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The State of the Region: Hampton Roads 2005

James V. Koch
Old Dominion University, jkoch@odu.edu

Vinod Agarwal
Old Dominion University, VAGARWAL@ODU.EDU

John R. Broderick
Old Dominion University, jbroderi@odu.edu

Edward Card
Old Dominion University

Chris Colburn
Old Dominion University, ccolburn@odu.edu

See next page for additional authors

Authors
James V. Koch, Vinod Agarwal, John R. Broderick, Edward Card, Chris Colburn, Vicky Curtis, Steve Daniel, Susan Hughes, Kristine Karlsen, Feng Lian, Sharon Lomax, Linda McGreevy, Janet Molinaro, Kenneth Plum, Qian Sun, and Gilbert Yochum

THE STATE OF THE REGION

HAMPTON ROADS 2005

REGIONAL STUDIES INSTITUTE • OLD DOMINION UNIVERSITY

September 2005

Dear Reader:

This is Old Dominion University's sixth annual State of the Region report. While it represents the work of many people connected in various ways to the university, the report does not constitute an official viewpoint of Old Dominion, or its president, Dr. Roseann Runte.

Our State of the Region reports always have maintained the goal of stimulating thought and discussions that ultimately will make Hampton Roads an even better place to live. We are proud of our region's many successes, but realize it is possible to improve our performance. In order to do so, we must have accurate information about "where we are" and a sound understanding of the policy options available to us.

The 2005 report is divided into seven parts:

- **The Hampton Roads Economy Midway Through the Decade:** Our regional economy continues to perform better than the Commonwealth of Virginia and the nation. The 2000-2004 time period is the best five year time period our region has experienced since 1969. Employment increased four times as rapidly as national employment and we experienced significant job growth in scientific, technical and information technology occupations—-something that has largely eluded us in the past. Defense expenditures increasingly dominate the region's economy and account for about 75 percent of all recent growth. However, the BRAC process could throw a huge wrench into this prosperity. If all BRAC recommendations, including the closure of Oceana, were adopted, and nothing took the place of these activities, then the region would lose about 2.6 percent of its jobs and a roughly equivalent amount of its gross regional product.

- **Is There a Housing Price Bubble in Hampton Roads?** While housing prices increased 40 percent in Hampton Roads (after inflation) during the past decade, most of this increase can be attributed to improved economic fundamentals such as lower interest rates, increased incomes, Department of Defense housing incentives and more cautious building policies by area developers. Hence, we do not have the kind of housing price bubble that currently exists in cities such as San Diego, San Francisco and Boston, and the state of Florida. We may face some future price adjustments, but they are not likely to be wrenching.

- **Richard Florida and the Creative Classes of Hampton Roads:** Professor Florida argues that highly mobile, creative individuals are the kingpins of modern economic growth. They are especially attracted to regions that offer diverse demographics, cultural opportunities, living styles and residential areas, as well as a tolerance of the uncommon. Hampton Roads does not fare well when measured against several of Florida's variables. However, we test his hypotheses empirically and find they have only limited validity.

- **The Wheels of Justice: Our Regional Circuit Courts:** We trace what happens to parties that enter our Circuit Court system as a plaintiff or defendant. In 2003, the nine Circuits that are wholly or partially located within Hampton Roads dealt with 81,008 cases (35 percent civil and 65 percent criminal). Large proportions of these cases are dismissed or settled before they come to trial and very few cases are heard by a jury. We examine a variety of efficiency measures relating to the region's Circuit Courts and conclude they are operating rather well.

- **Our Art Galleries and Museums: Will They Survive?** Led by the Chrysler Museum of Art, Hampton Roads is blessed with several excellent art galleries and museums. These valuable institutions, however, are struggling to maintain their collections, programs and hours because of financial strains. It's apparent that the region's decision makers have not placed a high priority on the aesthetic sensibilities of the region's citizens.

- **Unrealized Potential: High Technology in Hampton Roads:** On the face of it, Hampton Roads ought to be a technological powerhouse because of the high-level federal research facilities and defense installations located in the area, plus a higher education community of considerable size. Yet, while we can claim the second-greatest technological development of any region in the Commonwealth, we are a very distant second to Northern Virginia and have never realized our potential. Future prosperity in technology is tied to developing the modeling and simulation industry that has sprouted primarily in Suffolk, stimulating Eastern Virginia Medical School's potential in conjunction with Old Dominion University and vastly increasing support for the sciences and engineering at several institutions, but especially Old Dominion. It's not clear whether these developments will occur.

- **The Race to the Bottom of the Bay: Boat Taxes in Hampton Roads:** Over the past decade, the region's cities and counties have diminished the taxes they assess on boats so much that in several cities (for example, Virginia Beach), boat taxes in essence no longer exist. We show that all jurisdictions in Hampton Roads have suffered due to the reduced tax revenue and that the low-tax strategy has not attracted more boats from other regions, as intended. While boat taxes are unpopular and difficult to collect, Hampton Roads appears to have shot itself in the foot.

Old Dominion University, via the president's office, and the College of Business and Public Administration, via the dean's office, continue to be generous supporters of the State of the Region report. However, the report would not appear without the vital backing of the private donors whose names are listed below. These munificent individuals believe in Hampton Roads and in the power of rational discussion to improve our circumstances. They deserve kudos for their generosity and foresight. As is the case with the university, however, they are not responsible for the views expressed in the report.

The Aimee and Frank Batten Jr. Foundation
Frank Batten Sr.
R. Bruce Bradley
Ramon W. Breeden Jr.
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The following individuals were instrumental in the research, writing, editing, design and dissemination of the report:
Vinod Agarwal
John R. Broderick
Edward Card
Chris Colburn
Vicky Curtis
Steve Daniel
Susan Hughes
Kristine Karlsen
Feng Lian
Sharon Lomax
Linda McGreevy
Janet Molinaro
Kenneth Plum
Qian Sun
Gilbert Yochum

Additional recognition is merited for Vinod Agarwal and Gilbert Yochum of the Old Dominion University Economic Forecasting Project, which Professor Yochum directs. They are hard-working, perceptive colleagues who generate superb work on a very tight time schedule, and I am indebted to them. Their penetrating analyses of the economies of the region and the Commonwealth have become legendary and now constitute the baseline by which numerous economic activities are measured.

My hope is that you, the reader, will be stimulated by this report and will use it as a vehicle to promote productive discussions about our future. Do not hesitate to contact me at jkoch@odu.edu or 757-683-3458 should you have any questions.

Note that each of the five previous State of the Region reports (2000 through 2004) may be found on the Internet at www.odu.edu/forecasting.

Sincerely,

James V. Koch

James V. Koch
Board of Visitors Professor of Economics
and President Emeritus Old Dominion University

THE STATE OF THE HAMPTON ROADS ECONOMY

MIDWAY THROUGH THE DECADE

THE HAMPTON ROADS ECONOMY MIDWAY THROUGH THE DECADE

The total dollar value of output in Hampton Roads should exceed $65 billion in 2005. With a projected growth rate of 3.9 percent in 2005, the region's economy will extend the pattern of faster-than-national-average growth it has experienced the past five years. The region's "real" (inflation-adjusted) average annual economic growth rate was a robust 4.1 percent per year between 2001 and 2005. This was well above the 3.2 percent average we have experienced since 1970.

In this chapter, we'll examine our regional economy in greater detail and compare it to other metropolitan areas. We'll also examine some of the probable consequences of the Defense Base Realignment and Closure (BRAC) Commission decisions on Hampton Roads.

Placing Our Growth In Context

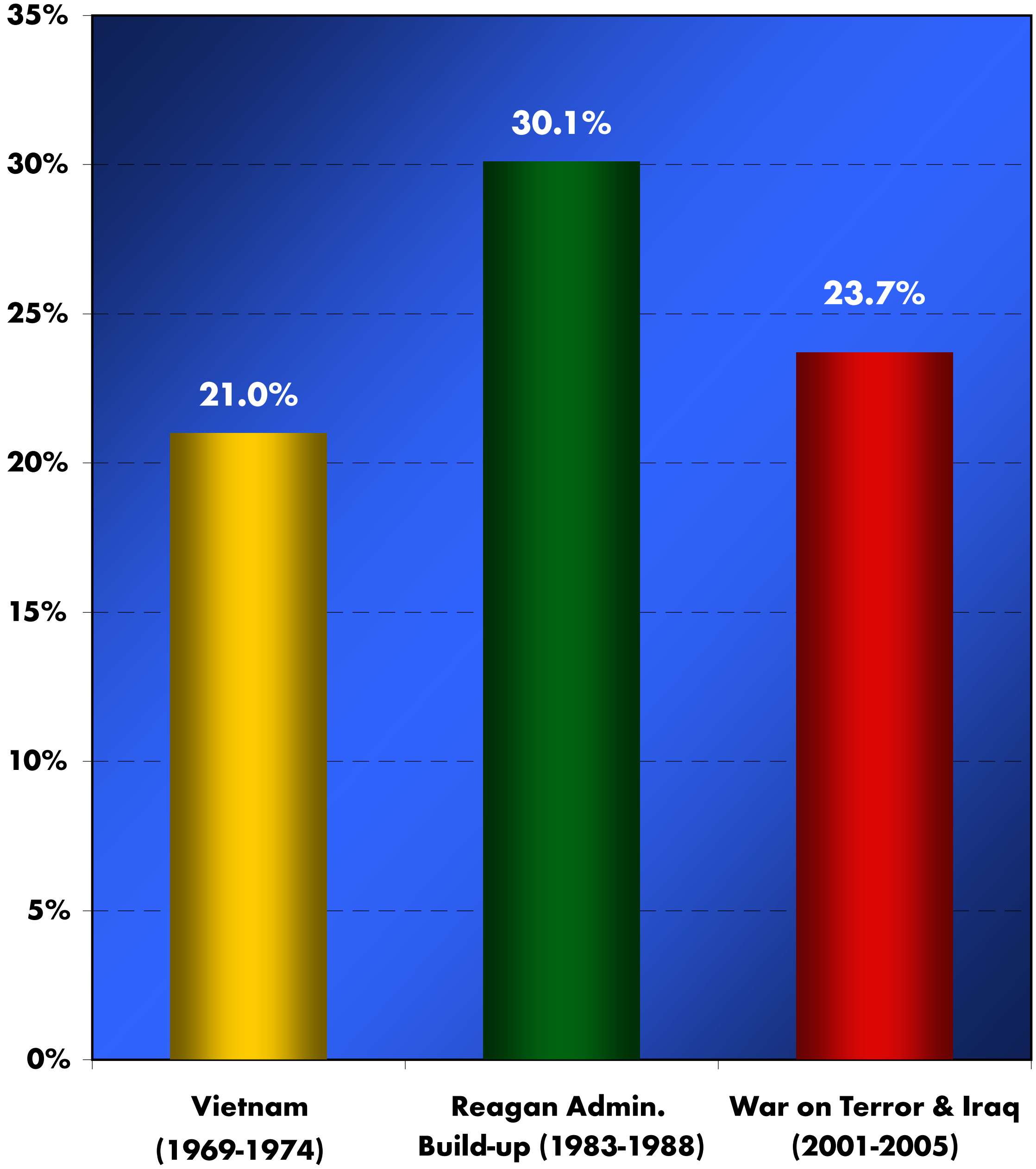
Hampton Roads has not experienced a year of actual negative economic growth, or recession, since 1975. In 2005, we expect the value of the region's gross regional product (GRP) to increase to $65.2 billion (see Table 1). During 2005, our economy will grow at a 3.9 percent rate, after taking inflation into account.

TABLE 1
HAMPTON ROADS GROSS REGIONAL PRODUCT (GRP) NOMINAL AND REAL (PRICE-ADJUSTED) 1990 TO 2005

Year	GRP Billions$	(2000=100) Billions$	Growth Rate Percent
1990	31.6	38.7	0.4
1991	33.02	39.10	1
1992	34.78	40.26	3.0
1993	36.40	41.18	2.3
1994	37.96	42.06	2.1
1995	38.90	42.23	0.4
1996	40.74	43.41	2.8
1997	42.72	44.78	3.1
1998	44.04	45.65	1.9
1999	46.22	47.22	3.5
2000	48.36	48.36	2.4
2001	51.00	49.80	3.0
2002	54.19	52.06	4.5
2003	57.50	54.43	4.5
2004	61.70	57.10	5.2
2005	65.20	59.30	3.9

