recognizing the prominence of defense activities in Maine and anticipating the potential effects of defense spending cuts, Governor John R. McKernan, Jr. established by Executive Order, the Governor's Task Force on Defense and the Maine Economy. Governor McKernan initiated the Task Force to develop a strategy to guide Maine's private and public sector efforts to cope with the potential dislocations, and capitalize on the opportunities associated with reduced defense spending in Maine. Such an effort was designed to help Maine workers, businesses and communities to buffer the economic consequences of shrinking defense spending. (The 115th Legislature institutionalized this effort by creating the Task Force on Defense Realignment and the Economy, which will report to the Legislature on an annual basis. SPO is providing the staff support for both initiatives.)

(The State Planning Office issued a report in March 1992 that) presented the preliminary findings of the Governor's Task Force and outlined a strategy to reduce Maine's defense-dependency. Defense-related enterprises in Maine span the spectrum of defense activities and stretch across the breadth of the State. They include military installations such as Portsmouth Naval Shipyard and Brunswick Naval Air Station in southern Maine, and Loring Air Force Base in rural northern Maine, as well as a number of smaller installations. They include a number of private firms which are largely dependent upon primary or secondary defense contracts, including Bath Iron Works (Maine's largest private employer), Saco Defense and others. Hundreds of Maine businesses and thousands of jobs serve these defense facilities, contractors and their employees as suppliers, subcontractors, retailers and service providers.

Maine communities, businesses and workers have already felt the harmful effects of reductions in defense spending. Loring Air Force Base has been slated for closure by the middle of 1994. Pease Air Force Base in neighboring New Hampshire closed in 1991. Portsmouth Naval Shipyard in Kittery Maine eliminated 1,400 jobs in 1991 and will reduce its workforce by an additional 600 in early 1992. Bath Iron Works is in the midst of a reduction in employment of up to 2,500 prompted by a reduction in the naval shipbuilding program. The Over-the-Horizon Backscatter radar installation in Bangor has been reduced from an active force of 530 to a skeleton crew of 40, and several other Maine firms have lost jobs to defense spending reductions.

Summary of Findings

A significant share of Maine's economy is defense dependent.

Defense dollars support some level of activity in virtually every part of Maine. While defense-related activity in Maine is widespread, it is most concentrated in three regions--York County (Portsmouth Naval Shipyard, Pease Air Force Base, Saco Defense, Fiber Materials, Inc.), Bath-Brunswick (Bath Iron Works and Brunswick Naval Air Station), and Central Aroostook County (Loring Air Force Base). In addition, a number of smaller military installations and primary and secondary defense suppliers are scattered around the State.

The Bath/Brunswick area hosts not only Bath Iron Works, Maine's largest employer, at 11,400 workers (state-wide), but is also the locale of Brunswick Naval Air Station, employing over 900 civilian and 3,300 military personnel. These two defense facilities, located within several miles of each other, support nearly \$700 million in earnings. This represents 3% of all Maine income, and more than one-half of all Maine defense-dependent earnings.

Maine's defense-dependent employment is concentrated in shipbuilding and related enterprises.

Maine's two biggest defense-related enterprises, from an economic perspective, are Bath Iron Works and Portsmouth Naval Shipyard. Combined they provide some 15,000 Maine residents with some of the highest paid employment in the State. Consequently, the State's defense dependency is concentrated in shipbuilding and related activities. In an environment of defense cut-backs and with the dominance of small and medium-sized firms, Maine's economy will be hard pressed to replace a significant number of shipbuilding jobs lost to defense cuts, with jobs of similar skill types or wage levels. The remainder of Maine's defense-dependent jobs are distributed across industries ranging from machinery, metal products and electronics to retail and wholesale trade, medical services and construction.

Defense reductions have already had an impact on Maine and future reductions will pose significant challenge to Maine businesses, workers and communities.

Many Maine workers and communities have already been adversely affected by cutbacks in defense spending. Twenty-five percent of the job losses associated with the closure of Pease Air Force Base in 1992 were felt in Southern York County. Brunswick Naval Air Station has recently reduced its military personnel by 300. The U. S. Air Force has essentially shut down the Over-the-Horizon Backscatter Radar Facility at Bangor, eliminating nearly 500 jobs in the Bangor area.

Even larger reductions face Maine employers and workers in the next several months and years. Bath Iron Works continues an announced work force reduction totaling 2,500 through mid-1992. The Portsmouth Naval Shipyard has implemented a reduction-in-force that will reduce its 8,000 person work force by 1,500 by April of 1992. Finally, Loring Air Force Base has been slated for closure by September 1994, taking with it 8,500 jobs in Aroostook County.

By the end of 1991, Maine had lost 5,000 jobs added by the defense build up. This is accounted for by the loss of 2,500 jobs at BIW since 1990 and losses at other defense contractors. In addition to the losses associated with the build-up, Maine has lost another 2,000 direct and indirect defense jobs associated with downsizing of military facilities. By 1994, with the closure of Loring AFB, Maine will have lost 20% of its peak defense-dependent employment of 63,000 in 1989.

In the present economic environment any job losses associated with defense cuts are difficult, if not impossible to absorb. Over the longer term, the Maine economy will be able to absorb modest defense cuts. However, significant reductions in any one of Maine's major defense enterprises will impose a severe burden on the State's economy.

These job losses, painful at any time, come in the midst of a State and regional economic downturn. Since 1989, the Maine economy has experienced a steady decline in employment across all sectors. Between 1989 and 1991 the State's unemployment rate has nearly doubled as 33,000 jobs have been lost. Employment conditions in neighboring New England states are even more severe. Current forecasts indicate that Maine will not recoup these losses before 1995.

Over the longer term, economic growth in Maine is expected to resume at a pace much slower than was experienced in the decade of the 1980's. In this environment, additional large and/or precipitous cutbacks at any of Maine's larger private or public defense facilities will place Maine's long-term economic health at serious risk. Maine firms have begun to take steps to broaden their market base beyond defense-related customers.

Some Maine communities have begun the process of responding to defense reductions.

In response to current or potential defense spending cuts, citizens in some Maine communities have begun the process of planning for defense realignment. Elliot, Kittery, York and South Berwick have established the KEYES Coalition to respond to the closure and reuse of Pease Air Force Base in nearby Newington/Portsmouth, New Hampshire. The Brunswick Area Conversion Task Force has begun to examine the potential joint use and/or reuse of Brunswick Naval Air Station. Business people in the

Biddeford-Saco area have begun to strategize a response to declining defense contracts to area businesses. Individuals in the mid-coast area have taken the initiative to examine defense issues and their implications for their regional economy, and the Maine Peace Economy Project is working to help communities and businesses across the state to recognize their defense dependency and work to reduce it.

The communities around Loring Air Force Base have joined with the County and State governments to create the Loring Readjustment Committee. This group will develop reuse options for Loring upon its closure in 1994 and negotiate the terms of transfer of the facilities at Loring to civilian use.

The Governor's Defense Task Force, through its EDA Title IX grant, is supporting multi-jurisdictional defense planning efforts in York County, the Bath/Brunswick region and the Androscoggin Valley region.

The nature of defense realignment over the next few years may offer some opportunities for Maine.

While their negative impacts will be severe for several years, some aspects of defense realignment offer some opportunities for the Maine economy. Reductions in the number of armed forces personnel will accelerate the re-patriation of workers to the Maine labor force with excellent training and G.I. Bill benefits. Federal commitment to cleaning up environmental hazards at closing military bases offers an opportunity to expand Maine's environmental industries and redirect the skills of Maine's suffering construction industries. Finally, the potential and real impacts of defense cuts has begun to serve as a catalyst for joint community development initiatives among Maine towns and an impetus for new product and market development for Maine's firms.

The State of Maine can adopt an array of strategies to address the challenges and opportunities associated with defense realignment.

A comprehensive State strategy should help communities build development capacity, maximize the possibility of re-employment of defense-dependent workers, and assist Maine firms reduce their defense dependency.

The Governor's Defense Task Force will develop program proposals designed to encourage and assist development capacity building in at-risk regions. Such programs could incorporate multi-jurisdictional community and economic development planning; assist in identifying economic development infrastructure needs, and avenues of assistance; and facilitate contingency DOD facility re-use planning.

Strategies to maximize the possibility of re-employment of at-risk workers in advance of actual cut-backs must recognize that most at-risk workers have relatively high level of skills and education. Thus, they will need either a new employer in a similar industry, the ability to start their own business, or the ability to move into a new occupation with comparable pay. Such strategies should be designed to broaden the educational level of at-risk workers; encourage and assist the expansion of Maine firms utilizing the skills of defense-dependent workers, and the services of other defense-dependent firms.

Finally, harmful impacts of defense cutbacks can be best mitigated by helping Maine firms reduce their reliance on military spending. The Task Force will examine ways to tailor existing programs to address the special needs of defense-dependent firms. In addition, new mechanisms will be explored to help Maine firms acquire the technology, training and financing required to undertake effective conversion strategies.

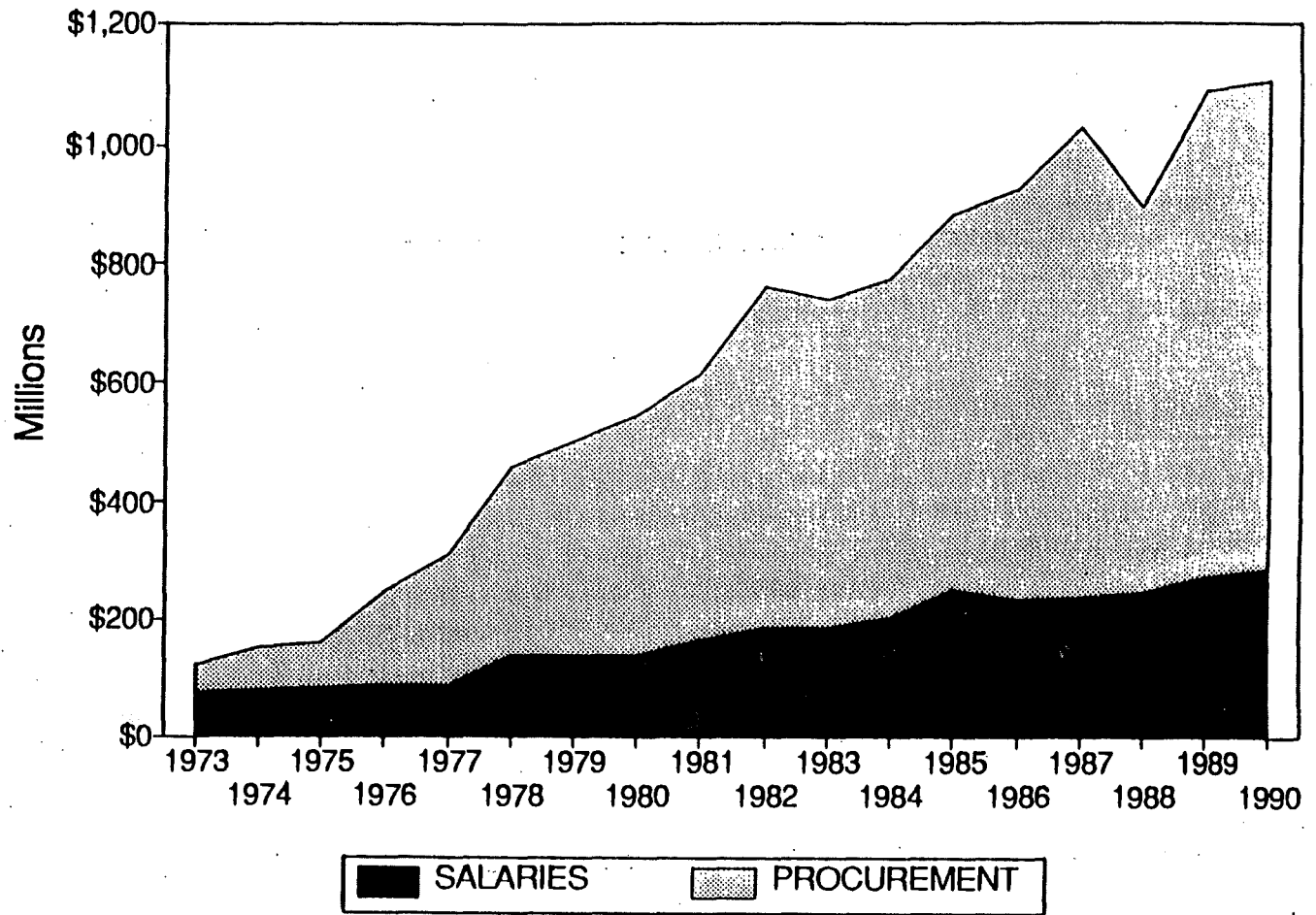
Maine's Defense Dependency

During the 1980's, the flow of federal defense-related dollars became an increasingly important component of the Maine economy. In fact, direct Defense Department spending in Maine rose from only 3% of gross state product in the early 1970's (averaging \$146 million annually), to nearly 7% by the end of the 1980's (an average of nearly \$1 billion per year). Virtually all of this growth, 81%, is attributable to defense procurement, of which Bath Iron Works has accounted for over 90% (see Figure 1).

