New England Journal of Public Policy

Volume 8
Issue 1 *Special Issue on Homelessness: New England and Beyond*

Article 8

3-23-1992

# Build Homes Not Bombs: Get a Better Economy to Boot!

Richard Krushnic
*Boston Public Facilities Department*

Follow this and additional works at: https://scholarworks.umb.edu/nejpp

 Part of the Economic Policy Commons, Public Policy Commons, and the Social Policy Commons

## Recommended Citation

Krushnic, Richard (1992) "Build Homes Not Bombs: Get a Better Economy to Boot!," *New England Journal of Public Policy*: Vol. 8: Iss. 1, Article 8.
Available at: https://scholarworks.umb.edu/nejpp/vol8/iss1/8

This Article is brought to you for free and open access by ScholarWorks at UMass Boston. It has been accepted for inclusion in New England Journal of Public Policy by an authorized editor of ScholarWorks at UMass Boston. For more information, please contact scholarworks@umb.edu.

# Build Homes Not Bombs

## Get a Better Economy to Boot!

*Richard Krushnic*

*Our nation has a rare opportunity to shift resources from military to civilian activities for the next few years. A budget pact is supposed to prevent transfers of funds from the military to domestic programs during fiscal years 1992 and 1993, but the pact is cracking in light of the sudden collapse of the Soviet military and the dismemberment of the Soviet Union. While jobs are lost when funds are shifted out of the military, the funds don't disappear — they are used for alternative federal expenditures, paying federal debt, or tax reduction. Many alternative expenditure patterns are available to improve the quality of life for middle-income and low-income citizens and the international competitiveness of our economy. If $25 billion a year were shifted into affordable housing development and retention for a period of years, low- and moderate-income families and individuals would find housing to be much more affordable and available, homelessness would be greatly reduced, and overall employment and economic output in the eastern Massachusetts region would increase.*

Our nation has a rare opportunity to shift resources from military to civilian activities for the next few years. The fiscal 1992 funding year, which began October 1, 1991, might see such a shift. In a few weeks Congress and the administration will probably take $1 billion of the military budget and use it for aid to the Soviet Union. A budget pact is supposed to prevent transfers of funds from the military to domestic programs during fiscal years 1992 and 1993, but the pact is cracking, and powerful forces in the country and in Congress want the pact reexamined in light of the sudden collapse of the Soviet military, and the dismemberment of the Soviet Union.

While jobs are lost when funds are shifted out of the military, the funds don't disappear — they are used for alternative federal expenditures, paying federal debt, or tax reduction. Either way, the dollars are used for other purposes that generate jobs and economic activity. Many alternative expenditure patterns are available to improve the quality of life for middle-income and low-income citizens and the international competitiveness of our economy. The better alternatives would be marked improvements over the current alternative: too much money for the savings and loan

*Richard Krushnic is senior financial analyst, Boston Public Facilities Department, and research director, Greater Boston Jobs with Peace.*

bailout, the commercial bank bailout, wars (like Iraq and the Latin American "drug" wars, which are really counterinsurgency wars), and a health care system that permits unnecessary procedures, limits necessary procedures, and falls flat on preventive health care.

Shifting federal resources from the military to human services, housing, economic infrastructure, programs to increase international competitiveness, and environmental protection would increase employment and economic output and improve the quality of life. Former secretaries of Defense, many congresspersons, and numerous policy institutions have concluded that the Department of Defense and the military component of the Department of Energy should have their budgets cut in half over the course of a decade. By some measures, military spending cuts have already begun. Such a reduction amounts to roughly $150 billion a year in current dollars. Cuts would be smaller at first but reach this level at the turn of the century or shortly thereafter.

If one sixth of that amount, $25 billion a year, were shifted into affordable housing development and retention for a period of years, low- and moderate-income families and individuals would find housing to be much more affordable and available, and homelessness would be greatly reduced. Greater Boston Jobs with Peace (JWP) asked Boston voters in a 1987 referendum if they would like this to happen. The voters said yes and asked the city to tell them what that would mean in terms of additional housing services it could provide. The city's 1989 report in response to the JWP referendum showed how Boston's share of such a shift in spending would meet the city's affordable housing needs and increase overall employment and economic output in eastern Massachusetts as well.[1]

Of course, homelessness cannot be dealt with simply by making more affordable housing available. Additional educational, employment training, counseling, advocacy, and employment opportunities must also be provided. Supportive services, abundant and less-expensive housing will not do the job unless a healthier economy produces jobs and a correspondingly healthier tax base to support the services.

Most of our tax dollars go to the federal government, and half of those to the military. The demise of the Soviet threat means that funds can be shifted to an alternative federal spending pattern. Such an alternative pattern will both meet human needs and improve the overall quality of life, including making the economy more internationally competitive so that the improved quality of life can be sustained indefinitely.

Just as in the case of the housing example, shifting spending to such an alternative pattern would result in a net increase in employment and output in New England. Massachusetts would benefit more than the other large population state in the region, Connecticut, and details of how Massachusetts would benefit are provided below.

The basic idea is contained in three principles: shifting some resources from the military to building economic infrastructure (transportation, communications), education, and programs and incentives to improve the international competitiveness of the economy will benefit the entire nation; the highly diversified, high-tech nature of the New England economy in general, and of Massachusetts in particular, predisposes the region to benefit from the new federal spending pattern; and in order to truly improve the quality of life, the shift in resources must not be only to human services, housing, and the environment, but also to the expenditures to improve the economy; otherwise the humanizing impacts will be unsustainable.

The shift will not be without pain. Some specific military facilities (parts of bases and private research and manufacturing) will not be successfully converted to civil-

ian uses. Many military employees will not find alternative employment at comparable pay or working conditions. By "military employee" I mean a full-time uniformed or civilian employee of the Department of Defense (DOD) or the military parts of the Department of Energy (DOE) and NASA, or workers in private research and manufacturing supported by military DOD, DOE, or NASA research and procurement dollars. But many military facilities and employees will come out fine. Much more important, regional benefits from increased civilian employment and output will far surpass the pain and provide jobs for many formerly in military work.

If this is what we want, we must fight for it, or it won't happen. A new military strategy that perceives (or creates) military threats from newly industrialized nations like Iraq, the savings and loan bailout, the commercial bank bailout, an unimproved health care system, and the deficit are all partially unjustifiable alternatives that are eating up the "peace dividend" as fast as it materializes. The military-industrial sector is in the midst of creating a national security paradigm to justify continued high military spending. This was one of the main reasons for the war against Iraq. We will be told that we must be prepared for a succession of Saddam Husseins in newly industrializing countries. This paradigm is unjustifiable and unsustainable. We must educate the public and scale down the national security threat to realistic proportions. The new paradigm merits rejection.

We can fight to pay $200 billion in savings and loan bailout costs by meeting the costs sooner rather than later (by borrowing the money) and getting money back from fraudulent S and L owners, or we can continue on the present course and pay $600 billion for the bailout over the course of the next generation. We can bite the bullet now and rationalize our health care system in an equitable manner, or we can let the costly, wasteful, and unjust drift of the health care system continue.[2]

The way to reduce the deficit is to use our scarce resources to make the economy stronger and more competitive. Then the economy will generate sufficient revenue to meet public expenditure requirements *and* reduce the deficit. Or we can continue to dump too much money into the military, an unrationalized health care system, and the bank bailouts, which will worsen the economy and weaken its ability to produce public tax revenue. The choices are partly in our hands. The money is there. We must set our priorities right in order to get it.

---

**Where Is the Federal Budget Battle?**

In 1991, the Budget Enforcement Act (BEA) committed the federal government to a five-year budget deal. The budget was divided into two components: mandatory (Social Security, bank deposit insurance, payments on the federal debt, and so on), and discretionary. Discretionary spending was divided into three parts: defense, foreign aid, and domestic spending. Spending caps were set for each of the three parts for each of the first three fiscal years (1991, 1992, and 1993).

The BEA enables Congress and the president to make changes within the defense budget or among the various domestic programs, but does not allow a transfer of funds from the military to domestic spending. Thus, a "budget wall" was erected to prevent transfers from military to domestic spending.

The wall is removed for the fourth and fifth years of the pact (fiscal years 1994 and 1995). There is still an overall limit for discretionary spending, but funds may be transferred from one of the three domestic components to another. Fiscal 1991

ended September 30, 1991. Debate over the fiscal year 1992 budget has been going on since early spring. The five-year BEA's deal for fiscal 1992 domestic spending is defense, $291 billion, foreign aid, $15 billion, and domestic spending, $198.5 billion.[3]

According to the Congressional Budget Office, the administration intends to comply with the BEA's requirements for fiscal '94 and '95 by taking a slight "real" cut in defense spending and a much larger real cut in domestic programs. The administration proposes to go up from the 1992 and 1993 defense level of $271 billion to $295.5 billion in fiscal '94 and $298.5 billion in '95, increases of $4.5 billion (1.5%) and $4 billion (1.4%).[4] These "absolute" increases are "real" declines because price inflation reduces the value of each defense dollar more than the budget increases provided for in terms of increased defense purchasing power.

If inflation is 5 percent, the FY '94 increase of 1.5 percent is short of the 5 percent impact of inflation, and the "real" FY '94 defense budget will decline about 3.5 percent. There would be a similar real decline in FY '95. In order to maintain real level funding, the FY '94 defense budget would have to be increased not by the proposed $4.5 billion but by $14.5 billion.

The Congressional Budget Office continues to inform us that in order to stay within the overall FY '94 BEA budget cap for discretionary programs (defense, foreign aid, and domestic), the proposed real cut in defense (which allows for a $4.5 billion absolute increase) would force an absolute cut of $16.5 billion in foreign aid and domestic programs combined. The corresponding real reduction for foreign aid and domestic programs would be far larger than the absolute $16.5 billion reduction, because the impact of inflation will make each of fewer dollars worth less. As if that weren't bad enough, the administration intends to cut foreign aid and domestic spending combined by a whopping $24.4 billion in absolute dollars in fiscal 1995. In other words, the proposed slight real reduction in defense spending would mask an enormous reduction in nondefense discretionary spending.[5]

Remember, however, that after FY '93 the five-year pact permits the administration and Congress to shift funds from defense to domestic programs. You might ask, "Why can't Congress just reject the administration's proposal and shift additional funds to domestic programs?" The budget pact was largely sold on the argument that weapons systems development and projection were locked in by legally binding contracts to the extent that possible research and procurement cuts were very limited.