Source: Old Dominion University Economic Forecasting Project

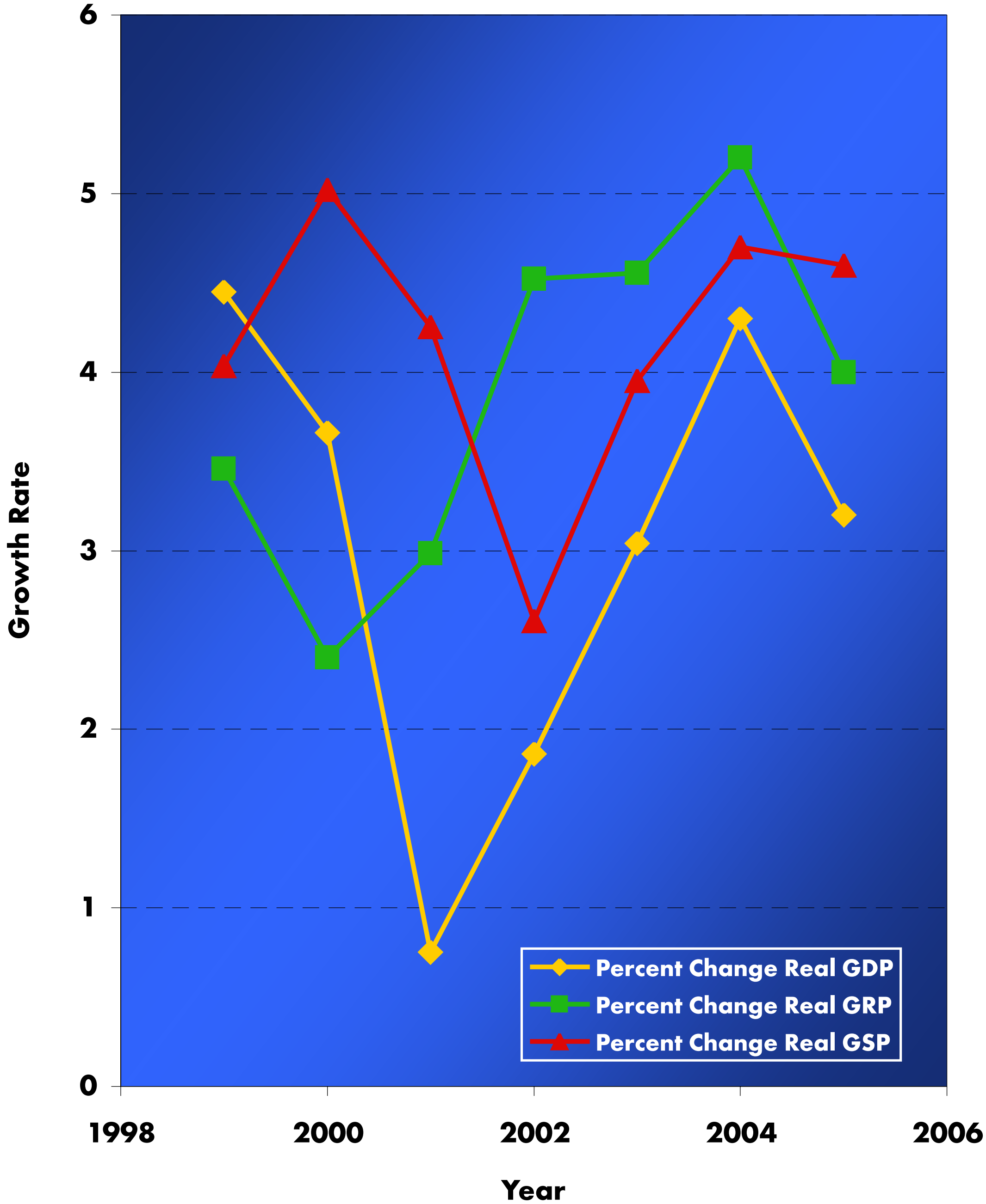
GRAPH 1
GROWTH SPURTS IN HAMPTON ROADS GROSS PRODUCT



Source: Old Dominion University Economic Forecasting Project

Graph 1 illustrates that cumulative growth in Hampton Roads' GRP since 2000 has been matched in only one other five-year period since 1969. The past five years have been very good ones, economically speaking. It is worth noting that each of the highest three five-year growth periods in the region's economy over the past 35 years has been associated with rising defense expenditures in Hampton Roads.

GRAPH 2
RATE OF GROWTH OF GDP (U.S.), GSP (VA.) AND GRP (HAMPTON ROADS)



In each of the past five years, the Hampton Roads economy has outperformed that of the nation (see Graph 2). National growth will average about 2.7 percent annually from 2001 to 2005, 1.4 percent per year below our 4.1 percent annual rate of growth. However, the margin between these two growth rates has narrowed over the past two years as the national economy has recovered and likely will shrink to zero in 2005.

Graph 2 also shows that in three of the past five years economic growth in Hampton Roads exceeded that of the Commonwealth, which grew much more rapidly than the nation. Hampton Roads will not grow as rapidly as Virginia in 2005, but the region's average growth rate between 2001 and 2005 will still be slightly larger than that of the Commonwealth.

It is impressive that the value of our GRP now is larger than two-thirds of all the world's economies, including those of several European Union countries. Table 2 adjusts the value of the production of various countries and Hampton Roads for purchasing-power parity – which essentially measures what one actually can buy with a particular sum of money. As seen in Table 2, Hampton Roads' 2003 GRP was approximately the same as the gross domestic products (GDP) of national economies such as Syria, the Dominican Republic and Croatia. Hampton Roads' GRP is about two-thirds that of New Zealand, more than double that of Lebanon and five times that of Jamaica.

The latest U.S. Department of Commerce personal income data enable us to compare Hampton Roads to other metropolitan statistical areas (MSAs) in the United States. The metropolitan areas most comparable to Hampton Roads in terms of personal income are Las Vegas, Orlando, San Antonio, Charlotte and Nashville.

For those who are professional sports aficionados, Table 3 also provides some encouragement. Note that total personal income in Hampton Roads is substantially larger than personal incomes in New Orleans, Jacksonville, Buffalo and Salt Lake City, all of which host professional sports franchises.

TABLE 2
2003 GROSS PRODUCT OF HAMPTON ROADS AND SELECTED NATIONS (PURCHASING-POWER PARITY VALUES)

	Billions of Dollars
New Zealand	90.5
Syria	62.2
Dominican Republic	59.6
Hampton Roads	57.5
Croatia	49.2
Lithuania	40.4
Lebanon	22.8
Jamaica	10.8

Sources: World Bank and the Old Dominion University Economic Forecasting Project

TABLE 3
HAMPTON ROADS AND COMPARABLE METROPOLITAN AREAS TOTAL PERSONAL INCOME (2003)

MSA	Personal Income (Billions $)
Orlando	50.7
Las Vegas	48.8
San Antonio	48.7
Charlotte	47.8
Hampton Roads	47.7
Nashville	45.8
New Orleans	39.6
Jacksonville	36.5
Buffalo	33.8
Salt Lake City	29.9

Source: U.S. Department of Commence

Employment and Wages

With the onset of the national economic recession in 2001, many analysts and pundits expressed much concern about the decline in high-paying manufacturing jobs in the United States. The new jobs that replaced the lost jobs, they lamented, paid lower wages and did not carry significant fringe benefits. The quintessence of this development was said to be a stereotypical job at a Wal-Mart.

Whatever the accuracy of this story for the United States, it does not appear to be a fair representation of job market developments within Hampton Roads over the past few years. **The growth in employment within our region in recent years has been excellent. As Table 4 reveals, Hampton Roads enjoyed a 6 percent increase in employment between 1999 and 2004, four times the national average, and a 22.7 percent increase in average hourly wages overall (Table 5). But certain industries accounted for most of this increase.** Data presented in Graph 3 show that information industries experienced a 24.7 percent increase in employment, followed by education and health services with 14.9 percent. These industries tend to employ people with relatively high levels of education. By contrast, jobs in retail trade, which typically require less education, expanded by only 3.8 percent.

Graph 4 demonstrates that most of the jobs that were lost in recent years in Hampton Roads were in telecommunications and manufacturing. These job losses reflect national trends and largely reflect either rapidly rising productivity within these industries that has reduced the demand for labor, or international competition from countries such as China and India. Nevertheless, during this time period, jobs in manufacturing declined by 16.7 percent nationally, but only 6.8 percent, or 4,400 jobs, in Hampton Roads.

TABLE 4
PERCENT CHANGE IN PAYROLL EMPLOYMENT, 1999 TO 2004

	Percent Change
Las Vegas	22.7
Reno	11.1
Tampa	10.6
Hampton Roads	6.0
Richmond	5.0
Raleigh-Durham	4.9
Charlotte	4.6
U.S.	1.5

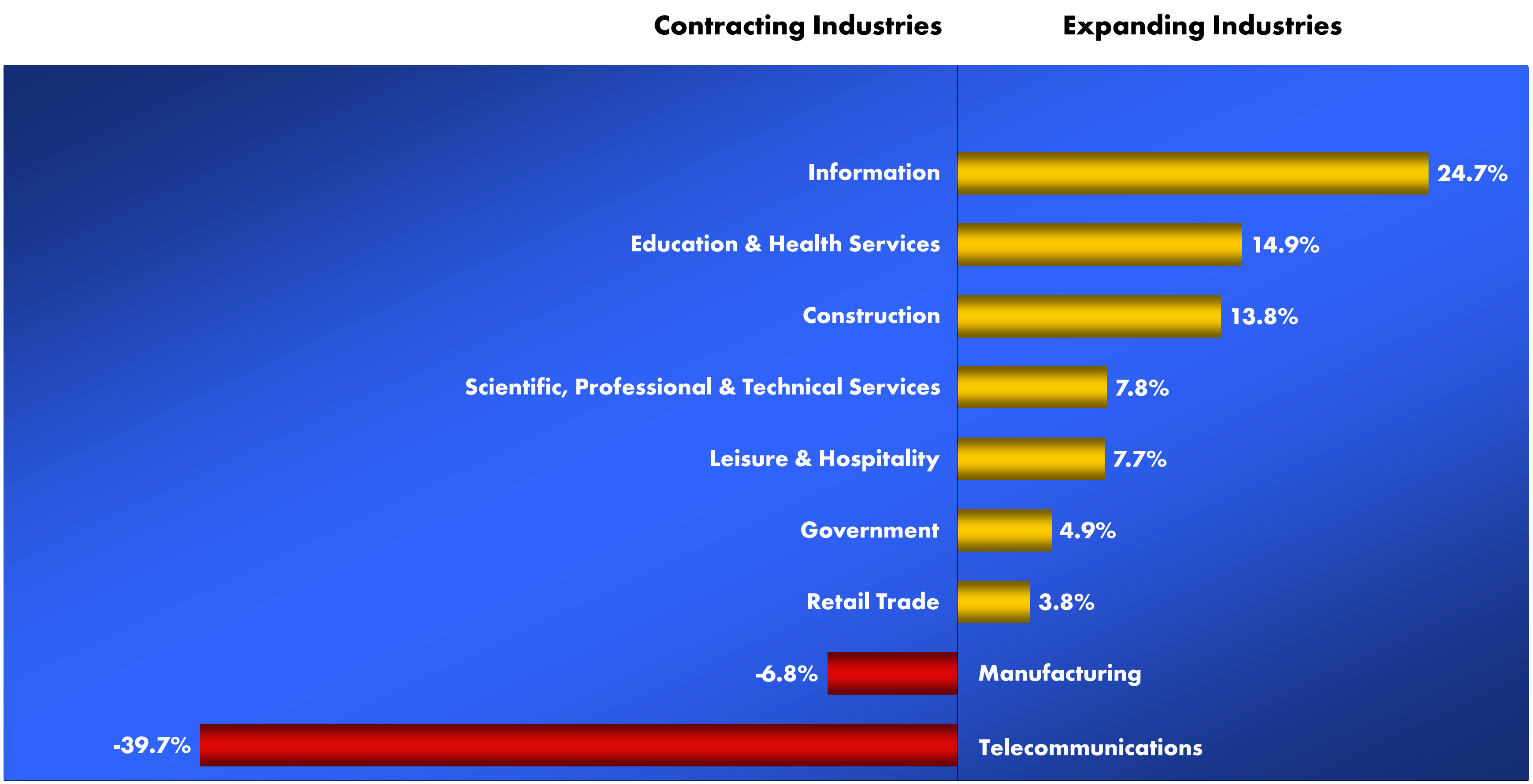
Sources: U.S. Department of Labor and the Old Dominion University Economic Forecasting Project

TABLE 5
PERCENT CHANGE IN AVERAGE HOURLY WAGE FOR ALL OCCUPATIONS, 1999 TO 2004

	Percent Change
Las Vegas	N / A
Reno	23.8
Tampa	11.9
Hampton Roads	22.7
Richmond	19.2
Raleigh-Durham	20.9
Charlotte	23.1
U.S.	20.7

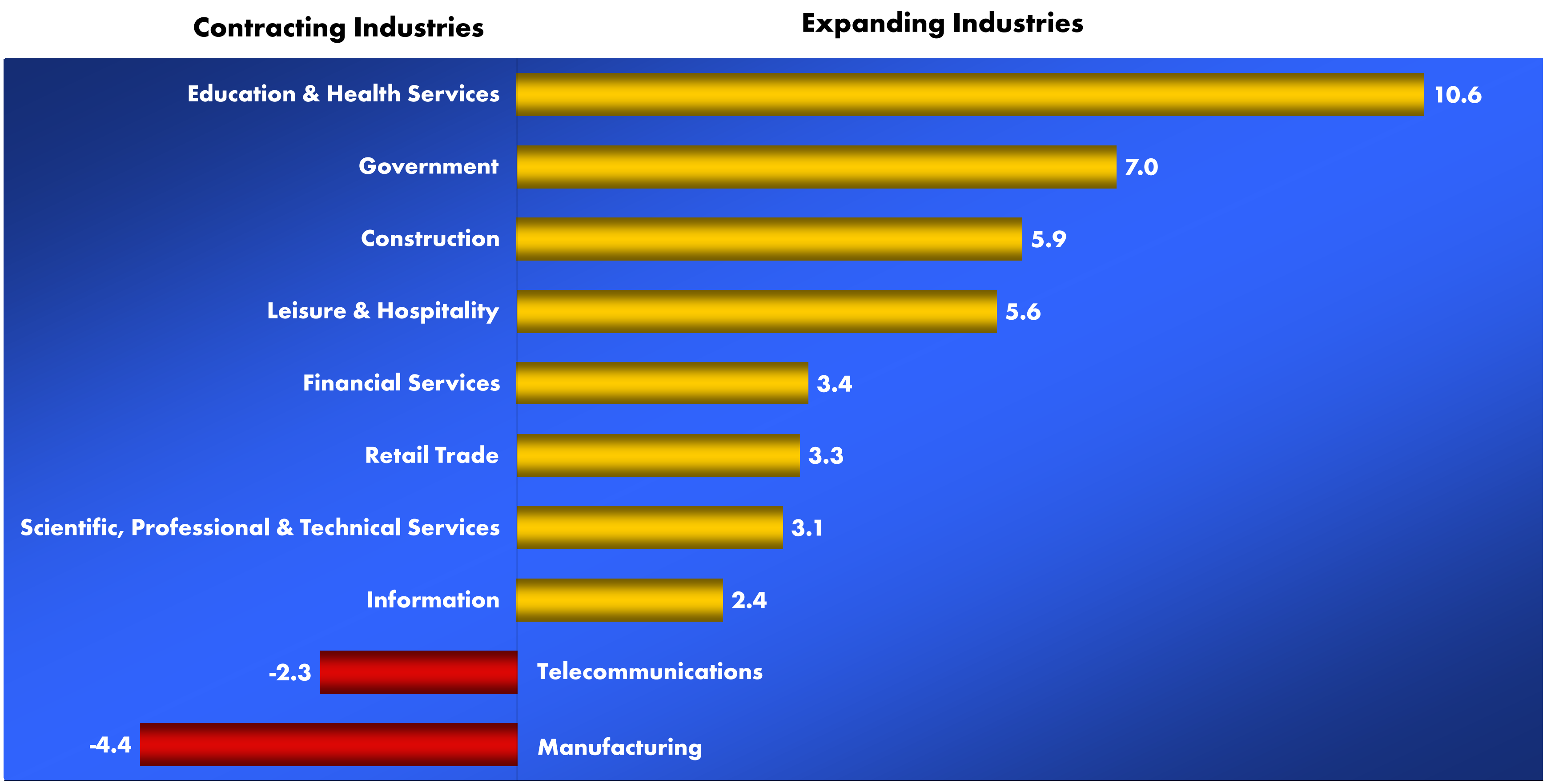
Sources: U.S. Department of Labor and the Old Dominion University Economic Forecasting Project