Gauging the contribution of defense spending to the Maine economy is a complex task. A traditional input/output approach to economic impact analysis (estimating the direct and indirect jobs needed to fulfill a given level of defense demand) suggests that 62,885 jobs and \$1.3 billion in earnings in Maine were directly or indirectly supported by defense-related activities in 1989. By this measure, fully 8% of all Maine jobs and 10% of total earnings are dependent, either directly or indirectly, upon meeting the defense needs of the United States. The larger share attributable to defense-related earnings in Maine reflects the relatively high wages provided many defense-dependent workers in the State. (Table 1 offers an estimate of the employment and earnings contributions of defense spending in Maine at its peak in 1989.)

In fact, these estimates under-represent the level of economic activity in Maine supported by defense spending. Each of the major defense facilities are the predominant factor in Maine's relatively small and fragile rural economies. Consequently, their loss would not only eliminate the majority of well-paying jobs in their regions, but would undermine the critical mass of the regional economies they support. (See Table 2.)

DEFENSE SPENDING IN MAINE BY COMPONENTS



Source: Maine State Planning Office

FIGURE 1

TABLE 1

ECONOMIC IMPACT OF DEFENSE SPENDING IN MAINE: 1989
(Source: Maine State Planning Office)

FACILITY	DIRECT EMPLOYMENT		INDIRECT EMPLOYMENT	EARNINGS	
	CIVILIAN	MILITARY		TOTAL (MIL)	
BRUNSWICK NAS	900	3,000	1,700	5,600	\$ 160
LORING AFB	900	3,300	3,600	7,800	\$ 168
PORTSMOUTH NSY#	8,000	**	3,300	11,300	\$ 206
NATIONAL GUARD*	525	3,900	885	5,440	\$ 86
OTHER DoD	300	4,800	1,610	6,710	\$ 138
BIW	11,400	**	7,700	19,100	\$ 524
OTHR PRIV FIRMS	3,800	0	3,265	7,065	\$ 166
TOTAL	25,825	15,000	22,060	62,885	\$1,307
Percent of Maine Total				8%	10%

4,500 Maine residents. Earnings exclude those of non-Maine workers.

* 300 full-time, 3,600 part-time.

** Military included under Other DoD.

TABLE 2

RECENT AND IMPENDING DIRECT DEFENSE-RELATED JOB LOSSES (AS OF 11/91)
(Source: Maine State Planning Office)

Activity	Civilian Jobs	Military Jobs
BIW	2,500 (by mid-'92)	
Loring AFB	1,000 (by Sept. '94)	3,300 (by Sept. '94)
Portsmouth NSY	600 (by March '92)	
National Semiconductor	200	
Fiber Materials, Inc.	150	
Digital	100	
Saco Defense	100	
OTH-B	70	300
Brunswick NAS	50	310
Mid-State Machine	30	0
TOTAL	4,750	3,910

Maine's long tradition of participating in this nation's defense has been based largely upon its coastal locations and its reputation for shipbuilding. In fact, shipbuilder Bath Iron Works, Portsmouth Naval Shipyard, Brunswick Naval Air Station and Loring Air Force Base account for 26,000 defense jobs, representing over 64% of all the direct defense employment in Maine. Maine has also been home to a small but growing number of largely high-technology defense-related firms. **Figure 2** displays the location of military facilities and defense contractors in Maine. **Tables 3 and 4** identify selected Defense Department prime contractors in Maine and principal military facilities.

TABLE 3

SELECTED DEFENSE PRIME CONTRACTORS IN MAINE
(Source: Maine State Planning Office)

<u>COMPANY</u>	<u>LOCATION</u>	<u>TYPICAL ANNUAL CONTRACT</u>
Bath Iron Works	Bath	\$730 million
Saco Defense	Saco	\$ 35 million
Fiber Materials, Inc.	Biddeford	\$ 30 million
Howell Laboratories	Bridgton	\$ 7.9 million
E.C. Jordan	Brunswick	\$ 5.3 million
H.E. Sargent	Old Town	\$ 4.2 million
Frank J. O'Hara	Rockland	\$ 2.4 million
Andrew Crowe & Sons	Warren	\$ 1.9 million
Mid-State Machine	Winslow	\$ 0.5 million

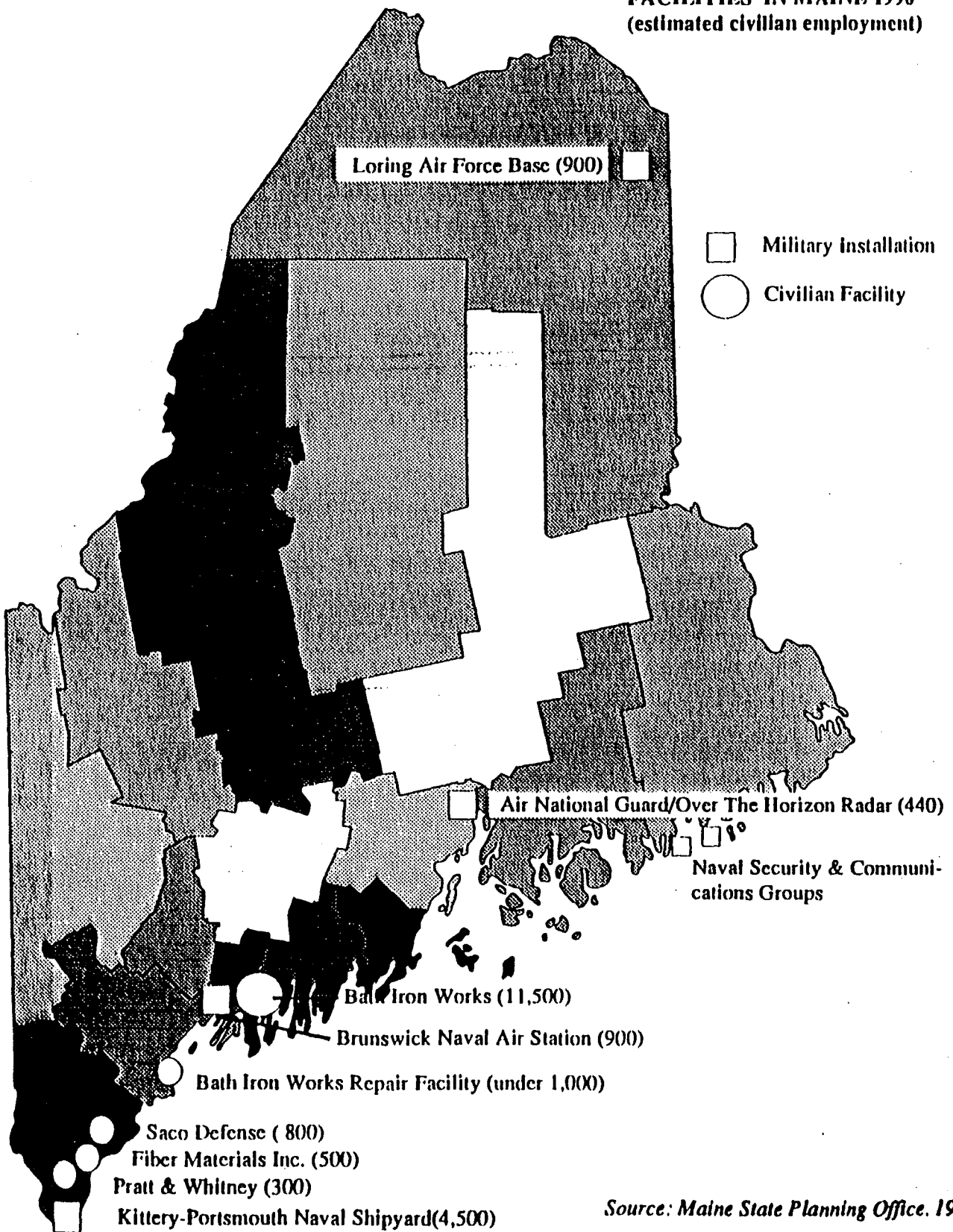
TABLE 4

PRINCIPAL MILITARY INSTALLATIONS IN MAINE
(Source: Maine State Planning Office)

<u>FACILITY</u>	<u>LOCATION</u>	<u>ANNUAL SPENDING</u>
Portsmouth Naval Shipyard	Kittery	\$170 Million*
Loring Air Force Base	Limestone	\$130 Million
Brunswick Naval Air Station	Brunswick	\$108 Million
Maine Air National Guard	Bangor	\$ 33 Million

* Estimate of amount spent in Maine. Total spending in 1989 was \$357 million.

**SELECTED DEFENSE-RELATED
FACILITIES IN MAINE 1990**
(estimated civilian employment)



Source: Maine State Planning Office, 1990.

FIGURE 2

By varying degrees, Maine's economic defense dependency cuts across all Maine industries. However, the State's direct dependency is concentrated in a small number of facilities and firms, and three regions of the State. In fact, 17,700 or nearly 80% of all direct defense-related civilian jobs are with BIW, Loring AFB, NAS Brunswick and Portsmouth Naval Shipyard. However, these represent only 42% of all defense-dependent jobs. The majority of Maine's defense-dependent jobs are spread among a large number of businesses that serve both civilian and military-related markets.

Not surprisingly, the geographic concentration of Maine's defense dependency is in the three regions of the State that host large defense establishments. The Bath-Brunswick Region is host to both Bath Iron Works and Brunswick Naval Air Station. These two facilities alone support over \$1 billion in earnings, fully 8% of the State total. In fact, significant economic impacts of BIW extend west into Androscoggin County and south into Cumberland County.

The local and regional impact of defense spending reductions will be very substantial. In a state dominated by small and medium-sized businesses, defense related activities become the principal economic actor in each of the regions in which they are located. Moreover, the diversity of Maine's defense-dependency suggests that some, if not all, segments of its defense economy is likely to be affected by the restructuring of national spending priorities for several years.

The Capacity of the Maine Economy to Absorb Reductions in Defense Spending

While Maine has long hosted significant defense activity, the defense build-up of the 1980's added additional jobs to the Maine economy. Direct and indirect jobs associated with the military build up totaled 18,000 by 1989. Most were associated with the naval build up supported by Bath Iron Works. This largest of Maine employers added 7,400 jobs during the 1980's. Additional jobs were created at prime and secondary defense contractors, largely in southern Maine.

By the end of 1991, Maine lost 5,000 jobs added by the defense build up. This is accounted for by the loss of 2,000 jobs at BIW, since 1990, and losses at other defense contractors. In addition to the losses associated with the build-up, Maine has lost another 2,000 direct and indirect defense jobs associated with downsizing of military facilities. By 1994, with the closure of Loring AFB, Maine will have lost 20% of its peak defense-dependent employment of 63,000 in 1989.

Unfortunately, defense cutbacks are not the only negative forces impinging upon the Maine economy today. The demographic surge that fueled rapid household formation, consumer spending and strong job growth in the last decade has slowed, and will continue to do so over the next ten years. The New England economic renaissance driven by the defense build-up and the computer and finance industries

has dissolved into a quagmire of business declines and over-built real estate. Thus, in addition to the reversal of the defense build-up, Maine is experiencing the end of a construction and retail boom, as illustrated in Figure 3. A national recession has further exacerbated regional weakness, and recovery is expected to be exceptionally slow. Consequently, defense cuts are hitting Maine in the midst of its worse economic downturn since the early 1980's, a downturn that is unlikely to be followed by vibrant recovery.