The sudden collapse of the Soviet military threat has made U.S. citizens see the defense levels in the five-year budget pact as too high. The Warsaw Pact has been dissolved, the Soviet Union has been dismembered, unilateral Soviet disarmament has continued apace, most top-secret Soviet military technology is up for sale, and even President George Bush is bowing to pressure from resurgent Europe with his unilateral stand-down from alert status for intercontinental bombers and land-based missiles. There is clearly no need to keep the high defense levels of the budget pact, yet the BEA's budget wall remains standing. The wall is under attack, however.

In fact, since the aborted summer coup in Moscow, it has become so fashionable to bash the budget pact, that Republican Housing and Urban Development (HUD) Secretary Jack Kemp said at the end of October 1991 that the pact should be abandoned for the fiscal year October 1, 1991, to September 30, 1992, and that funds should be transferred from military to domestic programs.

In mid-October, Massachusetts Congressman Barney Frank's Operation Jericho bill failed, but got a yes from a majority of House Democrats, and a total of 145

votes. Frank's bill called for an FY '92 reduction of $11 billion in military spending, half of which would be transferred to deficit reduction (debt repayments) and half to increase domestic spending. A month before the vote on Frank's bill, liberal populist presidential candidate Senator Tom Harkin floated an unsuccessful BEA-busting FY '92 $3 billion transfer from military to domestic spending in the Senate.

The Bush administration resisted the extension of exhausted unemployment benefits, but the president finally relented to a Congress with enough votes to override his veto in the fall of 1991. This was technically a budget pact buster, so Congress avoided the problem by funding it out of future unemployment insurance income.

Since House Speaker Tom Foley and Ways and Means Chairman Dan Rostenkowski were architects of the BEA, they are reluctant to scrap it after just one of its five years. But House Budget Committee Chairman Leon Panetta, House Majority Leader Richard Gephardt, and Senate Majority Leader George Mitchell are ready to scrap the pact. The budget wall could fall soon and even release some FY '92 funds. At this writing it may still be more likely that the pact will be voted out in fiscal '92, but that the budget won't be affected until fiscal '93.

House Budget Chairman Panetta, who is looking toward reductions in military spending on the order of 33 percent to 40 percent over the next few years, wants much of the funds shifted to education and health. Remember that even the administration is calling for a 25 percent cut during the 1990s.

In October 1991, the Brookings Institution released *Decisions for Defense: Prospects for a New Order,* which calls for a 33 percent military budget cut over the next few years. Their analysis of war-fighting needs leads them to recommend, among other things:

- Halting production of the B-2 bomber
- Reconfiguring the B-1 to a cheaper aircraft
- Deferring deployment of the small intercontinental ballistic missile
- Limiting the Trident program to eighteen submarines
- Focusing SDI on a ground-based system (much cheaper than a satellite-based one)
- Killing the new C-17 transport aircraft before any production models are built
- Delaying production of next-generation combat aircraft

The budget wall will be brought down. Substantial funds will be transferred from military to other uses. But what is to prevent those other uses from being more wasteful spending on an unrationalized health care system, an S and L bailout that makes little attempt to recover fraudulently obtained funds, or more tax breaks for the rich? There are plenty of competing uses for the peace dividend.

The problem is that, just as in Massachusetts, so many of the groups that could band together to pressure for sensible alternate uses are so busy fighting state budget cuts and other immediate battles that they don't even have the big money — the impending peace dividend — on their screens, much less a focus of their organizing activity. The sweeping changes with an impact on the national security arena are coming so fast that the constituencies which should be shaping the direction of

federal spending are going to see much of the peace dividend sail right over their heads if they don't focus significant energy on the federal budget now.

### Shifting Military Spending to Appropriate Alternatives

While many would like to see a shift in federal spending out of military production and force maintenance and into other areas of spending designed to better meet domestic needs, some people fear that the loss of military production jobs will somehow leave us with an overall net negative impact on the economy and jobs. In fact, shifting resources from the military to human services, housing, infrastructure, programs to increase international economic competitiveness, and environmental protection and abatement would increase overall employment and economic output, not to mention the overall quality of our lives.

Shifting resources in this way increases employment because the nonmilitary activities receiving more funds are all more-labor and less-capital intensive. They all employ more people per billion dollars expended. Shifting resources in this way will increase overall economic output as long as the alternative spending pattern is designed to strengthen the economy.

In Massachusetts, such a shift would result in overall increased economic output, because the characteristics of the area economy would attract the alternative spending pattern's dollars. Assuming that human services and affordable housing resources would be distributed according to need, New England in general, and Massachusetts in particular, would be expected to get their population share of any such shift in federal spending. The New England region has the oldest economic infrastructure in the nation and would be expected to gain more than its population share for rebuilding such economic infrastructure as roads and bridges.

Both direct federal expenditures (investment, education, training) and indirect federal expenditures (investment tax credits) to improve international economic competitiveness would benefit New England because any such federal programs would emphasize high-tech manufacturing and highly professional and technical services. These are the economic activities that will improve the international competitiveness of regional and national economies in the future. New England in general and Massachusetts in particular are well suited to capture their share or more of such federal dollars, because these economic activities are already the strong points of their economy. The region is also well positioned to capture more than its population share of environmental protection and abatement dollars because of its strength as an innovation center for high-tech and professional services.

Among the New England states, only in Connecticut — the most military procurement–dependent state in the nation — might it take more than a few years to see a significant net improvement in the economy from such a federal spending shift. Long term, Connecticut would benefit as well from the local impact of economic improvement at national and regional levels.

While Japan and Germany turn U.S. military technological advances into commercial products that conquer the world's markets, the United States fails to capitalize on these advances of its own making. It is not merely coincidence that persistently low military spending in those countries correlates with persistently high advances in high-tech commercial markets. While they invest in processes and equipment that produce other marketable processes and equipment, we invest in

weapons systems that not only don't produce anything, but soak up additional resources to man and maintain them. As if this weren't bad enough, the United States keeps its best technical minds busy trying to figure out things like how to make communications equipment function while nuclear bombs are going off nearby, instead of figuring out how to apply new technology to mass consumer markets. For these reasons a shift of resources as outlined above will help the entire national economy, including Connecticut's.

*Converting the American Economy: The Economic Effects of an Alternative Security Policy*, released by Michigan's Employment Research Associates (ERA), proposes a four-year shift from military to domestic spending that starts with $35 billion and ends with $104 billion, for an average of $70 billion a year. This is in the same ballpark as proposals being debated in Congress, although some congressional approaches involve a longer time frame. ERA recommends an alternative spending pattern similar to that suggested in this article. The ERA proposal is illustrated in Table 1.

The ERA estimated economic demand changes by sectors and ran its numbers through the Multi-regional Forecast Simulation Model of the Regional Economic Models, Inc. (REMI) of Amherst, Massachusetts. The results of the five-year shift were a national net employment increase of 477,000 jobs. Twenty-four thousand jobs were lost for every $1 billion cut from the military, and nearly 31,000 nonmilitary jobs were created, a net gain of 6,800 jobs for each $1 billion transferred (see Appendix A for breakdown by economic sector).

The ERA study includes good detailed discussions of an alternative military security policy and corresponding military reductions and the need for new expenditures in each of the alternative expenditure categories shown in Table 1.

Among others, three former U.S. secretaries of Defense, Jobs with Peace and a host of other groups in a Common Agenda Coalition, and a substantial minority in Congress have been advocating for several years that the military budget be halved from (in current dollars) the $300 billion–a-year range to the $150 billion–a-year range by the year 2000. For the past several years (including FY '92), military spending has been declining a few billion dollars a year. The quick war against Iraq may end up causing a one-time increase in military spending, but the consensus remains that military spending is headed down for years to come. It might head down rapidly for a few years.

*Table 1*

**New Program Funding, Fiscal Years 1991–1994**
**(in billions of current dollars)**

| | 1991 | 1992 | 1993 | 1994 | Average |
|---|---|---|---|---|---|
| Education | $ 6.4 | $10.9 | $15.6 | $ 19.5 | $13.1 |
| Infrastructure | $ 5.1 | $ 8.7 | $12.4 | $ 15.6 | $10.5 |
| Environment | $ 2.4 | $ 4.1 | $ 5.9 | $ 7.4 | $ 5.0 |
| Housing | $ 5.4 | $ 9.2 | $13.1 | $ 16.5 | $11.1 |
| Social Services | $ 4.0 | $ 6.8 | $ 9.7 | $ 12.1 | $ 8.1 |
| Health Care | $ 4.5 | $ 7.6 | $10.9 | $ 13.6 | $ 9.2 |
| Civilian R&D | $ 4.2 | $ 7.2 | $10.2 | $ 12.8 | $ 8.6 |
| Employment & Training | $ 2.5 | $ 4.2 | $ 5.9 | $ 7.4 | $ 5.0 |
| Total | $34.6 | $58.8 | $83.7 | $104.9 | |
| | | | Annual Average New Spending | | $70.5 |

Many constituencies have never entered the battle for the federal budget, because they felt that it was an impossible battle to win and an arena inappropriate for their small organizational resources. But suddenly it has become a winnable battle. If new constituencies to this fight do not organize a national coalition quickly, however, established lobbying associations will walk away with much of the peace dividend.

## The Example of Affordable Housing

If we do see military spending decline to the levels the ex-secretaries of Defense and the Common Agenda Coalition are calling for, it would not be unreasonable to see a period of five or ten years when federal spending on affordable housing would command $25 billion a year more than it does now. That would be one sixth of the additional civilian spending made available each year by the shift of resources out of the military to alternative activities, and the remaining five-sixths could be spent on the other alternatives mentioned above.