GRAPH 3
PERCENT EMPLOYMENT CHANGE IN SELECTED INDUSTRIES IN HAMPTON ROADS, 1999 TO 2004



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

GRAPH 4
EMPLOYMENT CHANGES IN SELECTED INDUSTRIES IN HAMPTON ROADS
1999 TO 2004
(THOUSANDS OF JOBS)

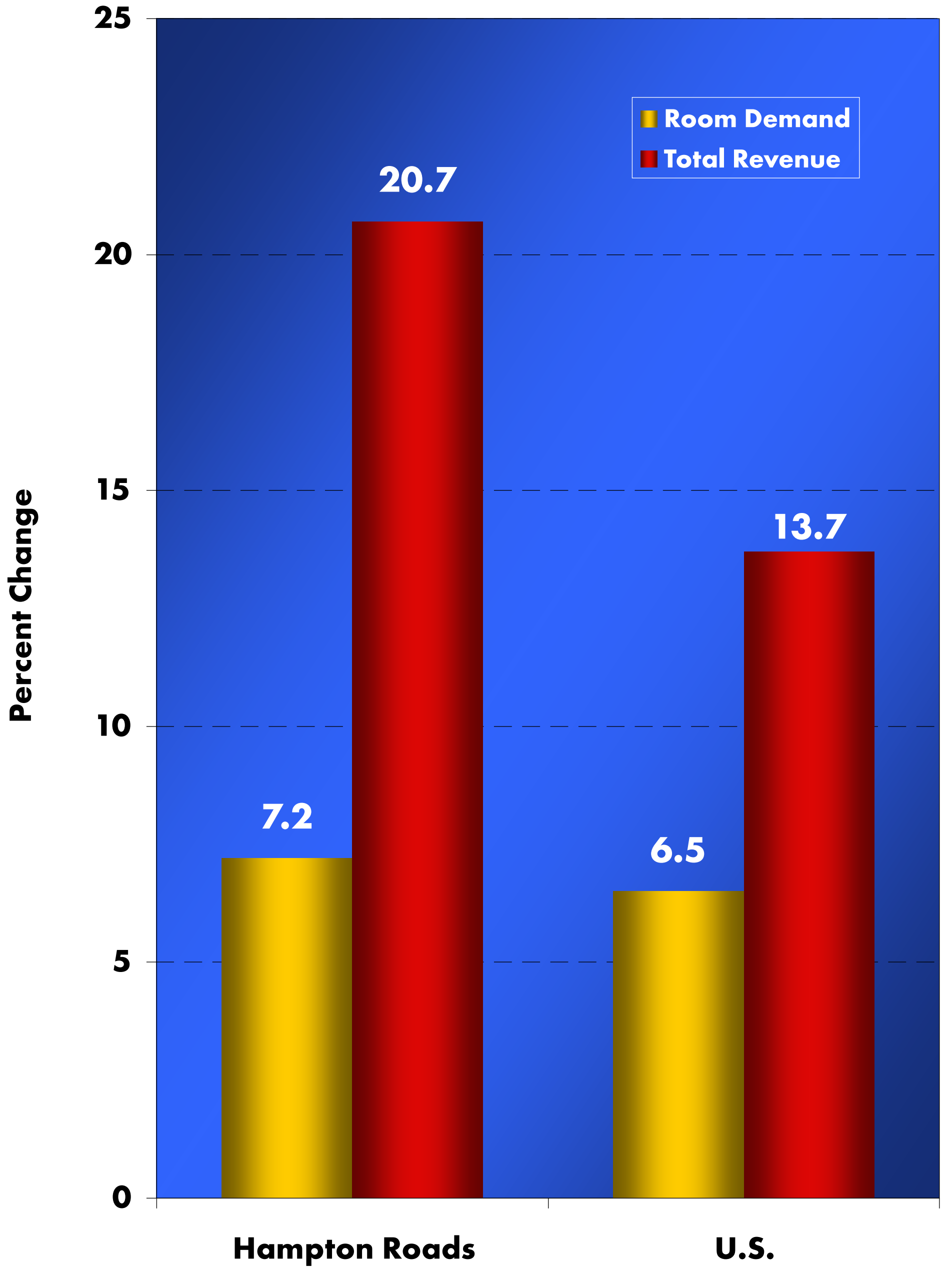


Sources: U.S. Department of Labor and the Old Dominion University Economic Forecasting Project

Regional Tourism

Whether measured by either the demand for hotel rooms or by total hotel revenue, growth in the Hampton Roads tourist industry exceeded that of the nation between 1999 and 2004. Graph 5 shows that tourist revenue grew much faster than room occupancy within the region, meaning that the typical tourist is spending more money. This reflects a gradual, but continuing trend

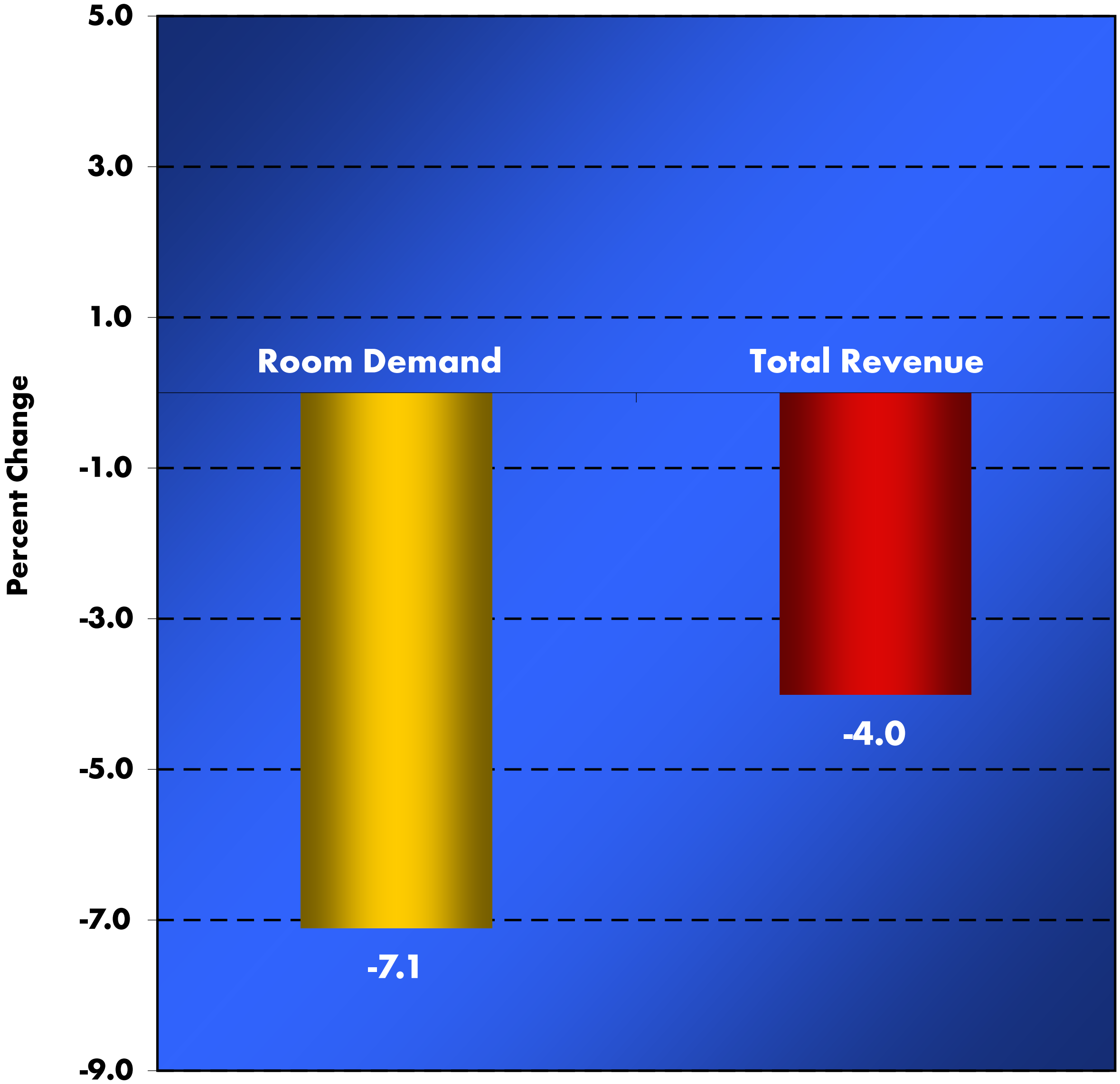
GRAPH 5
COMPARATIVE GROWTH OF HOTEL ROOM DEMAND AND TOTAL REVENUE FOR HAMPTON ROADS AND THE U.S., 1999 TO 2004



Sources: Smith Travel Research and the Old Dominion University Economic Forecasting Project toward upscale tourism within the region. By no means has Hampton Roads become an über destination such as Palm Beach; however, over the past decade, it has tended to attract a greater proportion of higher-income tourists than previously.

The significant increase in Hampton Roads tourism notwithstanding, Williamsburg has not benefited accordingly and actually has been a drag on tourism growth in the region. Graph 6 illustrates the extent of the contraction in both room demand and revenue experienced in the Williamsburg portion of the Hampton Roads tourist industry over the past five years. According to data from Smith Travel Research and the Commonwealth of Virginia, total hotel revenue in the Williamsburg market declined from $152 million in 1999 to $144 million in 2004. These data implicitly also underline the considerable prosperity that Virginia Beach has experienced.

GRAPH 6
GROWTH OF HOTEL ROOM DEMAND AND TOTAL REVENUE FOR THE WILLIAMSBURG PORTION OF THE HAMPTON ROADS TOURIST MARKET, 1999 TO 2004



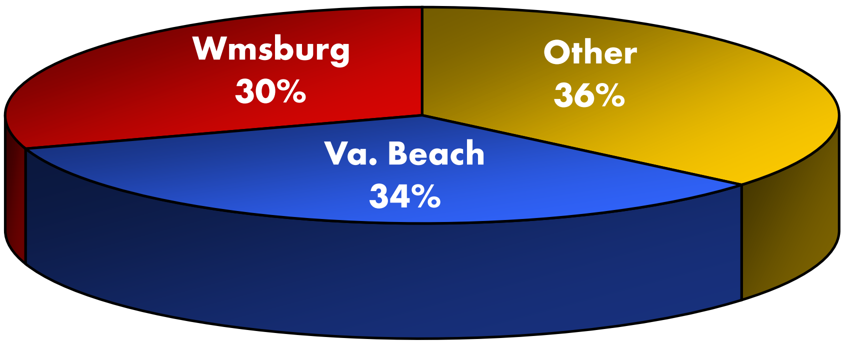
Sources: Smith Travel Research and the Old Dominion University Economic Forecasting Project

The decline of tourism in Williamsburg has led to a significant rearrangement of market shares within the Hampton Roads tourism market. As Graph 7 illustrates, **Williamsburg's share of regional tourism dropped from 30 percent to 23 percent between 1999 and 2004.**

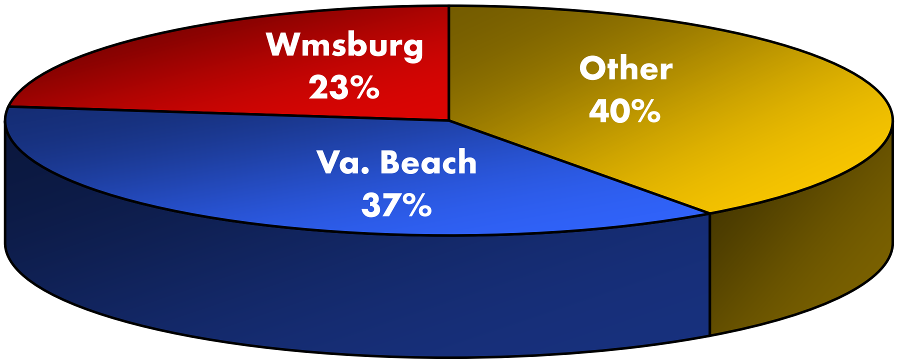
Poor weather during the summers of both 2003 and 2004 only accentuated Williamsburg's existing marketing problems. These problems include: (1) the diminishing ability of younger, non-historically oriented people to identify with Williamsburg's attractions; (2) a lack of funding for a concerted marketing program, which in any case would be hobbled by an absence of consistent data; and (3) less-than-optimal relations between the Colonial Williamsburg Foundation and Busch Gardens. All of these concerns are being addressed to some extent. For example, Williamsburg did begin to levy a $2 per night hotel room tax in the summer of 2004 in order to fund an expanded marketing and research program.

