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Buffalo Comes in from the Cold War: The Consequences for Communities and Firms of Defense Budget Cuts*

SAM COLE**
BLAKE STRACK***

This paper reviews the economic effects of pending cuts in defense expenditures on the economy of Buffalo, New York. It also suggests an approach that might be employed when assessing and implementing counter-strategies, such as alternative uses of defense funds, or conversion of existing manufacturing capacity.

Defense spending cutbacks are likely to create unfavorable employment consequences for Buffalo, although such negative effects are likely to be less adverse than in other, more defense-dependent cities. Redirecting the savings resulting from defense spending cutbacks to urban programs will likely stimulate both income and economic growth, as suggested by the Conference of Mayors, and will lessen the adverse employment effects for Buffalo as well as other cities. There is no guarantee, however, that any such transfer will be initiated by the federal government. Furthermore, economic conversion of firms that are dependent on defense expenditures to civilian production has often proved difficult. Hence, a proactive approach for dealing with these cutbacks needs to be developed within the broader framework of a regional economic development strategy, since the effects of defense cutbacks are likely to be highly localized.

The resources freed by these cutbacks, with appropriate local adjustment planning, can be used to reverse much of the dislocation and provide new development opportunities. Thus, a strategy for identifying

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*** Blake Strack is a Ph.D. candidate in Political Science at the State University of New York at Buffalo.
vulnerable localities and determining the priorities arising from layoffs and social hardship must first be developed. Planning for economic conversion, such as retraining workers, re-tooling facilities, researching and developing civilian alternatives, and redirecting resources to meet other community needs, offers a vehicle for articulation of development priorities and a focus for community action.

I. INTRODUCTION

The unanticipated thaw of Cold War tensions, combined with growing pressures to reduce the U.S. budget deficit, have led to a shift in government priorities away from maintaining the large peacetime military budgets of the 1980s. Nevertheless, many local and regional economies with approximately 7.5 million defense workers still depend on the maintenance of high levels of military spending. Despite the recent war in the Middle East, substantial job losses and economic dislocation will occur as the federal government terminates weapons contracts and closes military bases.1 Powerful examples of the continuing economic threat to local economies are the January 1991 layoff of 5,500 workers in St. Louis by McDonnell Douglas2 and 4,000 workers in Fort Worth by General Dynamics,3 after the Pentagon cancelled their order for the Navy A-12 fighter-bomber.

Most studies of the economic impact of defense spending consider only aggregate indicators such as U.S. economic growth, inflation, and balance of payments. Their prescriptions tend to focus primarily on national legislation mandating comprehensive economic conversion planning.4 However, for those grappling with the impact of current or

1. The Middle East conflict will actually exacerbate the negative domestic impact of defense cuts. While the need to reduce the federal budget deficit continues to place downward pressures on the defense budget, the war against Iraq will bring about increased spending in some categories of defense spending and force commensurate reductions in others. For instance, "Operations and Maintenance" and "Manpower" spending will be increased and other categories less important to the war - such as "Procurement," and spending on strategic weapons in particular - will be reduced disproportionately. The President's 1992 budget proposes to cancel or reduce spending for thirteen weapon systems. Furthermore, this was a "pre-paid" war in a sense. Existing stockpiles, amassed during the 1980's, far exceed the most pessimistic projected needs. Orders for new weapons will be minimal. Passel, For the Economy, The Gulf War has Little Impact—So Far, N. Y. Times, Feb. 3, 1991, § 4, at 3, col. 1 (late ed.).


4. See generally ECONOMIC CONVERSION: REVITALIZING AMERICA'S ECONOMY (S. Gordon & D. McFadden eds. 1984); MAKING PEACE POSSIBLE: THE PROMISE OF ECONOMIC CONVERSION (L. Dumas & M. Thee eds. 1989); S. MELMAN, FROM MILITARY TO CIVILIAN ECONOMY: ISSUES AND
pending defense cutbacks, the distant prospect of national conversion legislation is of limited utility in understanding and addressing their immediate problems. This paper explores these problems in one U.S. city—Buffalo, New York—although not all communities will experience similar dislocative effects. A general approach for assessing the impact of defense cuts on a community and for molding proper responses to each city’s unique circumstances can be developed by asking the question, “How will Buffalo be affected?”

As noted above, Buffalo’s economy is not exempt from the “adverse effects” of peace. Some 250 Western New York firms now receive defense contracts worth over $300 million. Prime contractors across the country have already begun to assume work for specialized components that they previously subcontracted out to smaller firms such as those in Buffalo. Defense firms traditionally respond to the loss of such defense contracts with layoffs, and if necessary, the shutdown of the affected facility.

The possible consequences of defense budget reductions, however, go well beyond the mere loss of defense industrial jobs. Other ripple effects might follow: the flight of capital from the local economy; indirect unemployment resulting from the reduced purchasing power of unemployed defense workers; a reduction in the local tax base; increased claims on an already strained social service system; and job losses in the service sector businesses supported by the defense industry like banking and transportation. Moreover, the unique burdens these national and international developments place on local economies may also create some significant political obstacles to defense budget reductions and the realization of any potential “peace dividend.” Recent Pentagon attempts to cancel certain weapon systems have been rebuffed by local interests and their elected officials in an attempt to prevent job losses and

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OPTIONS (1981); THE POLITICAL ECONOMY OF ARMS REDUCTION: REVERSING ECONOMIC DECAY (L. Dumas ed. 1982).
7. Reppy, The United States, in THE STRUCTURE OF THE DEFENSE INDUSTRY 21 (N. Ball & M. Lietenberg, eds. 1983). Reppy describes the evolution and features of the U.S. defense industry, along with existing patterns of defense contracting and employment. Based on her review, she argues that the “narrow interests of the defense industry can be translated into effective political pressures” in opposition to disarmament. Id. at 46. The greatest barriers to disarmament, though, are political rather than economic. She believes that once these political obstacles are overcome, military budget reductions could be offset by “compensatory policies (economic conversion) directed at the most affected industries.” Id. at 47.
economic dislocation. When this occurs, U.S. national defense posture evolves to reflect local economic interests rather than objective threats to national security.