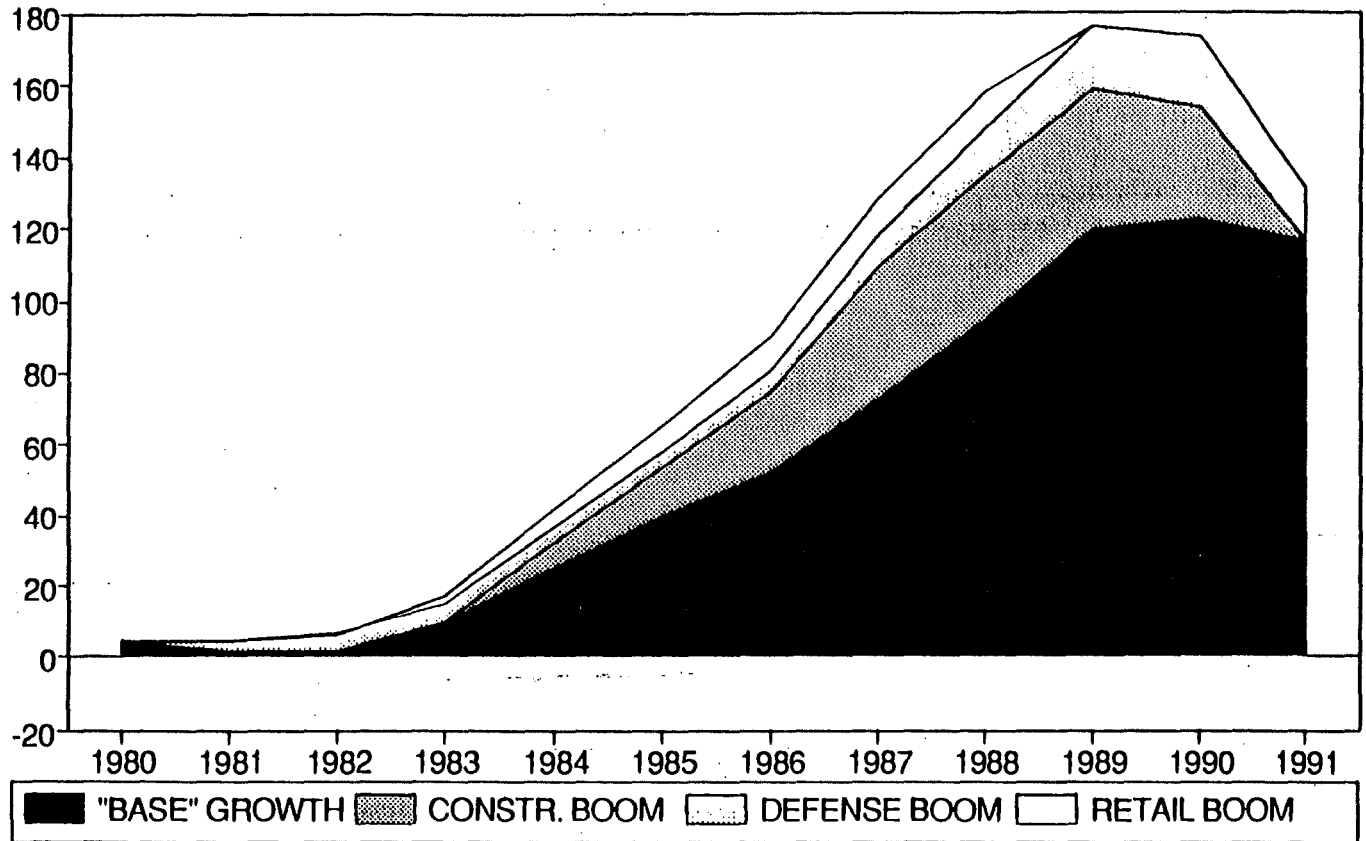
It will be exceptionally difficult for the Maine economy to replace defense-dependent jobs. During 1990 and 1991 Maine employment will have declined by 6%. Most recent job losses have been in construction, manufacturing and retail trade. Defense cutbacks have also contributed to this weakening in Maine's employment levels. By early 1992, over 4,000 Maine defense-related jobs will have been lost to spending cuts (about half of these will have come from BIW).

Despite current economic difficulties, the Maine economy has experienced a qualitative improvement over the last 15 years. The economy that is carrying Maine into the 1990's, is the culmination of a fundamental restructuring of the State's industrial base. This transformation has been characterized by the formation of new manufacturing industries, as well as the revitalization of some of Maine's traditional industries. Maine's service sector, too, has gradually moved from a supplier of basic essentials to an array of activities servicing businesses and consumers in and outside the State.

Economic growth in Maine during the 1990's is expected to be more moderate than that experienced during the 1980's. The State Planning Office (SPO) predicts that over the decade, job growth in Maine will slow to an average of about 1% per year, down from the 2.6% annual growth experienced during the 1980's. Significant additional defense cutbacks in Maine, such as the closure of another major facility, could dramatically alter even this modest growth forecast.

Beyond their statewide effects, the impact of defense spending cuts on individual workers, firms and communities will be severe. Like past industrial restructuring, the shift away from defense will be painful. The nature of job growth in Maine over the next several years will not necessarily occur in the occupations or locations held by current defense-dependent workers. Communities dependent upon defense workers, firms and facilities will be hard pressed to replace the tax base and level of service presently supported by defense spending. Firms that have long relied on the steady flow of defense dollars will find themselves seeking new customers in an increasingly competitive market place.

ANATOMY OF THE 1983-89 BOOM COMPONENTS OF MAINE EMPLOYMENT GROWTH



Source: Maine State Planning Office

FIGURE 3

3. ECONOMIC OVERVIEW (FOR THE BATH-BRUNSWICK LABOR MARKET AREA)

A. Introduction

The Bath-Brunswick-Topsham region saw a tremendous increase in its labor force during the 1980's. The driving force behind this growth was Bath Iron Works (BIW). BIW's employment climbed from 5,800, the 1980 annual average, to peak of 11,923 in June 1990. The 1980's were also a decade of increased tourist activity in the state and a time of major construction, especially new housing starts. The labor force for the Bath-Brunswick Labor Market Area (BBLMA) increased by 9,443 employees between 1979 and 1989 (from 22,725 to 32,168). The majority of that increase is attributable to increased BIW employment and other defense related contracts.

The total population of the BBLMA grew by 20% during the 1980's, as compared to 9.1% for the state during this period. The fifteen municipalities of the BBLMA also experienced significant population growth as indicated by the large number of these towns that were involved in the first two rounds of the growth management planning process.

Many of these municipalities increased their facilities and services in response to citizen demand and state mandated requirements. The population of these municipalities must now maintain these new services through taxes and user fees (tipping fees, etc.).

The BBLMA is driven by BIW, a large manufacturing company that is also the major defense contractor in the state. Analysis of the BIW contribution to this economy indicates that the basic raw materials and major components are imported from out of the state. BIW is able to fabricate the majority of its other manufacturing needs in BIW facilities.

Total contract awards from BIW to businesses in the state totals \$183,400,000 (in 1991). The BIW payroll represents an annual injection into the state of \$295,500,000. The employment payroll represents the major dependence factor to the BBLMA and the State of Maine, although the impact of its direct contracts with other Maine businesses should not be underestimated.

The estimated share of BIW's contract activity with other businesses in the BBLMA is \$18,600,000 (approximately 10% of BIW's total contract activity in the state). Again, the biggest direct impact to the LMA will be the lost wages (estimated at over \$102 million in the LMA) and the indirect impact to the secondary and tertiary economies that are driven by these wages.

Brunswick Naval Air Station affects the LMA primarily through the payroll (\$78,000,000) from both the civilian employees and the military personnel. The contracts coming out of BNAS in FY 1992 equaled \$44,700,000 and though smaller than BIW's annual contract activities (\$183,400,000) are still significant to the state and the LMA economy. Other contracts coming directly from the Department of Defense (DOD) into the LMA also affect the economy.

B. General Demographic Trends

The Bath-Brunswick Labor Market Area (BBLMA) grew by 20% between 1980 and 1990 (adding 10,993 new residents), while Maine had a growth rate for the same period of only 9.1% and the U.S. averaged nearly 10%.

The growth rates for the individual municipalities for the 1980 to 1990 period ranged from a low of -4% for the City of Bath to a high of 63% for Arrowsic. The median municipal growth rate was 24% for Georgetown and the mode was 35% for Bowdoin and Topsham.

The average population in both the BBLMA and Maine is older than that of the U.S. The national trend shows the population aging in the past two decades, and both the state and the LMA reflect this trend. The median age in the U.S. increased from 30.0 years in 1979 to 32.6 in 1989. In Maine, the median age increased from 30.4 to 33.9 years, and in the BBLMA from 30.2 to 33.9 years, between 1980 and 1990, respectively.

The median age within the individual municipalities (within BBLMA), based on the 1990 U.S. Census, ranged from a low of 30.6 years for Bowdoin to a high of 37.9 years for Harpswell.

C. Employment

A major indicator of growth in the BBLMA has been the increase in the labor force. The number of residents in the civilian labor force for the BBLMA increased from 22,725 in 1979 to 32,168 in 1989. This represents a 41% increase in the civilian work force, as compared to a 20% increase in population.

A major portion of this LMA's labor force is employed by BIW. BIW has increased employment from an annual average in 1980 of 5,817 to a peak of 11,923 in 1990. An additional historic note: the average BIW employment during the 1970's was 3,661. The present employment levels are being reduced to an anticipated total of 8,500 in the next few years. While all of these workers don't live in the LMA, the vast majority work in the LMA (with the exception of a comparatively small portion working in Portland and other areas). Almost 4,000 employees do live within the LMA. Therefore BIW is the major employment driver for this LMA.

Another major portion of the labor force is working at BNAS. Though the military personnel (3,200) are not counted in the overall work force, they do represent an 9.7% equivalent share of the civilian labor force. They do make significant contributions to the secondary and tertiary economies of the LMA. The civilian work force of BNAS (800) represents 2.4% of the LMA labor force, with over 500 of the total civilian work force living in the LMA.

The BBLMA unemployment rate has been low as compared to surrounding Labor Market Areas' unemployment rates in the last five years (1988 to the present). The recession has brought the unemployment rate closer to the Boothbay Harbor-Wiscasset and Portland MSA Labor Market Areas and the state as a whole. (This represents a shift from a 3.8% unemployment level statewide in 1988 to a 7.5% level in 1991, with the corresponding unemployment level for the Bath-Brunswick LMA of 2.4% in 1988 to 5.3% in 1991).

The potential unemployment contribution from BIW and BNAS indicates the significance of the LMA's dependence on these facilities. The BIW employment working in the BBLMA (9,097) represents 28% of the LMA work force, and the portion of BIW employment living within the LMA (3,958) represents 12% of the total work force. BNAS employs 789 civilians and has 3,184 military personnel assigned to the base. Of those totals, 540 civilians and 2,708 military personnel live within the BBLMA. The civilian work force represents 2.5% of the LMA work force, and 1.7% of the LMA work force living within the LMA. The total military employment represents an equivalent to 9.9% of the LMA work force.

D. Income and Poverty

The residents of the BBLMA as a whole generally had a higher per capita income than that of the state in both the 1980 and 1990 Census.

Median household income in BBLMA municipalities was generally higher than the median household income for the state. The amount of increase was most significant for Arrowsic with \$14,688 in 1979 dollars (1979 State average \$13,816) up to \$36,250 for 1989 (1989 State average \$27,854).

The percentage of persons below the poverty level fell for all of the municipalities and was well below the state average for most of the municipalities.

The demand for general assistance has increased for all of the municipalities in the last five years. These amounts have been impacted by the state's provision of a 50% reimbursement after 1989.

E. Education

Residents in the BBLMA generally have a higher percentage of high school graduates than the state average, with many of the municipalities showing a greater increase in the percentage of graduates between 1980 and 1990.

The educational attainment level of BBLMA residents is higher among the 1989 population than among the 1979 population. The biggest change was in Dresden, where the percentage of persons 25 years and older who completed high school was 62.5% in 1979, but increased to 80.9% by 1989.

F. Economic Structure of the Bath-Brunswick Labor Market Area

The Bath-Brunswick Labor Market Area includes 15 municipalities in 4 counties. Sagadahoc has all of its municipalities except Richmond within this LMA (including Arrowsic, Bath, Bowdoin, Bowdoinham, Georgetown, Phippsburg, Topsham, West Bath and Woolwich). The remaining municipalities within the LMA include: Durham within Androscoggin County; Dresden within Lincoln County; and, Brunswick, Harpswell, New Gloucester and Pownal within Cumberland County.

The BBLMA has experienced phenomenal job growth over the past decade. Between 1980 and 1990 the total number of jobs located in the region grew by 41%, an increase of almost 10,000 jobs. The state's job growth during the same period was only 14%.

