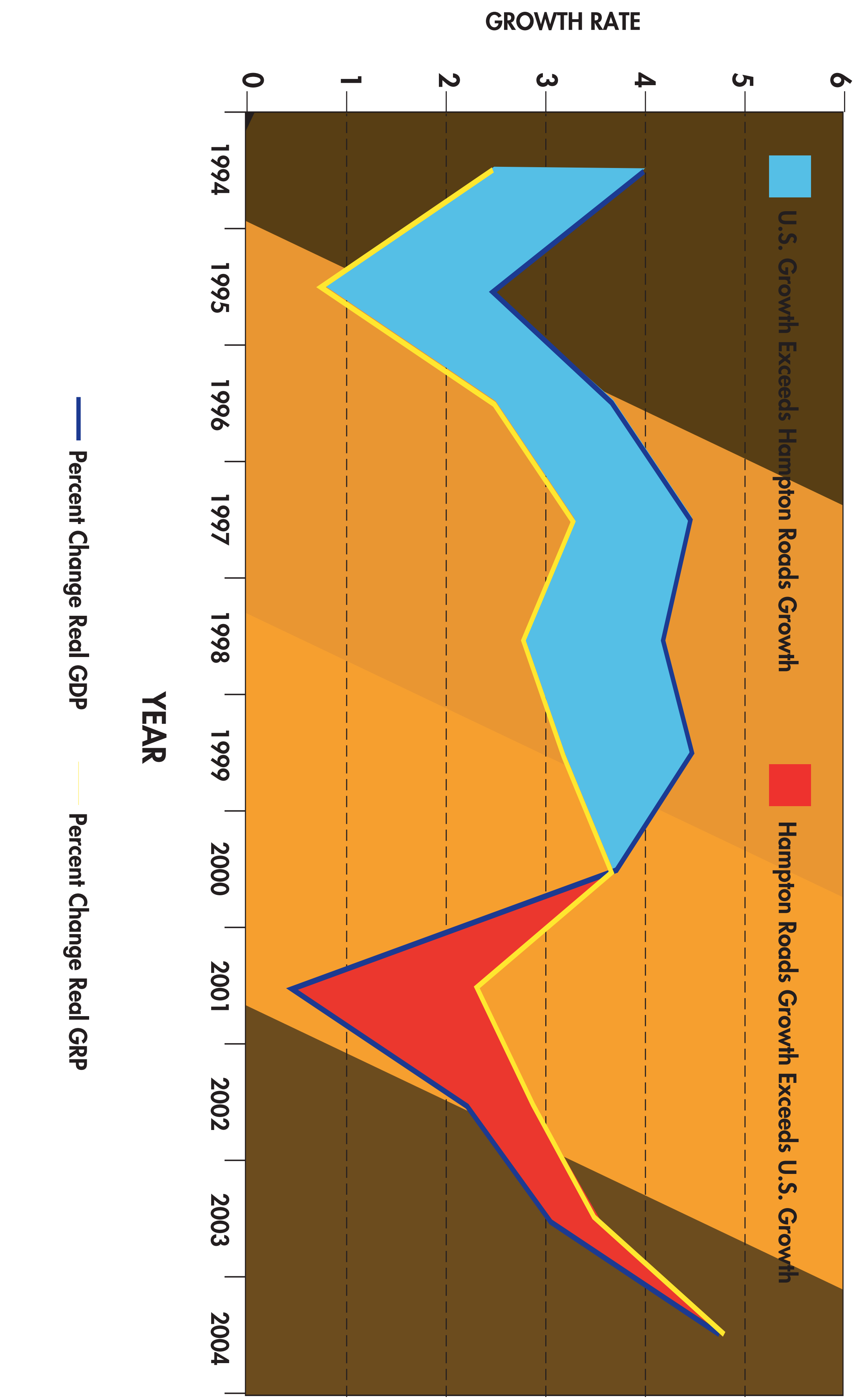
THE STATE OF

REGIONAL ECONOMY

The Regional Economy Continues To Excel

While 2004 may not qualify as "the best of all years" in the history of Hampton Roads, it has been a superb year for the regional economy and we appear to be on track for our fastest growth since 1987. Barring unforeseen disasters, the region's GRP (Gross Regional Product) will increase 4.7 percent in 2004. This will add an exclamation point to five consecutive years when our region's economy has grown more rapidly than the U.S. economy.

GRAPH 1
RATE OF GROWTH OF GDP AND GRP



Sources: U.S. Department of Commerce and the Old Dominion University Economic Forecasting Project

Graph 1 depicts the rate of gross product growth in the United States and Hampton Roads as well as the difference between them over the past 10 years. As extensively documented in past State of the Region reports, available online at www.odu.edu/forecasting, our mediocre growth performance during much of the 1990s was largely the product of the post-Cold War reduction in national defense expenditures. Hence, it is not surprising that the major factor responsible for reversing this laggard economic growth has been the pattern and size of recent defense spending within the region.

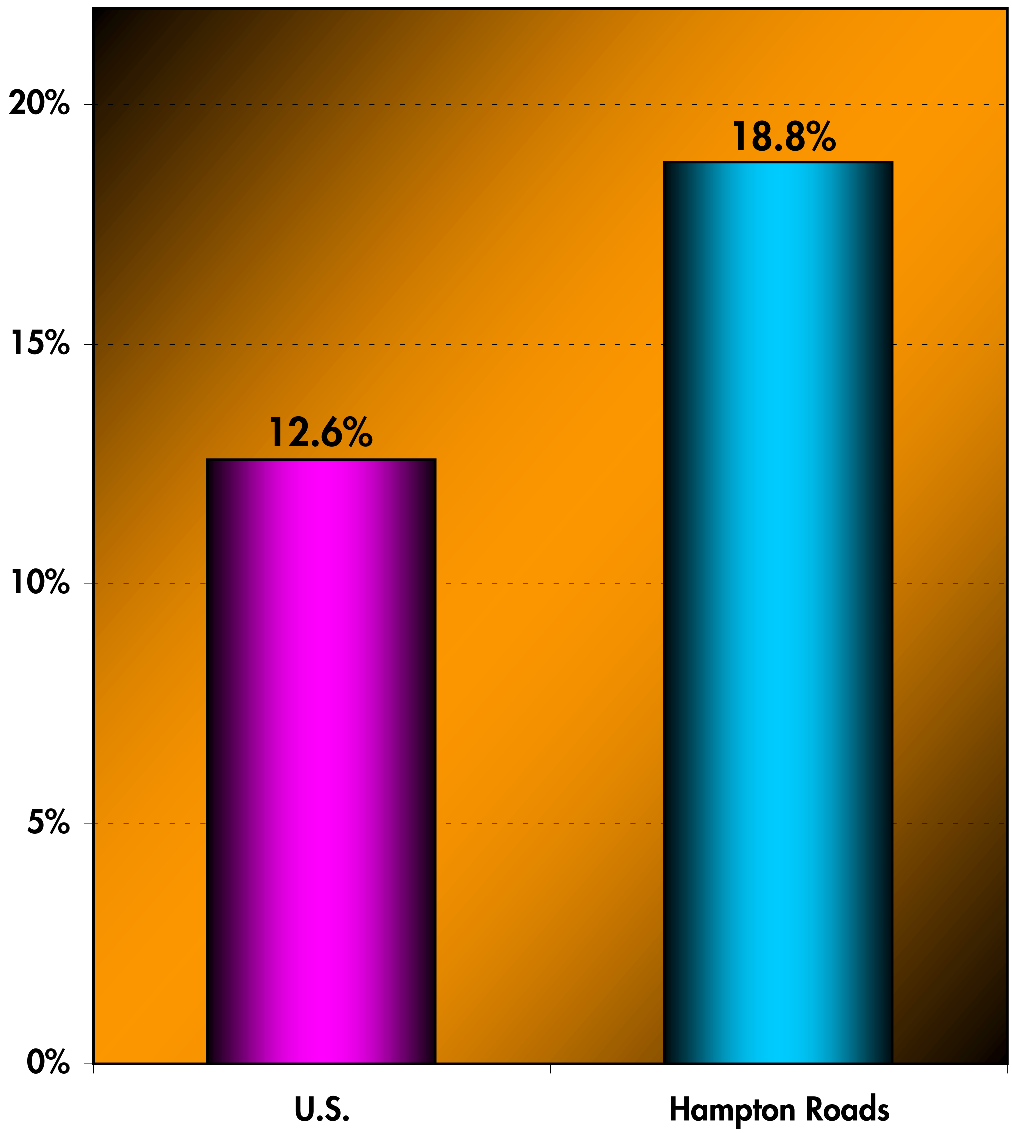
Since 2000, the region's economic growth consistently has exceeded that of the nation, though the gap between the two has been narrowing, and probably will disappear in 2004. The relatively strong growth of our region has left in its wake a series of structural changes that we will examine in this report, for example, in the occupations our workers fill. We will examine this and other changes in succeeding sections.

The Benefits Of Economic Growth To Hampton Roads

The gold standard for measuring the benefits of economic growth is per capita personal income and employment. As illustrated in Graph 2, between 2000 and 2004, per capita income in Hampton Roads has increased 6.2 percent above the national average.