The end of Cold War tensions, however, need not be seen as an economic threat by local and state officials. This new political and business environment also presents new opportunities for Buffalo defense firms and the surrounding community. A decrease in defense spending provides an opportunity to redirect community resources toward revitalization of the local economy. If properly planned, economic conversion of defense facilities to civilian production could prevent job losses and economic dislocation. Careful advance planning may also free resources to help address broader economic development efforts: responding to the decline of traditional smoke stack industries, capital flight, mounting environmental and infrastructure needs; and developing a comprehensive strategy to best position local resources to enhance the local economic growth promised by the recent signing of the United States—Canada Free Trade Bill.

The timing of such efforts, however, is critical. The most substantial reductions in defense spending will occur over the next five to ten years. The requirements of the transition from defense-dependence to civilian-related enterprise are demanding and often insurmountable without comprehensive planning. However, prior to the discussion of appropriate remedial measures, we must first assess how emerging national and international developments will affect Buffalo.

II. BACKGROUND

At their 1987 annual meeting, the United States Conference of Mayors commissioned a study to examine the implications of a shift in military spending on the economies of American cities. The study

8. The political reversal of the cancellation of the F-14 is mentioned in Unsettling Spector of Peace Has Caused a War Among Analysts Over the Possible Consequences: Will the Defense Budget be Slashed or Will the Pentagon Think Up New Ways to Spend the Same Money?, Wall St. J., Aug. 31, 1989, at A16, col. 1.


10. For a comprehensive review of these obstacles, see Melman, Problems of Conversion from Military to Civilian Economy: An Agenda of Topics, Questions, and Hypotheses, 16 BULL. PEACE PROPOSALS 11 (1985); Lynch, Conclusion: Dealing with Major Plant Closures in ECONOMIC ADJUSTMENT AND CONVERSION OF DEFENSE INDUSTRIES 223 (J. Lynch ed. 1987).

examined the impact on the United States economy as a whole, by focusing in on selected four cities—Chicago, Illinois; Trenton, New Jersey; Austin, Texas; and Irvine, California—as case studies of local repercussions. These particular cities were selected because they are geographically diverse and represent the needs of cities of varying size and industrial and economic capacity. The authors of the study assumed that approximately $30 billion would become available annually as a result of changed budget priorities. This amount, just over ten percent of the military budget, would be transferred back into urban programs, and was considered sufficient to provide a "viable means of meeting the growing social needs of cities." Of the available funds, $12 billion would be used to support primary and secondary education, $3 billion for employment and training, $5 billion for housing and community development, $3 billion for mass transit, $2 billion for public health, and $5 billion for social services.

Using an economic input-output model, the Mayoral study estimated that this resource transfer would have a positive impact on the United States economy as a whole. This shift would increase both current income—measured as value added and personal incomes—and economic growth potential—measured as new private fixed investment. A five year shift in spending would yield an annual rise in the gross national product averaging $3.5 billion, a $2.2 billion increase in personal incomes and increased private fixed investment of over $500,000 as well as a similar rise in public sector revenues. In addition, nearly 200,000 extra jobs would be created.

Across the four cities, the re-directed funding would have a diverse impact on their economies. This inter-city difference results from their relative dependence on military contracting and the extent to which each

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12. See id.

13. See id. at 45-49 (Appendix C: Methodology and Documentation for U.S. Conference of Mayors Study). Input-output models are used to estimate how a given increase or decrease in demand for a particular product or service will impact national, regional and urban economies. The Employment Research Associates first estimated the changes in final demand for goods and services that would occur as a result of reduced military spending and increased urban grants in aid. They then input these demand changes into the widely used REMI (Regional Economic Models Inc.) model. This model shows the diverse impacts of demand shifts including changes in direct, indirect and induced employment by industry, changes in income, changes in wage rates, and changes in investment and Gross Regional Product. One problem with input-output models (and other forms of economic forecasting) is the accuracy of forecasts of demand levels. The forecast of governmental military spending may vary widely from the actual amount spent. For a more detailed discussion of input-output models see L. Olvey, J. Golden, & R. Kelly, The Economics of National Security (1984).
city participated in federal urban programs. Table-1 provides a summary of the results. Chicago and Trenton are both predicted to show positive income and growth effects, while Austin shows an increase in current income but a reduced growth rate, and Irvine loses both income and growth.