GRAPH 7
ESTIMATED MARKET SHARES OF
HAMPTON ROADS TOURIST INDUSTRY

1999



2004



Source: Old Dominion University Economic Forecasting Project

2005 Base Realignment and Closure (BRAC)

Given the relative degree of reliance of our regional economy on defense spending (see Graph 8), few acronyms evoke more angst in Hampton Roads than BRAC. Some of this worry is quite justifiable and is the result of past episodes of military downsizing. Table 6 discloses the economic impact of the two major downsizing episodes Hampton Roads has encountered since Vietnam. The post-Cold War downsizing was particularly difficult; Hampton Roads lost more than 24 percent of its full-time military personnel and 21 percent of its civilian labor force working for the Department of Defense. The Naval Air Rework Facility on the Norfolk Naval Base and several functions within the Norfolk Naval Shipyard were lost.

THE ECONOMIC IMPACT OF THE 2005 BRAC RECOMMENDATIONS

As this is written, we do not yet know what military facilities will be closed as a result of the 2005 Base Realignment and Closure process. We can compute, however, the economic impact of the BRAC Commission recommendations that have been made. Unlike the two previous downsizing periods described in Table 6, the 2005 round of base closures is not likely to be accompanied by national-level force reductions in the services. Of course, developments in Iraq and elsewhere could change this. But, in the absence of major changes in overall military expenditures, total military and civilian personnel levels are projected to be fairly stable over the next five years. This implies that military or civilian personnel increases or decreases will result only from base consolidations or closures, respectively.

TABLE 6
PERCENT REDUCTION IN MILITARY AND CIVILIAN WORK FORCE IN HAMPTON ROADS (SELECTED YEARS)

	Military	Federal Civilian
1969-1976 (Post-Vietnamization)	-26.30%	-10.30%
1989-1998 (Post-Cold War)	-24.50%	-21.10%

Source: Old Dominion University Economic Forecasting Project

The recommended Department of Defense 2005 list of base closures and consolidations would reduce employment in Hampton Roads by 19,228 jobs. After accounting for both the direct and indirect effects of the base closures and consolidations, the total job loss would reduce employment in Hampton Roads by about 1.9 percent, if nothing takes the place of these activities.

The financial impact of the 2005 BRAC Commission recommendations is presented in Table 7. **The closure of Oceana Naval Air Station clearly represents the largest negative impact, followed by Fort Monroe. The addition of jobs to the Norfolk Naval Shipyard yields the greatest positive effect on the region's economy.**

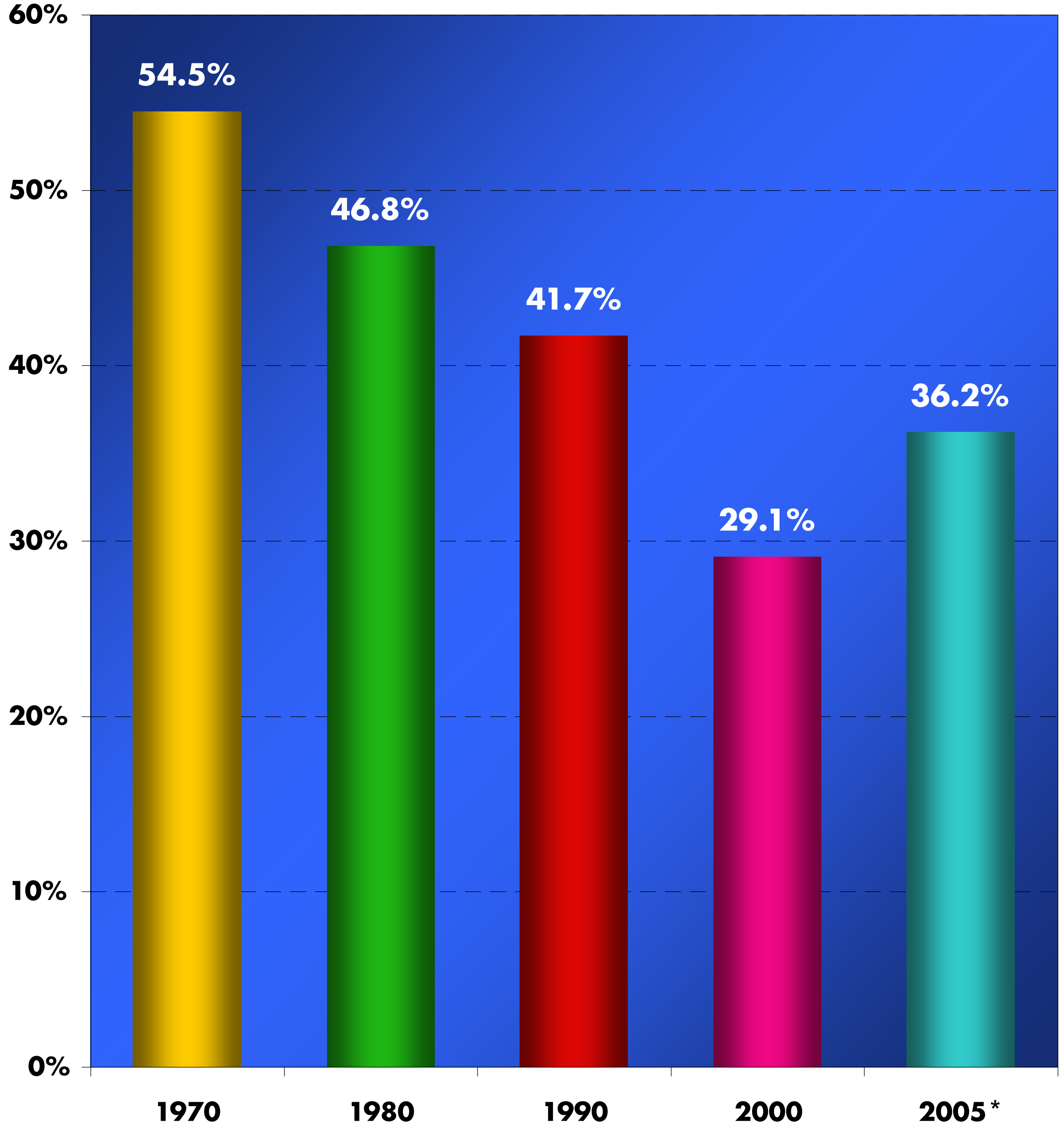
In terms of gross regional product, the net financial effect of the base realignment will be significant than the employment effect because many of the jobs lost are relatively high-paying. **We anticipate that two years after the jobs are actually eliminated the total impact of the BRAC recommendations will be a GRP reduction of approximately $1.61 billion per year. This would amount to approximately 2.5 percent of the value of the region's annual gross output, if nothing were to take the place of the terminated activities.**

TABLE 7
BRAC CUMULATIVE EFFECT ON HAMPTON ROADS GRP BY BASE LOCATION

Place	Millions of Dollars
Fort Monroe	-$575.7 M
Fort Eustis	-295.8
Langley Air Force Base	114.9
Yorktown Naval Weapons Station	-31.7
Oceana	-1573.5
NOB	344.5
Naval Support Facility (Chesapeake)	114.2
Portsmouth Naval Hospital	-64.2
Little Creek	6.5
Norfolk Naval Shipyard	350.0
(Loss)Total	- 1610.8 M

Source: Old Dominion University Economic Forecasting Project

GRAPH 8
THE PROPORTION OF HAMPTON ROADS' GROSS REGIONAL PRODUCT ATTRIBUTABLE TO DEPARTMENT OF DEFENSE SPENDING (PERCENT) 1970 TO 2005



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

Graph 9 displays estimates of the total economic effects, both direct and indirect, of BRAC on the Peninsula and Southside. These estimates employ a statistical model that takes into account commuting between the two sub-regions of Hampton Roads. The Southside is the bigger loser in absolute terms, though relatively speaking the adverse effect on the Peninsula is much greater because its economic base is only about one-half of that of the Southside. There is relatively little intraregional transfer of military activity contained in the BRAC recommendations.

OCEANA NAVAL AIR STATION

Oceana Naval Air Station was not on the original BRAC list, but was added by the commission during its July 2005 deliberations. Without doubt, it is the centerpiece of the 2005 BRAC process in Hampton Roads because its economic impact is so substantial. The interaction of Oceana with the Virginia Beach community long has been an issue of substance and this was once again brought to the fore during this year's BRAC proceedings. Residential and commercial development around the base plus community concerns about jet noise have combined to limit the Navy's ability to operate or expand the facility. Even if this BRAC process ultimately does not target Oceana for closing, then when the Navy adopts its next generation of fighter aircraft, it probably will decide to locate some or all of the new wings elsewhere. Hence, whatever the BRAC outcome this time around, Oceana's future in Hampton Roads is in jeopardy.

In terms of total jobs lost and GRP forgone, what would the economic impact be if Oceana were closed and all of its operations moved to another state? Table 8 projects this possibility, and finds the impact quite large. **An estimated $1.6 billion in GRP (about 2.5 percent of the region's GRP) would be lost to Hampton Roads, as well as more than 19,000 jobs (about 1.9 percent), if Oceana were to close. This is very close to our estimate of the overall impact of this BRAC process on the region. In other words, if all of the other BRAC recommendations were implemented, they would almost cancel each other in terms of their economic impact.**

TABLE 8

THE CUMULATIVE EFFECT ON GRP AND EMPLOYMENT IN HAMPTON ROADS FROM CLOSING THE OCEANA NAVAL AIR STATION

Total (Direct and Indirect) Loss in GRP	$1,573,480,000
Total (Direct and Indirect) Loss in Employment	19,024

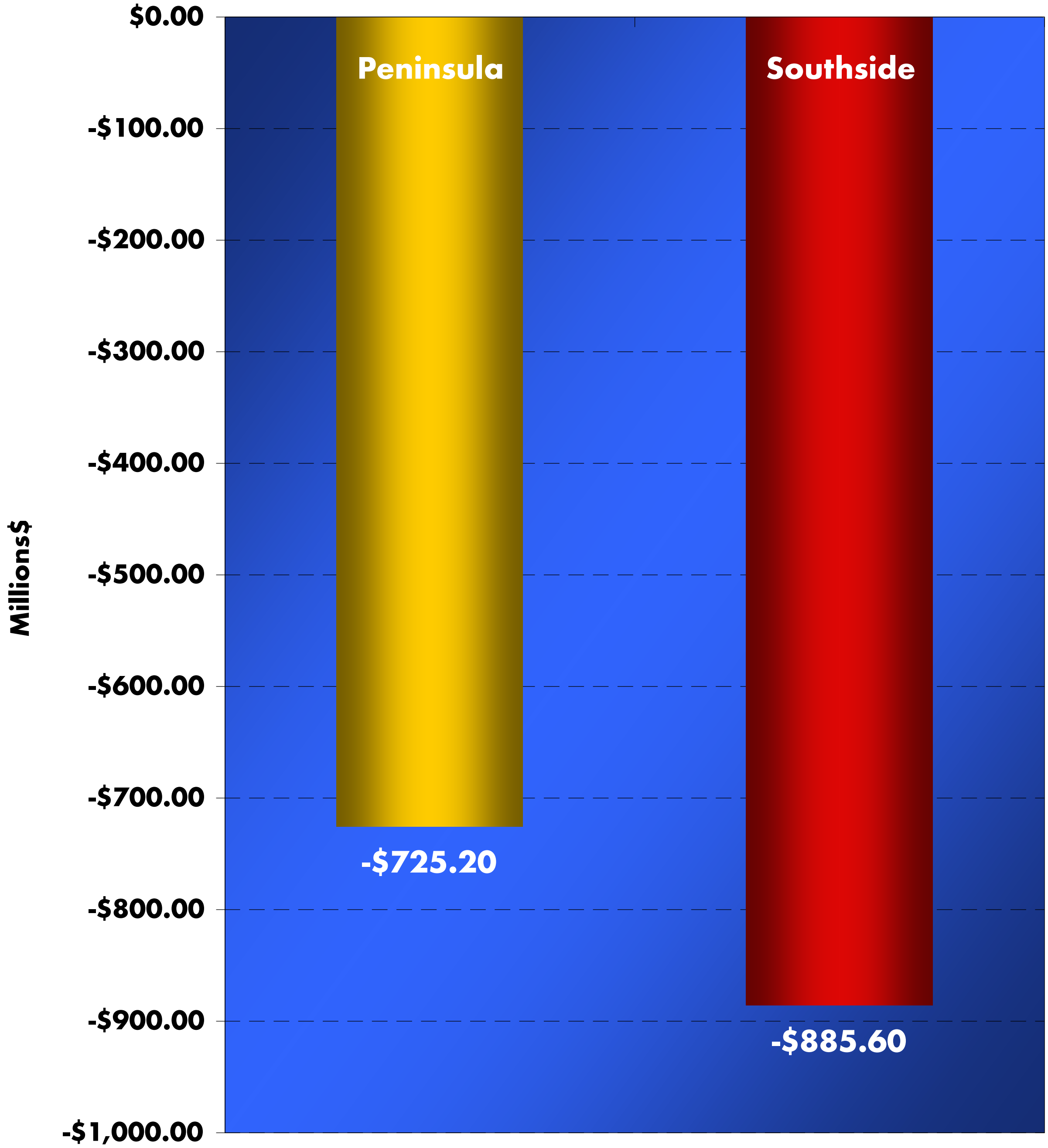
Source: Old Dominion University Economic Forecasting Project

A WORD OF CAUTION ABOUT INTERPRETING BASE CLOSURE ECONOMIC IMPACTS

The above data on base closures are best interpreted as an answer to the question, "What would happen to the regional economy if a base such as Fort Monroe or Oceana Naval Air Station were shut down completely and *no* substitute economic activity utilized the empty facilities?" Whether a closed base can be used for other purposes is not part of the analysis, but realistically should be.