While the growth can be attributed to defense-related industry, retail services and tourism, BIW is the major growth contributor. Additional factors include the vendors and subcontractors which service BIW and BNAS. The CCCOG business survey returns indicate that as a result of the recession and earlier BIW cutbacks, many firms have already reduced their employment and are seeking to develop alternative products and services.

Little future growth is anticipated in the large manufacturing firms (employment over 200), in the labor market area. Other sectors of the BBLMA economy including retail sales and services (such as restaurants, motels, etc.) and construction appear, at this early stage of an economic recovery, to have very little growth potential unless there is another major economic upswing.

G. Larger Economic Region and the State

The BIW employment picture has larger implications for the surrounding LMAs and the entire state. BIW employs people from every county in the state and has major facilities in Bath, Brunswick and Portland. BIW has been cutting back employees during the early 1990's and appears to be targeting a new employment level of only

8,500 employees. The planned cutback in employment is occurring during the recession and will continue into the recovery period.

Most of the workers at BIW are in specialized skill positions with little hope of finding comparable employment in other LMAs around the state. The only comparable employer is the Portsmouth Navy Ship Yard, which may be in the same or worse situation than BIW in the next few years. Some workers may possess cross-over skills, which are transferable to "peace industries", but very few such positions are available currently in this LMA or in other parts of the state.

H. Bath Iron Works

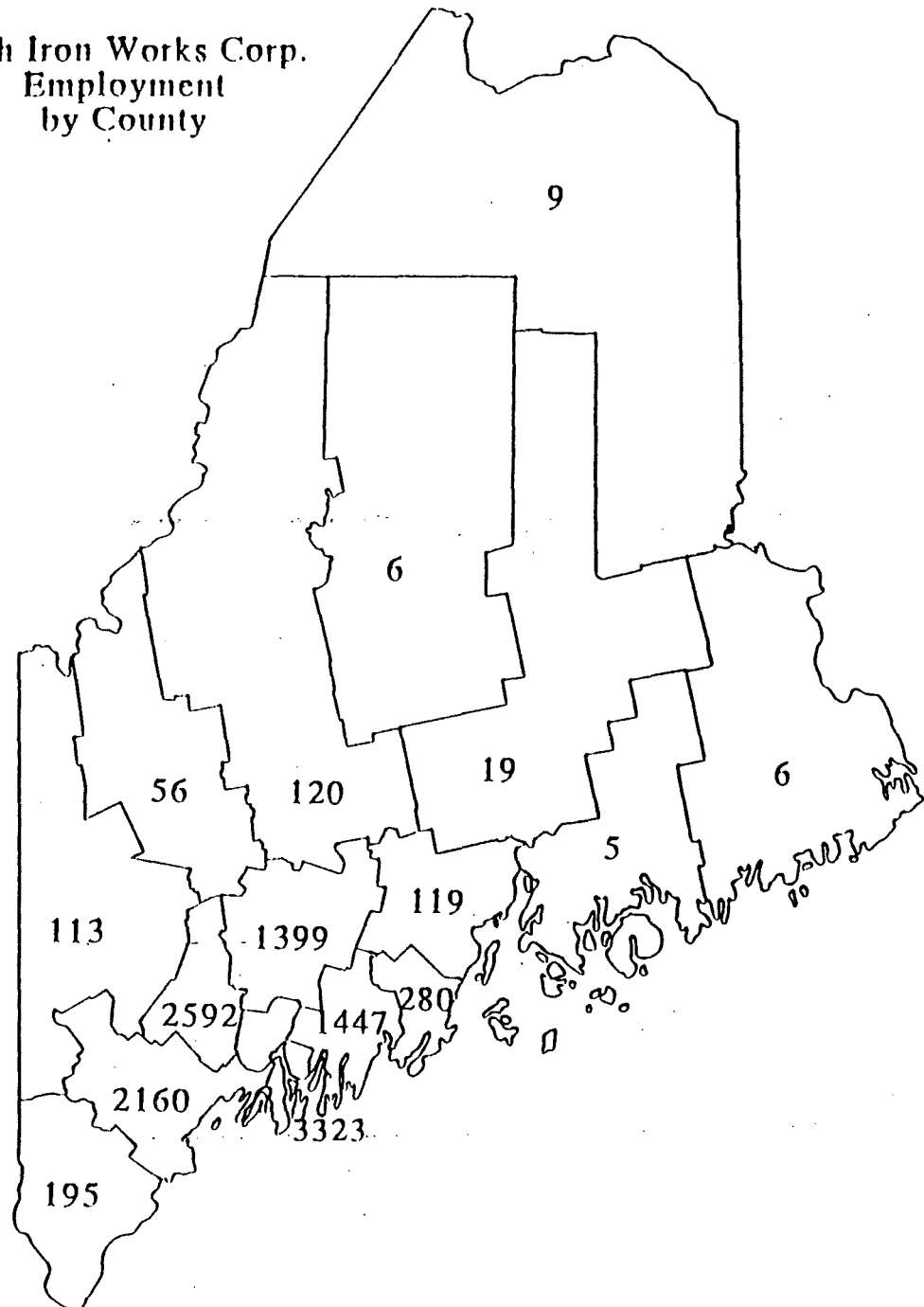
Bath Iron Works (BIW) is Maine's single largest defense activity, and its largest private employer. BIW's 10,000 workers earn wages close to the national industry average, and more than the State average wage. Currently the lead shipyard in the Navy's AEGIS destroyer program, BIW has seen extraordinary growth since the late 1970's, adding over 7,000 jobs in Maine during the 1980's.

A major component of the State and regional economy, BIW provides an annual payroll of over \$300 million to workers largely from communities in Sagadahoc, Androscoggin, Cumberland, Lincoln and Kennebec Counties, as shown in **Figure 4**. In addition, BIW purchases approximately \$60 million worth of goods and services annually from Maine firms. As a result, the defense work at BIW supports an additional 7,700 jobs across the state and generates \$524 million in personal income.

While significant, these estimates underestimate the role that BIW plays in supporting the economic and public infrastructure of mid-coast Maine. As a large purchaser of electricity from Central Maine Power, for example, its absence from the customer base would dramatically increase the cost of electricity to all other users. Similarly, the availability and cost of health, education and other public services to residents of the mid-coast region are directly affected, as well, by the presence of BIW in the Bath-Brunswick area.

BIW reached a peace time employment peak of 11,950 in 1990, driven by the U.S. naval build-up and a confluence of contract work during the last years of the 1980's. The outlook, however, is for a much lower level of defense work over the coming decade. Original procurement plans for five ships per year have been revised downward. Consequently, BIW has announced that it will reduce its work force by up to 2,500 jobs over the next 2 years. The future of BIW, as a defense contractor, rests with decisions by the Department of Defense regarding the character of U.S. national security posture, and the size and composition of America's naval fleet needed to accommodate it.

Bath Iron Works Corp.
Employment
by County



Source: Bath Iron Works Corp.

FIGURE 4

Officials at BIW have concluded that they must build at least two ships per year to remain commercially viable. At present, BIW's position as lead builder of the AEGIS destroyer, and the inclusion of 3 vessels in the Bush Administration FY 1993 budget bode well for the shipbuilder in the short term. However, longer-term prospects rely mightily upon either the continuation of the commitment to a class of warship built by BIW, or the success of the firm in diversifying into commercial markets. Strong international competition in commercial vessel production and foreign subsidies present serious challenges to U.S. commercial shipbuilding. However, a strengthening in future demand for commercial vessels, and expansion into alternative products offers prospects for long term viability of Bath Iron Works.

I. Brunswick Naval Air Station

Brunswick Naval Air Station (NAS Brunswick), located in Brunswick, Sagadahoc County, Maine is home of Patrol Wing FIVE, one of two Patrol Wings on the Atlantic Coast. Reactivated in 1951 in response to a growing Soviet submarine threat, Brunswick's principle task is anti-submarine warfare. They have also been called upon to perform anti-submarine surveillance, mine warfare, search and rescue, and other missions.

NAS Brunswick employs 3,200 military and 800 civilian personnel. In 1989, NAS Brunswick funnelled over \$130 million into the local economy. This included \$118 million in payroll, \$11 million in construction contracts, and \$13.5 million in the purchase of goods and services from local businesses. Through its activities, it supports an additional 1,700 jobs in the Bath-Brunswick area. In addition, the activities and personnel associated with NAS Brunswick are an integral part of the quality of life of the surrounding communities.

NAS Brunswick faces two more rounds of base closure and realignment assessments, in 1993 and 1995. NAS Brunswick is expected to gain an additional squadron in 1993 as a result of the closure of a west coast Naval Air Station. However, the shape and pace of change in superpower relationships remain nebulous, as do America's evolving national security priorities. Consequently, it is difficult to assess how BNAS Brunswick will fare in this process in the coming years. Efforts are underway, by businesses and communities surrounding the Base, to examine the economic importance of BNAS Brunswick to the local economy, explore joint use options, and to prepare for future base closure proceedings.

J. Conclusions

The resistance that the Bath-Brunswick Labor Market Area has shown to rising unemployment rates through most of the 1980's has been neutralized recently by the combination of the recession and the BIW cutbacks. The BBLMA unemployment rate has been low as compared to surrounding Labor Market Areas' unemployment rates in the last five years (1988 to the present). The recession has brought the

4. STRATEGY RECOMMENDATIONS

(FOR THE BATH-BRUNSWICK LABOR MARKET AREA)

The Bath, Brunswick and Topsham Labor Market Area (LMA) is heavily dependent upon the defense industry. The area's two largest employers are Brunswick Naval Air Station (BNAS) and Bath Iron Works (BIW). The economic base beyond these two employers consists predominantly of retail sales and services.

Therefore, the loss or reduction of BNAS and/or BIW will have a significant impact on the area. In addition, the increased demand for community and municipal services will occur precisely at a time when the funding support for services is severely limited. Given this, what steps can be taken to ameliorate the impacts of a potential shut-down or reduction?

The following recommendations focus on short-term (one to five years) actions. In addition, the recommendations are broken into two major subheadings: human capital issues and community and economic development issues.

Economic And Community Development Issues

The area identified in this analysis has historically not been served by the traditional community and economic development mechanisms that exist in other regions in the state. The region is not covered by any Economic Development District (as defined and authorized by the federal Economic Development Administration). This has meant that the municipalities in the area have been unable to access EDA's Public Works funds that support major development infrastructure initiatives, such as airport expansions, industrial development parks, etc. as well as targeted programs that serve an area when a "Sudden and Severe Economic Dislocation" (SSED) occurs.

Although business membership and community civic groups have organized to work on economic conversion and development issues (the Topsham Economic Development Committee, the Brunswick Economic Conversion Task Force, the Bath Economic Development Task Force), the area has no multi-municipal development corporation whose primary function is to develop a strategy to retain and expand businesses in the area as well as to promote the area to businesses outside the region and the state. Nor does the region have access to the resources of a Metropolitan Planning Organization for transportation planning issues, which are critical underpinnings for any development activities in a region.

The lack of an overall economic and community development strategy and organization was not a particular issue during the "boom" years of the 1980's. However, since the recession in late 1989-90 and with the impending defense cuts looming, the lack of a cohesive economic and community development strategy and entity has arisen as a much greater concern.

A major assumption of this report is that the area's best response to potential defense cuts is to diversify its economic base as significantly as possible prior to major defense cuts occurring.

Given the fact that BIW has work at approximately its current level of production until 1997 and that BNAS may be on the base closing list in 1993 or in 1995, the region has between two and five years to be pro-active on its own behalf. Given that in 1992, it is impossible to predict the exact nature of the defense reduction that will impact the area, the majority of the recommendations in this section focus on short-term initiatives.

A. DEVELOPMENT ACTIVITIES

***A.1. INTERIM DEVELOPMENT COMMITTEE:** The development activities outlined below assume that federal, state and local dollars will be dedicated to the establishment of institutional entities (in development and transportation planning). However, as these recommendations are being implemented, the municipalities and businesses within the region should continue to meet as an Oversight Committee to ensure that these initiatives move ahead.*

RECOMMENDATION: Funding should be sought on a matching basis, from the federal, state, and local governments as well as from the business community to provide staffing support to this on-going Oversight Committee (see Development Planning recommendation below).

***A.2. DEVELOPMENT CORPORATION(S):** The area needs to establish a mechanism to promote and enhance community and economic development.*

RECOMMENDATION: The municipalities within the area should create a regional development corporation, serving at least the major three municipalities (Bath, Brunswick and Topsham) in the area and ideally serving as many contiguous communities as are willing to support its functions. (NOTE: A regional or multi-municipal development corporation in no way precludes the establishment of a local development corporation.) This development corporation would be responsible for the creation of a regional development strategy, including: a business retention and expansion component; a business recruitment component; and, coordinating general development activities within the region.