**TABLE 1. RESULTS FROM THE TRANSFER OF DEFENSE DOLLARS INTO SOCIAL DOLLARS**

<table>
<thead>
<tr>
<th></th>
<th>Current Income</th>
<th>Economic Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Chicago</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Trenton</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Austin</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Irvine</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>


The reason for this variation is clear. The Mayoral study assumed that the defense budget savings in total will be put into a national pot and then redistributed to cities according to need. As a result, cities which now receive a high proportion of defense dollars would tend to lose most, and those which have the greatest urban needs would tend to gain most. This is especially true because, typically, the cities which have received large amounts of defense contracts have grown rapidly over the last two decades, and tend to be wealthier and less afflicted by the urban blight of older American cities. Many authors have explained this relationship and the way in which defense procurement has been fundamental to the regional development of the United States over the last few decades. Consequently, federal military funding has served as a de facto industrial policy, funding research and development, and technological incubation.

in recipient economies, while ignoring others.\(^\text{15}\) While such effects are not specifically planned in most instances, they do impact significantly on many regions of the nation. Has this creeping dependency affected the Buffalo area and its vulnerability to defense budget cuts?

### III. The Buffalo Area

For Buffalo, implementation of the Mayors' proposals would likely have positive effects because Buffalo is closer in nature to Chicago and Trenton than it is to Austin or Irvine\(^\text{16}\) in terms of its geography and its social and economic structure. Moreover, the Buffalo area, including the contiguous metropolis of Amherst, Lackawana, Tonawanda and Cheektowaga, receives a relatively small share of defense contracts compared to other cities and regions. On the average however, the Buffalo area receives somewhat more than other areas of the country because manufacturing industries that receive the bulk of defense contracts are usually located in metropolitan areas. Table-2 shows that although New York State is the fourth largest recipient of defense dollars,\(^\text{17}\) it receives only between one-half to one-third of other defense-dependent states such as Connecticut, California and Texas. Furthermore, within New York State, the bulk of these funds has been concentrated in areas such as Long Island. Buffalo does, however, have fifteen percent of her manufacturing jobs tied into defense contracts. Given the uncertainty over the exact number of additional military jobs subcontracted out to firms in Buffalo,\(^\text{18}\) the ripple effects from affected prime contractors in other areas


\(^{16}\) These three cities share similar economic and industrial demographics. Buffalo for instance, like Chicago and Trenton, has historically had a higher participation rate in federal urban programs. Consider the following researchers' descriptions of why they chose the four cities included in the Mayors' study. Trenton was chosen for the study because it "represents the nation's older established Northeastern cities," while Chicago "represents the Midwestern industrial heartland." Austin was chosen as representative of the more economically diverse Southwestern city, and Irvine reflects the more high tech orientation of newer Western cities. CONFERENCE OF MAYORS' STUDY, supra note 11, at 2.


\(^{18}\) While the full list of firms involved as prime contractors in the area can easily be obtained, federal sources do not uniquely specify sub-contractors and subsidiaries and are unclear about the location of the plants where the subcontracting work is carried out. See DEPARTMENT OF DEFENSE, PRIME CONTRACT AWARDS (1987) (issued by the Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports).
are hard to predict. The impact can be substantial; for every job lost to prime military contractors elsewhere, nearly three subcontracting jobs disappear.¹⁹

| Defense Industry Share of Industrial Base and Manufacturing Employment |
|-----------------------------|--------|----------------|
| % Base | % Jobs |
| United States | 4 | 11 |
| California | 12 | 32 |
| Connecticut | 15 | 39 |
| Texas | 11 | 42 |
| New York | 5 | 13 |
| Buffalo | 4 | 14 |


IV. CONTRACTS AND CONTRACTORS

The actual extent of defense budget cutbacks, and whether any liberated funds are ultimately switched to urban programs, remain open questions. Moreover, the cuts are likely to affect specific defense projects, and in turn, different contractors. Similarly, the positive impact on social programs depends specifically on the fate of each defense project, and its importance to each community. Because of these uncertainties, it is not possible to be precise about the net impact of defense cutbacks on the Western New York and Buffalo economies.

Some results, however, can be estimated: possible direct and indirect impacts on various sectors of the Buffalo area economy; the types of firms that might be affected—including those not directly engaged in arms production; and the overall implications for the economy of different levels of cutback and different types of social programs.

Table-3 shows the distribution of defense contracts by sector of production in the local economy in 1988 for the 50 most prominent contractors. The Table shows the value of these contracts and the number of firms receiving them, and the relative share of total area production in

¹⁹. See Ellis, Who Pays for Peace? Many Companies and Towns are on a Knife’s Edge, BUSINESS WEEK, July 2, 1990, at 66.
each sector. Total funding amounts to over $300 million, of which $143 million went to electronics firms and $87 million to aircraft firms.

In a study conducted for Business Week, which assumed 5% after-inflation annual cuts in defense spending between 1991 and 1994 and no growth thereafter, DRI/McGraw-Hill concluded that the hardest hit industries would be communications equipment, aircraft, and electronic components respectively. These three product areas represent the three largest sectors in Buffalo’s defense industry.\textsuperscript{20}

\textbf{Table 3. Defense Industry Activities by Sector in Western New York}

(Top 50 firms by size of defense contracts in 1988, in descending order)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Amount $\text{million}</th>
<th>Firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronics</td>
<td>143</td>
<td>7</td>
</tr>
<tr>
<td>Aircraft</td>
<td>87</td>
<td>5</td>
</tr>
<tr>
<td>Equipment</td>
<td>28</td>
<td>14</td>
</tr>
<tr>
<td>Construction</td>
<td>27</td>
<td>5</td>
</tr>
<tr>
<td>Fuel</td>
<td>22</td>
<td>4</td>
</tr>
<tr>
<td>Services</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Medical and Education</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Food</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

Based on \textit{Area's Largest Defense Contractors}, Business First of Buffalo, May 1, 1989, at 12.