State and federal governments nearly always make development and economic adjustment commitments to cushion the economic impact of base closures. Private entrepreneurs nearly always come forward with creative ideas about how to utilize the facilities and land inside closed bases. If nothing else, for example, Oceana would constitute a prime location for residential housing. Fort Monroe similarly has potentially productive civilian uses. A May 2005 General Accounting Office study, "Military Base Closures: Observations on Prior and Current BRAC Rounds," found that after a period of 10 years almost 85 percent of the *civilian* jobs lost to previous BRAC-mandated base closures had been replaced by developments on the closed bases. However, the report advised, "The recovery process has not necessarily been easy." **Thus, base closures need not be disastrous if localities, regions and states are innovative and entrepreneurial with respect to their post-closure plans.** Needless to say, the quality and energy of our regional leadership will be absolutely critical. This will be the equivalent of a leadership Super Bowl — one that will test the courage and ingenuity of all of those who guide our regional institutions.

GRAPH 9
2005 BRAC ESTIMATED AGGREGATE ECONOMIC IMPACT ON SUB-SECTORS OF THE HAMPTON ROADS ECONOMY



Source: Old Dominion University Economic Forecasting Project

THE STATE OF

HOUSING

IS THERE A HOUSING PRICE BUBBLE IN HAMPTON ROADS?

In 1996, Alan Greenspan, chairman of the Federal Reserve System Board of Governors, began to warn that some stock prices reflected "irrational exuberance." His warnings appeared prophetic when stock prices declined sharply in spring 2001. Now, in 2005, are we experiencing a similar phenomenon with respect to housing prices? Certainly the national media appear to be encouraging the belief that housing prices have inflated beyond economically justifiable levels and could be headed for a crash.

Hundreds of articles recently have been written on this topic, and The New York Times announced in a front page story (May 25, 2005), that "Steep rise in prices adds to worry about a bubble." A few days later (May 28, 2005), the front page of The Times' business section carried the headline, "Is your house overvalued?" The story noted that the ratio of housing prices to rental rates in many coastal cities had almost tripled between 2000 and 2005. This was taken as evidence that housing prices in some markets had become unhinged from economic fundamentals.

In fact, housing prices nationally increased 15 percent between 2004 and 2005, and many economists have concluded that we may be in the midst of a housing price bubble, though they typically add that this bubble seems to be localized in certain areas of the country such as Boston, Miami and San Diego, where prices rose an amazing 20.5 percent per year between 2000 and 2005 (New York Times, May 28, 2005).

Where does the housing bubble begin and end? Do we have a housing price bubble in Hampton Roads that may burst in the near future? We address those questions here. As we will soon see, we may have a small housing price bubble, but it is not large in size by historical standards. The upsurge in home ownership and in housing prices within the region still substantially reflects economic fundamentals such as lower borrowing costs and increased disposable income.

Relative to such economic fundamentals, then, housing prices in Hampton Roads are not far out of line. Of course, these fundamentals can change rapidly. Interest rates could rise, or the Department of Defense (which has been responsible for three-quarters of all regional growth since 2000) could reduce its expenditures in the region. Either of these developments would diminish or halt housing price momentum and perhaps require a downward adjustment in housing prices, something that has not happened in Hampton Roads for at least 30 years.

Let's examine our situation in greater detail.

The Housing Market in Hampton Roads

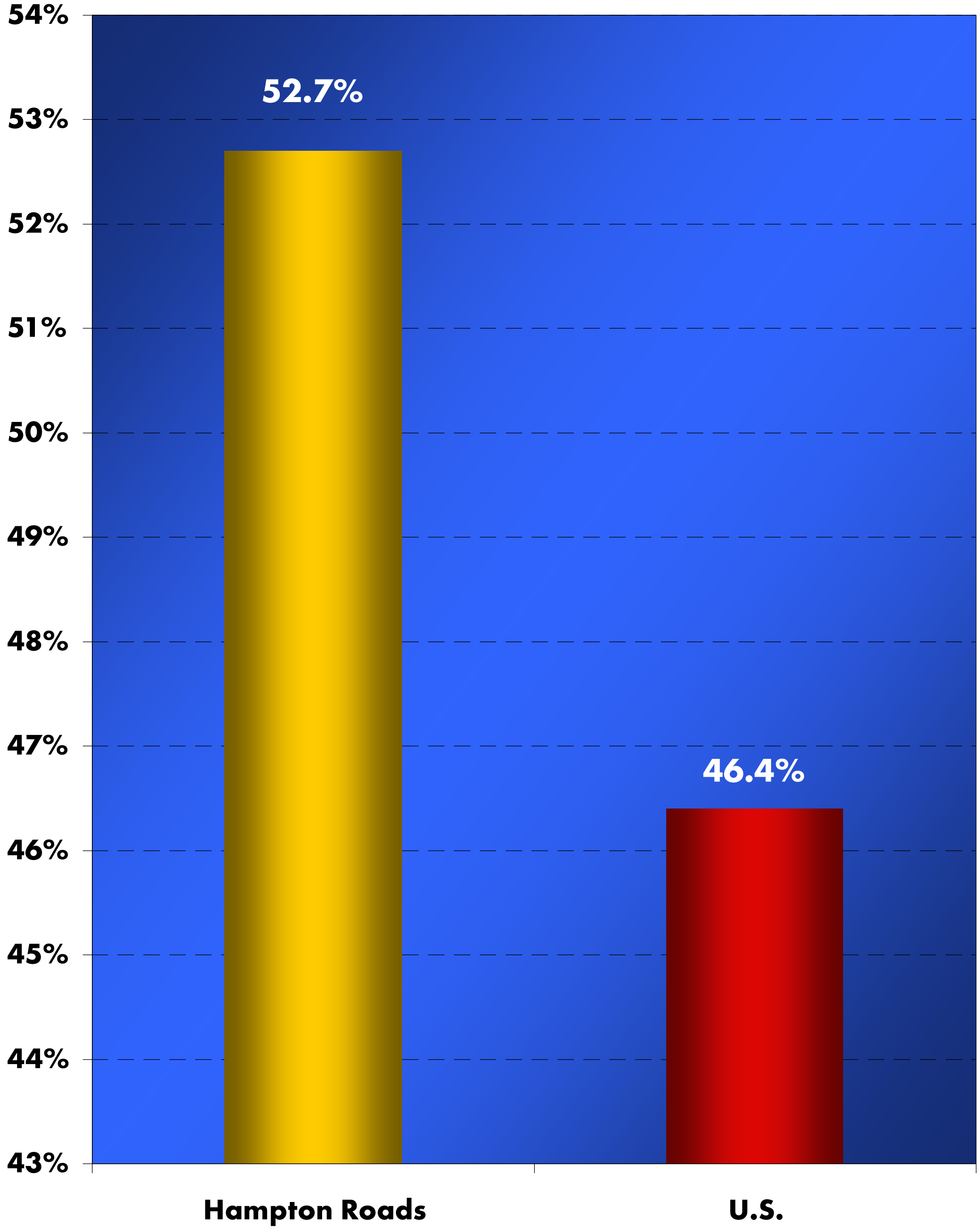
Housing prices have risen sharply in Hampton Roads in recent years. Even after adjusting for inflation, housing prices have increased approximately 40 percent in the past decade. Most of this "real," greater-than-inflation price increase has occurred since 2000. This has led many to conclude that speculation may be fueling the Hampton Roads housing market and that the market is exhibiting "bubble-like" behavior. The fear is that this price bubble will burst because it is not based upon economic reality and therefore we will shortly experience painful reductions in house prices. This, in turn, could lead to widespread economic distress, including dramatically reduced home building and increased bankruptcies throughout the region.

How much have our housing prices grown and how does Hampton Roads compare to other Virginia metropolitan areas and the nation? Virginia Realtors Association and National Association of Realtors data reveal that in 2004 the median home price in

Hampton Roads was $170,888; the U.S. median home price was $184,100. Hence, the price of the typical home is still a bit less expensive in Hampton Roads than nationally.

Both regionally and nationally, current housing prices reflect a large increase in prices, which some label a housing market boom, over the past five years. As seen in Graph 1, between 1999 and 2004, the median house price in Hampton Roads

GRAPH 1
HAMPTON ROADS AND U.S. MEDIAN HOUSE PRICE CHANGE FROM 1999 TO 2004

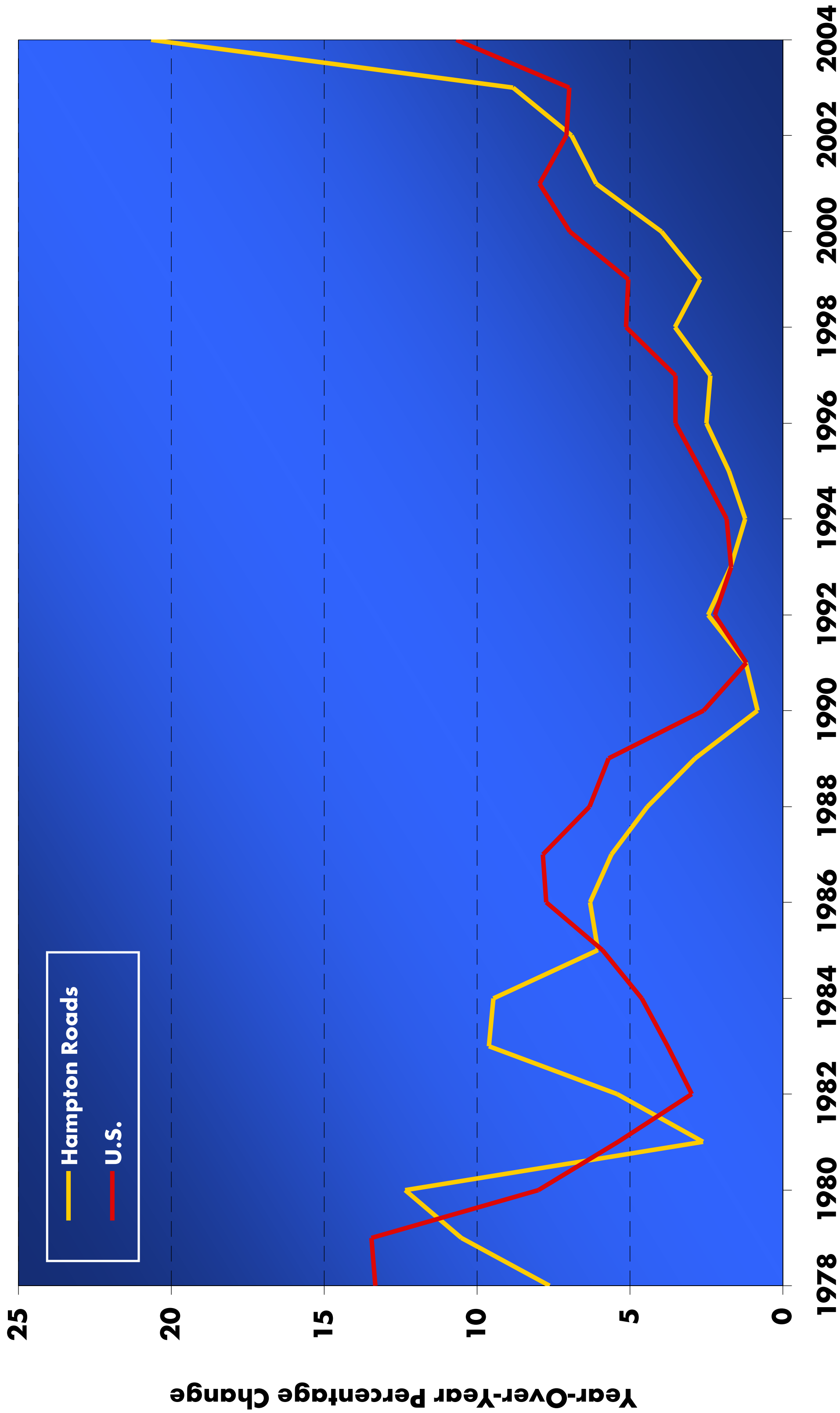


Sources: Office of Federal Housing Enterprise Oversight and the Old Dominion University Economic Forecasting Project

increased by 52.7 percent, thus exceeding the comparable rate for the United States by 6.3 percentage points. The 1999-2004 time period is unique because it represents the largest five-year increase in the region's housing prices in the past 26 years for which reliable data are available.

Graph 2 tells us that, in 2004, housing prices in Hampton Roads increased by 20.7 percent. This was our region's largest single-year increase over the past 26 years. However, between 1999 and 2003, the region lagged slightly behind the nation