Further, after adjusting for cost-of-living differences, in 2004, Hampton Roads' standard of living rose to its highest level relative to the rest of the nation since the publication of regional income statistics began in 1969. **In 2000, the buying power of our regional per capita income was about 1 percent below the national average. Now, we are about 6 percent above the national average. Graph 3 illustrates this excellent performance, which has a very pragmatic and important meaning: the typical citizen of Hampton Roads has the ability to purchase approximately 6 percent more goods and services (computers, food, movie tickets, electricity, books, etc.) than the typical individual nationally. This is a development the region should trumpet.**

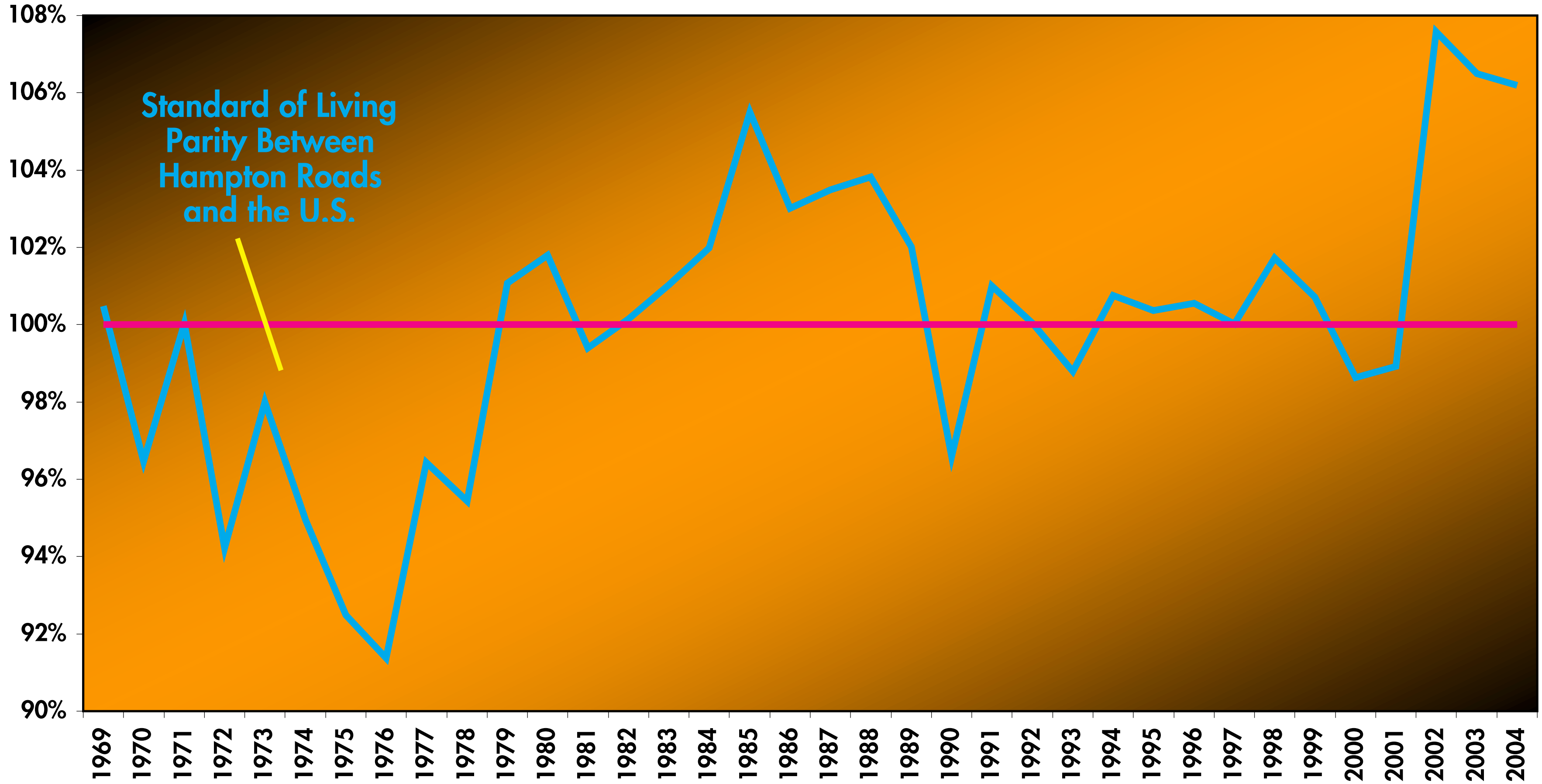
GRAPH 2
CUMULATIVE PER CAPITA INCOME GROWTH
2000-2004*



*Forecasted

Sources: U.S. Department of Commerce and the Old Dominion University Economic Forecasting Project

GRAPH 3
HAMPTON ROADS PRICE-ADJUSTED PER CAPITA INCOME
AS A PERCENT OF U.S. PRICE-ADJUSTED PER CAPITA INCOME
1969-2004



Source: The Old Dominion University Economic Forecasting Project

Employment growth contributed substantially to the region's income. Table 1 shows that Hampton Roads experienced comparatively strong employment growth from 2000 to 2003. Even though the number of jobs in Virginia and the nation decreased, employment in Hampton Roads increased by roughly 28,000 jobs.

TABLE 1

HAMPTON ROADS, VIRGINIA AND U.S. CIVILIAN EMPLOYMENT (2000-2003, Thousands of Jobs)

	2000	2003	Percent Change 2000 to 2003
Hampton Roads	702.4	730.8	4.0%
Virginia	3,516.5	3,500.3	-0.5%
United States	131,785.0	129,931.0	-1.4%

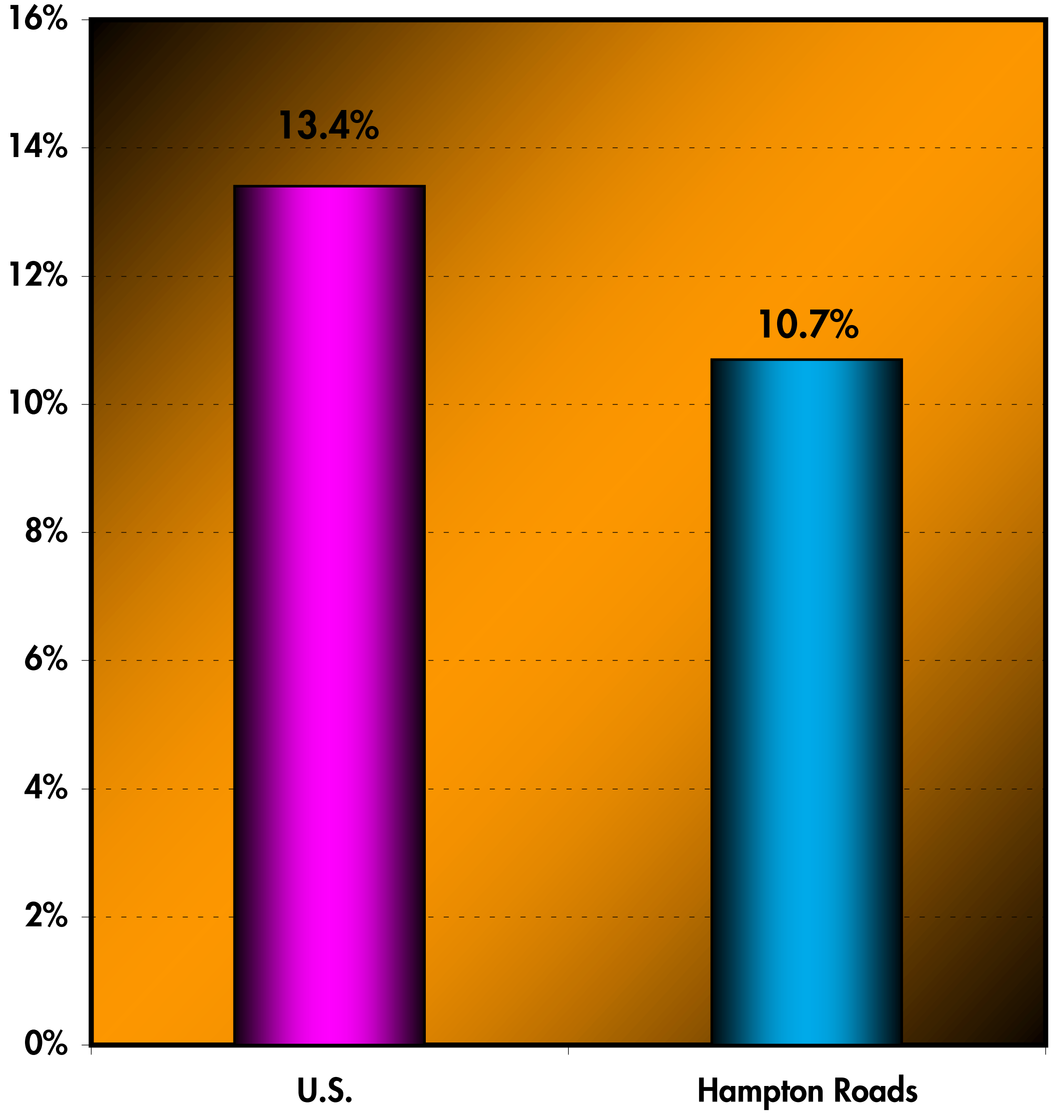
Sources: U.S. Bureau of Labor Statistics and the Old Dominion University Economic Forecasting Project

A frequent explanation for the absolute decline in employment that occurred nationally from 2000 to 2003 is rapidly rising labor productivity. The reasoning is that the adoption of more efficient machines and production methods has enabled employers to employ fewer workers to produce the same amount of output. If this hypothesis applies to Hampton Roads, then it suggests that productivity growth in our region may have been slower over the past few years than for the nation as whole. That's why, according to this view of the world, we didn't lose as many jobs. Let's investigate this possibility further.