What would a shift of $25 billion a year into affordable housing look like? When Greater Boston Jobs with Peace took that question to Boston voters in 1987, the response was two to one for a shift from the military. In response, the Boston Redevelopment Authority (BRA) in 1989 released *From a Military to a Housing Buildup: The Impact in Boston of a Six Percent Shift in the Federal Budget from the Military to Housing.*

As shown in Table 2, the federal military budget in 1989 was $404 billion (48% of your federal tax dollars), and the housing budget was nearly $8 billion.[6] Recent increases have raised the federal Department of Housing and Urban Development (HUD) budgets to the low $20 billions, but over a third of the more recent budgets merely continues expiring rental assistance and does not indicate an increase in the level of housing programs. In 1989, the $25 billion transfer represented a loss of 6 percent of military spending and a quadrupling of affordable housing spending. Such a shift today would more than double affordable housing spending and would nearly triple the actual level of housing services provided.

*Table 2*

**Federal Spending on Housing and the Military, Fiscal Years 1981–1989 (in millions of dollars)**

| Budget Category | FY81 | FY82 | FY83 | FY84 | FY85 | FY86 | FY87 | FY88 | FY89[2] |
|---|---|---|---|---|---|---|---|---|---|
| HUD | 32,201 | 18,908 | 14,290 | 14,088 | 11,747 | 10,456 | 8,395 | 8,635 | 7,851 |
| Military | 210,160 | 247,559 | 276,302 | 305,778 | 344,371 | 370,927 | 378,964 | 392,772 | 404,176 |
| Defense Function | 157,513 | 185,309 | 209,903 | 227,413 | 252,748 | 273,375 | 281,999 | 290,361 | 298,255 |
| Int'l Security Assistance | 5,095 | 5,416 | 6,613 | 7,924 | 9,391 | 10,499 | 7,106 | 4,500 | 2,823 |
| National Aeronautics and Space Adm.[1] | — | — | 1,089 | 534 | 732 | 770 | 739 | 909 | 1,068 |
| Military Portion of Net Interest on Public Debt | 47,552 | 56,834 | 58,697 | 69,907 | 81,500 | 86,283 | 89,100 | 97,002 | 102,030 |

1. Military activities of NASA only.
2. HUD and military budgets estimated for FY 1989.

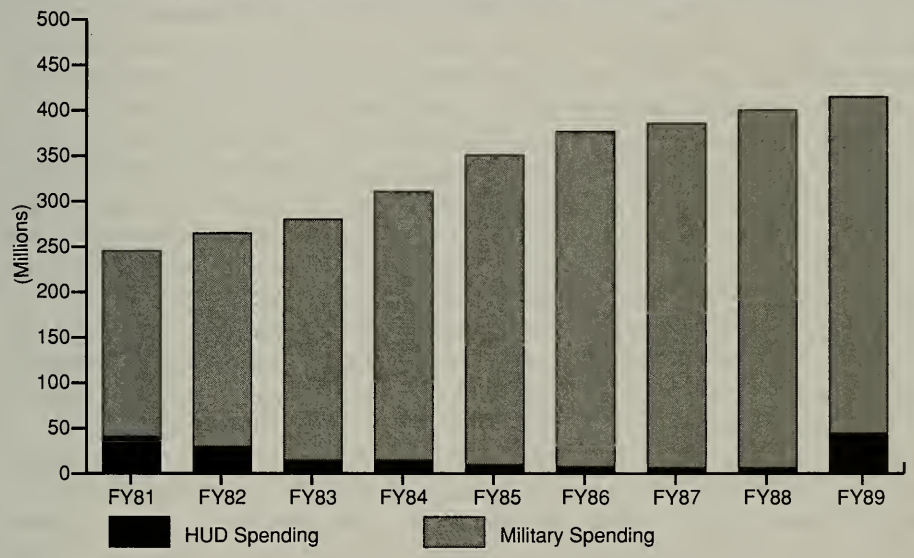
*Sources:* National Low Income Housing Information Service; Military Spending Research Services, Inc.

Figure 1 shows how federal housing spending declined during the 1980s while military spending increased. In real dollars, 1989 housing spending was less than one-sixth what it was in 1979. Increases over the past two years plus an additional $25 billion shifted from military spending would still leave housing spending below 1979 levels in inflation-adjusted dollars.

The BRA study looked at current housing funds allocation formulas based on population, percent living in poverty, and other indicators of need and concluded that if the same allocation procedures were used, Boston's share of an additional $25 billion a year nationally would provide $153 million a year more for housing programs. This is well above the $60 million that Boston would receive if allocation were based solely on population share. Other old, large New England cities would experience allocations higher than their population share.

*Figure 1*

**Military and HUD Spending, Fiscal Years 1981–1989, with a 6 Percent Shift from the Military to HUD in FY 1989**




*Sources:* National Low Income Housing Information Service; Military Spending Research Services, Inc.

This $153 million could be used by the public sector to leverage additional private housing investment and generate about 2,300 new or substantially rehabilitated housing units per year, all of which would be affordable to low- or moderate-income people, and is enough to meet Boston's housing needs. This BRA scenario is unrealistic, however, because public subsidy would never need to be so high ($67,000/unit of housing). At most, public subsidy per unit would not have to exceed half that amount. Private funds could be leveraged to finance the rest of the housing development cost. That would leave half the funds to help low- and moderate-income people pay rent; to purchase ownership shares and turn their housing into cooperatives or reduce the monthly mortgage interest payments for new homeowners; to provide

related job training, education, and counseling to support households in precarious housing situations or those in transition from homelessness (see Appendix B).

Alternatively, as shown in the BRA study, $106 million per year of the funds could supplement the rents of 68,000 low-income renter households in the city who now pay rents in excess of 30 percent of their gross incomes. This would leave $47 million, which could leverage additional private funds to generate 1,400 new or substantially rehabilitated housing units per year.

This kind of housing is already being created in thousands of communities across the United States. Typical development arrangements include establishment of project specifications and objectives by public-private partnerships between a community and a nonprofit or for-profit developer, with support from additional philanthropic or below-market-rate private financing. The community packages local, state, and federal development subsidy funds into the project, and private financing sources put up the majority of the total development cost.

The result is mixed-income rental housing with the poorest tenants receiving ongoing rental assistance (part of the rent being paid with public funds); or cooperatives, for which public funds pay the bulk of the cost for low-income tenants to purchase ownership shares; or homeownership, for which public funds keep closing costs and down payment low for the buyer, and pay part of the buyer's mortgage interest.

Currently, all New England states have federal Section 8 funds that provide exactly this rental assistance service for some of their low-income households. Massachusetts has the 707 program, which is a mirror image of the federal Section 8 program but uses state funds. The Massachusetts legislature has cut $33.5 million a year in 707 rental assistance. If $25 billion a year for five or six years were shifted to housing and related programs, Massachusetts's share would be about $700 million a year. The state would never have to think about cutting rental assistance.

The BRA study figured that a $25 billion shift from the military to housing would bring an additional $375 million into the Greater Boston area extending out nearly to Route 495 (the area included in the BRA's regional economic computer model). Their model took into account the jobs that would be lost in the military sector, including private manufacturing and research, and showed a 7,400 net increase in jobs when all the funds were spent in housing development. The additional jobs were in construction and the making, selling, and transporting of housing materials from lumber to paint to refrigerators. The model also indicated that there would be a net increase in regional personal income of $147 million a year.

Similar comparisons could be made regarding shifts in spending from the military to the other areas suggested above: human services, economic infrastructure, programs to increase international economic competitiveness, and environmental protection and abatement.[7] Similar results would be obtained, showing net increases in the quality of life, employment, and economic output.

This is not to say that some displaced workers in the military sector would not suffer. Some of the shifted funds would, of course, be available to assist idled military research and production facilities in adapting to the production of alternative goods and services. Assistance would be available to subsidize conversion of closed military bases to alternative uses. Resources would be available for retraining. Still, some people and some urban areas would be hurt. The region as a whole, however, would clearly benefit.

### Impact on Homelessness of the Shift of Additional Resources

One way or another, all the institutions and advocacy groups involved in the issues of homelessness, affordable housing, and human services are talking about the use of public resources to improve the quality of life for the poorer portion of the population. In our economic and political system, these public resources come mainly from taxation of privately owned economic activities. Some public resources come from the recycling of publicly expended dollars as those dollars turn over again and again, rippling through the economy and generating jobs and income. But most public resources come from the private sector. We can't have the level of public resources that are necessary to meet human needs unless the private economy is healthy and vigorous.

Homelessness will not be dealt with unless the U.S. government intervenes with programs and tax breaks designed to make our economy more competitive internationally, and part of that is rebuilding economic infrastructure. Only a healthy economy can afford the public expenditures required to provide a decent quality of life for all its citizens.

Shifting funds from the military to human services and housing might help a lot of people in the short to medium term, but such high spending could not be sustained for long unless the vigor of the overall economy is improved. So in the long run it is just as important for homeless people that military funds be shifted to activities specifically designed to improve the economy as it is for funds to be shifted to programs that directly benefit them.

Even with a shift of funds to programs that directly benefit homeless people, there is a trade-off between meeting immediate and midterm need. If all the funds that have gone into shelters and hotels for the homeless had gone into transitional housing programs with related job training, education, and counseling programs, there would be far fewer homeless people today. Of course, the immediate needs of the homeless must be addressed as well. Nonetheless, more of the scarce resources available over the past decade should have been spent on transitional programs than was the case.

Certainly when we contemplate an alternative federal spending pattern that better meets the needs of our society and the world, we want to maximize the mainstreaming of homeless and near homeless people, not increase their warehousing in shelters or hotels.

More funds for housing can increase the availability of affordable single-room-occupancy (SRO) housing; group transitional housing facilities with supportive training, education, and services; housing for homeless people with special needs such as mental health or retardation problems, with related supportive services; and more affordable conventional family housing. All these programs exist in most of New England, and they should be expanded with a small share of the resources that must be shifted from military spending. But we must also insist that funds be shifted from the military to programs that improve the economy. One does no good in the end without the other. Without the latter, the transition from homelessness to a self-sustaining life of good quality will never happen, because the sustaining employment won't be there.