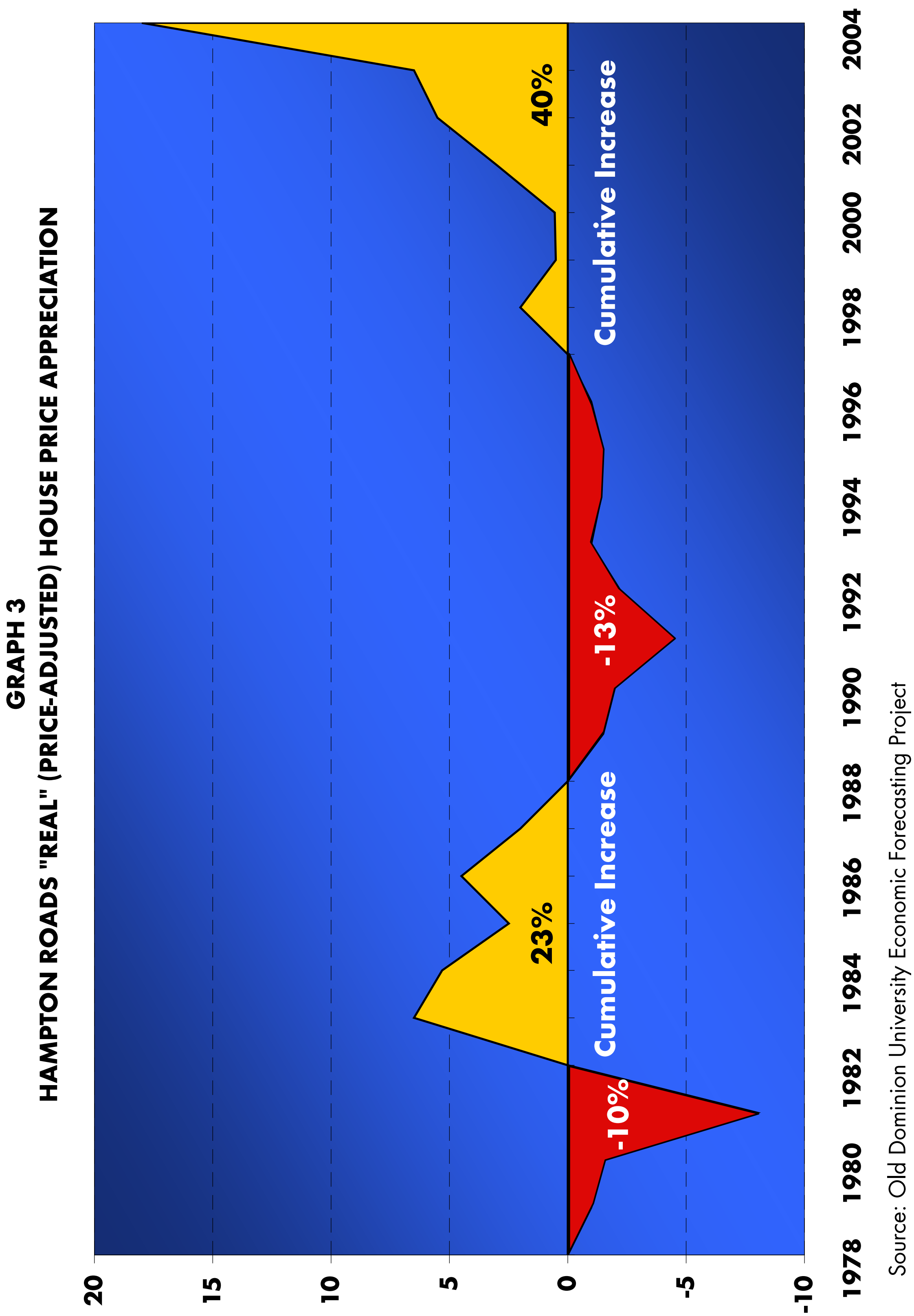
GRAPH 2
HAMPTON ROADS AND U.S. HOUSE PRICE APPRECIATION



Sources: Office of Federal Housing Enterprise Oversight and the Old Dominion University Economic Forecasting Project

in housing price increases. It was the abrupt 2004 increase in Hampton Roads housing prices that has vaulted the region ahead of the United States.

Looking backward, with the exception of a short hiatus from 1991 to 1993, the year-to-year increase in regional housing prices always lagged behind that of the nation between 1985 and 2003. It's also worth noting in Graph 2 that since 1978 there has



not been a year in which median housing prices in the region have declined. This has held true even in relatively bad economic times.

Some of the observed increases in housing prices in past years have been due to ordinary price inflation. Graph 3 deflates housing prices by means of the Consumer Price Index (CPI). One can see that there have been two periods over the past 26 years in which there has been a significant, continuous increase in "real" (inflation-adjusted) housing prices, over and above the CPI. From 1982 to 1988, "real" house prices increased by 23 percent. Then, after a slow 13 percent decline from 1988 to 1998, "real" house prices rose by roughly 40 percent between 1998 and 2004.

Table 1 shows how Hampton Roads compares to other Virginia metropolitan areas in the realm of housing prices. Between 1999 and 2004, Hampton Roads housing price increases lagged behind those experienced in Northern Virginia, but significantly exceeded price increases in other parts of Virginia, including Richmond. Despite this, the region's median house price increase was slightly less than the Commonwealth average. This slightly below-average position reflects both the importance and the recent white-hot nature of the Northern Virginia housing market.

In sum, while it's true that recent house price increases in Hampton Roads have been quite large by historical standards, these increases have been slightly below the Commonwealth average and slightly above the national average. In that context, housing prices in our region are hardly unusual.

TABLE 1
GROWTH RATE OF MEDIAN SINGLE-FAMILY HOUSE PRICES IN VIRGINIA BY METROPOLITAN AREA (1999 TO 2004)

MSA	Percent Change in House Price
Washington, D.C.	79.1
Winchester	60.1
Charlottesville	55.6
Hampton Roads	52.7
Richmond	38.8
Blacksburg	33.6
Harrisonburg	31.5
Roanoke	28.9
Lynchburg	25.7
Bristol	23.2
Danville	18.1
Virginia (Commonwealth)	56.4
United States	46.4

Sources: Office of Federal Housing Enterprise Oversight and the Old Dominion University Economic Forecasting Project

NEW CONSTRUCTION AND THE QUALITY OF HOUSING ISSUE

Whenever we examine a price increase for any item, one of the first things we need to determine is whether the quality of the item was relatively constant during the time period when the price increased. Thus, if a candy bar's size doubles from five ounces to 10 ounces, then a price increase from $1 to $2 would precisely match the change in size (quality) of the candy bar. In such a case, we would say there wasn't any actual price inflation.

Analogously, we can examine the extent to which the quality of the stock of housing has changed over time in Hampton Roads. Measuring quality changes is not an easy task, but fortunately there are some housing measurements available that will help.

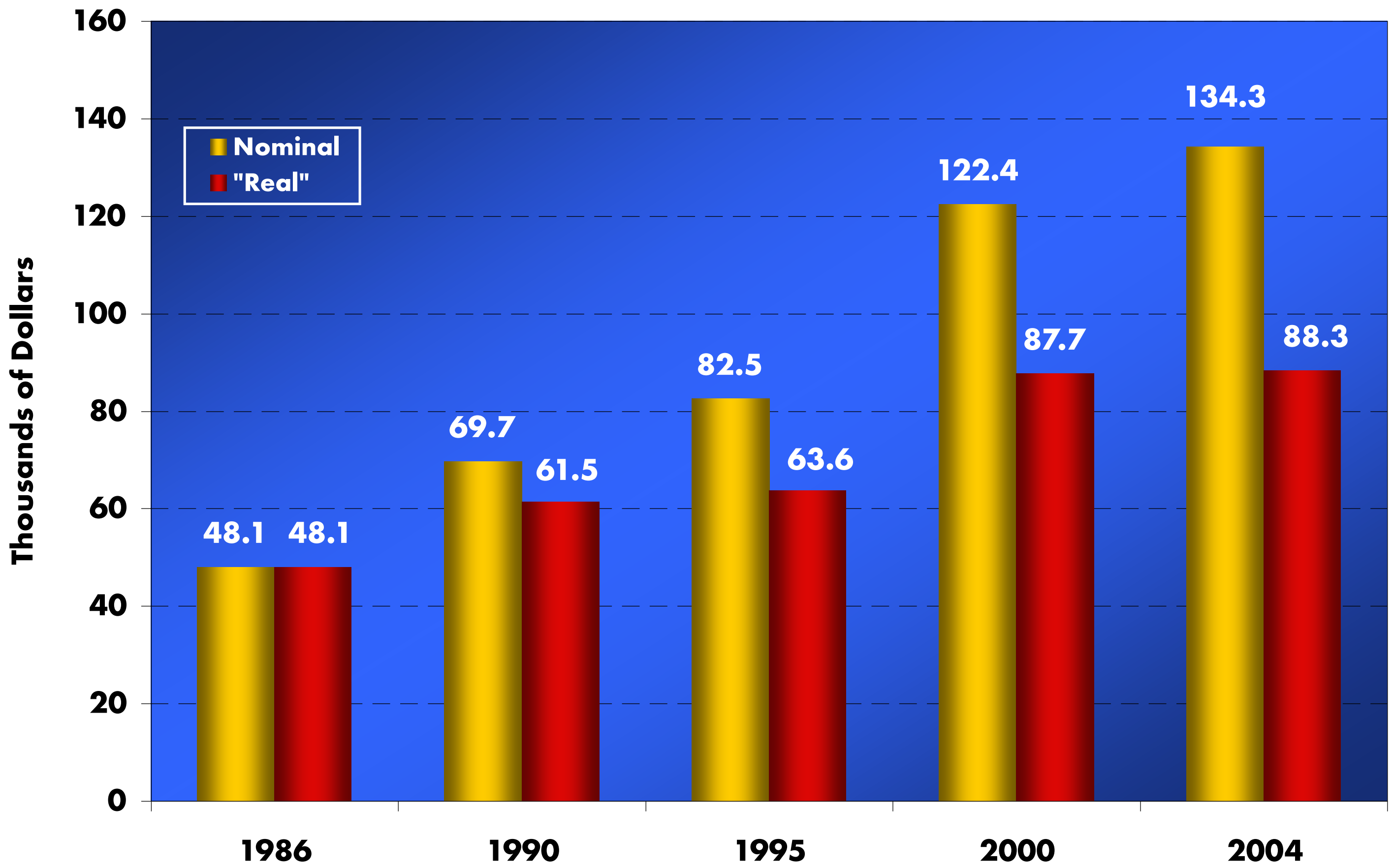
Roughly one-third of our existing regional housing stock has been constructed since 1986. New home construction is important because it affects both the quantity and quality of available housing. An estimate of the change in the quality of homes built in Hampton Roads is displayed in Graph 4, which shows the average inflation-adjusted builder expenditure per house in Hampton Roads since 1986. Home quality improvements could include, but not be limited to, features such as increased living space, higher-quality building materials and innumerable features that people will build into their homes such as washers and dryers, home entertainment centers and the like. The data in Graph 4 do not include land cost per house, only the builder's cost of building the physical structure.

Graph 4 reveals that the nominal cost of building the average home in the region has almost tripled since 1986, from $48,100 to $134,300. Our friends and neighbors simply are constructing bigger and better homes, and even after taking inflation into account, the "real" cost has risen to $88,300. Hence, the inflation-adjusted, "real" price of houses built in the region rose by 83.6 percent between 1986 and 2004. In other words, the average house built in 2004 in Hampton Roads appears to be almost twice the quality of the average home built 18 years ago.

The most rapid period of increase in the quality of new housing occurred from 1995 to 2000, when price-adjusted, new housing value rose by 37.9 percent. However, quality enhancements in the area's housing stock began to level off in 2000. Although construction costs have continued to increase due to inflation, the quality of the average new house built in Hampton Roads has increased only about 10 percent since 2000.

If one takes into account the higher quality of housing, then between 1986 and 2000 there was no increase in the price of housing in Hampton Roads. Stated differently, all of the increase in the average price of a new home in the region during that time period can be accounted for by quality enhancements. Indeed, the quality-adjusted price of a new home in Hampton Roads hardly changed during the time period! Since 2000, however, the quality-adjusted price of housing has increased more than 30 percent. It is not increases in the quality of housing, then, that are responsible for the recent dramatic rise in housing prices in Hampton Roads.

GRAPH 4
NEW HOUSE NOMINAL AND "REAL" (INFLATION-ADJUSTED) AVERAGE CONSTRUCTION COST IN HAMPTON ROADS



Sources: U.S. Census Bureau and the Old Dominion University Economic Forecasting Project

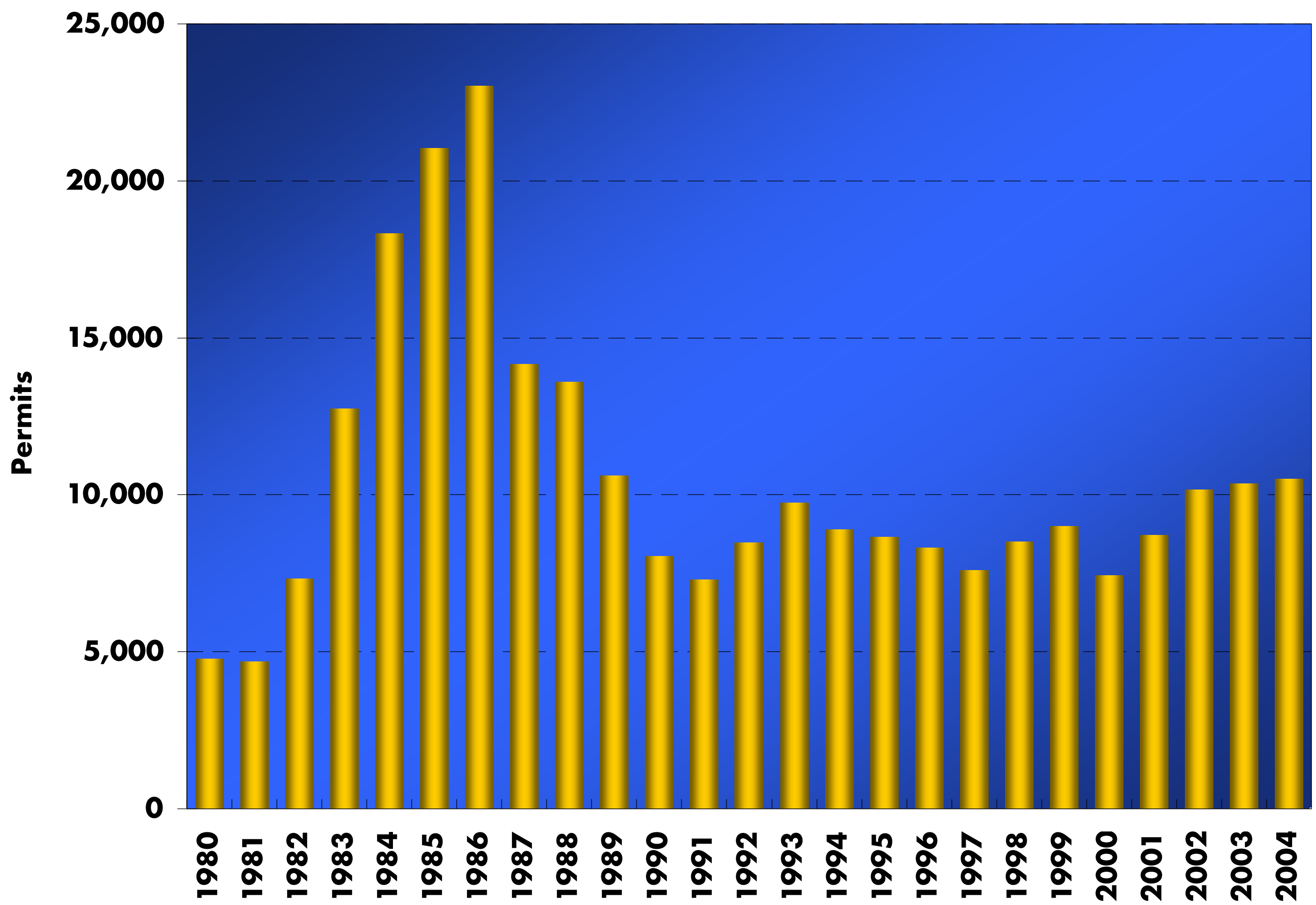
THE STOCK OF NEW HOUSES

A study by the Federal Reserve Bank of New York (J. McCarthy and R. Peach, "Are Home Prices the Next Bubble?", December 2004) found that the recent rapid run-up in house prices in cities such as New York and San Francisco was accentuated by the limited ability of builders to create new housing. While this was due to a variety of factors, they singled out regulatory problems and the lack of available land. In the jargon of economics, housing supply has become rather inelastic with respect to price in these locations. Increased housing prices have not stimulated additional building.