Indeed, one can see in Graph 4 that worker productivity growth in Hampton Roads did lag behind that of the United States from 2000 to 2003. Why? It is more likely due to the relative mix of products we turn out than the region's employers being slow in adopting new technology. This is a complex argument, but one worth exploring. Traditionally, the largest gains in labor productivity in the United States have been concentrated in the manufacturing sector. Graph 5 reveals that Hampton Roads is relatively less involved with manufacturing than the rest of the country. For example, ours is not a region rich in steel plants and automobile manufacturers. As a consequence, when manufacturing productivity spurted in the last few years, Hampton Roads was not affected as much because we simply haven't been as involved with manufacturing.

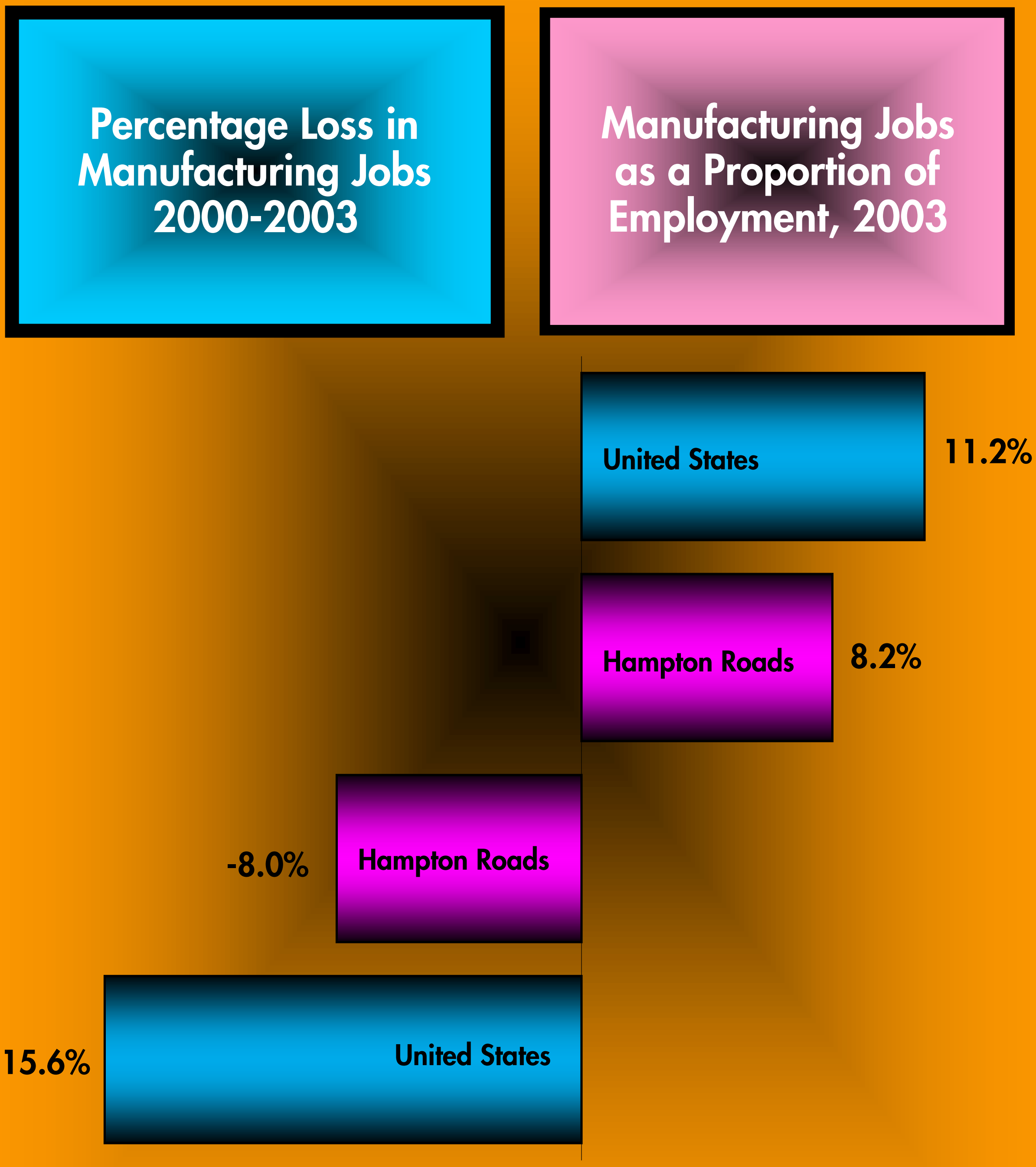
Parenthetically, however, the manufacturing firms we do have tend to be reasonably productive and competitive. Graph 5 shows that the job decline in manufacturing within Hampton Roads has been proportionally much smaller than the decline in manufacturing jobs in the United States.

GRAPH 4
LABOR FORCE PRODUCTIVITY GROWTH
2000 - 2003



Sources: U.S. Department of Labor and the Old Dominion University Economic Forecasting Project

GRAPH 5



Sources: U.S. Department of Labor and the Old Dominion University Economic Forecasting Project

Nonetheless, even if our worker productivity had expanded at the same rate as that of the country in recent years, we would have lost more jobs, at least in the short-run. However, even if we lost jobs at the same rate as happened nationally, our regional employment would have expanded by roughly 14,000 jobs in 2000-03. This still would have been significantly larger than that experienced in either Virginia or the country as a whole. Thus, in the final analysis, the robust expansion of the regional economy over the past few years, and our fine performance in generating jobs, is not primarily due to an absence of manufacturing, but rather to other factors such as the growth in defense spending within the region.

Note that in the long-run (which we will define as several years or more), increasing labor productivity is a good thing for workers and for employment. It's true that in the short-run, increases in labor productivity may induce employers to hire fewer workers because each worker now is more productive and so not as many workers are needed. Nevertheless, there are two reasons why increasing productivity is a good thing for workers in the long-run. First, the higher the productivity of workers, the more they are paid. The most productive workers in society generally are the best-paid, whether they are attorneys, farmers, professional football players or airplane mechanics. Second, increased labor productivity releases workers to perform other tasks. As an illustration, consider that in 1800, approximately 80 percent of all Americans were engaged in agriculture. Today, only 2 percent are. The other 78 percent are producing other goods and services that have increased our standard of living dramatically over the past two centuries. As the years pass, increased labor productivity is the hallmark of vigorous, growing economies. Only in the short-run does the tradeoff between labor productivity and jobs rear its head.

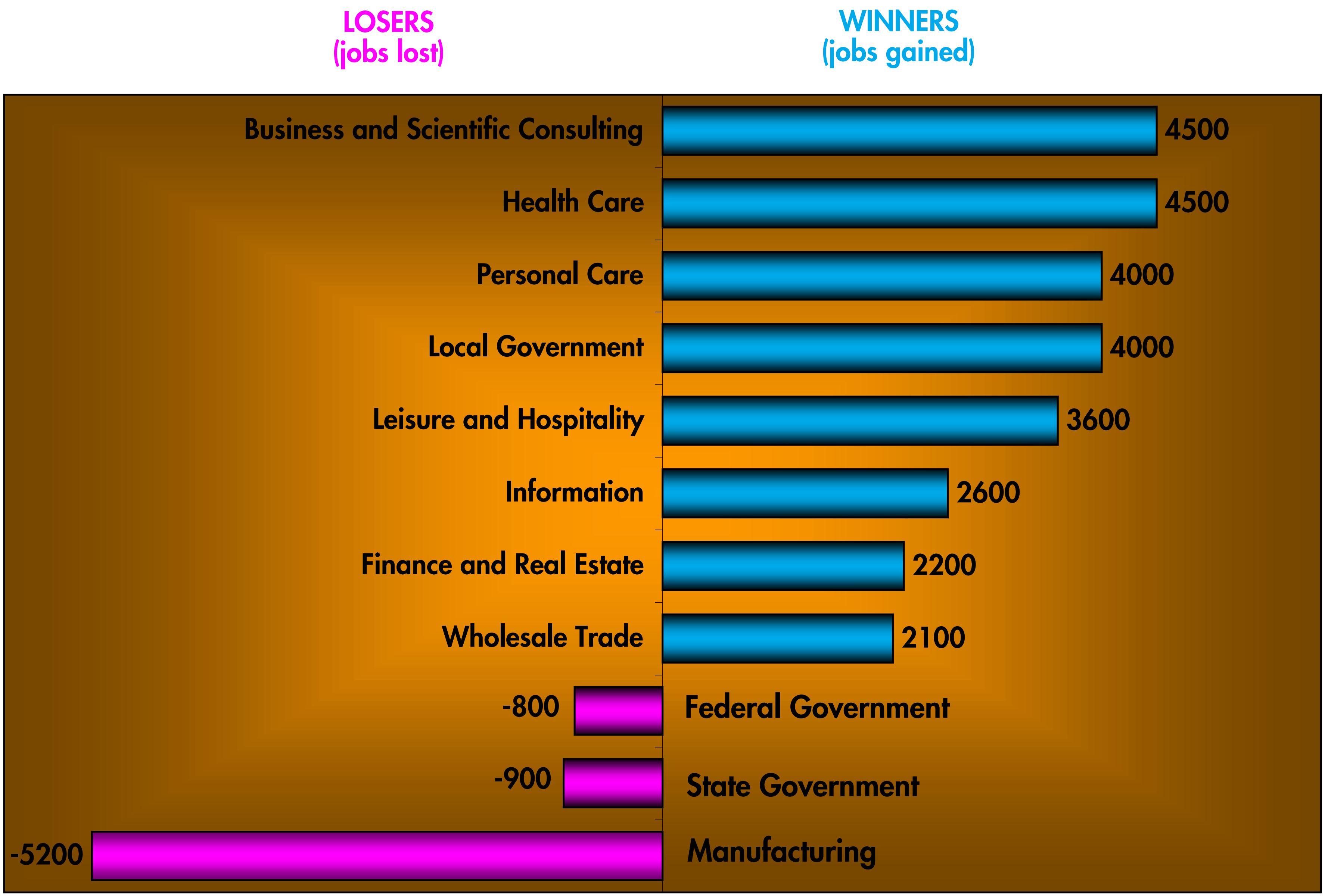
The moral to this story is that while lagging labor productivity may have saved some jobs in Hampton Roads between 2000 and 2003, in the long term this is not good news for the region and its workers. It will eventually translate to lower incomes and a lower standard of living.