Of the top fifty firms, only one firm (Sierra Research, a branch of LTV) earned more than $100 million, 6 firms earned more than $10 million, and 26 firms earned more than $1 million.\textsuperscript{21} Extrapolating from the above data, about 250 firms are involved more or less directly in defense related activities earning about $350 million in all.\textsuperscript{22} Additionally, the dependence of local firms on defense contracts varies considerably. A few firms earn most of the income: Sierra Research, Calspan and Comptek together accounted for nearly $200 million in 1988. Moreover, these larger firms' revenues are derived mostly from defense contracts as shown in Table-4. Because these firms are so dependent on defense procurement, their level of activity and employment fluctuates dramatically according to their success in winning defense contracts, as shown by Si-

\footnotesize
\noindent\textsuperscript{20} See \textit{The Peace Economy: How Defense Cuts will Fuel America's Long-Term Prosperity}, \textit{Business Week}, Dec. 11, 1989, at 50-55.

\footnotesize
\noindent\textsuperscript{21} See \textit{Area's Largest Defense Contractors}, Business First of Buffalo, May 1, 1989, at 12.

\footnotesize
\noindent\textsuperscript{22} See Vogel, supra note 5.
erra Research's 1985 contracts being worth almost twice that of 1988. Past layoffs announcements by area defense contractors did not en-

| Table 4. Major Contractor's Dependence on Defense Contracts (Fiscal Year 1988) |
|----------------------|--------|----------|--------|
| $ Amount (in millions) | % of Total Employment | Defense Jobs |
| Sierra Research       | 111    | 98       | 950    |
| Calspan               | 67     | 90       | 540    |
| Comptek Research      | 26     | 90       | 175    |
| Bell Aerospace        | 11     | 100      | 700    |
| Moog Inc.             | 5      | 60       | 700    |

Based on Area's Largest Defense Contractors, Business First of Buffalo, May 1, 1989, at 12; and group meeting with above company representatives at University at Buffalo in February 1990.

gender much concern among workers who recognized the cyclical nature of defense funding. If current trends toward declining defense spending continue, however, it is unlikely that firms and their workers can be optimistic about acquiring new contracts to replace lost ones. Due to the specialization of contracts and contractors, uncertainty over the categorical nature of coming defense cuts, and variability in levels of activity from year to year, any effort to calculate the impact of defense cutbacks, as estimated in the Mayor's report, is likely to be less than certain. Moreover, the Mayors' calculations assumed that a given procurement cut in, say, aircraft engines, would lead to the same loss in jobs or income by all firms involved in that line of production. In practice, this is never the case. The exact impact depends on the financial position of the firm, its technology, its wage levels and lay-off conditions. Studies of Western New York's restructuring economy have shown that there typically is in any particular industrial sector a wide variety of firms employing all vintages of equipment and management structures.

23. The nature and effect of these instabilities in defense employment are explained in Ball, Converting the Workforce: Defense Industry Conversion in the Industrialized Countries, 125 Int'l Lab. Rev. 401, 401-02 (1986).


25. Of two firms producing components for guided missiles, a given reduction in spending for guided missiles will have a more profound impact on the firm whose financial portfolio is not diversified into other production areas, or whose continued operation in other product lines depends heavily on the technology or financial liquidity provided by the affected defense contracts.

26. See The Center for Regional Studies, State University of New York at Buf-
V. SOCIAL NEEDS

In terms of meeting outstanding social need, available data suggests that Buffalo might expect to gain relative to many other metropolitan areas if they implement the switching of funds proposed by the Conference of Mayors. This assertion arises from Buffalo's legacy of economic decline during the late 1970s and early 1980s, and its turn-around over the last few years. However, whether the Buffalo economy is finally on the road to recovery is still arguable. On the one hand, the recently released preliminary Census of Population shows a decline in Buffalo's population of nearly ten percent over the last ten years, suggesting a long-run decline. On the other hand, the evidence from employment statistics, retail activities, housing prices and the like suggests that a turn-around in the economy began in mid-decade. Table-5 indicates the nature of this turn-around. Although the rates of employment growth shown are still somewhat behind that of the national economy, with total employment growth in the two periods at 1.2% and 3.1% annually, it has overtaken that of New York State—2.0% in both periods. Moreover, comparing the two time periods shows a remarkable acceleration in most sectors, and in the Buffalo economy as a whole, well ahead of the national and state economies.

This recovery is especially significant because it has occurred without the massive infusion of defense dollars that has driven the recent economic success of much of the Sunbelt and New England. The pattern of regional growth trends suggests that Buffalo's economic recovery should be attributed to the increasing integration of the Western New York economy with that of the Toronto metropolitan region. Whatever the exact reasons may be, the evidence supports the idea that the Buffalo economy has turned the corner. Whether it has restructured sufficiently to survive from defense cutbacks and the current national recession remains to be seen. Mature industrial regions like Buffalo tend to

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be the first into and last out of recession.\footnote{Howland, \textit{The Business Cycle and Long Run Regional Growth}, in \textit{International Movements and Regional Growth} 75 (W. Whenton ed. 1979).}

Despite the evidence that Buffalo's economy has begun to recover,

\begin{table}
\centering
\caption{Buffalo Employment Trends during the 1980's}
\begin{tabular}{lccc}
\hline
\textbf{Sector} & \textbf{1980-85 Annual Change} & \textbf{1985-89 Mid-Decade Turn-Around} \\
\hline
FIRE*/Services & 3.0 & 4.5 & 1.5 \\
Manufacturing/Wholesale & -4.2 & -0.2 & 4.0 \\
Govt./Health/Education & 2.2 & 3.3 & 1.1 \\
Retail Trade & -0.1 & 2.8 & 2.9 \\
Construction/Utilities & -1.4 & 3.5 & 4.9 \\
Total Employment & -0.4 & 2.3 & 2.8 \\
\hline
\end{tabular}
\end{table}