## Impact of the Shift on Massachusetts

### *Military Taxes and Jobs*

New England taxpayers send over half their city, state, and federal tax dollars to the federal government. They send four to five times as many dollars to the federal government as they do to state government. The federal government uses 48 percent of its tax dollars on the military, mostly to fund the Department of Defense's (DOD) operations, research and development, and weapons procurement. But some military funding goes to the Department of Energy's (DOE) nuclear weapons production, to the military component of NASA, and to pay the military's share of the national debt.

Over the past decade the federal government reduced the share of federal spending for nonmilitary purposes and transferred every dollar taken from those programs to the increased military budgets of the decade. The greatest reduction was in housing and community development programs. Those transfers paid for most, but not quite all, the decade-long military buildup. The rest was paid for by borrowing money — by the deficit. But even so, most of the deficit could have been avoided if tax reductions for the wealthy had not been enacted by the Reagan administration and Congress.

There are no exact measures for direct or indirect military employment. Jobs with Peace estimates that Massachusetts military employment peaked in 1988–1989 and has subsequently declined by about 2 percent. There are about 120,000 direct and indirect military jobs in the state, comprising 4 percent of the state work force.[8] Direct employees are civilians in private firms doing work under military contracts or military personnel or civilians directly employed by the DOD. Indirect employment includes suppliers of goods and services to these private military contractors and DOD facilities. Examples are sheet metal or office supply producers who sell to military contractors, subcontractors, or military bases.

**Massachusetts Direct and Indirect Military Employment**

| | Jobs Direct | Jobs Indirect | Total |
|---|---|---|---|
| DOD R and D and procurement in private firms | 59,000 | 30,000 | 89,000 |
| DOD civilian and military employees | 21,000 | 10,000 | 31,000 |
| Totals | 80,000 | 40,000 | 120,000 |

Anticipated reductions in military spending could occur in three areas: operations/force levels, research and development, and procurement/production of military hardware. Massachusetts has relatively small forces based in the state, but its largest facility, Fort Devens, is slated to be closed and converted to civilian uses.

Since Massachusetts has the highest proportion of its defense contracting awards in research and development among all the states, and since R and D is not expected to be cut appreciably, the state should continue to do well in that area. Reductions in missile, radar, and jet engine procurement, however, will cost the state several thousand jobs over the coming decade.

Massachusetts gets less than its population share of military spending in operations — the largest category — because its per capita receipt of military base dollars

is below average. There are approximately 21,000 direct DOD uniformed and civilian employees in Massachusetts, and about 10,000 indirect jobs generated by this direct employment. In the spring of 1991, DOD announced that Fort Devens would be closed, and the decision has subsequently become final. Congress had decided in 1988 to expand the base with a new mission. That decision, which had the force of law, has been reversed. The Devens closing may eliminate up to 9,000 of the state's 21,000 direct DOD employee jobs and 4,000 of the 10,000 indirect jobs that the direct jobs generate.

Massachusetts gets more than its share of R and D and procurement dollars and is one of the nation's leading military contracting states. Virtually none of these military contracting dollars goes to companies or universities in Boston. The bulk of it goes to firms and schools in the area between Route 128 and Route 495. Worcester is strong in airframe forgings and aircraft and missile ceramics. Western Massachusetts has missile guidance and a variety of subcontracting, largely from Connecticut military contractors. But these areas are less dependent on military employment than the Routes 128–495 belt. Boston itself has virtually no direct and little indirect military employment. The city's economy has benefited to some extent from the general level of economic activity that military employment has brought to the eastern Massachusetts region.

***Military Employment in Perspective***

Let us place military employment in proper perspective. For many years the printing and publishing industry in Massachusetts employed about as many people as military R and D and production. Even after the recent decline in the minicomputer industry, computer hardware and software for civilian markets employ more than military R and D and production, and public and private employment in education is four to five times greater.

Massachusetts lost 125,000 jobs in 1990 (4.1%) from all employment sectors combined, more than the combined total of all direct and indirect military employment, of which only 1,000 or 2,000 were military. That loss, the sharpest one-year percentage drop since such records have been kept, exceeds the 1.1 percent and 3.4 percent losses in the 1982 and 1974 recessions, respectively. New England's 1990 loss from all employment sectors was 250,000 jobs, about the same number as the total direct and indirect New England military employment.[9]

The point is that Massachusetts in particular, and New England in general, are highly diversified, high-tech-oriented economies in which military jobs play an important, but quite minor role. Over 20,000 jobs have been lost in the Massachusetts minicomputer industry over the past three years because personal computers, largely made elsewhere, have been expanding in power and eating into the Massachusetts share from the bottom of the market.

Even if the DOD budget is cut in half — in inflation-adjusted dollars — over the next decade, most of the reduction in Massachusetts will be in operations, followed by procurement, and least in R and D. The resultant loss in direct military employment wouldn't necessarily exceed the loss in minicomputer jobs in the past three years. The problem is how to keep the regional economy competitive as a generator of new, high value-added high-tech industry and professional services. If this is accomplished, any reasonable alternative federal spending pattern will benefit the region.

Current federal budget priorities mean that Boston residents who could be employed in expanding high-tech commercial businesses remain unemployed or underemployed in lower-paying service jobs. Current federal budget priorities result in forgone economic opportunities — economic opportunity costs — to the entire state of Massachusetts that would easily generate more jobs and income than the jobs and income which would be lost by a substantial shift of military to civilian spending.

The net impacts of a shift of federal resources can be estimated with any degree of probable accuracy only if specifics are used — a specific amount of dollars per year from each of the three military spending categories to a specific amount into each of the alternative categories of civilian production. A detailed example is beyond the scope of this article, but if, say, $35 billion a year from current levels of military spending — taken two-thirds from operations and one-third from production — were shifted into a spending pattern that in some way equally distributes the money among the alternative categories suggested, it is safe to surmise that such a transfer would, on balance, result in at least some net economic benefit to the state in terms of employment, income, and economic output. Depending on the specifics, the net benefit could be quite substantial.

***Conversion of Fort Devens to Alternative Use***

The Fort Devens closing may eliminate up to 9,000 of the state's 21,000 direct DOD employee jobs (43%), and 4,000 of the 10,000 indirect jobs (40%) they generate. Direct and indirect jobs generated by Fort Devens economic activity total 14,000, nearly 12 percent of the Massachusetts total, which includes research and production employees at private firms. The Ayer Chamber of Commerce breaks down the 9,000 direct employment estimate at 5,200 military and 3,800 civilian DOD employees.

It looks as though the base will be converted to non-DOD use with a significant minor share of the land remaining with the army for a testing/training ground, or that the entire base will be converted to non-DOD uses. It is one of three sites in the state being studied for the state's second-largest civil airport. The history of economic conversion of military bases indicates that even if the base is closed, alternative uses will generate significant employment. While the range of possibilities is large, it is quite reasonable to anticipate that reuse would generate three quarters of former employment levels within a decade. Local examples of military base reuse are the South Boston Army Base, converted into a marine industrial park, and the Charlestown Navy Yard, converted into housing, office, tourism, and retail uses.[10]

As the base is phased out and alternate uses begin to come in, there will still probably be a temporary dip for a few years where there might be only four or five thousand direct and indirect jobs generated by activity at the site. Over the course of the next decade, there are likely to be reductions in military and civilian employment at other military bases in the state. The air force announced at the end of May 1991 that it will reduce employment at its Hanscom Field Electronic Systems Division by 10 percent. The Weymouth Naval Air Station will be cutting a small number of jobs. These are relatively small losses in jobs, but typical of the kinds of reductions we may see a little more in the next few years.

The 9,000 Devens jobs equal about 40 percent of those which have been lost in Massachusetts mini- and mainframe computer manufacturing firms in the past four years. It helps to maintain perspective by reminding ourselves of such facts as: Massachusetts private universities and K–12 public education facilities *each* employ

about 100,000. Public colleges and private K–12 institutions employ roughly another 100,000. These 300,000 direct education jobs in turn generate about 100,000 indirect ones. The loss of Devens is a terrible blow, but there is a lot going on in Massachusetts, and there are a lot of jobs — close to 3 million of them.

Unfortunately, redevelopment of Devens in a weak regional economy is bound to be slow. The uncertainty of whether all or only part of the land is going to be released by the army makes the job harder. If the army retains part of the vast acreage to use as a mortar firing range, it would lower the value of surrounding land. Even more troubling is the extensive toxic pollution in scattered sites around the base. It is the army's responsibility to do the cleanup. Until cleanup is under way and there is certainty about its timely completion, alternate use development cannot proceed very far. It is incumbent upon all organizations in the state committed to influencing the issues discussed in this article to assist the Fort Devens redevelopment effort in putting pressure on the army to reach a final decision on the land use and to undertake significant cleanup quickly.

As for thirty years, there are federal programs to assist military base conversions. At the state level, Massachusetts created the Massachusetts Government Land Bank in 1975 to help finance military base conversions and other community development activity. The Land Bank, which had success with those conversions, currently has $20 million in loan funds available, much of which could help finance Devens projects. The Land Bank will provide expertise and a guiding hand as well as money. Governor William Weld has established an advisory commission for Fort Devens conversion, and area communities and institutions have formed a redevelopment coalition.

The project will be a tough one in the short run, but will probably work out all right in the long run. In a study that understated difficulties and long time frames, the DOD Office of Economic Adjustment did a 1986 survey of 97 closed military bases that employed 93,000 civilians. After conversion to non-DOD use, they employed 158,000 civilians. As with the Boston Army Base, 75 include industrial parks, 42 have municipal airports, and many have schools.

***State Activity for Alternate Use***

State governments and other public and private institutions at the regional and local level can initiate steps to ameliorate the negative impact of military cuts and enhance the positive impact of alternative federal spending. Regions should undertake activities that will attract public and private dollars which are no longer claimed by military activities. The Land Bank, a perfect example, reduces the negative impacts of base closings by helping to plan and finance reuse.

The Bank of Boston's Economics Department released its "Survey of New England Defense Contractors" in 1990. The 355 respondents were predominantly small and well-established firms, three quarters of which were manufacturers and the remainder largely service providers. Eighty percent had sales of $25 million or less. Defense contracts account for over 40 percent of sales, on average. When asked which type of government support they preferred to help them adapt to reduced military contracts — grants, loans, export assistance, or worker training — 56 percent of the respondents picked export assistance, grants and loans each received about 25 percent, and worker training 20 percent. Overseas markets accounted for a significant chunk of the firms' sales, especially in Massachusetts, where foreign sales are 25 percent of total sales. Not only are foreign sales strong, but the firms think

foreign sales are a key to growth. Export controls and lack of depth in export experience are limitations.