Die By The Sword, Live By The Sword

What are the sources of the region's splendid recent economic growth? One way to assess this is to examine the mixture of jobs that exist within Hampton Roads.

Some jobs cause companies, governments or individuals from outside the region to spend their money in Hampton Roads. These jobs act as magnets. Economists often say such jobs have "primary economic impact" because they add new economic thrust to the region. On the other hand, some jobs come about primarily because we have reallocated expenditures. Suppose residents choose to spend more money at Harbor Park and less at the region's malls. The result will be more jobs at Harbor Park and fewer jobs at the malls. That's why these jobs have only "secondary economic impact." They tend only to recycle income that is already here.

GRAPH 6
HAMPTON ROADS EMPLOYMENT CHANGE BY OUTPUT CATEGORY BETWEEN 2000 AND 2003



Sources: U.S. Department of Labor, Virginia Employment Commission and the Old Dominion University Economic Forecasting Project

Let's use Graph 6 to help identify employment changes by their primary or secondary impact. The job categories represented in this graph are responsible for more than 95 percent of the job gains and losses within Hampton Roads between 2000 and 2003. Other output and employment components of the region's economy not shown include retail trade, which remained surprisingly stable over the period.

Several of the job categories shown in Graph 6 relate to jobs that are likely to create primary economic impact. Companies that hire employees who work in business and scientific consulting, or who support the leisure and hospitality industry, or who engage in wholesale trade, or in information and manufacturing, are likely to create primary economic impact within the region. Consider Boeing's new Hampton Roads office and the new operations of General Dynamics and Lockheed Martin. These enterprises represent "new money" for the region and contribute new jobs in the professional and scientific consulting category. It's also worth noting that they reflect new defense spending within Hampton Roads.

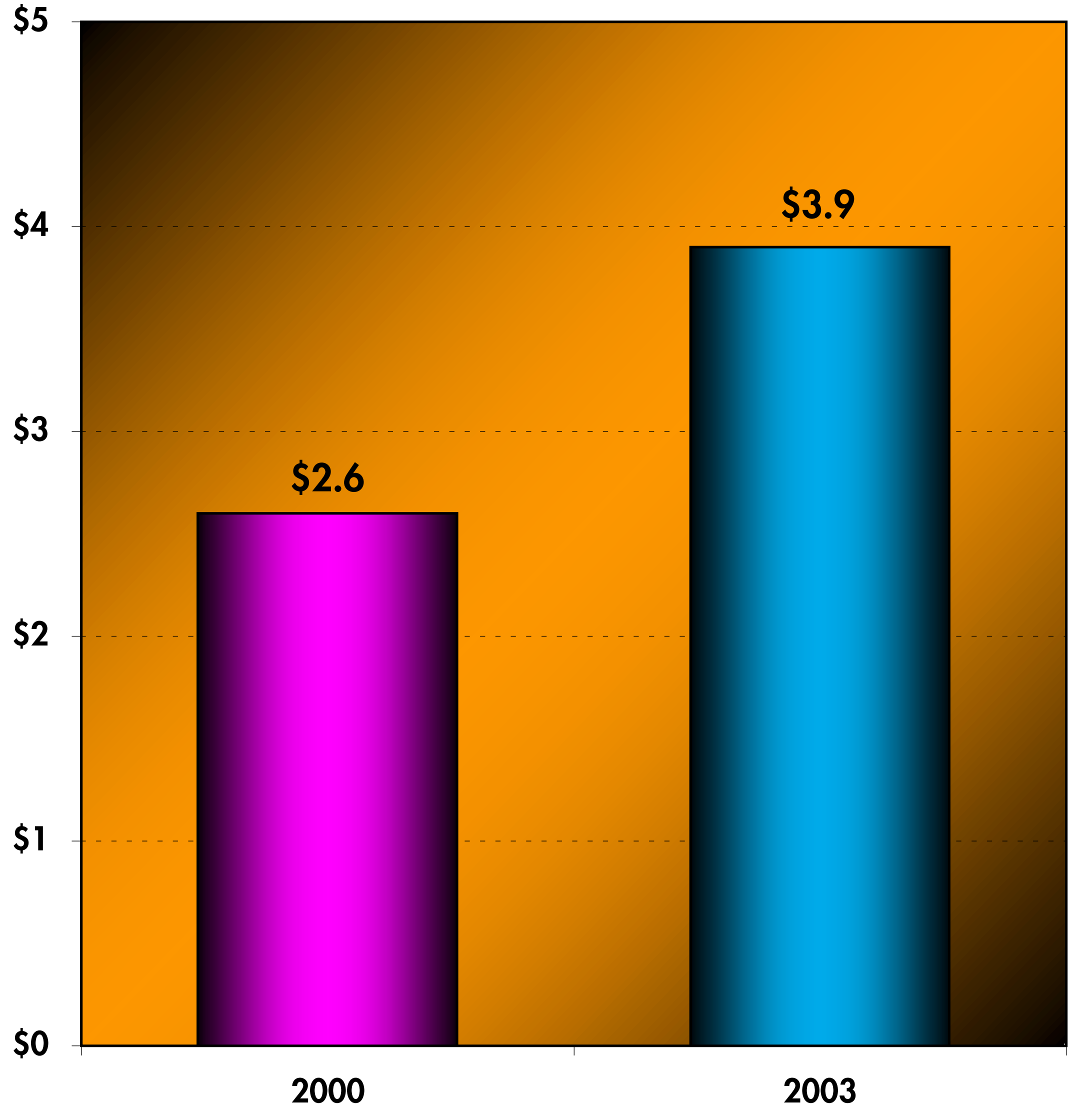
Jobs in the remaining sectors displayed in Graph 6 are more apt to result from recycled local spending, perhaps due to a shift in resident spending occasioned by changes in the product preferences of residents. For example, the new local government jobs referenced in the graph consist mainly of additional K-12 schoolteachers whose hiring is a response to demographic changes within the region. These jobs are important, but they contribute a secondary economic impact to Hampton Roads.

The truth is that most of the region's strong recent economic growth is the result of additional primary economic activity within the defense, tourism and port industries. In addition, in the past few years, we have experienced an upsurge in information-based employment. Let's examine each of these in turn.

DEFENSE SPENDING

Defense spending in Hampton Roads rose by an estimated $3.6 billion from 2000 to 2003. This represents an extremely valuable new contribution to our $60 billion annual regional domestic product. This spending increase can be divided into three categories: procurement, expanding the number of active-duty personnel, and paying them more.

GRAPH 7
ESTIMATED DEFENSE CONTRACT SPENDING
2000 AND 2003
(Billions of $)