\footnote{Based on The Impact of the Free Trade Agreement on the Economy of Western New York (1989) (unpublished paper available at Center for Regional Studies, S.U.N.Y. at Buffalo).}

*Finances, Insurance, and Real Estate.

the city still has a disproportionate level of unresolved economic and social problems, many of which are detailed in other articles in this volume.\footnote{See, e.g., Turner, \textit{Economic Development in Buffalo: Community, Change, and Fragmentation}, 39 \textit{Buffalo L. Rev.} 433 (1991).}

Table-6 shows the result of several problems that are especially acute in the City of Buffalo: the precipitous decline of the area's manufacturing base in the early 1980s; structural unemployment, particularly among minorities and displaced workers; and the high level of welfare families in the community.\footnote{Center for Regional Studies, \textit{The Buffalo Economy: A Social and Economic Overview} 7-10 (1987).}

There is also a perverse tendency arising from the industrial restructuring of cities such as Buffalo, which promotes a worsening of income distribution during a period of recovery. Buffalo's traditional heavy industries provided relatively high-paid, skilled, administrative and blue collar jobs. The jobs which replace them exhibit a bi-modal wage structure, with highly paid professional jobs and minimally paid service employment.\footnote{Cole, \textit{Growth, Equity and Dependence in a Restructuring City Region}, 11 \textit{Int'l J. Urb. & Regional Res.} 461 (1987).} This wage dichotomy is exacerbated by the fact that the low-income wages and welfare payments in Buffalo, on which so many low income families depend upon, have not kept pace with average real
incomes. Such processes tend to have a differential impact on the various communities and neighborhoods within the greater Buffalo area. This structural unemployment resulting from layoffs is particularly acute among defense manufacturers.\textsuperscript{35} Without the imposition of proactive measures to counteract the unemployment expected to follow from the loss of defense contracts, reductions in defense spending will exacerbate—rather than alleviate—the existing problem of excess demand on an inadequately funded social service system.

### Table 6. Incomes, Unemployment and Poverty in Buffalo

<table>
<thead>
<tr>
<th></th>
<th>Per capita Income</th>
<th>% Poverty</th>
<th>% Unemployment</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>$7298</td>
<td>9.6</td>
<td>7.1</td>
</tr>
<tr>
<td>New York State</td>
<td>$7498</td>
<td>10.8</td>
<td>7.1</td>
</tr>
<tr>
<td>Buffalo SMSA</td>
<td>$7073</td>
<td>8.1</td>
<td>9.5</td>
</tr>
<tr>
<td>Buffalo City</td>
<td>$5929</td>
<td>7.0</td>
<td>13.1</td>
</tr>
</tbody>
</table>


### VI. Overall Impacts

The data presented show that if the area lost all defense contracts identified earlier without any compensation, defense contractors would lose about $350 million in sales. Depending on how firms reacted to the cut-backs, in terms of lay-offs, this would result in an employment loss of some 2000 to 3000 jobs, distributed across the industries shown in Table-3. Besides this direct loss, there would be an indirect loss as the effects of the cutbacks percolated through the area’s economy. The full effects might not be felt for several years and would affect all sectors of the economy, including public and private sector activities. The direct and indirect loss of income and jobs to the area’s economy, five years after the cutbacks have taken place, may be calculated using an input-output model technique similar to that adopted by the Conference of Mayors.\textsuperscript{36}


\textsuperscript{36} However, the method used for the present study had two major differences. The calculation uses a social accounting matrix based impact model developed at the center for Regional Studies, State University of New York at Buffalo. This model of the Buffalo Area enables the effects of
Table-7 summarizes the "worst case" scenario of the direct and indirect effects of the loss of all defense contracts. It shows that 10,000 to 12,000 jobs and over $1 billion in income could be lost. Electronics and aircraft production sectors would naturally be affected the most by any cutbacks, but sectors like education, medical services, public utilities, and commerce, all of which depend indirectly on business and household income will be affected as well.

**Table 7. Estimated "Worst Case" - Loss of Income and Employment arising from Cancellation of all Defense Contracts in the Buffalo Area**

<table>
<thead>
<tr>
<th>Estimated Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jobs</td>
</tr>
<tr>
<td>Sales by Firms</td>
</tr>
<tr>
<td>Value Added</td>
</tr>
<tr>
<td>Household Income</td>
</tr>
<tr>
<td>Public Sector Revenues</td>
</tr>
<tr>
<td>Private Investment</td>
</tr>
</tbody>
</table>

Center for Regional Studies, S.U.N.Y. at Buffalo.

Because of uncertainties in the details of contracts, sub-contracts and suppliers, these figures are approximate. Moreover, although the amounts are very large, they also have to be put into some perspective. As noted earlier, the Buffalo area is far less dependent on defense contracts than are other geographic areas. It is also far less dependent on defense production than on other industries, which may be equally vulnerable to restructuring of the national and international economies. For example, the auto parts industry in Western New York accounts for about 20,000 to 30,000 jobs. If the area lost this industry, the indirect effects eventually could lead to an area-wide loss of well over 100,000 jobs. In practice, the relative scale of the defense cutbacks facing Western New York suggests that they might be better addressed within the


37. See Table 3.

broader context of an economic development strategy for the area, rather than as a looming "crisis."