Redirected federal dollars could respond to this need and export controls could be further relaxed. But states don't have to wait for the federal government to respond. State resources could be directed to help these firms develop export markets, which in turn would demonstrate the profitability of New England high-tech export-oriented business and attract further investment into the region.

## A Winning Strategy

The savings and loan bailout could cost the taxpayers between $200 billion and $600 billion from its beginning in 1989 and continuing for a generation.[11] If we paid more of the bailout cost over the next few years, rather than stretching it out, we could cut the $600 billion in half. Congressman Joseph Kennedy's bill, which has made it out of committee in the House, proposes this correct pay-now approach. If Kennedy's bill were to be adopted, and if the Congress and the judicial system went after perpetrators of fraud in the S and L industry, the cost could be further reduced, by recovering some of the funds, to no more than $200 billion. If advocates of alternative spending patterns direct all their energy toward dealing with municipal and state fiscal crises and never focus on the federal budget, the cost of the bailout will be closer to $600 billion than $200 billion. It is partly up to us whether money freed by reduced military spending goes to waste in this bailout or to humanizing and economically productive uses that will strengthen the economy and improve the quality of life.

The deficit *is* the military budget. As previously noted, the 1980s saw every federal dollar cut from nonmilitary programs transferred to the military. In addition, federal taxes on the wealthy were reduced. The combined effect caused the deficit to multiply astronomically. The most efficient and painless way to reduce the deficit is to improve the productivity, innovation, and competitiveness of the economy. This will increase public revenues sufficiently to maintain adequate spending levels *and* reduce the deficit. If more tax dollars had been used in the 1980s for economic infrastructure, education, and other programs and incentives to improve the economy, we wouldn't have the deficit problem today. Again, the choice is partly ours, to the extent that we educate ourselves about what is necessary to improve the economy and be advocates for it, so we can get what we want.

The winning strategy fuses the energies of constituencies that want to reduce military spending; human services, housing, education, and environmental constituencies that want to maintain or strengthen public expenditures and laws; and business, labor, and policy groups who understand that a healthy, competitive, profitable, and relatively full employment economy can be attained only if federal resources are shifted toward economic infrastructure, education, and programs and incentives to increase economic competitiveness.

Human services, housing, and environmental groups must develop and demonstrate an understanding of the economic realities that make their demands realistic and sustainable. They must not just be advocates for their constituents' immediate requirements, but must also advocate public spending that will improve the economy and make their humanizing demands sustainable.

Business, labor, and policy groups who have restricted their advocacy to narrow economic issues must respond to the new economic sophistication of the human ser-

vice organizations, and realize the wisdom of forming an alliance with them. These progressive business groups must add arguments for the quality of life to their narrow economic perspective. Peace and disarmament groups must recognize that their objectives can best be accomplished by demonstrating to the human services and business groups that the resources needed to accomplish their objectives can largely be found in the military budget.

Peace constituencies must spend much more time doing this and much less pointing out what is wrong with persistently high military spending in terms of destructive foreign policy and the threat of nuclear war. Only with this more sophisticated understanding and strategy can these three constituency groupings achieve their respective objectives — together. ❧

## Appendix A

## Occupational Employment Impacts of Alternative Priorities

(Average Annual 1991–1994)

| Net Gain Occupations | Jobs Lost from Military Spending Cuts | Jobs Gained from Civilian Spending Increases | Net Jobs Gained or Lost |
|---|---|---|---|
| **Managerial & Management Related Occupations** | | | |
| Educational administrators | –1,300 | +7,850 | +6,550 |
| Financial managers | –7,190 | +18,120 | +10,930 |
| Public administrators | 0 | +1,240 | +1,240 |
| Purchasing managers | –2,230 | +3,120 | +890 |
| NEC* other managers | –62,400 | +107,370 | +44,970 |
| Accountants & auditors | –14,670 | +25,980 | +11,310 |
| Inspectors, management | –3,320 | +3,650 | +330 |
| Insurance claims examiners | –220 | +400 | +180 |
| Wholesale & retail buyers | –1,240 | +1,860 | +620 |
| NEC other management support | –31,240 | +42,030 | +10,790 |
| **Engineering Occupations** | | | |
| Chemical engineers | –990 | +1,620 | +630 |
| Civil engineers | –3,120 | +9,740 | +6,620 |
| Electrical & electronic engineers | –12,770 | +13,220 | +450 |
| Mechanical engineers | –6,910 | +8,000 | +1,090 |
| Mining petro engineers | –330 | +790 | +460 |
| Architects | –1,080 | +3,230 | +2,150 |
| Surveyors | –1,640 | +3,470 | +1,830 |
| **Computer, Natural, Mathematical & Social Scientists** | | | |
| Computer systems analysts | –7,620 | +12,220 | +4,600 |
| Natural scientists | –6,750 | +9,560 | +2,810 |
| Math scientists | –1,920 | +2,960 | +1,040 |
| Social scientists | –2,040 | +4,120 | +2,080 |
| **Social, Educational, & Religious Workers; Lawyers & Judicial Workers** | | | |
| Clergy & religious directors | –3,330 | +32,510 | +29,180 |
| Social & recreation workers | –3,940 | +34,620 | +30,680 |
| Lawyers & judicial workers | –6,150 | +14,330 | +8,180 |
| Pre-K, K–6 teachers | –8,730 | +81,970 | +73,240 |
| 7–12 teachers | –4,740 | +44,010 | +39,270 |
| Postsecondary education teachers | –2,940 | +11,230 | +8,290 |
| NEC teachers, counselors, instructors | –7,690 | +44,290 | +36,600 |
| Librarians | –1,120 | +4,640 | +3,520 |
| **Health Diagnosing & Treating Occupations** | | | |
| Physicians & dentists | –5,870 | +13,370 | +7,500 |
| Nurses, dieticians, therapists | –11,790 | +38,110 | +26,320 |
| **Writers, Artists, & Entertainers** | | | |
| Reporters & writers | –3,370 | +4,980 | +1,610 |
| Public relations | –1,120 | +3,410 | +2,290 |
| NEC writers & artists | –6,600 | +14,360 | +7,760 |
| **Technicians** | | | |
| Health technicians | –11,260 | +35,640 | +24,380 |
| Drafters | –5,620 | +9,910 | +4,290 |
| Physical & life science technicians | –3,650 | +3,980 | +330 |
| NEC technicians | –30,420 | +33,880 | +3,460 |

| Net Gain Occupations | Jobs Lost from Military Spending Cuts | Jobs Gained from Civilian Spending Increases | Net Jobs Gained or Lost |
|---|---|---|---|
| Marketing & Sales Occupations | | | |
| Real estate agents & brokers | –2,720 | +5,060 | +2,340 |
| Securities & financial sales workers | –1,130 | +1,740 | +610 |
| NEC marketing & sales workers | –85,610 | +138,210 | +52,600 |
| Secretaries, Typists & Administrative Support Occupations | | | |
| Adjusters, investigators, collectors | –6,510 | +10,220 | +3,710 |
| Office machine operators | –10,780 | +16,020 | +5,240 |
| NEC administrative support occupations | –191,990 | +253,820 | +61,830 |
| Secretaries, stenographers, typists | –50,330 | +109,170 | +58,840 |
| Service Occupations | | | |
| Cleaning workers | –32,610 | +69,390 | +36,780 |
| Food service workers | –56,300 | +98,950 | +42,650 |
| Health service workers | –11,330 | +44,330 | +33,000 |
| Personal service workers | –11,350 | +43,420 | +32,070 |
| Private household workers | –4,730 | +7,150 | +2,420 |
| Protective service workers | –17,790 | +42,750 | +24,960 |
| NEC service workers | –6,500 | +13,790 | +7,290 |
| Agriculture, Forestry & Fishing & Related Occupations | | | |
| Agricultural supervisors | –300 | +490 | +190 |
| Animal caretakers | –5,150 | +15,050 | +9,900 |
| Farm managers, operators & workers | –3,470 | +10,210 | +6,740 |
| Fishers, hunters, trappers | –140 | +430 | +290 |
| Forestry & logging occupations | –1,380 | +2,070 | +690 |
| NEC agricultural workers | –1,110 | +1,780 | +670 |
| Blue-collar Supervisory Occupations | –23,970 | +34,610 | +10,640 |
| Construction Trades | | | |
| Electricians | –6,410 | +19,060 | +12,650 |
| NEC construction trade workers | –22,800 | +101,840 | +79,040 |
| Extractive workers | –2,350 | +4,650 | +2,300 |
| Mechanics, Installers, & Repairers | | | |
| Communications equipment workers | –1,170 | +1,390 | +220 |
| Electric, & electronic equipment workers | –8,270 | +8,840 | +570 |
| Machinery workers | –19,230 | +30,560 | +11,330 |
| Vehicle equipment workers | –15,500 | +19,540 | +4,040 |
| NEC mech. installers, repair workers | –11,440 | +17,970 | +6,530 |
| Precision Production Occupations | | | |
| Precision food workers | –1,720 | +2,630 | +910 |
| Precision printing workers | –890 | +2,020 | +1,130 |
| Precision textile workers | –1,830 | +2,520 | +690 |
| Precision woodworkers | –1,910 | +3,310 | +1,400 |
| NEC precision workers | –2,750 | +3,740 | +990 |
| Machine Setters, Operators, Tenders; Assemblers; Plant & System Occupations | | | |
| Printing workers | –4,060 | +7,500 | +3,440 |
| Textile workers | –6,980 | +9,040 | +2,060 |
| Woodworking machine operators | –1,340 | +2,700 | +1,360 |
| NEC machine operators | –18,870 | +22,440 | +3,570 |
| Plant & system occupations | –2,540 | +4,390 | +1,850 |