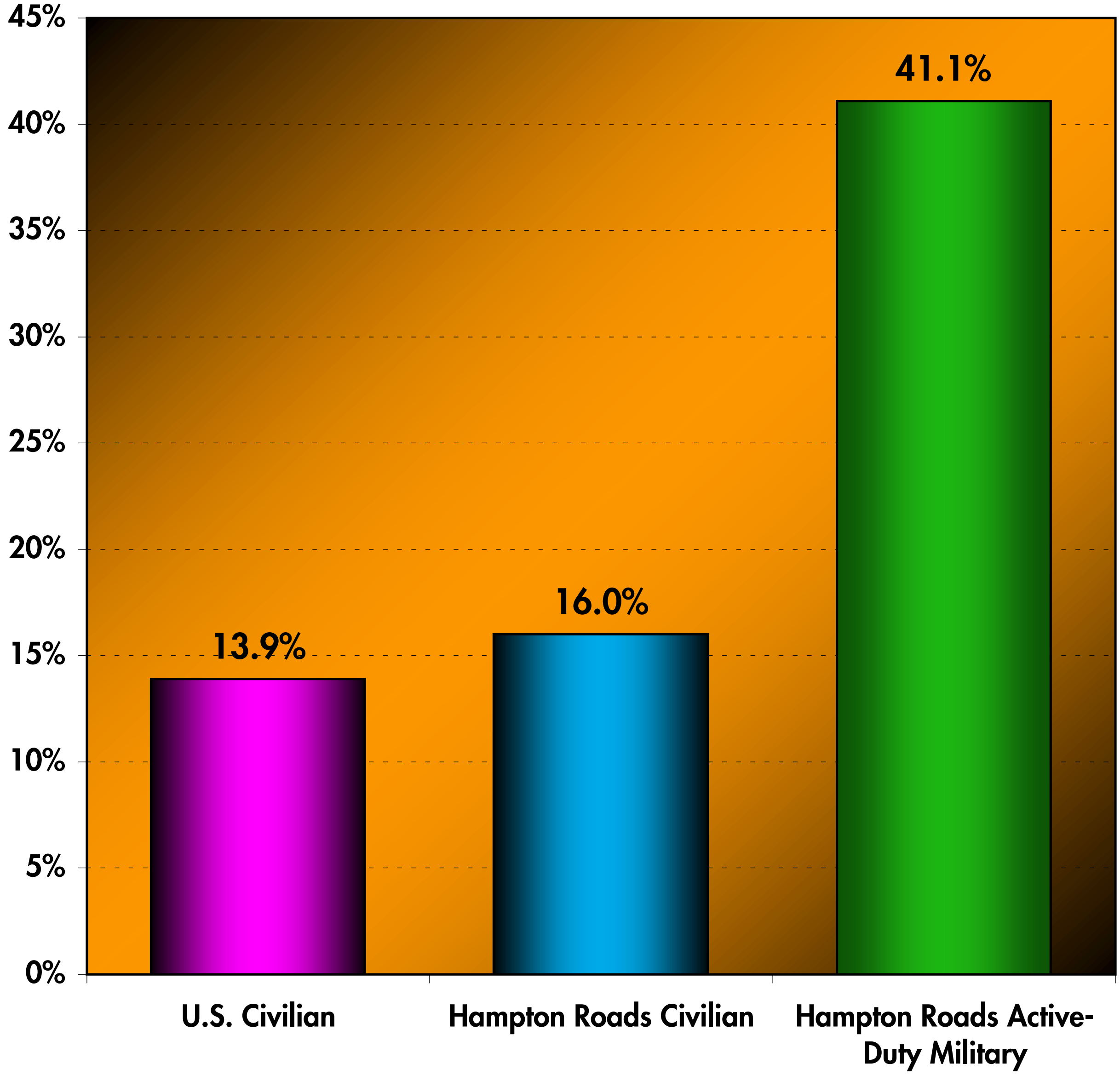


Sources: Department of Defense and the Old Dominion University Economic Forecasting Project

Graph 7 reveals that defense procurement spending increased by an estimated $1.3 billion from 2000 to 2003, a 50 percent increase over the period. Much of this increase reflected professional service contracts (including consulting), but ship repair and construction purchases also loomed important. The impact of this increased spending was sufficient to reverse the national trend toward fewer manufacturing employees, at least in the shipbuilding and repair industries in Hampton Roads, where employment actually increased by 600 jobs between 2000 and 2003.

During this period, 2,600 new active-duty military personnel were added to regional military rosters. Further, Hampton Roads' uniformed military personnel were the recipients of relatively large pay increases. As seen in Graph 8, over the period, military pay increases were 2 1/2 times larger than those in the civilian sector regionally and about three times larger than was true nationally. The total payroll for the region's military personnel, including both pay increases and new personnel, rose by an estimated $2.3 billion from 2000 to 2003. This increased compensation included bonuses and higher housing allowances for military personnel.

GRAPH 8
PERCENT CHANGE IN AVERAGE COMPENSATION PER PERSON
2000-2003



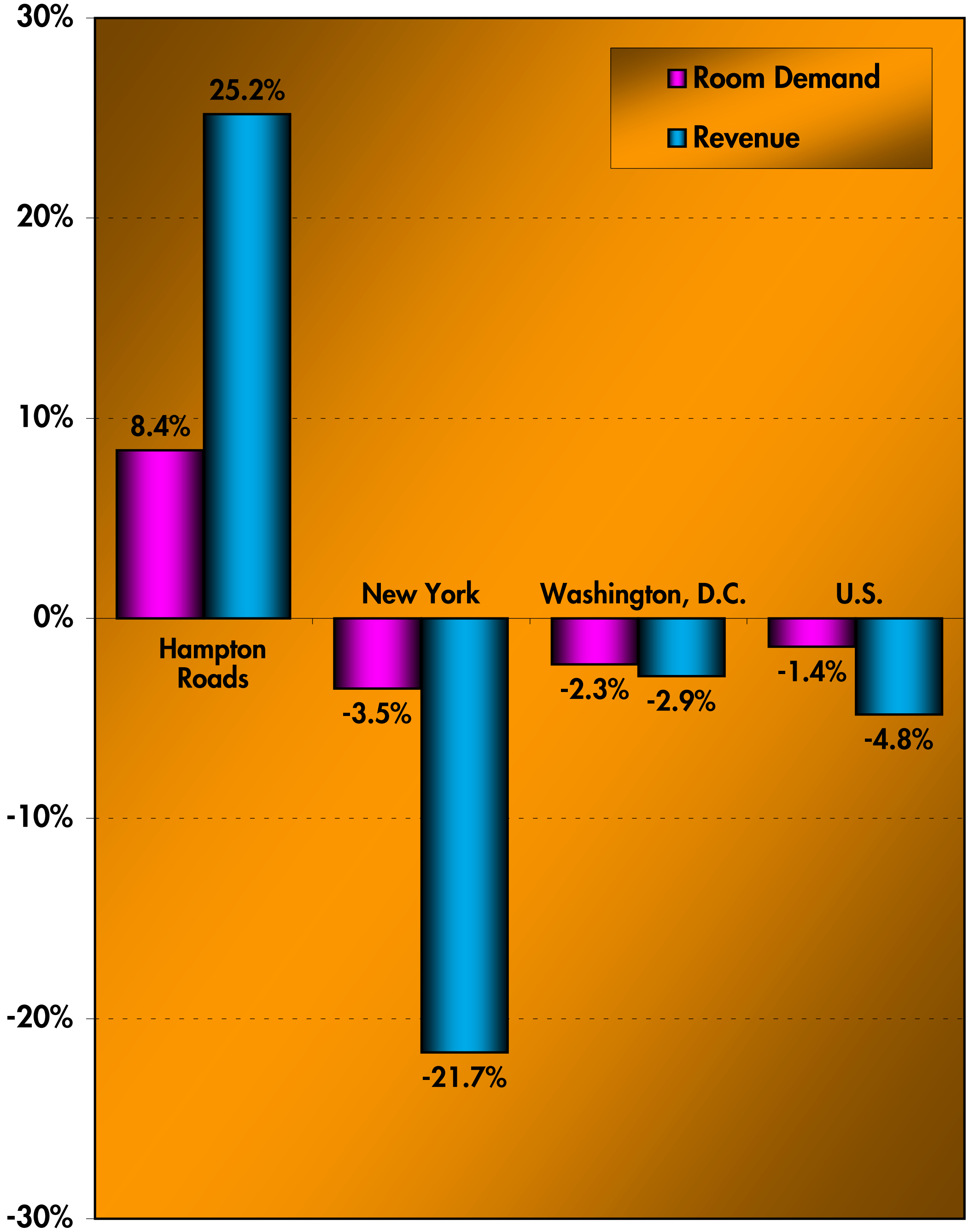
Sources: U.S. Department of Defense, U.S. Department of Labor and the Old Dominion University Economic Forecasting Project

Taken together, the increases in military procurement plus the expansion of forces and increased pay and benefits, by themselves accounted for about three-quarters of the expansion in Hampton Roads' gross regional product between 2000 and 2003. Department of Defense activity, then, was the primary economic engine of expansion within the region during this period.

TOURIST SPENDING

Over the past three years, the tourist industry in Hampton Roads has experienced significant growth relative to both the United States and specific major tourist destinations such as New York and Washington, D.C. Graph 9 demonstrates the region's considerable increase in hotel room demand, measured by either room nights or hotel revenue. Of course, typical tourists do much more than pay for their hotel rooms; they also patronize restaurants, spend money on leisure activities and spend surprisingly large sums of money on clothing, books, and conventional goods and services that they take home with them. The prosperity of the region's tourism industry is the most important reason why leisure and hospitality jobs increased significantly (review Graph 6).

GRAPH 9
HOTEL ROOM DEMAND AND REVENUE, 2000-2003
(Percent Change)



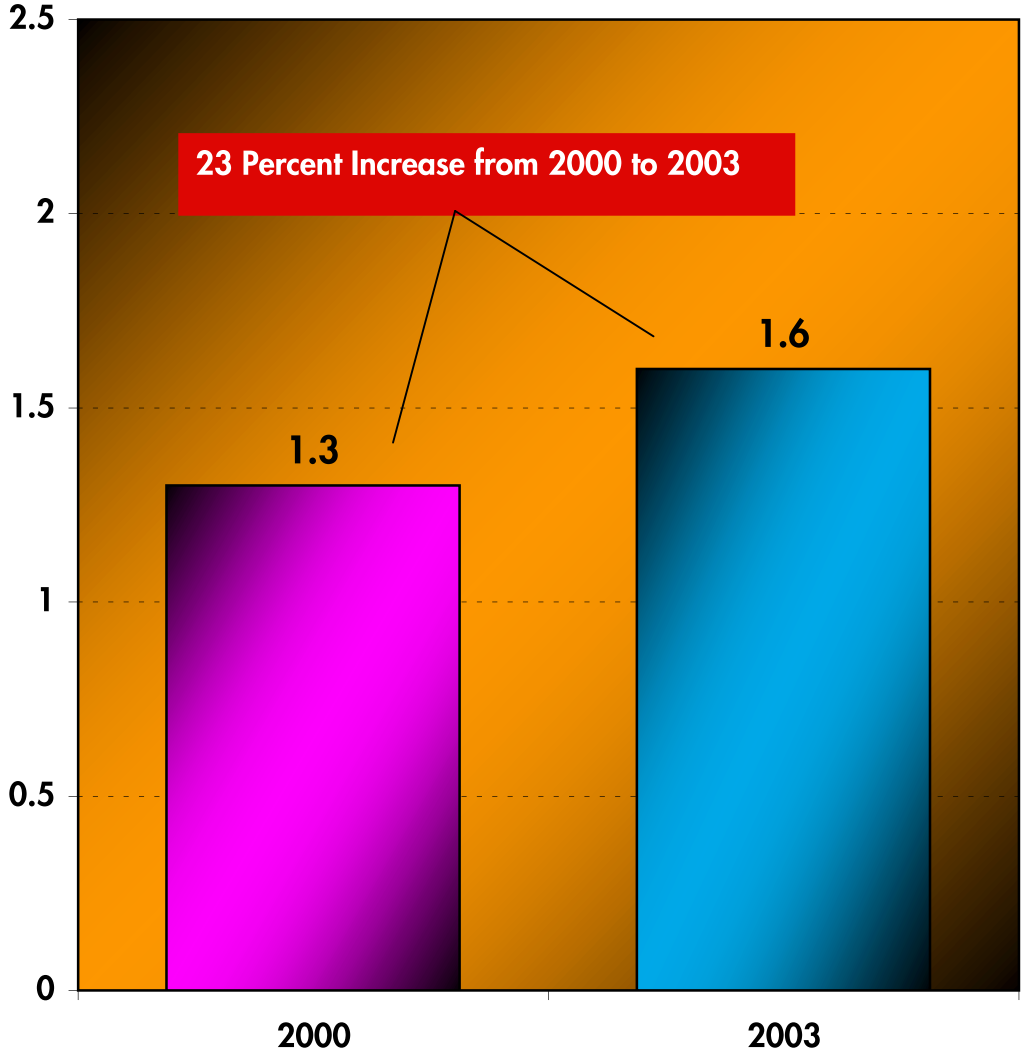
Sources: Smith Travel Research and the Old Dominion University Economic Forecasting Project