The area would especially benefit from the redirection of federal defense expenditures to other programs as proposed by the Conference of Mayors. The extent of the opportunity presented by these programs for the Buffalo area is indicated by the three calculations presented in Table-8 which shows the net impact after dollars are switched. The first calculation assumes that all the contract dollars lost by defense contractors in Buffalo are used instead for education. The second assumes that dollars are paid as social welfare to lower income households. Here, the poorer fifty percent of the area's population receive about twenty two percent of total household income.39 The third calculation shows the result of a combined strategy. We are not suggesting that any one of these alternatives is necessarily the best use of the dollars, but merely indicating the level and variation of the outcomes. A better mix, for example, might be that supported by the Conference of Mayors.

<table>
<thead>
<tr>
<th>Use</th>
<th>Education</th>
<th>Welfare</th>
<th>Combined</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Jobs</td>
<td>6,000</td>
<td>1000</td>
<td>3500</td>
</tr>
<tr>
<td>Sales by Firms</td>
<td>50</td>
<td>-94</td>
<td>22</td>
</tr>
<tr>
<td>Value Added</td>
<td>110</td>
<td>3</td>
<td>56</td>
</tr>
<tr>
<td>Household Income</td>
<td>130</td>
<td>300</td>
<td>215</td>
</tr>
<tr>
<td>Public Sector Revenues</td>
<td>30</td>
<td>15</td>
<td>23</td>
</tr>
<tr>
<td>Private Investment</td>
<td>12</td>
<td>12</td>
<td>12</td>
</tr>
</tbody>
</table>

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VII. DISTRIBUTION OF IMPACTS

The above results reveal that the net benefit to the community will depend very explicitly on the type of program funded, just as the losses depend on the precise contracts lost and the firms that lose them. As indicated earlier, the consequences in terms of social class, ethnic back-

the National Science Foundation Conference on the Construction and use of Input-Output Models, Regional Research Institute, University of West Virginia).

ground and occupational status are also likely to be very different for different sections of the larger community. For example, the impact of the cuts and alternative uses for different occupations, and on household income distribution, are indicated by Table-9. All three scenarios lead to a loss of blue collar jobs. The loss of defense contracts would marginally improve household income distribution, although all households would be worse off; funding education also worsens income distribution, at least in the short-run; and social welfare to low income households improves distribution as we should expect.

### Table 9. Estimated Net Impact of Close-Down and Re-Using All Current Defense Dollars by Occupation and Income Group (in $million)

<table>
<thead>
<tr>
<th>Use</th>
<th>Defense Cuts</th>
<th>Education</th>
<th>Welfare</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wages:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White Collar</td>
<td>-172</td>
<td>145</td>
<td>12</td>
</tr>
<tr>
<td>Blue Collar</td>
<td>-196</td>
<td>-15</td>
<td>-29</td>
</tr>
<tr>
<td>Household Income:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Top 50 percent</td>
<td>-442</td>
<td>114</td>
<td>112</td>
</tr>
<tr>
<td>Bottom 50 percent</td>
<td>-114</td>
<td>16</td>
<td>296</td>
</tr>
</tbody>
</table>

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### VIII. Approach to Policy

Of course, carving up the peace dividend in the manner suggested by the Conference of Mayors may be somewhat premature, or even wishful thinking. The forgone defense dollars, estimated at anywhere from ten to fifty percent of current funding levels, may be diverted to other ends, or used to reduce the budget deficit, and so have only a marginal and very indirect impact on urban social problems. It is an economic irony that,

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40. Even if the current trend of 3-5% reductions in the previous years appropriations continue, this would result in a savings of over $100 billion dollars in ten years. The realities of the changing global political environment may result in even deeper cuts than currently projected. The Department of Defense estimates that roughly 60% of the $295 billion yearly military budget goes to fulfill our NATO commitment. A. Maroni & J. Ulrich, The U.S. Commitment to Europe's Defense: A Review of Costs Issues and Estimates, Cong. Research Service Rep. No. 85-2511F 11 (1985). The defense budget could easily be reduced by 50% over ten years with the elimination of this U.S. commitment to guarantee the peace in Europe, the signing of superpower arms limitation agreements, and reduction of the arsenals the superpowers currently aim at each other.
since federal budget constraints necessitated the favorable response of the United States to the Soviet peace initiative, and since the size of all eventual cuts in both the social and defense budgets will also depend on these same constraints, we may find ultimately that the larger the amount of defense cutbacks required, the smaller will be the amount available for social programs.

Given this, it seems sensible to consider how the Buffalo area, like other major U.S. metropolitan areas, can deal with a declining defense industry without federal compensatory funding. Firms which depend largely on defense contracts perceive major difficulties in converting their own know-how and production capacity to other ends. Others studies have argued that the traditional laissez-faire responses by industry will be sufficient. For example, firms working jointly with their communities should increase their emphasis on the exportation of military products, diversify into civilian markets through the acquisition of independent firms, and attempt to attract new businesses into the affected community. These approaches will fall short, however, because they ignore the increased competition and decreased demand in international arms markets, the uncompetitive prices of U.S. defense products abroad, the repeated diversification failures of defense firms, the long, painful, and often unsuccessful process required for communities to attract new manufacturing capacity, and the moral responsibility not to expand weapons sales to countries with social and economic problems which are already far worse than those of the United States.