A.3. DEVELOPMENT DISTRICT: *The area municipalities and businesses need access to the federal Economic Development Administration's (EDA) programs.*

RECOMMENDATION: The state and the regional representative for EDA should work to ensure that this region is covered by a development district within the next 18 months.

A.4. EXISTING FINANCING AND SMALL BUSINESS DEVELOPMENT COUNSELING: *Coastal Enterprises, Inc. (CEI) currently provides a range of development-oriented services within the greater portion of the LMA. CEI focuses on "enterprise development in three phases: technical services (such as small business development counseling); financial services (loans, loan guarantees, general financial "packaging"); and, general development services (researching natural resources opportunities, exploring housing needs and opportunities in the midcoast area, etc.).*

RECOMMENDATION: If the municipalities establish a development corporation, the new entity should work with CEI to leverage existing and innovative resources. CEI should be also be encouraged to coordinate its delivery of services through or with the corporation.

A.5. DEVELOPMENT FINANCING: *Public financing options need to be created at the local and regional level.*

RECOMMENDATION: Federal, state and municipal resources should be committed to the creation of public financing mechanisms within the corporation and development district area. The State Planning Office's report to the Task Force includes a recommendation for the establishment of a "defense diversification revolving loan fund", which should be considered for this area. This initiative should be closely linked to the existing local financial institutions (private: banks and credit unions; public: Coastal Enterprises, Inc.).

(NOTE: Some small development corporations in the state have gotten a start on establishing revolving loan funds through the initial donation of properties, which were subsequently sold or leased to prospective new businesses. The funds generated through the sale or lease of property were then put into a local revolving loan pool to be re-used for other prospective business deals.)

A.6. DEVELOPMENT PLANNING: *This short-term study and report has only begun to identify the characteristics of businesses and workers at risk under a defense reduction scenario. It has preliminarily identified some of the consequences of increased demands and reduced resources on the community and municipal services in the area. However, planning and analysis activities should continue concurrent with the development activities outlined above.*

RECOMMENDATION: The State Planning Office should provide "challenge" funding (match for municipal, federal and business funding) for an on-going planning position to staff the Oversight Committee to continue: (a) to analyze the dynamics of the defense situation in the area; and, (b) to assist the Oversight Committee in implementing the initiatives outlined in this report.

A.7. TRANSPORTATION PLANNING: *Transportation modes and corridors are critical to development initiatives. Currently, no transportation regional planning mechanism, which is authorized and funded by state and/or federal transportation department monies, exists in the area.*

RECOMMENDATION: Through the new federal initiative IS-TEA and the new state transportation policies, this area should be designated for regional planning activities, including staff and technology support.

A.8. TRANSPORTATION ALTERNATIVES: *As a part of the transportation planning effort, alternative transportation modes need to be explored and put in place.*

RECOMMENDATION: As a part of the new federal initiative IS-TEA and the new state transportation policies, the Department of Transportation needs to work with the local and regional planning entities to develop and implement alternative transportation modes, such as increased public transportation options (rail, bus, "ride-share", etc.).

B. BRUNSWICK NAVAL AIR STATION

B.1. JOINT USE OF BNAS: *The State Planning Office's report to the Task Force includes a recommendation to conduct a feasibility assessment or implementation of public works improvement to support the joint use of BNAS.*

RECOMMENDATION: The Oversight Committee should work in conjunction with SPO, BNAS and the Economic Conversion Task Force (or a subcommittee of the Oversight Committee) to support this feasibility assessment. A major component of this feasibility study should examine the issue of "fair-market" value and how it will impact the state/municipalities ability to access the facility.

B.2. ENVIRONMENTAL CONCERNS: *A major issue facing many of the other bases that are closing (including Loring) is the degree of environmental clean-up necessary before the facility can be used for other purposes.*

RECOMMENDATION: The state and municipalities should look at the impact of any environmental clean-up on a economic conversion scenario. (NOTE: One positive side-effect may be that Maine businesses will be competitive for the environmental clean-up contracts.)

C. BATH IRON WORKS

C.1. STRATEGIC PLANNING: *The State Planning Office's report to the Task Force includes a recommendation to provide state/federal assistance to the company in its strategic planning process to identify new business opportunities.*

RECOMMENDATION: Any community-driven development strategy should reflect the results of this strategic planning process, including efforts to recruit relevant suppliers, implementing necessary municipal infrastructure improvements and/or enhancements, etc.

C.2. RENTAL/PURCHASE ARRANGEMENTS: *As BIW downsizes, rental and purchase space will become available within the area.*

RECOMMENDATION: The municipalities should work closely with BIW to determine what space will be freed by any downsizing and to develop strategies to recruit alternative business activity to take advantage of these resources.

LONG-TERM

The long-term recommendation can be stated simply: The area needs to have the development infrastructure and strategy in place to attract new business and to retain and expand existing business to minimize the impact of the proposed and pending defense cuts.

Currently, neither the resources nor the institutions are in place to position the region to be pro-actively encouraging economic diversification. And, the strategic recommendations outlined above require the commitment of capital investment on the part of the municipalities, the state and the federal government at a time when capital expenditures are being reduced not expanded. If the area is successful in implementing these short-term strategies, it will be positioned to be pro-active prior to any reduction/elimination of BNAS and/or BIW.

II. HUMAN CAPITAL ISSUES

The major human capital systems (education, training, welfare, housing, etc.) have had difficulty meeting the area's needs during the current recession. The anticipated defense reductions would exceed the impact of the current recession. Therefore, it is reasonable to assume that these systems would be unable to meet the area's citizens needs should BNAS or BIW reduce significantly or close entirely.

***A. UNIVERSITY CENTER:** The area is served by a Bath/Brunswick University Center out of the University of Augusta. This Center currently has several ITV (Interactive Television) classrooms that allow it to serve over 450 students per semester. (It has served approximately this number of students since the ITV capacity came on line in 1989.) The majority of these students are "non-traditional" students, who attend part-time while working or handling other commitments. In addition, the Center currently offers basic career counseling services to any community member, whether s/he take any University courses or not. The Center staff saw several issues arising should BNAS or BIW significantly reduce their presence or shut-down. These issues included:*

A.1. A need for more financial aid to area residents, since many of their students are currently employed by BIW/BNAS or related to someone employed by BIW/BNAS.

RECOMMENDATION: Should BIW/BNAS reduce their employment or shut-down, the State/Federal government should establish a special financial aid mechanism for affected residents/students in the area.

A.2. A need for more ITV Centers to increase access. (The Bath/Brunswick Center is designed to serve a large portion of the upper Cumberland, Sagadahoc and Lincoln communities. It is often difficult for individuals in these communities to get to the Bath/Brunswick Center.)

RECOMMENDATION: The State should establish more ITV Centers in communities throughout the area. Estimated (one-time) installation costs per center: Up to \$10,000 for the communications tower; up to \$3,500 for the VCRs, phone system, general equipment. Estimated (on-going) operations costs: Between \$15,000 and \$35,000, depending on full-time or shared staffing.

A.3. A need for increased career counseling services. If the demand for career counseling from the general community increased, the University Center could not meet this demand. They would probably be forced to limit their career counseling services only to registered students.

RECOMMENDATION: Establish a career counseling mechanism to meet the increased demand (see Rapid Employment Transition Initiative (RETI) Team recommendations, under Human Capital section).

A.4. RELATED ISSUES: The Center staff saw two additional needs that would affect their service population. They anticipated the need for:

- remedial education opportunities (see Secondary Education recommendations, under Human Capital section) and,
- transportation services (see Transportation recommendations, under Community and Economic Development section) for individuals even to access the University Center(s).

B. SECONDARY EDUCATION: The University Center as well as the area's employment and training service provider, Coastal Economic Development Corporation (CED), mentioned the need for the locally based high school systems to become more active in providing adult education opportunities (remedial education as well as introductory technical training) to the communities' residents. The adult education component in Topsham at Mt. Ararat was mentioned as a good model several times.

B.1. RECOMMENDATION: The area municipalities should establish, expand, promote and coordinate the offering of adult education opportunities to area residents.

C. VOCATIONAL EDUCATION: The area is currently served through the State's Vocational Technical Colleges, which are all outside the area (CMVTC in Auburn, SMVTC in South Portland and KVVTC in Fairfield). There is currently a significant waiting list at all of these facilities for the majority of their technical courses.

C.1. RECOMMENDATION: The State Vocational Technical System should continue to coordinate the delivery of targeted vocational training programs through the secondary school facilities or through BNAS or BIW facilities, if appropriate. (NOTE: Research would need to be conducted at the time that the services would be offered to determine which training programs would result in alternative employment opportunities.)

D. COASTAL ECONOMIC DEVELOPMENT CORPORATION (CED): CED is the service delivery mechanism for employment and training services in the LMA. (NOTE: CED's service area covers upper Cumberland, Sagadahoc, Lincoln, Knox and Waldo; however, not all their services are available throughout this service area. For example, upper Cumberland receives its employment and training services through a similar agency based in Portland, the Training Resource Center.) CED provides employment and training services, weatherization services, fuel assistance services, housing services and Headstart services. The majority of the individuals and families receiving these services are low-income.

CED staff saw the demand for their general services increasing dramatically should a BNAS/BIW reduction or shut-down occur. There would be, at a minimum, an increased demand for employment/training services, emergency housing assistance, and fuel assistance.

D.1. RECOMMENDATION: CED should continue to work with BIW on the employment and training issues facing BIW workers laid-off in this transitional period. (NOTE: CED currently receives funding to work with this population; they anticipate those funds being sufficient through summer of 1993.)

D.2. RECOMMENDATION: CED should continue to work with the BNAS military staff displaced by current defense reductions through the TAPS program. (See Job Service recommendations below for details on the TAPS program.)

D.3. RECOMMENDATION: CED should continue to work with the state and federal Departments of Labor to bring employment and training funds into the area as the need occurs.

E. MAINE JOB SERVICE: The Job Service helps individuals seeking employment. They interview individuals to assess their skills and try to link them with available job openings. They also work with employers to identify available employment opportunities. The Bath/Brunswick office, which serves the entire LMA, has four staff. This year they saw over 6,000 individuals and listed over 900 jobs. The Job Service staff saw a number of issues related to a BIW/BNAS reduction or closure.

E.1. A need to develop a more balanced base of employment in the area. The Job Service Office often sees very high pay, high skill positions or low pay, low skill positions, but there are very few middle level (skills and wages) positions in the area.

RECOMMENDATION: Work to expand the area's economic base; offer incentives to do business in the state and the region. (See also economic and community development section.)

E.2. A need to continue and/or expand the TAPS program. TAPS (Transition Assistance Program) is a pilot program between the federal Department of Labor (DOL) and the Department of Defense (DOD) designed to "furnish employment and training information and services to members of the Armed Services within 180 days before such members are separated from the Armed Services". This pilot program is currently being offered at BNAS and utilizes staff from BNAS, Job Service and CED.

RECOMMENDATION: The state should advocate that this federal pilot program be institutionalized in the case of base closures. Resources (funding and staff) should be provided to underwrite the TAPS activities. (Currently, services are provided through existing Job Service staff.)

E.3. A need for career counseling. Currently, the Job Service Office does not have a career counselor on staff, although the staff in the office have experience providing basic career counseling.

RECOMMENDATION: Establish a career counseling mechanism to meet the increased demand (see Rapid Employment and Training Initiative (RETI) Team recommendations, under Human Capital section).

E.4. A need for increased staffing should BIW/BNAS reduce/close. The Office staff can serve between 5,000 and 7,000 applicants in a year. They would anticipate a much greater demand under the BIW/BNAS reduction/closure scenario. Although they are implementing new approaches (such as "touch screen" technology, where an individual, once interviewed, receives a card with a bar code that matches his/her skills to existing job opportunities without staff assistance), they would still be tremendously stressed. At the state level, DOL is instituting "floating staff" positions that could be available to local offices to cover local staff absentees (such as extended sick leave or vacation) and might be available on a "crisis" basis.

RECOMMENDATION: The state should expand the Bath/Brunswick staff levels, if necessary to respond to the increased demand. (NOTE: The Training Resource Center, which provides employment and training services in Cumberland County, has just received funds to base a job counselor at the Maine Job Service Office in Brunswick three days a week. The job counselor will work primarily with individuals laid off at BNAS and Pineland Institution.)