THE PORT

Between 2000 and 2003, the Port of Hampton Roads experienced very healthy increases in activity. Container movement accounts for more than 90 percent of general cargo transportation and, as Graph 10 indicates, this activity increased by 23 percent from 2000 to 2003. Significant increases in labor productivity within the port meant that only a few hundred jobs actually were added to move cargo in and out of the region. The introduction of new storage techniques and the installation of new equipment, such as cranes, obviated the need for proportional increases in workers. Likewise, the worldwide trend toward larger cargo vessels also exerted its influence here. A ship that is twice as large generally does not require twice as many employees to service it. Thus, the trend to bigger ships has dampened the demand for new employees.

Many of the employment and economic gains to the region from the port often do not come directly from the port itself. Instead, they emanate from firms attracted to Hampton Roads. These firms use the port as a resource and take advantage of its efficiencies. If the port is more efficient, then they are too, and this enables them to lower prices, increase profits and, over time, expand their employment. Firms such as Wal-Mart, Target, Dollar Tree and Lillian Vernon have constructed new or expanded distribution centers inside the region, and these efforts generated the increased wholesale trade employment related in Graph 6.

GRAPH 10
PORT OF HAMPTON ROADS CARGO MOVEMENT
2000-2003
(Millions of Containers*)



* 20-foot-equivalent units

Source: Virginia Port Authority

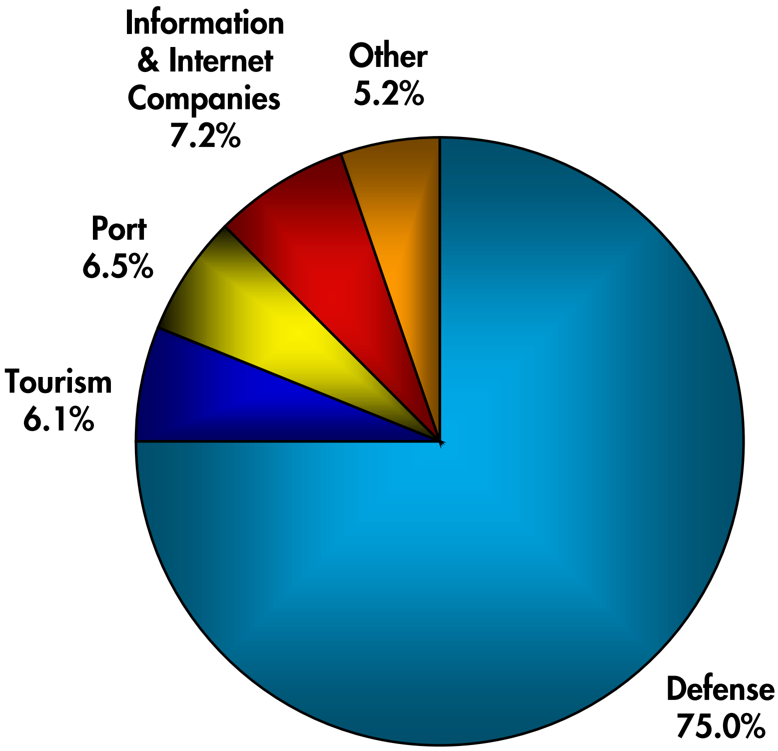
A NEW KID ON THE BLOCK? INFORMATION-BASED EMPLOYMENT IN HAMPTON ROADS

Another sector, not usually thought of as a growth engine in our regional economy, appears to have contributed meaningfully to our recent growth. Recall from Graph 6 that information-based employment within Hampton Roads rose by 2,600 jobs from 2000 to 2003. This net new employment growth is primarily concentrated in firms that sell their products nationally and therefore create a primary economic impact. For example, new or expanding Internet companies such as Trader Publishing have established a larger presence in Hampton Roads. **Though the information goods sector still is relatively small within the region and accounts for only slightly more than 2 percent of regional employment, the 19.3 percent increase in employment in this sector between 2000 and 2003 is impressive and bodes well for the future.**

PUTTING IT ALL TOGETHER: THE SOURCES OF OUR RECENT ECONOMIC GROWTH

What is the relative importance of the four sectors we just have analyzed? Graph 11 depicts the impact of each of these sectors on economic growth in Hampton Roads between 2000 and 2003. Defense spending continues to be the 500-pound gorilla, economically speaking. Three of every four dollars of new growth in the region resulted from increased defense spending. The port, tourism and information-based sectors also were significant, but paled beside the role of defense spending.

GRAPH 11
ESTIMATED SHARE OF RESPONSIBILITY FOR GRP GROWTH IN HAMPTON ROADS BY ECONOMIC SECTOR
2000-2003

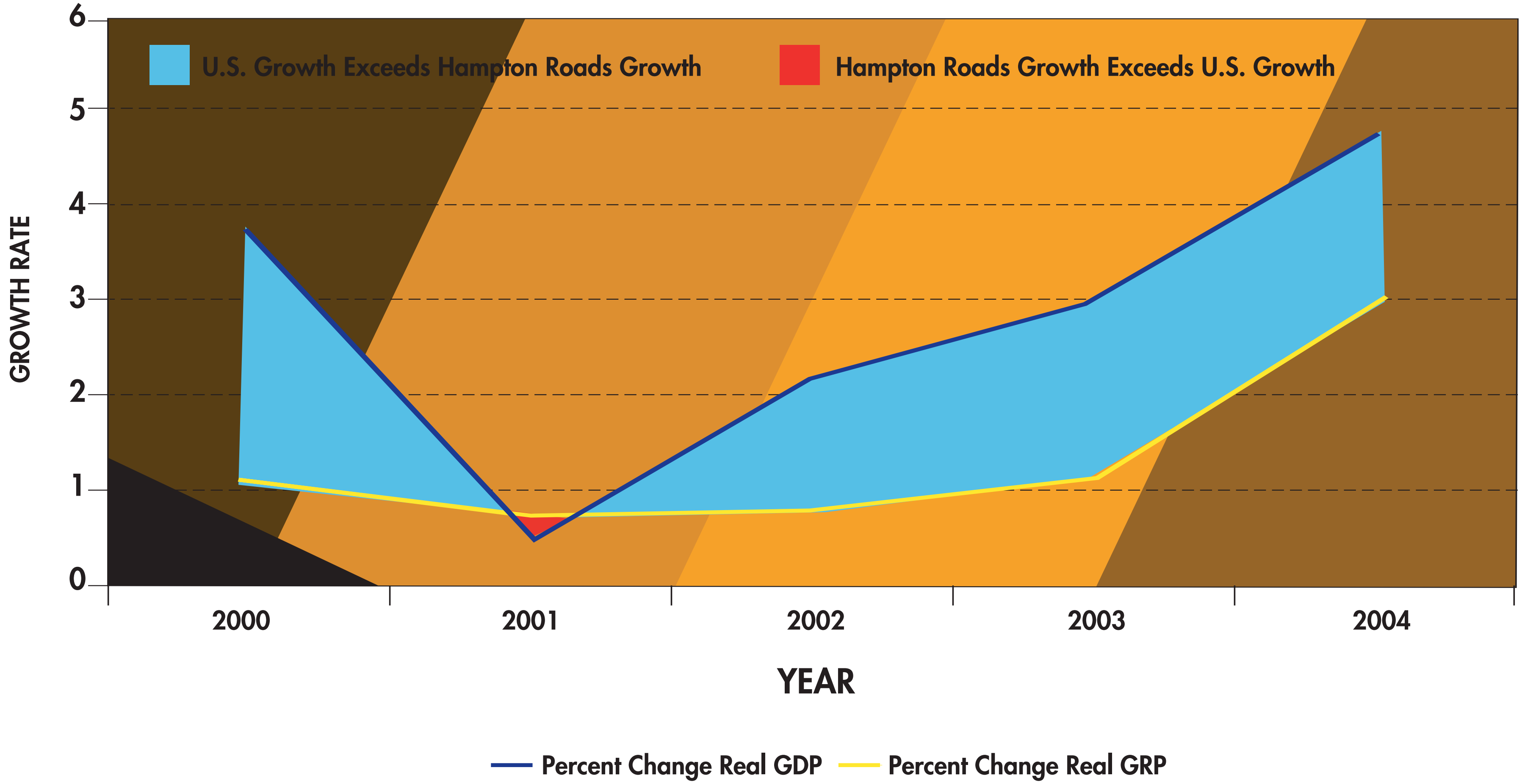


Source: The Old Dominion University Economic Forecasting Project

Let's perform an analytical experiment. Suppose there had been no increases in defense spending between 2000 and 2003. Graph 12 illustrates the annual rates of growth our region would have experienced in its gross regional product, compared to what they would have been, had there been no increase in defense spending. It's apparent that our regional growth rates would have been much lower except for increased defense spending. In just one year, the recession year of 2001, would the region's economic growth have been the same as that of the nation.