Attempts to diversify by purchasing an existing company in the business of producing the desired product for the civilian marketplace also allow for the loss of significant managerial, engineering, and scientific expertise from the defense enterprise. These highly skilled people

42. See generally B. UDIS, THE CHALLENGE TO EUROPEAN INDUSTRIAL POLICY: IMPACTS OF REDIRECTED MILITARY SPENDING (1987); ECONOMIC ADJUSTMENT AND CONVERSION OF DEFENSE INDUSTRIES, supra note 10.
43. These developments are described in greater detail in No Longer the Only Game in Town, N.Y. Times, Dec. 4, 1988, § 3, at 1, col. 2.
44. DETERRENCE IN DECAY, supra 41, at 44.
45. Degrasse, Corporate Diversification and Conversion Experience, in ECONOMIC ADJUSTMENT AND CONVERSION OF DEFENSE INDUSTRIES, supra note 10, at 91-120.
46. The onerous time requirements of economic conversion under current planning and assistance arrangements are explained at length in ECONOMIC ADJUSTMENT AND CONVERSION OF DEFENSE INDUSTRIES, supra note 10, however, these sources all but ignore the time requirements of traditional "economic adjustment," its failure to directly address the problems of those individuals who lost their jobs, and the increased demands placed on the social service infrastructure.
could otherwise be effectively re-employed to produce new product lines in an expanding local economy, or to help meet other community needs.

Converting resources from military to civilian enterprises may seem like a wishful thinking, and we should not underestimate the obstacles to such conversion, but it should not be forgotten that one of the rationales for such enormous defense budgets has always been the importance of technological “spin-off” into non-military applications. One local success story is Moog Inc. of East Aurora, New York, which used their defense research and development division as a technological primer to produce a brushless motor that has powered award winning solar cars.47 Another example of a successful technological conversion is a Connecticut firm which used its know-how in manufacturing helicopter rotors (where the elimination of vibration is the key requirement), to manufacture electric guitars (where the amplification of vibration is the key to success).48 The Kavlico Corporation of California recently adapted the sophisticated sensors it produces for military aircraft for use in other industries. This diversification has allowed Kavlico to more than double its sales by obtaining big orders from customers like the Ford Motor Company.49 The conception and implementation of alternative products and enterprises appropriate for Buffalo’s resources will require both imaginative community and entrepreneurial action.

In practice, the need for individual contractors to make such decisions will depend on their involvement with particular defense programs and the yet unpredictable character of future United States defense commitments. Moreover, since these firms are situated in distinct areas within the metropolitan region, the close-down of individual plants will affect the separate communities of Western New York quite differently. Though there is much commuting within the Buffalo area, dislocative effects will still be localized, primarily due to the significant loss of both jobs and the tax base within these communities. This phenomenon occurred in previous years in parts of the Buffalo metropolitan area. The shut-down of Bethlehem Steel in Lackawana had a much greater impact on the Lackawanna economy than it did on nearby Amherst. Since many of the indirect or secondary effects also tend to be localized, this will again add to the severity of job losses and local income.

DEFENSE BUDGET CUTS

Table-10 indicates the level of dependence of different localities on defense contracts, and their approximate share of local employment. Although these figures are approximate (because employment is pro-rated by sector and data are re-allocated to area plants) they nevertheless suggest that Cheektowaga and Tonawanda, as a result of their large dollar to population ratios, are likely to be affected more seriously by the cut-backs than Buffalo or Amherst.

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td><strong>Amount ($million)</strong></td>
</tr>
<tr>
<td>----------------------</td>
</tr>
<tr>
<td>Buffalo</td>
</tr>
<tr>
<td>Cheektowaga</td>
</tr>
<tr>
<td>Amherst</td>
</tr>
<tr>
<td>Tonawanda</td>
</tr>
</tbody>
</table>


Therefore, it seems important that we should evaluate the potential social and economic impacts, in turn for each locality in Western New York, in the same way we calculated the impact for the area as a whole. It is then possible to focus attention on the communities where the impacts will be most severely felt. For this, it is useful to identify the consequent economic and social development assistance needs in terms of a two-way “triage” based on: i) the vulnerability and/or difficulty of conversion for individual firms; ii) the likely impact of a foreseeable loss of contracts on the community in which the contractor is located. The proposed system of triage and the scale of priority for firms and localities would appear as shown in Table-11. 50

50. A similar classification scheme has been proposed elsewhere. Pierre Dussauge argues that the conversion process will affect firms based on the technological benefits, percentage of overall profits, and the reduction of strategic risk provided by military activities. Dussauge concludes from his analysis that “the main impulse to proceed with a conversion process must necessarily be given by the State”, and that “the firms involved will generally oppose the process.” Dussauge, The Conversion of Military Activities: A Strategic Management of the Firm Perspective, in PEACE, DEFENSE AND ECONOMIC ANALYSIS 266-300 (C. Schmidt & F. Blackaby eds. 1987). This resistance, it seems, might be expected to diminish as the prospect of continued defense funding becomes increasingly tenuous. Greater uncertainty about future funding levels implies greater uncertainty regarding all three variables mentioned by Dussauge.
In this scheme firms would be subdivided in terms of their current dependence on defense—for example, less than thirty percent of income, thirty to seventy percent dependent, and over seventy percent dependent. Given their experience in non-protected and competitive markets, the first category might be expected to deal with the situation using the resources now available, such as changing production to non-military lines and markets. While the most direct route to technology transfer is to reassign managerial and scientific personnel from military and non-military divisions, defense workers often develop a “trained incapacity” for cost-conscious production of the civilian marketplace. Military production emphasizes sophisticated designs with little concern over cost-effectiveness, whereas the civilian market places a premium on durability and affordability. Insofar as this is true, any such transfer would require retraining to reflect the different demands of civilian production. Because the task of retraining workers during corporate diversification is uncommon in most U.S. firms, defense employees in this first category may face layoffs even if the firm chooses to attempt the transition.