| Net Gain Occupations | Jobs Lost from Military Spending Cuts | Jobs Gained from Civilian Spending Increases | Net Jobs Gained or Lost |
|---|---|---|---|
| Transportation & Material Moving Machine & Vehicle Operators | | | |
| Motor vehicle operators | –29,430 | +54,240 | +24,810 |
| Rail transport workers | –890 | +1,130 | +240 |
| NEC transportation workers | –13,570 | +26,500 | +12,930 |
| Helpers, laborers & material movers | –46,360 | +89,700 | +43,340 |
| **Net Loss Occupations** | | | |
| Engineering Occupations | | | |
| Aero & astronautical engineers | –4,170 | +1,230 | –2,940 |
| Industrial engineers | –3,700 | +3,180 | –520 |
| Metallurgists | –660 | +530 | –130 |
| Nuclear & NEC engineers | –8,840 | +8,120 | –720 |
| Technician Occupations | | | |
| Engineering technicians | –18,430 | +13,650 | –4,780 |
| Precision Production Occupations | | | |
| Precision metal workers | –20,630 | +15,220 | –5,410 |
| Inspectors, testers, graders | –13,500 | +8,730 | –4,770 |
| Machine Setters, Operators, Tenders; Assemblers | | | |
| Numerical control machine operators | –1,670 | +580 | –1,090 |
| Combination machine tool operators | –19,150 | +10,860 | –8,290 |
| Metal & plastic machine operators | –11,150 | +7,820 | –3,330 |
| Assemblers | –52,910 | +33,620 | –19,290 |
| Transportation & Material Moving Machine & Vehicle Operators | | | |
| Pilots & flight engineers | –1,310 | +960 | –350 |
| Water transport workers | –750 | +430 | –320 |
| Uniformed Military Personnel | –498,520 | +0 | –498,520 |
| **Net Jobs Gained** by $70 billion a year transfer from military to domestic spending | | | **+477,000** |

*Source: Converting the American Economy,* Employment Research Associates, Lansing, Michigan.

*NEC = not elsewhere counted

Appendix B

## The Rent Gap: Boston Tenant Rent Payments over 30 Percent of Income, 1988[1]

| Household Income[2] | Monthly Rent Affordable[3] | Actual Average Monthly Rent[4] | % of Renter Households in Income Range[5] | No. of Renter Units in Income Range[6] | Per Household, Gap, Monthly[7] | Per Household Gap, 1988 | Total Gap, 1988[8] |
|---|---|---|---|---|---|---|---|
| $10,000 | $125 | $373 | 22% | 27,170 | $248 | $2,976 | $80,857,920 |
| $10,000–24,999 | $438 | $489 | 33% | 40,755 | $52 | $618 | $25,186,590 |
| $25,000–39,999 | $813 | $514 | 20% | 24,700 | $0 | $0 | $0 |
| $40,000+ | $1,500 | $700 | 25% | 30,875 | $0 | $0 | $0 |
| Total | | | 100% | 123,500 | | | $106,044,510 |

1. Non–Boston Housing Authority tenants.
2. From BRA 1985 Household Survey; trended to 1988 using wage data from Bureau of Labor Statistics.
3. Assuming each household pays 30 percent of its income toward rent.
4. From BRA 1985 Household Survey; trended to 1988 using rent data from survey of *Boston Globe*–advertised rents by Michael Stone, University of Massachusetts at Boston.
5. From BRA 1985 Household Survey.
6. Total number of 1988 rental units estimated using data presented in Rolf Goetze, Boston's Housing Stock 1970-2000 (BRA, December 1987).
7. Actual rent minus affordable rent.
8. Annual gap times number of households.

## Subsidy Required to Build Low- and Moderate-Income Units, 1989

| | Moderate-Income | Low-Income |
|---|---|---|
| Family income[1] | $34,000 | $23,450 |
| Monthly cost affordable to family [2] | $850 | $586 |
| Monthly mortgage payment | $649 | $403 |
| Mortgage insurance[3] | $21 | $13 |
| Property taxes[4] | $66 | $66 |
| Residential exemption | ($12) | ($12) |
| Hazard insurance[5] | $26 | $16 |
| Condominium fee | $100 | $100 |
| Housing unit price affordable to family[6] | $82,200 | $51,000 |
| Construction cost[7] | $100,000 | $100,000 |
| Per-unit subsidy needed | $17,800 | $49,000 |

1. U.S. Department of Housing and Urban Development.
2. Assuming family spends 30 percent of its income on housing.
3. Mortgage amount times 0.0034.
4. Construction cost times 0.01077.
5. Mortgage amount times 0.004166.
6. Assuming a 10 percent down payment and a thirty-year mortgage with a 10 percent interest rate.
7. Assuming no land costs.

*Source: From a Military to a Housing Buildup: The Impact in Boston of a Six Percent Shift in the Federal Budget from the Military to Housing*, Boston Redevelopment Authority, August 1989.

## Appendix C
## Critique of Typical Approach to Military Economic Analysis for New England

Dartmouth's Richard Barf contributed the piece on New England, "Living by the Sword and Dying by the Sword? Defense Spending and New England's Economy in Retrospect and Prospect," in *The Pentagon and the Cities* (Andrew Kirby, ed., *Urban Affairs Annual Review* 40 [Newbury Park, Calif.: Sage, 1992]). Typical of most articles on military economics in New England that have appeared within the past decade, this one overstates the military dependence of the regional economy, creates the impression that "defense-related" industries do more military work than is the case, fails to point out the economic benefits to the region of a shift of military spending to alternative uses, and fails to state clearly the overarching nonmilitary strengths of the regional economy. While useful in many respects, such articles do a disservice by exaggerating the negative impact of military cutbacks and understating the positive impact of alternative federal spending patterns.

In "Living by the Sword," Barf says, for example, that military prime contract awards (for research and production) to businesses accounted for more than 7 percent of Massachusetts gross state product (GSP) in 1984. This implies that direct employment on military contract work accounted for 7 percent of gross domestic product (GDP). No study has ever shown that direct military contracting employment approached anywhere near this amount.

Defense-related industry, which produces primarily for civilian markets, approaches 7 percent of Massachusetts GDP, but the military component of defense-related output is a minor share of that 7 percent. "Direct" and "indirect" military employment was estimated by Data Resources, Inc. (DRI), at nearly 7 percent, but at least one third of that is indirect economic activity — sales by suppliers of sheet metal, stationery, wire, paper clips, construction services, and so forth, to military contracting firms. Furthermore, the DRI figure included not just private military contracting, but also military bases. Jobs with Peace estimated direct and indirect military output, including military bases as well as private military contracting, at 5 percent of Massachusetts GDP.

Barf says (page 92) that the "defense share of total private employment (in Connecticut) exceeds 9 percent." This implies that all 9 percent are in defense work. He accidentally corrects himself on the next page by stating it correctly as defense-related, and not as defense, as he had done on the previous page. To qualify as a defense-related industry, at least 10 percent of the employees in the industry must be working on military projects. Thus the two statements I have cited above represent estimates that could be as much as 90 percent different from one another, depending on whether "defense" or "defense-related" is the criterion.

Barf briefly explains at the beginning of the article that defense-related means that at least 10 percent of employees are working on military projects. He never mentions this again in the article, which is entirely based on defense-related, not defense, job and output data. The way he uses the figures, plus these two clear misstatements, give the lay reader the impression that defense-related essentially means "defense." This is also true of most articles on the subject of military economics in New England over at least the past decade.

The implicit overstatement of military employment/output is magnified in Barf's article by the dearth of meaningful discussion about nonmilitary strengths of the New England economy and his concluding statement that "in the context of the present regional recession outside of defense-related industry, the prognosis for the regional economy for the next decade is not bright."

Barf's misrepresentation is nicely put in the title, "Living by the Sword and Dying by the Sword?" Barf overstates the defense component of the New England regional boom of the late 1970s and early 1980s and the contraction in defense work as a cause of the regional recession of the late 1980s and early 1990s.

He points out that between 1977 and 1984, New England defense-related industry grew 12.7 percent, four times faster than in the nation as a whole. He adds that military prime contract awards for research and development (R and D) and production increased 180 percent in real terms in New England between 1977 and 1984, the highest per capita increase in the nation. Further, Barf cites Lynne Brown, the Federal Reserve Bank's economist, who states that during this period New England was the most defense-oriented census region in the United States, with Connecticut the most defense-oriented state in the nation, New Hampshire the third, and Massachusetts the sixth.

Aside from citing Brown's observation that Massachusetts, New Hampshire, Vermont, and Connecticut also had very strong civilian components in their defense-related industries, Barf glosses over the nondefense component of defense-related industries. Again, this is typical of the entire literature. My own estimate is that 15 percent of defense-related industry employment in Massachusetts was military at the military employment peak in the mid-to-late 1980s.

Comparing 25,000 jobs lost in the past five years in the nondefense-related computer hardware industry with about 3,000 lost in military industry illustrates that the regional recession through 1990 had little or nothing to do with military spending cutbacks: I estimate, based on statements of many leading Massachusetts computer firms, that 4 percent of computer hardware and software production in Massachusetts is military, and 96 percent is for the civilian market. Hence, information/data processing systems is not a "defense-related" industry.

In Massachusetts, where the vast majority of New England's computer industry is located, roughly 25,000 computer hardware production jobs (my estimate) have been lost in the past five years. These jobs represent 44 percent of total direct defense employment in the mid-1980s, according to Jobs with Peace's *Massachusetts and Its Military Industry* (1986). Data Resources, Inc., which estimates military employment as a bit higher than Jobs with Peace does, would place 25,000 lost computer industry jobs as about one third of the total commonwealth direct military employment in the mid-1980s. Over the same five-year period when those computer hardware jobs were lost, I have heard of about 3,000 military industry jobs being cut.

Barf cites Harrison and Kluver's statement that a slowdown in the rate of growth of defense spending probably contributed to New England's poor job performance related to the nation as a whole in the late 1980s. Barf also notes that from 1984 to 1987, New England lost 8,400 defense-related jobs. Note that this tells us absolutely nothing about how many of these jobs were actually defense jobs. During the same period, 100,000 manufacturing jobs were lost. Again, the layman gets the impression that military cutbacks contributed significantly to the regional recession, when the numbers actually state the opposite. At the most, a minority of the 8,400 defense-related jobs were actually defense jobs, of a total of 100,000 jobs.