In 2004, our regional economy has grown at a rate of 4.7 percent. If defense spending had been capped at 2000 levels, this growth rate would have declined to only 3 percent, or 1.7 percent lower. The moral to this story is that the non-defense sectors of the Hampton Roads economy are growing more slowly than either the Virginia economy or the national economy. This should give us some pause. If it's true that "what goes around comes around," then our region could suffer in the future if defense expenditures expand less rapidly, or even decline. The recent prosperity of Hampton Roads has camouflaged the underlying weaknesses and vulnerabilities of our economic structure.

GRAPH 12
ESTIMATED GDP and GRP GROWTH RATES ASSUMING NO INCREASE IN DEFENSE SPENDING FROM 2000 to 2004



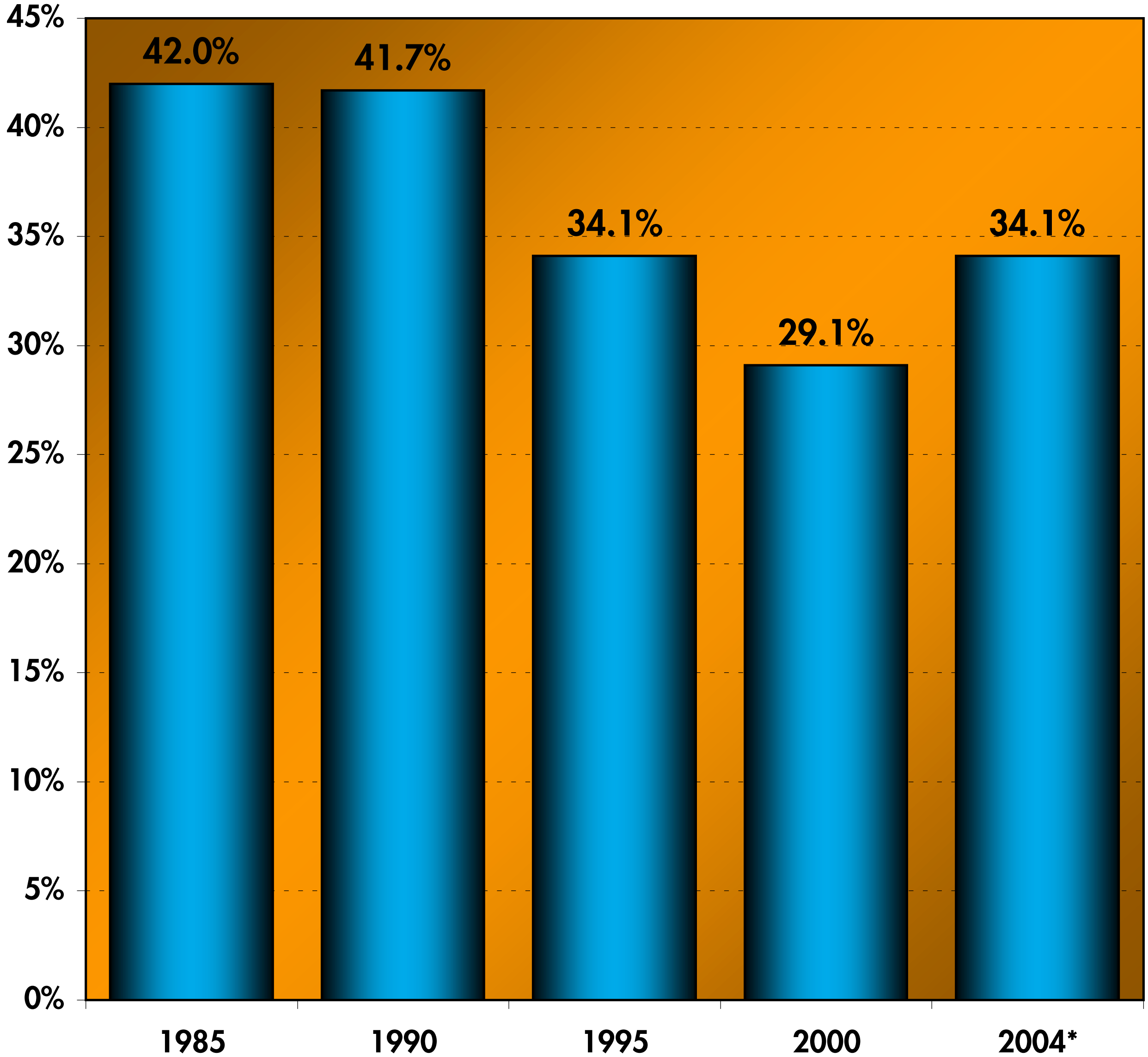
Source: The Old Dominion University Economic Forecasting Project

Live By The Sword, Die By The Sword

A professional consultant making a public presentation in Hampton Roads in the mid-1990s expressed the opinion that "defense spending is to Hampton Roads what oil is to Houston." This statement, referring to Houston's oil industry bust and resulting economic decline in the early 1980s, expressed the gloom many in the region associated with the then declining defense budget. Civic club speeches in the 1990s often focused on the need for the region to diversify its economy and develop non-defense industries. During the 1990-2000 period, this is what Hampton Roads did, though not with sufficient vigor to avoid rather sluggish economic growth. The role of national defense expenditures in the regional economy declined from a high of approximately 42 percent in 1985 to a low of about 28 percent in the late 1990s. It appeared that Hampton Roads might develop in such a way that would alter its reputation for being a military town heavily dependent on defense spending.

As it turned out, these discussions were premature. Since 2000, the region's economy has become substantially more dependent on defense spending. Graph 13 illustrates the relative importance of defense spending to the Hampton Roads economy since 1985. After a long decline caused by the post-Cold War real defense spending reductions, the impact of defense spending on the region's economy in 2004 will return to 1995 levels. This will represent a 5 percent increase since 2000 – a momentous change by national standards.

GRAPH 13
THE PROPORTION OF HAMPTON ROADS GROSS REGIONAL PRODUCT ATTRIBUTABLE TO DEPARTMENT OF DEFENSE SPENDING
(Percent)
1985-2004



* Estimated

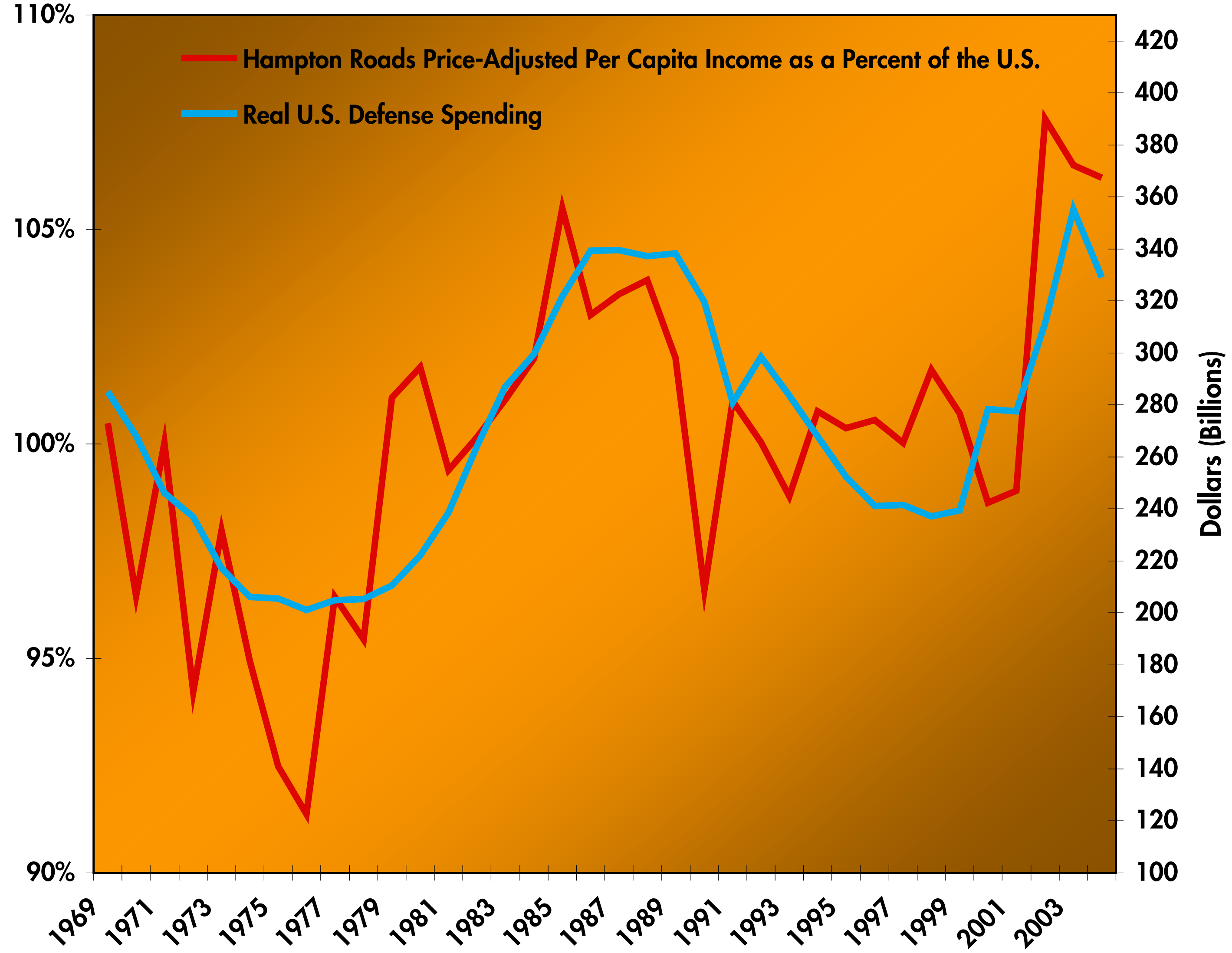
Sources: Department of Defense and the Old Dominion University Economic Forecasting Project