The middle category, mainly small and medium-sized firms, and the last category might become the targets of local economic assistance programs. While economic conversion may be mandated and funded by future federal legislation, local government can take steps now to mitigate the negative effects of reductions in defense spending. As part of their overall strategy for retaining and redirecting local resources, local economic development planners might consider providing the following consulting assistance to those industrial and research concerns dramatically affected by the changing political environment:

1. conduct a “needs assessment” as suggested above to identify the broader resource and adjustment needs of Western New York, and the
firms and localities that will be most affected by the changing international environment;

2. assess the individual firm’s competitive strategy and market position to estimate the potential impact of defense budget cuts;

3. identify and consolidate existing state and federal programs that provide marketing and retraining assistance to meet the firm’s and community’s needs;

4. explore potential civilian applications of existing technologies;

5. provide detailed assessments of competition to the firm’s proposed actions;

6. identify new and forthcoming public investments in infrastructure or technology development to which existing skills can be applied; and

7. assist in the development of a general strategy for alternative use of buildings, equipment, technology, and people.

Localities would also be sub-divided in our system according to the predicted effects of cutbacks on social and economic indicators in each area: communities which would lose less than ten percent of employment if local plants closed down; those losing ten to thirty percent; and those losing more than thirty percent. The last situation presents the greatest cause for concern and the greatest challenge for community action, especially when the potential loss is associated with firms which are heavily dependent on defense contracts.

In their attempts to deal with these critical situations, emerging assistance programs must focus on alleviating two problems traditionally associated with defense cutbacks: the need to retain and absorb excess productive capacity; and the need to retrain and redeploy workers into other productive sectors. Most prominent among several newly enacted measures is the 1991 Defense Authorization Bill,\(^51\) which is accompanied by a $200 million package of adjustment assistance to help coordinate a federal approach to assisting local communities. $100 million of this money will provide affected workers with an “economic readjustment allowance” and job training. Another $100 million will be used by the Pentagon’s Office of Economic Adjustment and the Commerce Department’s Economic Development Association to help broaden local economies.\(^52\)

Even the most innovative federal initiatives, however, have failed to

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identify and create alternative demand by transferring resources to repair the damage done to communities by several decades of neglect and an over-concentration on military spending: the decay of infrastructures, underfunded educational and health systems, and environmental pollution. Because the federal government has until now ignored the need to assist industry and workers during periods of economic transition, state and local governments need to launch initiatives to maintain their own industrial and labor base as well as their economic integrity. Several states have seized the reigns of their runaway economies and passed laws designed to help communities shift to civilian production. Washington State recently created the nation's first statewide assistance program and funded it with $200,000 in seed money. Colorado and New York have both recently created task forces on economic adjustment. In July 1987, with 61% electoral support, the City of Baltimore established a City Development Commission to "advise the city on the impact of military spending, developing economic conversion policies, and lobby for military spending cuts at the federal level."

These new organizational structures are needed to help assess the resources affected by defense cuts, and to integrate them with the many outstanding community needs and opportunities. Gordon Adams, a longtime defense budget analyst, asserts that sufficient resources exist in the federal budget for economic development, transition planning and job creation. However, our efforts must include a genuine concern for the entire range of these related federal spending priorities, since such an

53. The existence of alternative demand is a necessary precondition for the successful conversion of resources made fallow by cuts in the defense budget. The massive government assisted military to civilian conversion in the wake of World War II was a success precisely because the backlog of demand in the U.S. economy, a high level of savings, and a serious political commitment (conversion was a political necessity for the government after WWII). For a discussion of the difference between the late 1940's and our current circumstances see Ball, International Experience of Conversion, in Making Peace Possible: The Promise of Economic Conversion, supra note 4, at 17-22; T. Woodhouse, A Peaceful Economy? Defense Conversion and the Arms Industry in the USA: A Survey of Recent Trends (1985) (unpublished manuscript available at the University of Bradford, School of Peace Studies, West Yorkshire).

54. Gordon Adams, a staunch opponent of economic conversion, asserts that conversion advocates focus only on a small facet (protecting jobs) of a much larger dilemma — "how to develop and handle economic transitions in a way that is fair to all." By considering the wider problem, we make the leap to the highly important domestic "economic dimension" of national security. See Adams, Economic Conversion Misses the Point, BULL. ATOMIC SCIENTISTS, Feb., 1986, at 24-28.


enterprise opens up the opportunity for building wider coalitions.\textsuperscript{57} Coalition building is important because without a conscious effort to facilitate discussion among the many diverse and ultimately interdependent voices within the community, decisions about economic development will continue to be made separately, by the many players with their disparate interests. A comprehensive strategy for reversing the economic drain of military spending is needed to free resources to address the larger problems of economic inequality and industrial competitiveness.

Substantial reductions in defense expenditure could be turned into a blessing for Buffalo if active planning is pursued to redirect resources from the military sector back into a growing local economy and unmet human needs. Ultimately, as Gordon Adam's argument suggests, adjustment and conversion assistance will not, by themselves, provide a solution to Buffalo's more enduring economic problems. Only by asking the question—"conversion to what?"—will conversion planning provide the vehicle for defining our development priorities and for creating a true economic revival in Buffalo.

\textsuperscript{57} Adams, \textit{supra} note 54, at 24-28.