Prime contract awards (R and D and production awards of $25,000 or greater) to R and D, engineering, and manufacturing entities peaked in New England in 1986, but remained near the peak for two more years. The funds represented in prime contract awards are expended in most cases over one to three years following the award. Hence, actual defense R and D and production economic activity did not begin to decline meaningfully in New England until 1990 at the earliest.

The regional recession that began in 1988 and may bottom out in the first half of 1992 was caused almost entirely by contraction in real estate and related construction,

finance and insurance, mini- and mainframe computer hardware, and the regional impact of the national recession. Military industry, in fact, continued to bolster the regional economy during this period.

To be sure, as Barf concludes, the regional economy is currently weak and in recession, and any substantial defense downturn will certainly make problems worse. The regional recession we have seen to date, however, has not been caused at all significantly by military cutbacks.

Military cuts will soon begin to take their toll, however. While New England had relatively low per capita annual military base expenditures, much of what it had is packing up and leaving. The supposedly nonpolitical base closings that were announced are hitting Democratic districts far harder than Republican ones. Pease Air Force Base in New Hampshire is closing. Fort Devens, Massachusetts's largest base, will be phased out over the next two years. Maine's Loring Air Force Strategic Air Command (SAC) B-52 bomber base will be closed soon. In addition, there will be a lower level of military contracting in jet engines, avionics (airplane control systems), air-to-air missiles, radar, and nuclear missile guidance and control for at least a decade.

The main impact of military R and D and production on the New England economy has always come from the R and D component, not from the direct, or even indirect, employment benefits, but rather from the spin-off of civilian industry and the general contribution to the high-tech resource base. The Massachusetts Institute of Technology–centered R and D made New England a leader in the following civilian businesses: computer hardware and software, jet engines, avionics, airframe structural members, radar, missile guidance and control, communications equipment, high temperature ceramics, lasers, and other high-tech enterprises. In large part because of military R and D, the region in general, and Massachusetts in particular, has become good at starting new high-tech businesses and nurturing them through to the beginnings of maturity, at which point they often leave New England in search of cheaper labor or location in market centers.

So the key impact of the ongoing shift of federal spending out of military production does not have to do with military cutbacks, but with the alternative federal expenditure pattern that is simultaneously emerging. Military R and D is not expected to be cut as much as other military spending categories, and Massachusetts gets the highest per capita share in the nation. So even the cuts bode better for Massachusetts than for other military-dependent states.

So far the region has been hurt more by the emerging federal spending pattern than by military cutbacks. The savings and loan bailout has captured just about all the funds that have been shifted out of military spending to date. Very little of that money goes to New England; it basically goes to the South and West.

The issue is how we can influence the alternative spending pattern to help New England use its unusually creative and skilled work force to develop and nurture growth industries.

Appendix D

## Military Base Conversions

### Charlestown Navy Yard

During World War II, 50,000 people worked in the 130-acre Charlestown Navy Yard cranking out small submarines and destroyers. Most of these were mothballed immediately after the war, and the yard became a maintenance and repair facility. Gradually this work became a backwater operation for the navy, but the preoccupations of the Cold War led the navy to maintain the facility. When the decision to close the base in 1974 was finally made, about 400 still toiled on ship maintenance or keeping up yard facilities.

It took four years for the Boston Redevelopment Authority (BRA), a quasi-public entity, to acquire 105 acres in 1978. Since then, 19 buildings have been rehabilitated with the assistance of $470 million in private investment, making this the largest preservation and reuse effort in the United States. In addition, three new construction developments added 302 housing units. In total, there is now:

| | |
|---|---|
| Office | 354,000 gross square feet |
| Medical research | 701,000 |
| Retail | 37,000 |
| Parking garage | 703,000 |
| Housing | 1,237,000 |
| Total | 3,032,000 gross square feet |

Massachusetts General Hospital occupies nearly all the medical research space, but a biomedical firm is also a tenant. The Massachusetts Water Resources Authority has much of the office space, and some BRA offices are located there. There are 614 rental housing units in rehabilitated structures, and 320 new construction condominium units. One hundred seventy-one of the 934 housing units are occupied by low- and moderate-income households — gross incomes at or below 50 percent or 80 percent, respectively, of the metropolitan area median income. Along the way this development provided 2,000 construction jobs, 2,800 permanent jobs, and annual property tax revenues of $4 million; $67 million in construction paychecks and an annual $89 million in paychecks to permanent workers ripple through the regional economy, creating employment.

With the exception of the housing developments that include low- or moderate-income units, the redevelopment of the yard took place essentially under market conditions, that is, without public subsidies. Many of the rehabilitated structures were historic and the land under them remains in BRA ownership under eighty-year ground leases. Outside of the historic district the ownership has been transferred to the developers. Aside from the affordable housing components, public subsidy was confined to parking, utilities, street improvements, Harbor Park surface features, and landscaping.

For example, some surface park improvements, landscaping, and utilities were funded by:

| | |
|---|---|
| U.S. Department of Housing and Urban Development (HUD) | $ 761,000 |
| Massachusetts Coastal Zone Management | 560,439 |
| Boston Capital Loan Order | 795,256 |
| Boston Redevelopment Authority | 346,247 |
| Total public funds for park improvements | $2,462,942 |

Much of this public money will be repaid to the city and be reused for other affordable housing and community economic development activities.

The $7 million conversion of Building 103 into elderly apartments was subsidized by a HUD Urban Development Action Grant (UDAG) for $1.6 million. Through state tax-exempt bonds, the quasi-public Massachusetts Housing Finance Agency (MHFA) put in $3.5 million in construction and permanent financing at 1.5 percent to 2 percent below market-rate interest (possible because of the tax-exempt bond status). The state Executive Office of Communities and Development (EOCD) is paying out an operating SHARP (State Housing Assistance for Rental Production) over a period of fifteen years. In return for SHARP assistance, 25 percent of the units will remain occupied by low-income tenants who will also receive state 707 rental assistance. All the other units were leased at rents affordable to moderate-income households.

Fifty new construction condominium units were developed for moderate-income homebuyers. MHFA provided below-market-rate financing to the condo buyers. The city of Boston provided an additional subsidy of about $21,000 per unit for ten units, which enabled households with gross incomes at or below 80 percent of the metropolitan area median income to purchase them.

In addition to the $470 million of private investment that financed nearly all the Navy Yard development, ground lease and other revenue to the Boston Redevelopment Authority will continue to provide a resource for further community economic development activity in Boston.

The growth climate in the Massachusetts economy during 1978 to 1986, when all the completed development deals were put together, aided the public sector managers of the base conversion in obtaining the necessary private investment. Space is still available for substantial additional development in the yard. The conversion includes 22 acres of open space (park, pedestrian mall, harbor walk), a sailing center and marina, two day-care centers, and retail shops.

*Source:* BRA's *Master Plan* for the Navy Yard; my experience as a fiscal manager for the city's UDAG grants and other federal funds; conversations with BRA program managers.

### South Boston Naval Annex and South Boston Army Base

Long unused holdovers from the Cold War, these two facilities were closed in the mid-1970s and mid-1980s. Their conversion, as with the Charlestown Naval Shipyard, was a boon to the area, because facilities that were employing few and producing little became economic engines for the regional economy. The conversion of these two bases resulted in $140 million in private investment by tenants for capital improvements to leased space, and the presence of 150 companies and 3,500 jobs.

In April 1973, the Department of Defense announced the closing or curtailment of forty military bases across the nation. Five were in Massachusetts, including the Charlestown Naval Shipyard and the South Boston Naval Annex. Reuse was facilitated in 1973 with the award of a key $420,000 from the federal Economic Development Administration (EDA) to plan for the conversion of both bases. Within a month following the announcement of the closing plans, the state had established the Joint Commission on Federal Base Conversion, which recommended establishment of the Massachusetts Government Land Bank (MGLB).

The MGLB was to use state general obligation bonds to help acquire and convert closed base facilities and provide technical assistance to impacted communities and development entities. The MGLB was quickly established and given authority to do up to $40 million in financing. In 1987 it acquired the South Boston Naval Annex for $4.9 million and simultaneously transferred it to the Boston Economic Development and Industrial Corporation (EDIC). Subsequently, the federal General Services Admin-

istration (GSA) returned $1.6 million. The MGLB acquisition was done on a forty-year permanent financing basis, so that EDIC is paying off the Land Bank mortgage over that period.

The EDIC is a private nonprofit industrial and commercial development and operating entity created by the city of Boston, with a city-appointed board (a quasi-public organization, similar in this regard to the Boston Redevelopment Authority). Formed in 1971, its major activity has been the conversion of the Naval Annex and the adjacent South Boston Army Base to the Boston Marine Industrial Park (BMIP). The Naval Annex (167 acres) and the Army Base (24 acres) together left EDIC with 191 acres and 32 buildings containing 3,028,000 square feet to convert to civilian use.

The Army Base was acquired much later, in 1985, with $1.3 million of tax-exempt industrial development bond funds and a federal Department of Housing and Urban Development (HUD) $2.2 million Section 108 loan. The financing for both bases was at below-market interest rates.

Funding sources for the Naval Annex redevelopment, in addition to the Land Bank, included the federal Economic Development Administration, the state Coastal Zone Management, city of Boston general obligation bonds, and private investment. By 1980 the Naval Annex portion had fourteen tenants employing 1,500 people.

Another quasi-public agency, the Massachusetts Port Authority, leases 47 acres — nearly a third of the Naval Annex portion — for shipping terminal and auto import storage purposes. It included two warehouses, a cement off-loading facility, and the Black Falcon cruise terminal, as well as EDIC's Boston Technical Center (BTC), which offers twenty- to thirty-week courses developed in collaboration with twenty-five employers.

BTC and its students receive funding from the U.S. Departments of Labor, Education, and Housing and Urban Development, the Massachusetts Departments of Education and Employment and Training, Bay State Skills Corporation, and private foundations. BTC graduated its first welding class in 1978. It had graduated 350 students by 1980, by 1989 it had 2,500 graduates, and its courses included medical secretary, machine tool setup and operation, and business machine service.