The expansion of national defense spending directly affects our regional economic welfare. Graph 14 plots the cyclical spending rhythms of "real" (adjusted for inflation) national defense budgets with "real" (adjusted for inflation) per capita incomes in the region relative to those of the entire country. Both time series move up and down, almost as if on a roller coaster. Of the two variables, however, it is real defense expenditures that have causal impact. When real defense expenditures move, real per capita income moves shortly thereafter. For example, note that between 1985 and 1990, real defense expenditures declined substantially. With a slight lag, the ratio of real per capita income in Hampton Roads to real per capita income nationally also declined, from about 4 percent above the average to about 2 percent below the average. Similarly, beginning in 1999, real defense expenditures began to increase rapidly and per capita income soon followed, rising from about 2 percent below the national average to about 4 percent above the average in 2003.

Taking into account price differences between metropolitan areas across the country, over the last 35 years, real per capita income in Hampton Roads has fluctuated between 91 percent and 108 percent of the national average. It is clear from Graph 14 that real defense expenditures are the motivating influence on those income changes. Thus, it remains the case that the region's economic welfare (and the standard of living of its residents) is tightly tied to the Department of Defense.

For the foreseeable future, this close connection should stand us in good stead. **Increased military expenditures, activities in areas such as Iraq and concern about terrorism together should maintain defense expenditures at high levels. Yet, just as Americans learned when the Cold War ended, nothing lasts forever. A settlement in Iraq that results in substantial troop withdrawals, plus accompanying political fallout, could put a dent in U.S. defense expenditures. Regardless of one's views on these matters, the reality is that such developments could result in diminished real per capita income within the region. The typical resident might not feel the effects of this in an obvious way, but retailers (for example, automobile dealers), restaurant and recreation businesses, and real estate companies likely would feel the impact.** And, over a period of time, less competition for workers likely would reduce wage increases throughout the region. Finally, governmental tax collections would lag and the fiscal stress of several cities in the region would be exacerbated.

GRAPH 14
HAMPTON ROADS PRICE-ADJUSTED PER CAPITA INCOME AS A PERCENT OF U.S. PRICE-ADJUSTED PER CAPITA INCOME AND U.S. REAL DEFENSE SPENDING (1992 = 100) 1969 - 2004



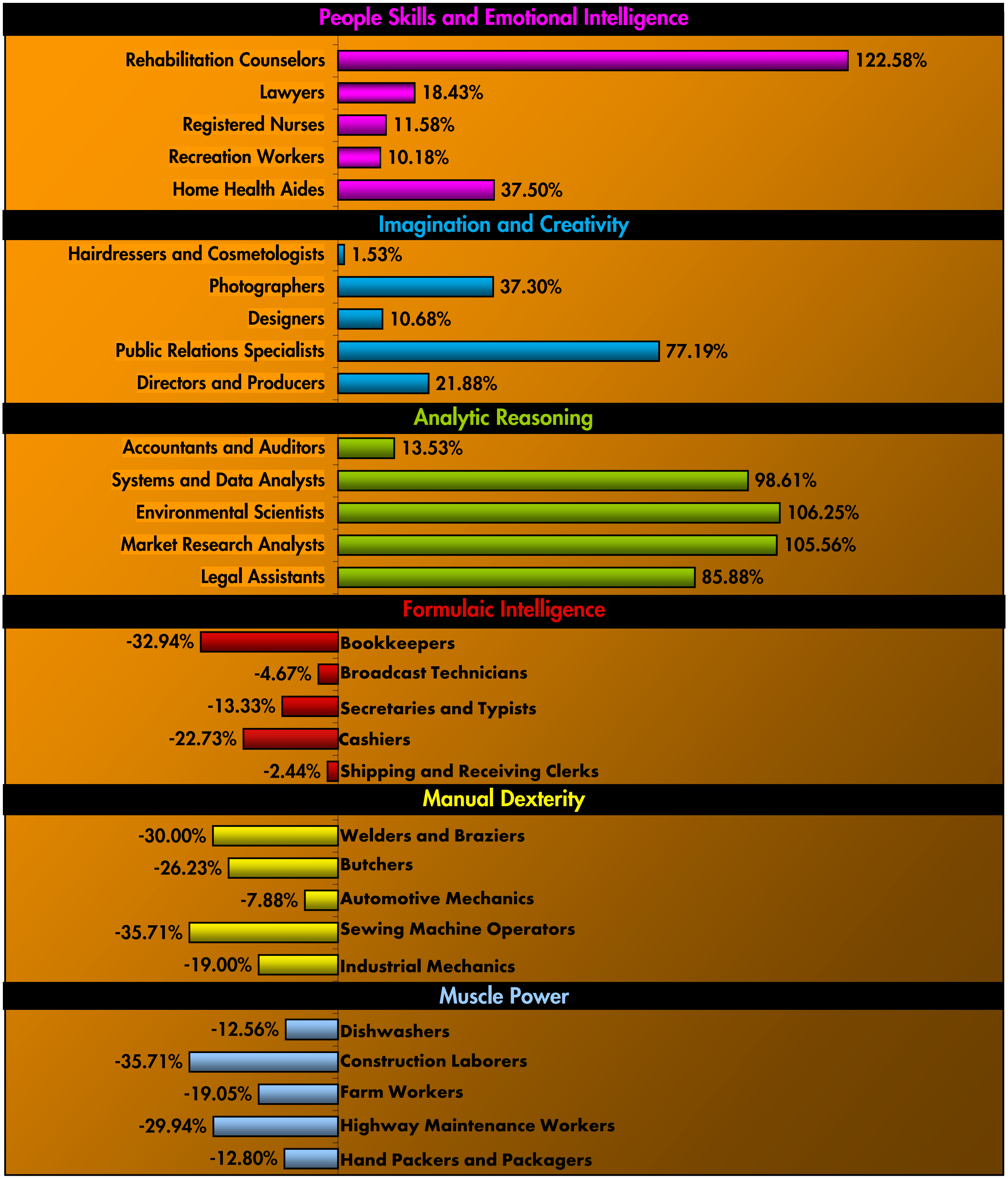
Sources: U.S. Department of Commerce, the Old Dominion University Economic Forecasting Project and U.S. Department of Defense

Patterns Of Occupational Change

Despite the importance of defense spending to the region, the mixture of jobs within Hampton Roads generally matches those of the nation. This is also true with respect to future job growth. Robert Reich, a past secretary of the U.S. Department of Labor, has pointed out that future job growth will be in occupations that render personal services to customers, or that involve critical-thinking skills. This will especially be true where it is possible to substitute technology for jobs characterized by repetitive movement and thinking. For example, if it is efficient to substitute computer software and automatic data entry operations for keypunchers and bookkeepers, then firms will do so.

GRAPH 15

PERCENT INCREASE / DECREASE IN SELECTED HAMPTON ROADS OCCUPATIONS (2000-2003) *



*Job categories adapted from the work of W. Michael Cox, Richard Alm and Nigel Holmes, The New York Times, May 13, 2004, p. A27.

Sources: U.S. Department of Labor and the Old Dominion University Economic Forecasting Project

Graph 15 lists the occupational categories developed by economists at the Federal Reserve Bank of Dallas, but uses data from Hampton Roads. The data here reflect regional job growth (or shrinkage) from 2000 to 2003. These figures broadly support Reich's hypotheses about job growth. Occupations that require the exercise of judgment in the provision of services to consumers (such as rehabilitation counselors and lawyers) have grown rapidly within the region, as have information technology and scientific jobs. Significant job declines within Hampton Roads, however, are observable among bookkeepers, cashiers, sewing machine operators and construction laborers. In all of these cases, it is possible in a classic sense to substitute capital for labor, and this is what profit-maximizing employers tend to do, whether or not they couch their decisions in such language. It's worth noting, that the politically charged notion of outsourcing has had little impact on Hampton Roads.

The citizens of Hampton Roads would do well to heed the advice of Michael Cox, Richard Alm and Nigel Holmes (The New York Times, May 13, 2004): "Trying to preserve existing jobs will prove futile … trade and technology will transform the economy whether we like it or not. Americans will be better off if they strive to move up the hierarchy of human talents." **Education, flexibility, renewal and retraining must be the bywords for both firms and their employees. This will hold true regardless of the level of defense spending. The ultimate solutions to our regional employment challenges reside locally. Those who become exorcised over the trade policies of the People's Republic of China, or lambaste outsourcing to India, would be better served if they focused their attention on improving the preparation of the Hampton Roads labor force.** Just as King Canute could not command the waves to disappear, we in Hampton Roads cannot somehow reverse efficiency-based international economic developments simply because we do not like them. What we can and must do, however, is educate and improve our labor force, while seeking to avoid those policies that unreasonably seek to diminish our economic flexibility.