F. 'RETI TEAM' MODEL: Nationally and in the state, the Department of Labor (DOL) has developed a Rapid Employment and Training Initiative to meet the needs of the workers displaced by business closures. This model brings together vocational training, remedial education, employment training, welfare assistance, unemployment services, and other human resources institutions at the community and state level to work as a team to meet the needs of the displaced worker. This model serves to coordinate the delivery of these diverse services to the displaced worker in a timely and efficient manner.

F.1. The area needs a mechanism to coordinate the delivery of human resources services to displaced workers.

RECOMMENDATION: A standing "human resources" Committee for the area should be established. This Committee should have a representative from every organization that serves individual clients in the human services area. This Committee should have at least two members to serve on the parallel Oversight Committee (see Community and Economic Development section). The purpose of the Committee should be to enhance the delivery of services through the coordination of those services. (NOTE: United Way, in conjunction with the Cooperative Extension Service, has recently initiated a meeting to explore the feasibility of establishing such an on-going communications/coordination vehicle.)

F.2. The area needs to consolidate the delivery of human resources services.

RECOMMENDATION: The human services delivery organizations should strive to develop a "one-stop" shop for individuals and families needing their services. Everything from employment and training to career counseling to health and welfare assistance should be available through this "one-stop" shop. (NOTE: There has been some discussion of using the Bath hospital site when vacated to serve as the "one-stop" site.)

F.3. The State Planning Office's report includes a recommendation that defense adjustment career centers be established in defense-dependent areas to provide one-stop service brokering for defense workers.

RECOMMENDATION: The Bath, Brunswick and Topsham area should support the establishment of these centers and one of these centers should be located in this area.

F.4. It appears that the needs of the "displaced" worker are different from the "disadvantaged" worker. The characteristics available on the workers laid off from BIW (that sought services through an employment and training center) indicated that the majority (over 93%) had a high school degree or better; were typically (over 83%) between the ages of 22 and 44; and, were male (over 82%). These characteristics preliminarily would suggest that the programs to meet their needs be designed and implemented differently from traditional training programs.

Also, there is a need to track the information from a "company" perspective as well as from an "agency" perspective. For example, of the ± 800 workers laid off from BIW over the past year or more, only 120 received services from CED. CED can only "track" the individuals who work with their agency. Consequently, there is no integrated mechanism for "tracking" what happens to all the individuals laid-off, nor for ensuring that these workers are receiving the assistance that they need to find new employment.

RECOMMENDATION: Whatever long-term approach is developed to address the needs of the dislocated worker, the approach should reflect a consistency of response on a company basis as well as on an individual worker basis.

LONG-TERM

Unlike the community and economic development situation in the area, the human capital institutions are in place. The major issues are additional resources (funding and staffing) and coordination of those resources.

At a time when the demand for human services resources will be significantly increased, the ability to fund those services will be reduced. For example, the MidCoast United Way, which funds over 40 organizations from daycare to counseling, receives almost 50% of its funds from BNAS and BIW contributions (corporate and employee). Without the infusion of significant state and federal funds, the region will not be able to respond to the human capital needs created by a major defense reduction.

5. CONCLUSION

This report represents only a first step in a complex process to assess the impact of defense spending on the Bath, Brunswick and Topsham region and to recommend initial action steps to address that impact. As the strategy recommendations indicate, economic diversification in an area that has traditionally been focused on one or two major businesses and/or facilities will require the commitment and participation of a number of actors: federal, state and local government; human services organizations; community and economic development organizations; and, last but not least, the businesses in the region.

Any crisis also implies an opportunity. There is an opportunity for the municipalities and the businesses in the region to work together in new ways to achieve economic prosperity. But the opportunity depends on the area's ability to stay on top of the changes in federal defense policy and its impact on the area; on local and state governments' ability to clearly identify their objectives and to coordinate the delivery of limited resources; and, on businesses' ability to create and maintain competitive niches in the area, in the state as a whole, and in an increasingly national and global business environment.

This is no small task, but the initial efforts of the citizens, municipal officials and business leaders are a strong start to addressing the challenge of keeping the Bath, Brunswick and Topsham area a good place to live, work and do business.

6. APPENDIX

A. Bath-Brunswick Labor Market Area

B. Oversight Committee Membership List

C. Defense Reduction Scenarios

D. Business Survey Summary

APPENDIX A.

Bath-Brunswick Labor Market Area (BBLMA)

Androscoggin County

- Durham

Cumberland County

- Brunswick
- Harpswell
- New Gloucester
- Pownal

Lincoln County

- Dresden

Sagadahoc County

- Arrowsic
- Bath
- Bowdoin
- Bowdoinham
- Georgetown
- Phippsburg
- Topsham
- West Bath
- Woolwich

APPENDIX B.

Bath-Brunswick-Topsham Oversight Committee

Duncan Ballantyne, City Manager, Bath

David Brown, Business Representative, Topsham

Dan Calderwood, Town Councillor, Brunswick

Herbert Caverly III, City Councillor, Bath

Larry Cilley, Town Manager, Topsham

Charles Crosby, Board of Selectmen, Topsham

Keith Citrine, Greater Bath Chamber of Commerce, Bath

Mathew Eddy, City Planner, Bath

Frank Flori, Town Planner, Topsham

Karla Gagnon, Business Representative, Bath

Donald Gerrish, Town Manager, Brunswick

David Gleason, Business Representative, Brunswick

Don McKissock, Business Representative, Topsham

Amy Naylor, Town Planner, Brunswick

Julle Phillips, BIW Representative, Bath

Ron Phillips, CEI Representative, Wiscasset

Wanda Plummer, Greater Brunswick Chamber of Commerce, Brunswick

Arthur Shean, Board of Selectmen, Topsham

Dana Totman, CED Representative, Bath

Charles Tibbetts, City Councillor, Bath

Charles Wiercinski, Town Councillor, Brunswick

H. Michael Wilson, BNAS Representative, Brunswick

APPENDIX C.

DEFENSE REDUCTION SCENARIOS

Assumptions

BIW

- The research and data collection from this project indicates that the BIW employment profile is unique in its importance to the labor market area as well as the state.
- Given the specialized job classifications within BIW, it must be assumed that in a total lay-off situation, only 20% of the work force could be assimilated into other comparable jobs in Maine.
- The majority of BIW "raw" material needs (sheet metal, engines and other major components) come from outside the state.
- The estimated total contract revenues from BIW to businesses in the state represents \$183,439,917 (in 1991). The BIW payroll represents an annual injection into the state of \$259 million. The employment payroll represents the major dependence factor to the BBLMA and the State of Maine, although the impact of its direct contracts with other Maine businesses can not be underestimated.
- The estimated share of BIW's contract activity with other businesses in the BBLMA is \$18,656,750. Again, the biggest direct impact to the LMA will be the lost wages (estimated at over \$102 million in the LMA) and the indirect impact to the secondary and tertiary economies that are driven by these wages.
- The Bath-Brunswick business survey returns and follow-up contacts indicate that some of the BIW contract activities have been on hold for the last few months to a year, due to BIW's waiting on contract announcements and other internal situations. Many of these businesses have been forced to find other contracts to supplement their revenue needs. The BIW contract revenues to area suppliers and/or vendors do not appear to represent a major portion of most individual businesses' revenues, although a couple of the contracts do represent a significant majority of the individual business' total revenues.

- The effect of the lost BIW wages on the secondary and tertiary economies within the LMA was determined by a base multiplier for the BIW employees living in the LMA and a modified (reduced) multiplier for the BIW employees working in the LMA, but living elsewhere, who purchase services and retail commodities in the LMA. These scenarios use a theoretical base multiplier of 1.74, as a surrogate economic base factor. BIW is an industry that manufactures a product, U.S. Navy ships, that are for a market outside the BBLMA. The multiplier, 1.74, means that for every single worker in a basic industry (like BIW) an equivalent .74% of a worker in a non-basic sectors is required to support that basic activity.

BNAS

- The naval air station has 789 civilian employees (540 or 68% living within the LMA) and 3,184 military personnel (2,709 or 85% living in the LMA).
- The civilian employee portion of the facility represents 2.4% of the BBLMA work force. The major problem associated with their displacement from BNAS is the increase in employment supply over demand in the event of a severe layoff or base closure.
- The BNAS military personnel represents a employed work force equivalent of 3,184 workers or a 9.7% income flow into the BBLMA economy for purchases of food, shelter and other goods and services. Their removal, combined with the civilian employment dislocation, would create a very serious impact.
- The BNAS has an annual payroll of \$78,000,000 and pays out almost \$45,000,000 annually for other goods and services to support the facility and its operations.
- The housing factors are significant to the BBLMA as 85% of the military personnel live within the LMA. Those living on-base include 575 individuals in enlisted personnel quarters and an estimated 826 personnel and families on-base. The remainder of the military personnel rent or own homes in the LMA.
- There are additional factors involving other support services that retired personnel depend on for base services. Some of these factors would net positive gains in outside employment (off-base) gains, if the retired individuals and families did not relocate to another area or state, near another military base.
- The BNAS property has potential alternative uses in the event of a base closure. The base has three main components, including the housing areas. The main base portion, with its runway and other major facilities, represents a significant

amount of land area in the Town of Brunswick. These facilities could provide for significant future industrial and commercial options in this area. The runway also gives Brunswick some options for a regional airport facility in the future.

- A theoretical base multiplier for this study is based on Federal Government (Military and Civilian) multipliers and equals 1.51 and 1.50, respectively. (A reminder that these multipliers for BIW and for BNAS are surrogates from other areas and studies and serve only for theoretical comparisons to provide some magnitude of employment displacement.)

Scenario 1: BIW closes down and BNAS maintains its present status

Under a BIW shut-down scenario, there would be approximately 8,500 employee layoffs involved, based on the short-term employment level BIW should reach in the next two years. Of that total number, approximately 3,350 will live within the BBLMA.

The direct impact to the BBLMA of a BIW closure would represent a 26.4% unemployment rate. This rate estimates only the direct impacts of BIW workers being laid-off and is based on the 1990 BBLMA labor force participation rates. Estimates show some of the municipalities in the LMA with unemployment levels as high as 33% (Bowdoinham) to several other towns, such as Dresden, West Bath and Woolwich, with unemployment rates in the low 20%.

If the theoretic multiplier effect, for the 8,500 BIW workers, were added to the direct impacts, then an additional 6,289 workers would be displaced in other secondary and tertiary sectors throughout the state. The secondary and tertiary impact factors within the BBLMA would be shared with the rest of the State, since 60% of the workers live outside of the BBLMA.

The BBLMA share of these factors would be at least 2,478 displaced workers, but there would be additional impacts for those service and other sectors supporting the remainder of the workers living outside the LMA. The BBLMA has probably provided the majority of the industry support requirements and other BIW employees needs for "after hours" goods and services. A conservative estimate of these impacts within the LMA might be 4,000 secondary and tertiary employees in other sectors displaced by the BIW closure within the BBLMA.

The combined impacts of the BIW employees (8,500) being laid off and the additional secondary and tertiary employment losses (4,000) provides for a total unemployment figure of 12,500 jobs, or 38.8% for the BBLMA, added to the unemployment rate of that period.

An estimate of the secondary and tertiary effects of such an event would mean a reduction of at least 25% of total business revenues for all or most of the retail and

service sectors in the BBLMA, based on the returns of this study's business survey. Some of these returns may be thought of as underestimating the support of BIW workers and dependents and other economic factors of BIW's operation to the BBLMA economy.

Scenario 2: BNAS closes down and BIW maintains a Level of 8,500 Employees

Under this scenario, BIW maintains its current projected employment level of 8,500 workers while BNAS closes down. The impact of the direct civilian lay-offs would generate a BBLMA unemployment level of 2.4%. The displacement of the military personnel would not directly affect the BBLMA unemployment rate, but the multiplier effect would impact other civilian workers.

The effect to secondary and tertiary employment from the 789 civilian employees laid off would be an additional 395 employees laid off in the state. Again, as outlined in Scenario 1 above, since 68% live in the BBLMA, most but not all of those impacts would be within the LMA.

The effect to secondary and tertiary employment from the displacement of the 3,184 military personnel would be an additional 1,624 civilian workers laid-off in the state. Since 85% live in the BBLMA, most of these impacts would be within the LMA.