Of the two drydocks maintained, one is used for ship repairs and the other, a very large one, EDIC hopes will be used to manufacture or finish the steel tubes for the future third harbor tunnel.

The Army Base portion consisted mainly of a single massive 1.65 million–square-foot (38 acre) building that is longer than Boston's Prudential Tower is high. The building houses the Boston Design Center, a wholesale center for residential and commercial design and furnishing trades; the Bronstein Industrial Center, which leases light industrial space, and Drydock center for manufacturing and graphic arts. The Army Base was redeveloped with:

| | |
|---|---|
| EDIC tax-exempt industrial development bonds purchased by State Street Bank of Boston | $5,900,000 |
| Federal Department of Housing and Urban Development (HUD) Urban Development Action Grant (UDAG) 3% interest loan | 3,644,000 |
| Boston Harbor Limited Partnership sale of investment shares | 3,200,000 |
| HUD Section 108 loan | 2,200,000 |
| HUD Community Development Block Grant funds | 1,500,000 |
| Massachusetts Public Works Grant | 600,000 |
| City of Boston General Obligation Bonds | 330,000 |
| City of Boston Neighborhood Development Fund grant | 285,000 |
| Department of Defense Office of Economic Adjustment grant | 125,000 |
| Total | $17,784,000 |

*Source:* Department of Defense, Office of Economic Adjustment, *Civilian Reuse of Former Military Bases* (c. 1990); EDIC, "Boston Base Closing Meant Business," 1991; MGLB Annual Reports, 1978, 1980; my experience as fiscal manager for Boston's UDAG grants and other federal funds.

Appendix E

## Jobs with Peace and Regional Science Research Institute Methodology

In its 1985 *Massachusetts and its Military Industry*, Massachusetts Jobs with Peace (JWP) estimated that there were 73,000 direct and 31,000 indirect military jobs in Massachusetts, a total of 107,000 jobs, or 3.75 percent of all those employed in the state.

The data do not exist to enable accurate computation of direct and indirect (suppliers to military businesses and bases) military employment. One reason is that there are hardly any data on subcontracting by firms receiving military R and D and production prime contract awards. Based on various assumptions, Jobs with Peace estimated that subcontracting out of and into the state equaled each other and produced a zero net employment effect.

JWP broke down prime contract awards into four-digit standard industrial classifications and fed the data into the University of Massachusetts at Amherst's Regional Science Research Institute's input-output model of the state's economy. No computations were necessary for direct uniformed and civilian employment at military bases, since these numbers are provided by the Pentagon. Various assumptions were used to pick multipliers for indirect jobs generated by bases and by private industry.

JWP estimated that the time lag between awarding of prime contract and expenditure of the funds in R and D and production averaged about one and a half years. Thus the 1985 employment estimate was based on 1983 prime contract awards. In constant 1982 dollars, Massachusetts prime contract awards were just under $6 billion in 1983, peaked at just under $8 billion in 1986, and dropped to just over $6 billion in 1988. My estimates in the "Military Taxes and Jobs" section are based on factoring the computations from the earlier study, assuming that 1990 employment reflects 1988 prime contract awards.

In one reality check, JWP noted that Raytheon Corporation, the state's largest military contractor (31% of Massachusetts prime contract awards in 1983), announced in 1984 *Boston Globe* advertisements and articles that they employed 40,000 in Massachusetts, 19,000 of whom were doing full-time military work. Computed according to JWP's methodology, Raytheon's 1984 military employment was 18,000.

Data Resources, Inc. (DRI), the prestigious Lexington, Massachusetts, economic forecasting and analysis firm, is the regional source that the press and most studies rely on for estimates of military employment in New England. The Jobs with Peace study compared DRI's methodology with its own and noted that DRI estimated the military employment share of the Massachusetts work force about 2 percent higher than JPW did — just under 6 percent instead of just under 4 percent. However, DRI consistently overestimated in the 1980s by not allowing for a time lag between prime contract awards and the actual expenditure of funds in workplaces. Had DRI taken this into account, its estimates would have been about 1 percent instead of 2 percent higher than JWP's.

## Notes

1. Rebecca Stevens, Peter Dreier, and Jeff Brown, *From a Military to a Housing Buildup: The Impact in Boston of a Six Percent Shift in the Federal Budget from the Military to Housing* (Boston: Boston Redevelopment Authority, 1989).

2. Thomas Bodenheimer, "Public or Private? The Way to Real Health Security," and Andrew Kopkind, "National Health Care: Seizing the Historic Moment," in *The Nation*, December 16, 1991. These companion articles do a fine job of condensing the confusion regarding the plethora of health care reform proposals drifting in the wind. Bodenheimer, a physician, explains that there are basically two options being proposed.

   One option is a reform that leaves the present system intact and adds, in varying degrees, some public coverage for the poor who are now not covered, and adds coverage for currently uncovered employees by forcing their employers to cover them, or pay into a coverage pool. This option will not contain spiraling costs, but will increase them. So far, increasing costs has meant great hardship for workers and companies alike in paying insurance and nonreimbursed health expenses. Increasing costs has also meant reduced coverage. Forty percent of the poor are now covered, whereas 70 percent were formerly covered. More firms are refusing to cover employees or shifting more of the cost to the employee.

   Under this system, as with the present system, at least 25 percent ($175 billion) of 1991 national health care expenditures of $700 billion went for administration — hundreds of insurance companies, hospitals, and doctors pushing paper back and forth at one another.

   The second option, a health security system, would retain the current private health care system but replace private insurance with public insurance. As the Canadian and German systems demonstrate, this approach can stop the rapid rise in health care costs. Bodenheimer says that the first option would cost $50 to $80 billion more per year, but that the health security system would save $67 billion per year (mostly in administration) for a net difference of $117 to $147 billion per year. This difference is roughly equal to the entire peace dividend projected for the coming years.

   Regardless of the health care merits or demerits of the two approaches, there will probably be no shifted military funds available for anything other than health care unless the health security approach is adopted.

3. Michael Frisby, "Pressure Rises for a New U.S. Budget," *Boston Globe,* September 13, 1991, 3.

4. David Bond, "Kremlin Cabal's Failure Fuels Defense Budget Debate in U.S.," *Aviation Week & Space Technology*, August 26, 1991.

5. Ibid.

6. This is, in my opinion, the most accurate and sensible definition of federal military spending around, and is the definition used by Military Research Services, Inc. (MRS), among others. It includes the government's own definition, which is the "defense function": the budget of the Department of Defense (DOD); the nuclear weapons development and production budget of the Department of Energy (DOE); and the defense-related activities of several small programs, such as Selective Service, Federal Emergency Management Agency (FEMA), and the Ready Reserve Fleet (1989, $298.3 billion).

   In addition to defense function, the MRS definition I am using includes International Security Assistance (1989, $2.8 billion); military activities of the National Aeronautics and Space Administration (1989, $1.1 billion); and military-related interest on the federal debt (1989, $51 billion — about half of all 1989 debt payments).

7. While quality-of-life comparisons are more difficult, employment comparisons resulting from federal spending alternatives are quantifiable. Some sources include publications of the federal Department of Commerce's Bureau of Labor Statistics; various books and articles by Seymore Melman and associates; various publications of Employment Research Associates; and the Jobs with Peace study *Massachusetts and Its Military Industry*.

8. *Massachusetts and Its Military Industry* (Boston: Massachusetts Jobs with Peace, 1986). See Appendix E of this article for a summary explanation of the Jobs with Peace employment computation methodology.

9. Diane Lewis, "Report: N.E. Lost 250,000 Jobs in '90," *Boston Globe*, February 28, 1991, 45. A July 1991 U.S. Bureau of Labor Statistics report stated that Massachusetts had lost 175,000 jobs in the year ending in mid-1991, and 313,000 in the past two years. That equals nearly one out of every ten jobs in the state (Charles Stein, "Massachusetts' Job Losses Continue to Break Records," *Boston Globe*, August 4, 1991, 93). In the recession of 1974–1975, the state lost 4.7 percent of its jobs; in 1981–1982, 1.9 percent; between June 1989 and June 1991, 9.9 percent. Between June 1990 and June 1991, Massachusetts lost 5.8 percent of its jobs, a higher rate of loss than any other state in the nation. During that year Maine lost 5.4 percent, New Hampshire 5.3 percent, Rhode Island 4.3 percent, Vermont 4.1 percent, and Connecticut 2.5 percent. The only state in the nation with a loss greater than any of the six New England states was New Jersey, with 2.7 percent (U.S. Bureau of Labor Statistics).

   Most professional studies and press articles in the past twenty years have overstated the military dependence of the New England economy on military spending. See Appendix C for my critique of a typical example, published at the end of 1991, Richard Barf's "The Pentagon and the Cities."

10. See Appendix D of this article for detailed accounts of the conversion of three Boston military bases to civilian use: the Charlestown Naval Shipyard and its South Boston Naval Annex, and the South Boston Army Base.

11. Boston Mayor Raymond Flynn thinks that the S and L bailout will cost $500 billion (Nancy Walser, "Make the Rich Pay for S&L's, say Flynn, Rep. Kennedy, Others," *Boston Globe,* 1991). According to Congressman Kennedy, a member of the House Committee on Banking, Finance and Urban Affairs, data from the General Accounting Office and the Office of Management and Budget indicate that under the present bailout legislation, the total cost could be $1.4 trillion, $913 billion of which would be interest on borrowed funds. There is no question that the administration and Congress are handling the bailout in a manner designed to conceal the costs to the taxpayers. If, as Congressman Kennedy's proposed legislation would require, the bailout were primarily paid for out of current revenues over the next few years, the cost would be a minor fraction of what it will be under the present approach, which is primarily using borrowed funds and spreading the cost far into the future — at high interest rates. See Kennedy's "Who Should Pay for the S&L Bailout?" *New York Times*, September 21, 1990.

    Housing scholar Michael Stone of the University of Massachusetts at Boston estimates that at the $500 billion figure, Boston residents will fork over $3.2 billion (one third of the city's annual budget, $5,600 per resident). The $77 billion appropriated for the 1990 S and L bailout cost Boston taxpayers $175 million ($300 per resident).