But, the opposite also can be true – we can observe an elastic reaction by builders. In such a situation, rising prices stimulate substantial additional construction and in fact can result in overbuilding and a glut of unsold homes. Elastic building responses are quite helpful during boom times because they dampen the rate of increase of house prices. Nevertheless, if builders are too enthusiastic and over-building occurs, then they find themselves with homes that they cannot sell without making serious price reductions.

What has been the case in Hampton Roads? Graph 5 shows a dramatic increase in new home construction during the mid-1980s. This increase was followed by a similarly dramatic decline in production late in the 1980s and early in the 1990s. In particular, the recession of 1990-91 left some builders and developers holding large inventories of unsold houses. This had pro-

GRAPH 5
NEW HOUSING PERMITS IN HAMPTON ROADS



Source: U.S. Census Bureau

foundly negative economic effects, both for them personally and for the housing market in general. In the past decade, however, new home construction has been relatively stable and has ranged between 7,500 and 10,000 homes constructed annually.

The difficult housing market experienced by the region's developers between 1987 and 1992 left an important supply-side behavioral legacy that has moderated the possibility that a housing price bubble has developed around us – one that shortly will be punctured. Despite the recent significant and unusual run-up in both nominal and "real," inflation-adjusted housing prices, builders neither have increased their construction significantly, nor approached the market with the euphoria and enthusiasm they exhibited in the previous housing boom. In the early phases of the 1980s boom, builders more than quadrupled housing construction, while in the current housing price boom, new construction has risen by about 30 percent since 2000.

Memories of the 1987-1992 market bust appear to have influenced developers to carry smaller or, in some cases, no inventories of unsold houses. In lieu of purchasing and developing large tracts of land all at one time and initiating construction activity across the entire acreage, they now are developing land in smaller chunks and with options to purchase additional parcels of land as market conditions dictate. Further, they often lease instead of purchase their heavy-construction equipment. These stratagems have allowed local developers to cut their costs quickly in the face of adverse market conditions. Today, many premium house builders will not even begin construction without a buyer contract. The bottom line is that developers' memories of the previous market bust appear to have caused new housing inventories in the current housing boom to be much leaner than was the case in the 1980s.

In short, Hampton Roads developers have behaved much more intelligently, economically speaking, recently than they did 15 years ago. They now have a much greater ability to adjust the scale of their activities than they did previously and they are not burdened by excess inventory. What this means is that the risk of falling housing prices resulting from overbuilding and a consequent housing glut has been considerably diminished. **If a housing price bubble does exist in Hampton Roads, then if and when that bubble is pricked, we are not likely to witness a wrenching housing price deflation in the region. The supply side of our regional housing market is, therefore, not likely to be a major cause or enabler of radical fluctuations in regional housing prices.** That said, the demand side of the market is another story.

HOUSING DEMAND

The demand for houses in Hampton Roads by prospective purchasers has risen rapidly over the past five years. This has resulted in significant price increases, a reduction in the time-on-market needed to sell a house and multiple offers upon available homes.

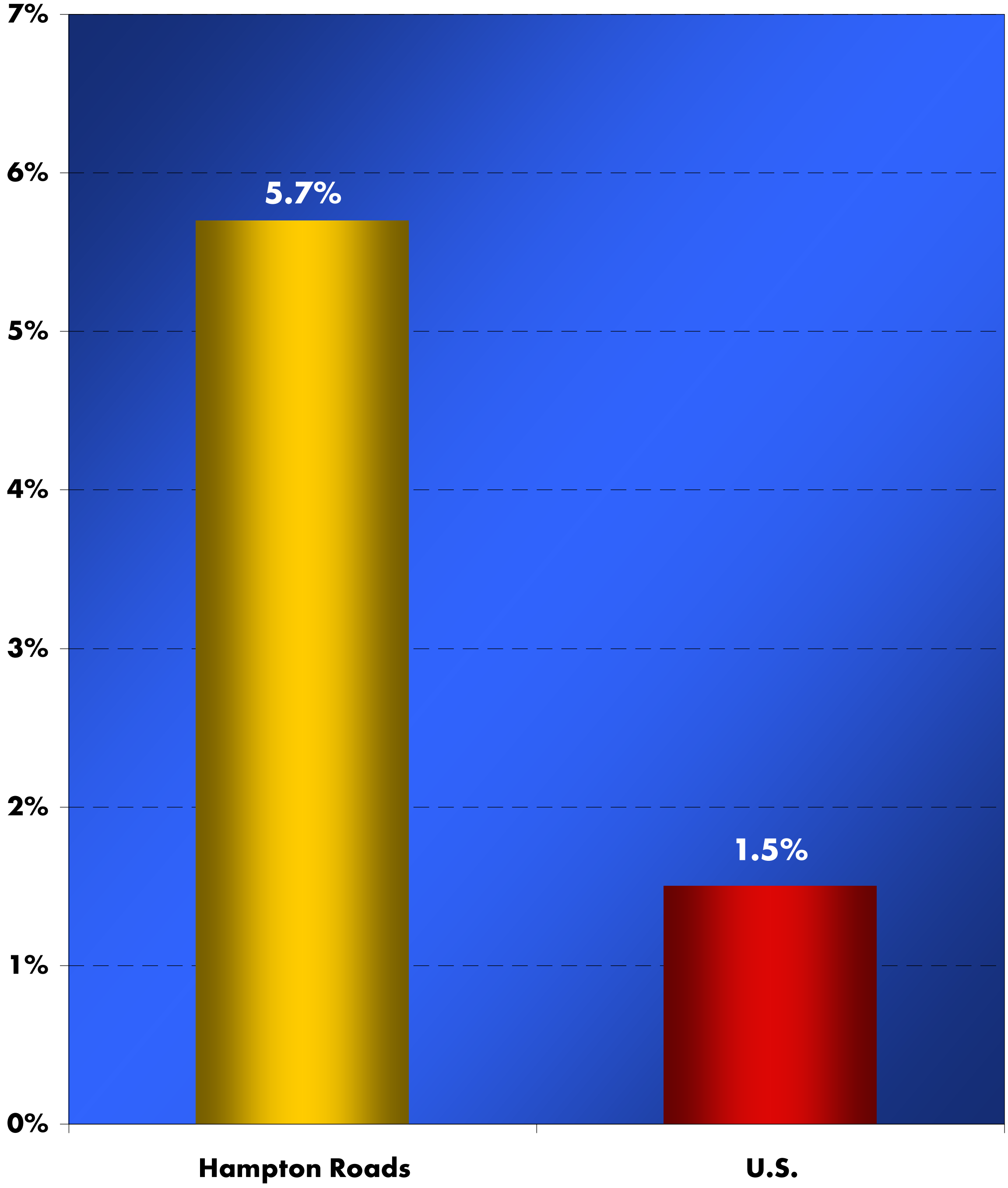
What influences have been most important on the demand side of the market? First, there have been strong increases in both income and employment within the region. Households have more money to spend. Second, extraordinarily attractive financing terms have put a home within the financial reach of almost three-quarters of Hampton Roads households. Mortgage rates are at their lowest levels in 30 years, and clearly this has made a major difference. Let's examine the income and employment picture initially.

EMPLOYMENT AND INCOME

The past five years have been prosperous times for the region's economy. Approximately 40,600 new civilian jobs were created in Hampton Roads from 1999 to 2004. The total number of jobs within the region grew about 5 percent during this period. As one can see in Graphs 6 and 7, the growth rates of the region's employment and income have exceeded those of the nation by a wide margin.

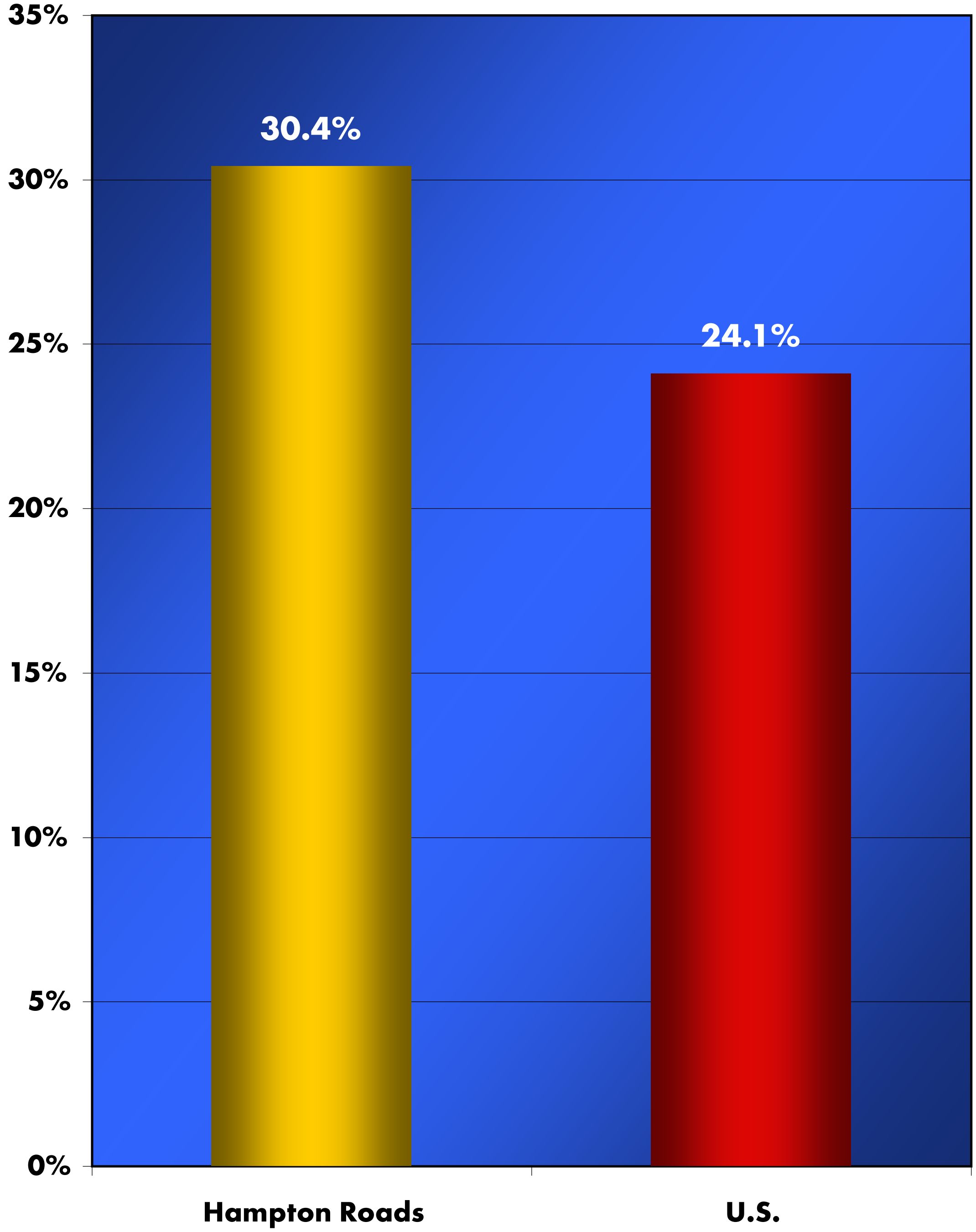
Growth in employment and income do not of themselves create rising housing prices; however, they are a fuel mixture that drives the region's economic engine and demand for housing.