If a conservative approach were applied to this theoretical impact where only the secondary and tertiary impacts were computed for both civilian and military living in the BBLMA, then the total unemployment from a BNAS closure would be as follows: Direct displacement of 789 civilian employees, plus an additional 269 civilian employees (civilian employee multiplier effect), and an additional 1,380 civilian employees (military multiplier effect). This would mean a total civilian unemployment level of 2,438 employees, or 7.6%.

Scenario 2 would probably allow more of lead time to adjust to its ultimate effect and there are (currently) more federal programs to mitigate the impacts of a military base closure. A longer phasing out process (five years or more) and the nature of the physical location of the component parts of the BNAS allows for more options for reuse than Scenario 1 or the BIW properties allow.

Another factor is that the Cook's Corner area of Brunswick is a burgeoning regional retail and commercial center and that area is now somewhat restricted due to its close proximity to BNAS. There may be some more immediate commercial development options in that area. An additional factor is the new Topsham bridge, which will be located with an entrance ramp on to Old U.S. Route #1 that could also serve as a new entry point to the BNAS property, if the base were to be used as a regional airport or for other commercial/industrial activities.

The BNAS housing areas in Brunswick and Topsham might provide the opportunity to convert military housing into low and moderate income housing. BIW may be able to use some of the properties depending on their future outlook at that time.

Scenario 3: Both BNAS and BIW close

This scenario combines the impacts of both Scenario 1 and 2. This scenario's combined unemployment would involve the displacement of 9,289 civilian employees from the BBLMA and the removal of 3,184 military personnel from their contributions to the LMA's economy.

The effect of these employment factors on the secondary and tertiary economies would cause an additional 6,195 civilian employees to be unemployed. These numbers assume the same theoretical conditions as outlined in Scenarios 1 and 2. The combined direct and secondary and tertiary unemployment would represent a 48% unemployment rate.

All of the separate impacts stated in the above Scenarios 1 and 2 would apply to this scenario.

Scenario 4: BIW reduces their workforce to 6,000 workers with BNAS maintaining its current status.

This variation assumes a viable commercial shipbuilding alternative to supplement any severe cuts in military contracts, but not the complete elimination of military contracts. This BIW employment figure is between the currently projected 8,500 employment level and the lower employment levels of the 1970's (approximately 3,600). This scenario assumes an additional reduction in the BIW work force of 2,500 employees. A workforce reduction of 29% might also require a reduction in the number and type of facilities that BIW now operates.

BIW has laid off 826 workers in the last two years. Using information on these employees and their place of residence as a basis for this scenario, it could be assumed that 30.5% or 762 of the 2,500 additional laid-off workers will be residents of the BBLMA. The simple application of the multiplier used in the above scenarios would indicate another 564 employees displaced in the secondary and tertiary economies of the BBLMA. This would have an impact on the unemployment rate for the BBLMA of an additional 4.4% (or a total of 1,426 workers laid off), beyond whatever the base level was at that time.

The timing of this reduction, and the possibility of having a longer period of time to reduce the employment levels through early retirement and other means, would mitigate these impacts.

APPENDIX D.

Defense Dependency Business Survey Summary

The business survey, conducted in conjunction with the Bath and Brunswick Chambers of Commerce, was the major data collection activity in addition to compiling existing state and local data. The business survey was mailed to 691 firms, primarily the members of the Bath and Brunswick Area Chambers of Commerce. This mailing was augmented by the addition of the 38 major contractors and/or suppliers to BIW, if the businesses were not members of either of the Chambers. The survey was also published in the Coastal Journal, on June 9 & 10, 1992 (in the both Brunswick-Topsham and Bath-Waldoboro Issues).

There were 141 total respondents from both mailed surveys and the survey published in the Journal. 128 of these respondents were returned from the mailed surveys, an 18.5% return.

Overview

(Please refer to the sample questionnaire for the specific questions.)

1. **(BUSINESS TYPE)** The 141 respondents represented a wide variety of business types with retail operations being the highest percent of return (23.3%). Other areas of general business returns included Professional Services, Hotel/Motels, Real Estate, Medical Services, Restaurants, Construction, Insurance, Personal Services and Miscellaneous Repair, and Auto Repair.

The Industrial (manufacturing) respondents numbered 16 total, with the most returns (6 responses) from SIC code 51 (Wholesale Trade-Nondurable Goods). Other Industrial product categories included Food, Textile, Furniture and Fixtures, Printing and Publishing, Chemicals, Fabricated Metal, Industrial and Commercial Machinery, Electronic and Other Electrical Equipment.

2. **(DIRECT CONTRACTS; Question #1)** Sixty-six percent of the respondents had some type of direct contract with BIW, BNAS or other federal government agency contracts (Postal Service, federal medical subsidies, etc.). These business contracts were almost evenly split between BIW (41.6%) and BNAS (38.6%), with other federal contracts getting the remaining 19.8%.

3. **(PERCENT REVENUES; Question #2)** The question concerning the percent of total revenues from direct contracts had responses from 96 (68.1%) of the total businesses. 88.5% of the respondents had less than 25% of their total revenues derived from direct contracts to BIW, BNAS or other federal agencies or programs. The individual

responses reported included 64 (66.6%) with revenues of between 0 and 10%; 21 (21.9%) respondents with revenues between 11 and 25%; and, the remaining 11.5% were reported with more than 26% revenues derived from federal contracts and were sparsely spread out between the remaining categories: 5 responses for 26-50%, 4 responses for 51-75% and 2 responses for over 75.5%.

4. **(INDIRECT CONTRACTS; Question #3)** There were 82 (58.2%) respondents answering the question concerning indirect defense contracts or business through other direct contracts. Of that total, 35 (42.7%) were indirect contracts related to BIW, 26 (31.7%) related to BNAS and 21 (25.6%) related to other federal contracts.

5. **(PERCENT REVENUES; Question #4)** The percent of revenues derived from these indirect contracts had a high correspondence to that of direct contracts: 87% of the respondents had revenues from indirect contracts representing less than or equal to 25% of total revenues. Again, the highest category was 0 to 10%, with 61 (70.9%) respondents; 16 (18.6%) of the respondents in the 11 to 25% category; and, the remaining 10.5% for the next three categories.

6. **(SERVICE TO BIW/BNAS EMPLOYEES/DEPENDENTS; Question #5)** 137 (97.3%) respondents answered the question related to serving BIW and/or BNAS employees or dependents. The array of categories was again weighted to the lower percentage categories, but not as heavily in the preceding questions. The responses were: 57 (41.6%) at 0 to 10%; 37 (27%) at 11 to 25%; 30 (21.9%) at 26 to 50%; 11 (8%) at 51 to 75%; and 2 (1.5%) for more than 75%. The business activity related to services to the employees or dependents of BIW and/or BNAS represented a fairly high per cent of the respondents total business activity and shows a higher percentage than many of the direct or indirect contract sources, above.

7. **(NUMBER OF EMPLOYEES; Question #6)** The size of the companies responding to the survey weighted to the smaller companies, with 69 responses (48.9%) with less than 5 employees and 31 responses (22%) with between 6 and 15 employees. Over 70% of the respondents had 15 employees or less. Only 16 responses (11.3%) indicated having more than 50 employees. In the remaining categories, 8 responses (5.7%) indicated 16 to 25 employees and 17 responses (12.1%) indicated 26 to 50 employees.

8. **(TYPE OF WORKER MIX; Question #7)** The responses to the question about the worker mix in the business reported a worker mix of: 27.1% -- "Minimally skilled"; 43% "Semi-skilled"; and, 29.9% "Highly skilled". The responses to this question suggest some confusion since the terms minimally, semi-skilled and highly skilled were not defined.

9. **(HIRING TRAINED WORKERS; Question #8)** 114 responses (89.1%) indicated that they were able to hire the trained workers the business needed.

10. **(GROSS ANNUAL REVENUES; Question #10)** Two-thirds of the respondents (94 responses/66.7%) completed this question. 63 of the number responding (67%), had gross annual revenues over \$250,000; 40 responses (42.6%) indicated revenues over \$500,000; and 26 responses (27.7%) indicated revenues of over \$1,000,000.

11. **(PERCENT TOTAL REVENUES; Question #11)** Thirty-six respondents (25.5%) reported on the percentage of their total revenues related to direct contracts, with 83.3% of those reporting direct contracts as 25% or less of their total revenues. Thirty-six respondents (25.5%) reported on the percentage of their total revenues related to indirect contracts, with 75% of those reporting indicating indirect contracts as 10% or less of their total revenues. Eighty-six respondents (61%) reported on the percentage of their total revenues related to service to BIW/BNAS employees and dependents, with 81.4% indicating service to BIW/BNAS employees and dependents as 50% or less of their total revenues. These results indicate a heavier reliance among the respondents on serving BIW/BNAS employees and dependents, than on direct or indirect contracts to BIW or BNAS.

12. **(EMPLOYEE GROWTH; Question #12)** 128 (90.8%) respondents answered the question regarding projected employee growth over the three years. 68 respondents (53.1%) saw no change in their employment level. 58 respondents (45.3%) projected an increase in their employment level. Only 2 respondents (1.6%) indicated a decrease in employment level.

13. **(NEW PRODUCTS/SERVICES; Question #13)** In response to the question on whether the business is developing new products or services to reduce their reliance on defense industries, 116 (82.3%) responded in the negative and 39 (33.6%) responded in the affirmative.

14. **(ALTERNATIVES; Question #14)** The next question referred as to what a business would need to pursue a product or service alternative. Of the 39 responses (some had multiple responses), 21 needed "additional financing"; 13 had "new equipment" needs; 13 had "employee training" needs and the remaining 19 responses fell into the "other" category. The most often repeated "Other" listed was marketing, with 11 respondents.

15. **(PROBLEMS; Question #15)** The next question inquired as to any problems that might be expected in getting the alternative supporting requirements (referencing Question #14 above), 27 responses indicated they did not anticipate a problem and 13 did anticipate a problem.

16. **(FOLLOW-UP; Question #16)** The final question asked if the respondent would be interested in a follow-up call or visit for more information, and only 15 (12.9%) were interested in any follow-up.

Survey Conclusions

While the survey was not comprehensive in the extent of the businesses in the area nor in the number of surveys returned, the return was as high or higher than previous business surveys conducted in the area. There appeared to be some discernable trends in the results.

- Not surprisingly, 66% of the businesses surveyed had a direct dependence and 58.2% had an indirect dependence on BIW, BNAS or other federal contracts. What is perhaps more surprising is that the majority of these respondents (over 88% direct and over 89% indirect) reported less than 25% of their total annual revenues dependent on these sources.
- The majority of the firms that responded (70.9%) had 15 or less employees, which reflects the state-wide trend of approximately 85% of the businesses in the state having 20 or less employees.
- The skill levels of the respondent's businesses and their general lack of problems in finding suitable employees was surprising, although the questions' wording may have caused some problems.
- Another surprising answer was that 98.4% of the businesses responding indicated that they saw no change or an increase in employment in the near future (next three years).
- The business "mix" of the survey respondents had the greatest majority 130 responses (92.2%) in the non-manufacturing sectors. Although follow-up calls were made to manufacturing businesses, this ratio does not accurately reflect the business mix in the area.

(Business survey sample and charts follow.)

Defense Dependency Survey

All information provided in the following survey will be kept entirely confidential.

The purpose of the survey is (1) to determine the economic impact of federal defense budget cuts in the greater Bath, Brunswick, and Topsham area as well as in Sagadahoc/Kennebec counties, and (2) to identify the needs of employers and employees that are dependent on defense dollars. Local, regional and statewide strategies will be developed to assist those affected by proposed defense industry cuts. Data from this survey will be collated, processed and presented in a document to the Maine State Planning Office and the U.S. Economic Development Administration. A copy of a final report on this analysis will be made available to anyone responding to the survey (by late summer).

Firm Name: _____ **Date:** _____

Contact Person : _____ **Phone Number:** _____

Address: _____ **City/Town** _____ **Zip:** _____

Type of Business: _____

1. Is any part of your business a result of direct contracts with: (Check all that apply)

____ BIW ____ BNAS ____ other federal government contracts

2. What percentage of your total business revenues are related to these contracts. (Check one)

____ 0-10% ____ 11-25% ____ 26-50% ____ 51-75% ____ over 75%

3. Is any part of your business a result of indirect defense contracts (through another business):

____ BIW ____ BNAS ____ other federal government contracts

4. What percentage of your total business revenues are related to these contracts.

____ 0-10% ____ 11-25% ____ 26-50% ____ 51-75% ____ over 75%

5. What percentage of your business serves BIW and/or BNAS employees or dependents?

____ 0-10% ____ 11-25% ____ 26-50% ____ 51-75% ____ over 75%

6. How many employees are currently employed in your company (all locations)?

____ under 5 ____ 6-15 ____ 16-25 ____ 26-50 ____ over 50

7. What type of worker mix does your business require?

____ % Minimally skilled employees (minimum education or training).

____ % Semi-skilled employees (some education or specialized training).

____ % Highly skilled employees (highly technical skills or advanced degrees).

8. Are you able to hire the trained workers you need?

____ Yes

____ No

9. Please list the types of employees your business employs (secretary, sales rep, welder, etc.)

a. _____

d. _____

b. _____

e. _____

c. _____

f. _____

10. Please indicate your business' gross annual revenues (OPTIONAL).

____ \$25-75,000

____ \$75-150,000

____ \$150-250,000

____ \$250-500,000

____ \$500-1 million

____ over \$1 million

11. Please indicate what percentage of your total revenues are related to:

____ direct contracts with BIW, BNAS, or other federal contracts

____ indirect contracts with BIW, BNAS, or other federal contracts

____ serving BIW, BNAS employees or dependents

12. What are the projected total number of employees (all locations) in the near future?

____ 1993

____ 1994

____ 1995

13. Are you developing new products or services to reduce your business reliance on defense related contracts?

____ Yes

____ No

14. Will the alternatives require (Check all that apply):

____ additional financing

new equipment

____ employee retraining

other; list: _____

15. Do you expect any problems addressing the steps outlined in Question 14? Please explain.

16. Would you be interested in a follow-up call or visit to provide more information on reducing defense dependency in your business?

____ Yes

____ No

THANK YOU!! If you have any questions or concerns about this survey, please contact: David Allender at (207) 622-7146.

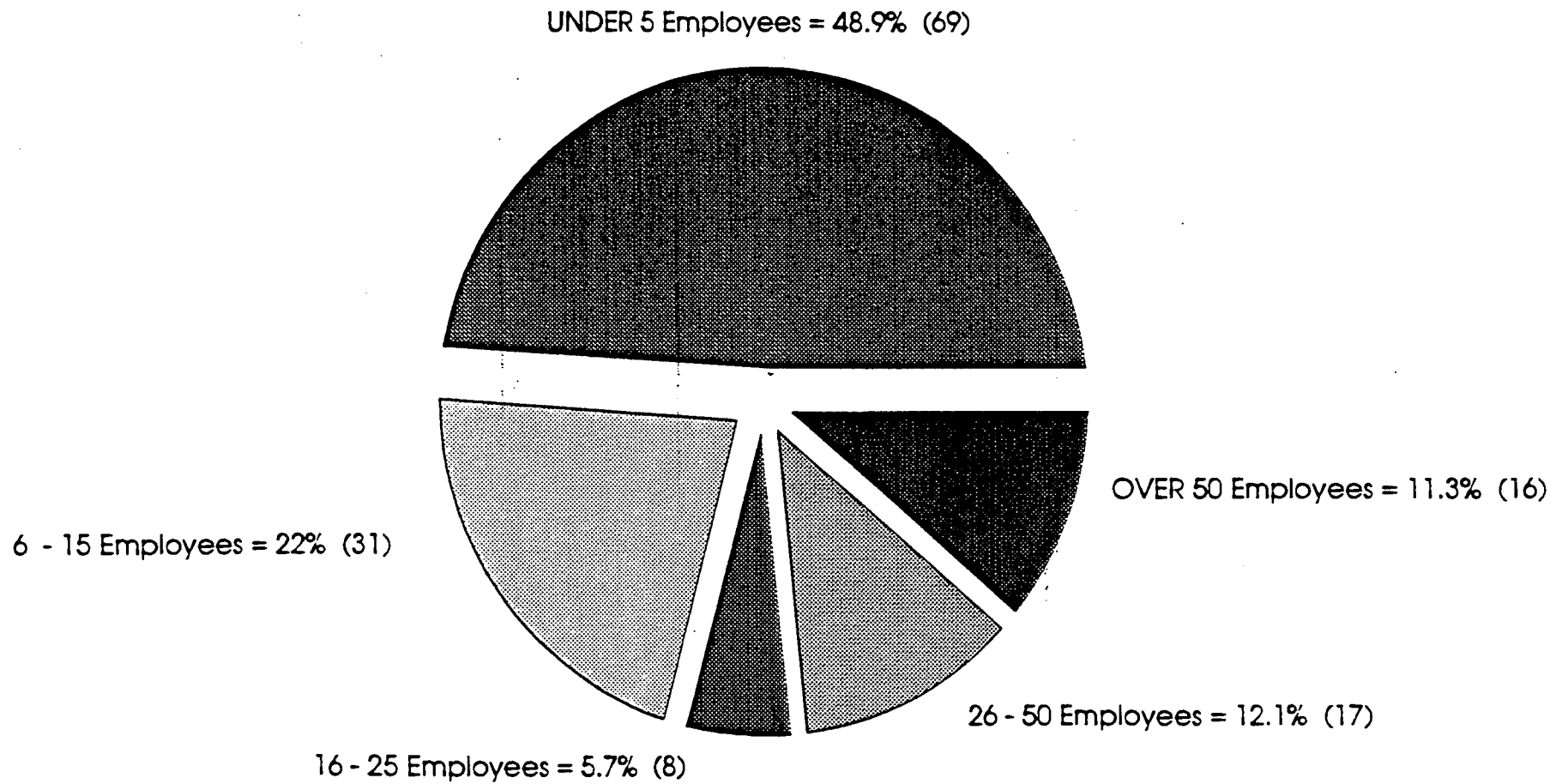
Return survey to:

Capital Coastal Council of Governments

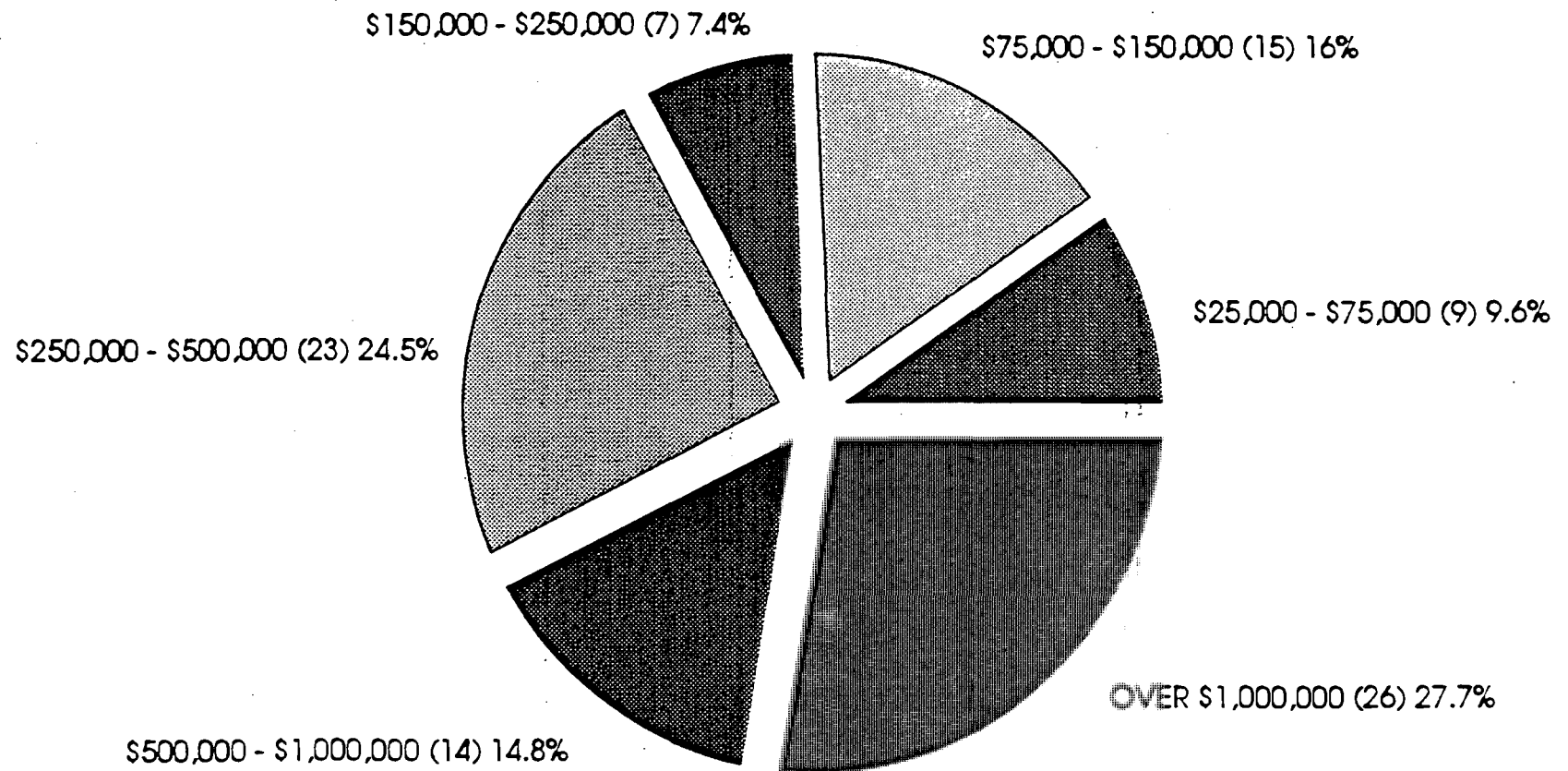
89 Western Avenue

Augusta, ME 04330

Defense Dependency Analysis for the Bath, Brunswick, Topsham Area
Number of Employees of Business Survey Respondents



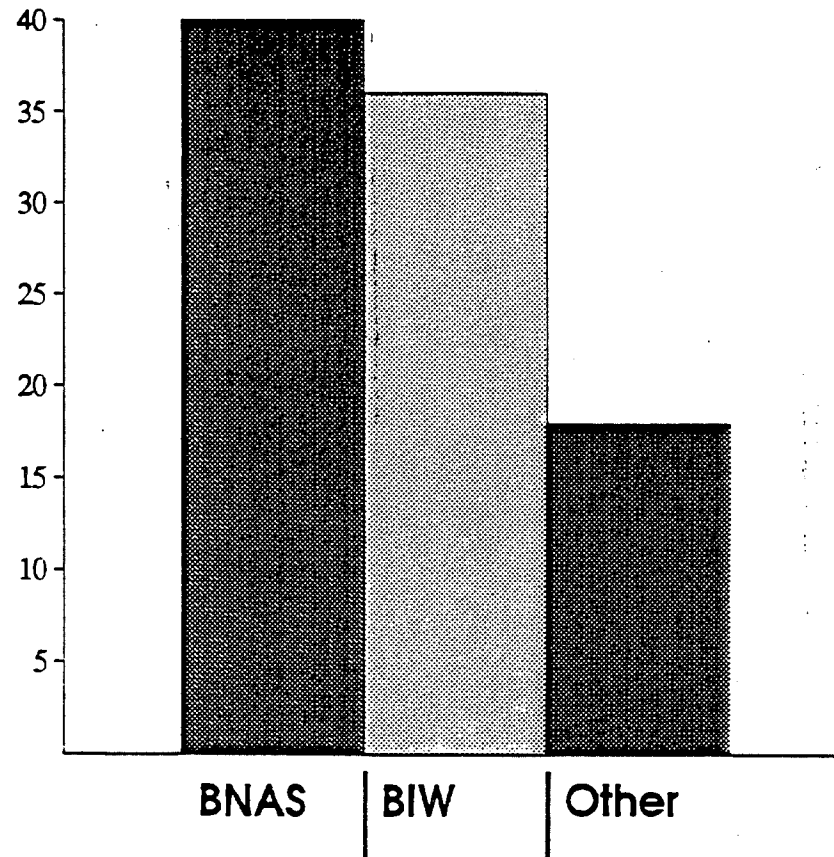
Defense Dependency Analysis for the Bath, Brunswick, Topsham Area
Total Annual Revenues of Business Survey Respondents



NOTE: 141 respondents; 66.7% (94) provided revenue information; 33.3% (47) did not.

Defense Dependency Analysis for the greater Bath, Brunswick, Topsham Area

Number of Business Survey Respondents with Direct Defense Subcontracts



NOTE: 141 respondents; 94 (66.7%) responded to this question

Defense Dependency Analysis for the greater Bath, Brunswick, Topsham Area

Defense Related Activities of Business Survey Respondents