GRAPH 6
PERCENT CHANGE IN PAYROLL EMPLOYMENT IN THE U.S. AND HAMPTON ROADS (1999 TO 2004)



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

GRAPH 7
PERCENT CHANGE IN PERSONAL INCOME
U.S. AND HAMPTON ROADS
(1999 TO 2004)

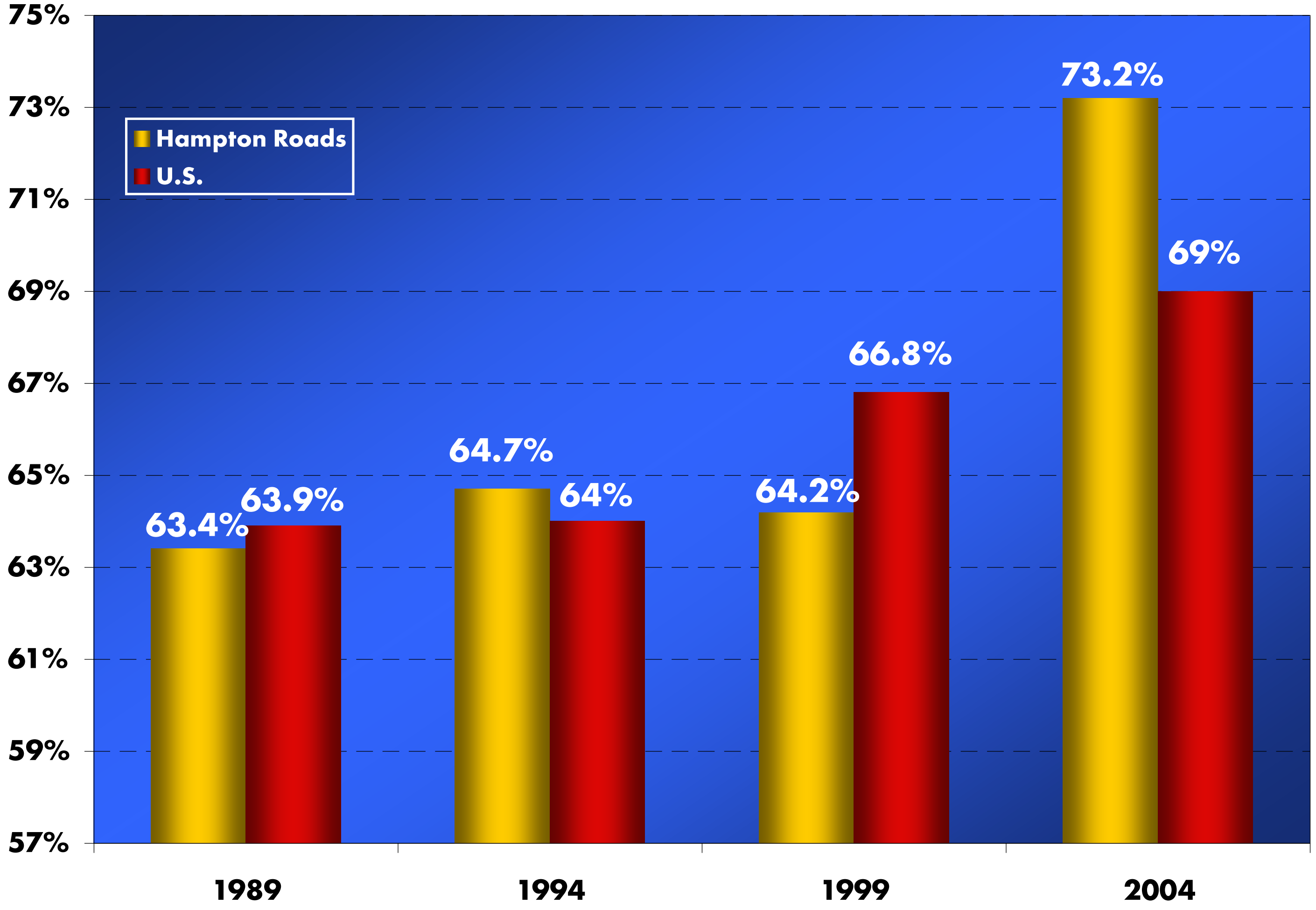


Sources: U.S. Bureau of Economic Analysis and the Old Dominion University Economic Forecasting Project

OWNING VS. RENTING

Although the region has benefited from people who have migrated to Hampton Roads, the hefty demand for both new and used homes has come primarily from households that previously were renters. Graph 8 depicts what has been nothing less than a mini-revolution in the Hampton Roads housing market. The proportion of the region's households that owns its own house had been fairly stable during the 1990s, but increased substantially over the past five years to the point where almost three-quarters of Hampton Roads households now live in housing they own. The region's current ownership rate exceeds that of the nation by more than four percentage points and is more than six percentage points higher than the average ownership rate for U.S. metropolitan (urban) areas. This places the region well within the top 20 percent of U.S. metropolitan areas in terms of home ownership. **We estimate that between 1999 and 2004, 69,000 additional households became homeowners within the region. Two-thirds of these homeowners, or approximately 46,000, came from households that previously had been renting.**

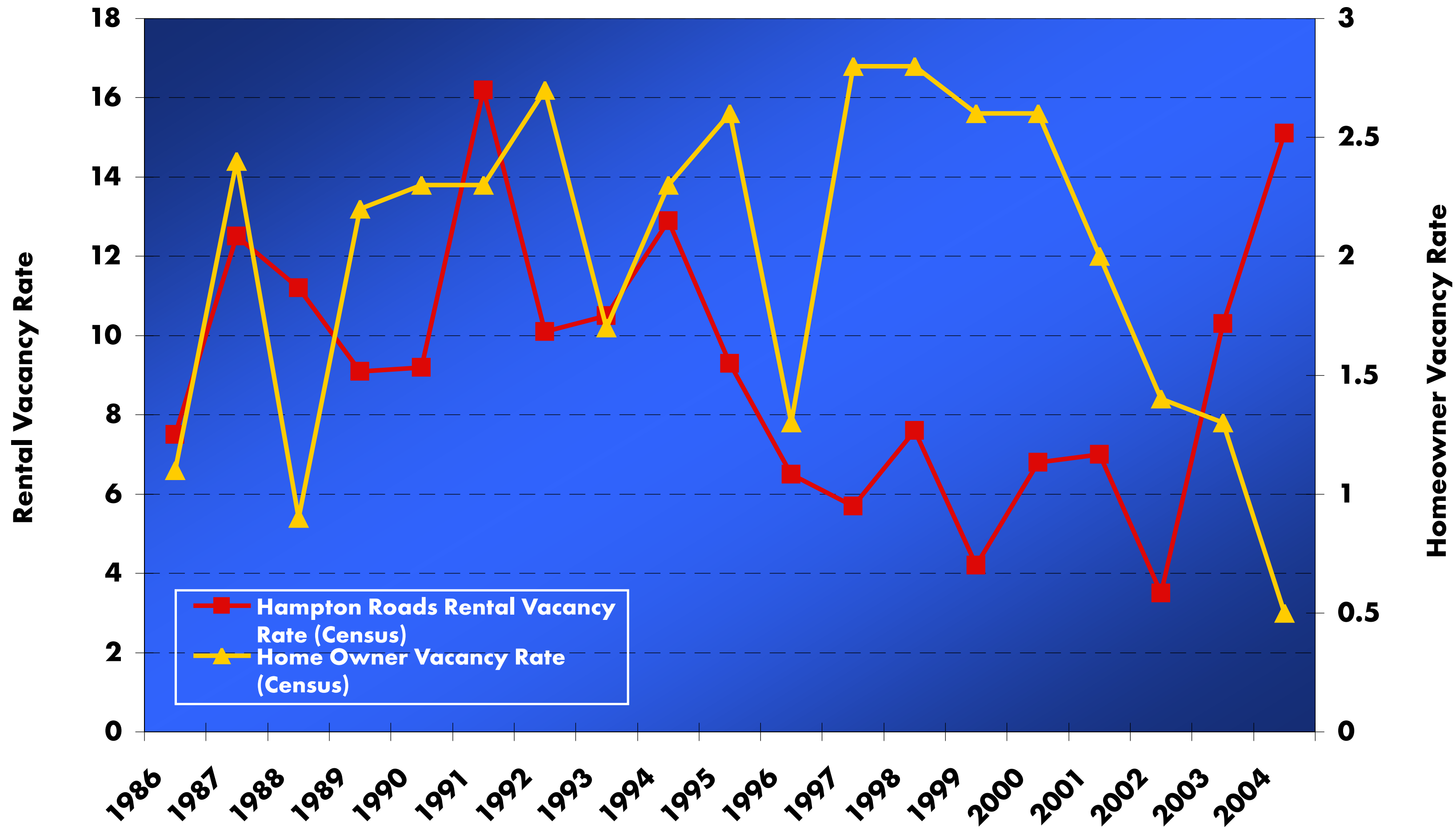
GRAPH 8
PERCENT OF HAMPTON ROADS AND U.S. HOUSEHOLDS THAT OWN THEIR OWN HOUSE



Source: U.S. Census Bureau

Concurrent with the movement of renters into owner-occupied housing, the homeowner vacancy rate has fallen to its lowest level in 15 years while the rental vacancy rate has risen. In a nutshell, people have been buying houses rather than renting them. Graph 9 illustrates this development. We estimate that approximately 10,500 vacant houses were put up for sale in Hampton Roads in 2000; by 2004 that number had fallen to 2,200, demonstrating a clearly tighter sales market.

GRAPH 9
HAMPTON ROADS RENTAL AND HOMEOWNER VACANCY RATES
(1990-2004)



Source: U.S. Census Bureau

Why has such a significant number of Hampton Roads families chosen homeownership over renting even while the purchase price of a house has been rising so rapidly? Table 2 provides a broad measure of the relative prices of renting and home ownership. The median rent reported in Table 2 is derived from U.S. decennial census data for median monthly rental costs for all renters in the region as well as Department of Housing and Urban Development survey data for 2004. **One can see that the ratio of principal and interest associated with the median house payment to the average rent has been falling since 1980. This means that the relative cost of home ownership versus the cost of renting has been falling steadily in Hampton Roads.**

Table 2 is useful in demonstrating the general relationship over time between the price of home ownership and the price of renting. **Since 1980, buying a house has, relatively speaking, become a better deal, at least compared to renting.** Still, the value of this measure is limited because it does not compare exact types of housing units. For example, the rent displayed in Table 2 more closely represents an average rental unit, which includes apartments as well as houses and often is limited to two bedrooms. However, the median house purchase since 1980 has been a larger unit, typically including three bedrooms. Therefore, Table 3 compares the median three-bedroom rentals with three-bedroom homes for purchase. While the data in this series are limited to 2000-04, they do permit several observations. First, when comparing like housing units, it was slightly less expensive to own than to rent in 2004 compared to 2000. Second, the continuous and significant decrease in the ratio from 2000 to 2003 directly reflects falling mortgage rates. Third, the abrupt reversal of this trend in 2004 was generated by the tremendous 20-plus percent jump in house prices in 2004. Even low mortgage rates could not compensate for such substantially higher home prices. If renters behave like other economic human beings, then the demand of existing renters to purchase homes could diminish in the coming months.

But we shouldn't exaggerate this effect. The continued relative attractiveness of home purchase costs to renting costs within Hampton Roads will ensure that there still will be a flow of renters who seek to purchase a home. It's notable that this situation generally is not evident in housing markets that everyone agrees exhibit "bubble-like" qualities. Table 4 compares the "owning versus renting" tradeoff in Hampton Roads to several metropolitan areas that the aforementioned

TABLE 2
COMPARISON OF RENTAL AND PRINCIPAL AND INTEREST FOR A HOUSE PAYMENT IN HAMPTON ROADS (1970 TO 2004)

	Median Rent (Apartments and Houses: Total Rental Units)	P&I Monthly Payment Median House	House Payment to Rent Ratio
1970	$111	$157	1.41
1980	259	570	2.20
1990	481	795	1.65
2000	615	854	1.39
2004	788	1028	1.30

Sources: U.S. Census, H.U.D. and the Old Dominion University Economic Forecasting Project

TABLE 3
COMPARISON OF HOUSE RENTAL AND PRINCIPAL AND INTEREST FOR A HOUSE PAYMENT IN HAMPTON ROADS (2000 TO 2004)

	Median Rent for a Three-Bedroom House	P&I Monthly for a Median House	Ratio of Monthly P&I to Rent
2000	$ 882	$ 854	0.97
2001	911	809	0.89
2002	1037	827	0.80
2003	1044	809	0.77
2004	1087	1008	0.93

Sources: U.S. Census, H.U.D. and the Old Dominion University Economic Forecasting Project

TABLE 4
RATIO OF MONTHLY PRINCIPAL AND INTEREST TO RENT IN 2004 (SELECTED RESIDENTIAL REAL ESTATE MARKETS)

San Diego	2.50
San Francisco	2.20
Los Angeles	1.80
Washington, D.C.	1.70
New York	1.40
Hampton Roads	0.93

Sources: The Wall Street Journal, Torto Wheaton Research and the Old Dominion University Economic Forecasting Project

Federal Reserve study marked as exhibiting the characteristics of a housing bubble. One can see that our situation is very different from, say, San Diego or San Francisco. Hence, the price of owning relative to renting continues to be attractive in Hampton Roads when compared to the hottest residential real estate markets nationally.

FINANCING A HOME PURCHASE

Like the well-known shell game in which one must keep one's eye on the elusive pea and not upon the shells, when investigating housing markets and the ability of households to purchase a house, it is the monthly payment rather than the house price that is the key. If households can qualify for a monthly payment that they can afford, then they will purchase houses almost independent of the actual price of the house. The raging popularity of "interest only" mortgages in urban areas such as San Diego and San Francisco provides strong support for this notion.

Displayed in Table 5 are data describing housing markets in Virginia's 11 metropolitan statistical areas (MSAs), 1999 to 2004. The data compare the increase in house prices with the increase in the principal and interest payment on a typical mortgage, as well as with the increase in the MSA's personal income per household. The first data column reports the average increase of house prices in each MSA. It is apparent that prices have increased in every MSA, but especially so in Northern Virginia.

Meanwhile, what has been happening to the average monthly mortgage payment (principal plus interest) over the same time period? Given higher housing prices, it's not surprising that the size of mortgage payments has increased in every MSA. However, the typical mortgage payment has increased only by 31.3 percent in Virginia overall and 28.2 percent in Hampton Roads. **Thus, even though housing prices increased by 56.4 percent in Virginia overall, mortgage costs increased by a much smaller amount (31.3 percent).** Falling mortgage interest rates (see Graph 10) have decreased the cost associated with purchasing any home at a given point in time.

TABLE 5
GROWTH RATE OF HOUSE PRICES, ESTIMATED PERSONAL INCOME AND ESTIMATED EFFECTIVE MORTGAGE PAYMENT (P&I) IN VIRGINIA BY METROPOLITAN AREA (MSA) (1999 TO 2004)

MSA	Percent Change in House Price	Percent Change in Mortgage (P&I) Payment*	Percent Change in Personal Income per Household
Washington, D.C.	79.1	50.4	32.0
Winchester	60.1	34.3	31.5
Charlottesville	55.6	30.6	28.0
Hampton Roads	52.7	28.2	21.6
Richmond	38.8	16.3	23.4
Blacksburg	33.6	12.2	21.2
Harrisonburg	31.5	10.4	22.5
Roanoke	28.9	8.2	16.1
Lynchburg	25.7	5.5	14.6
Bristol	23.2	3.4	17.1
Danville	18.1	0	14.4
Virginia (Commonwealth)	56.4	31.3	23.1
United States	46.4	22.9	19.8

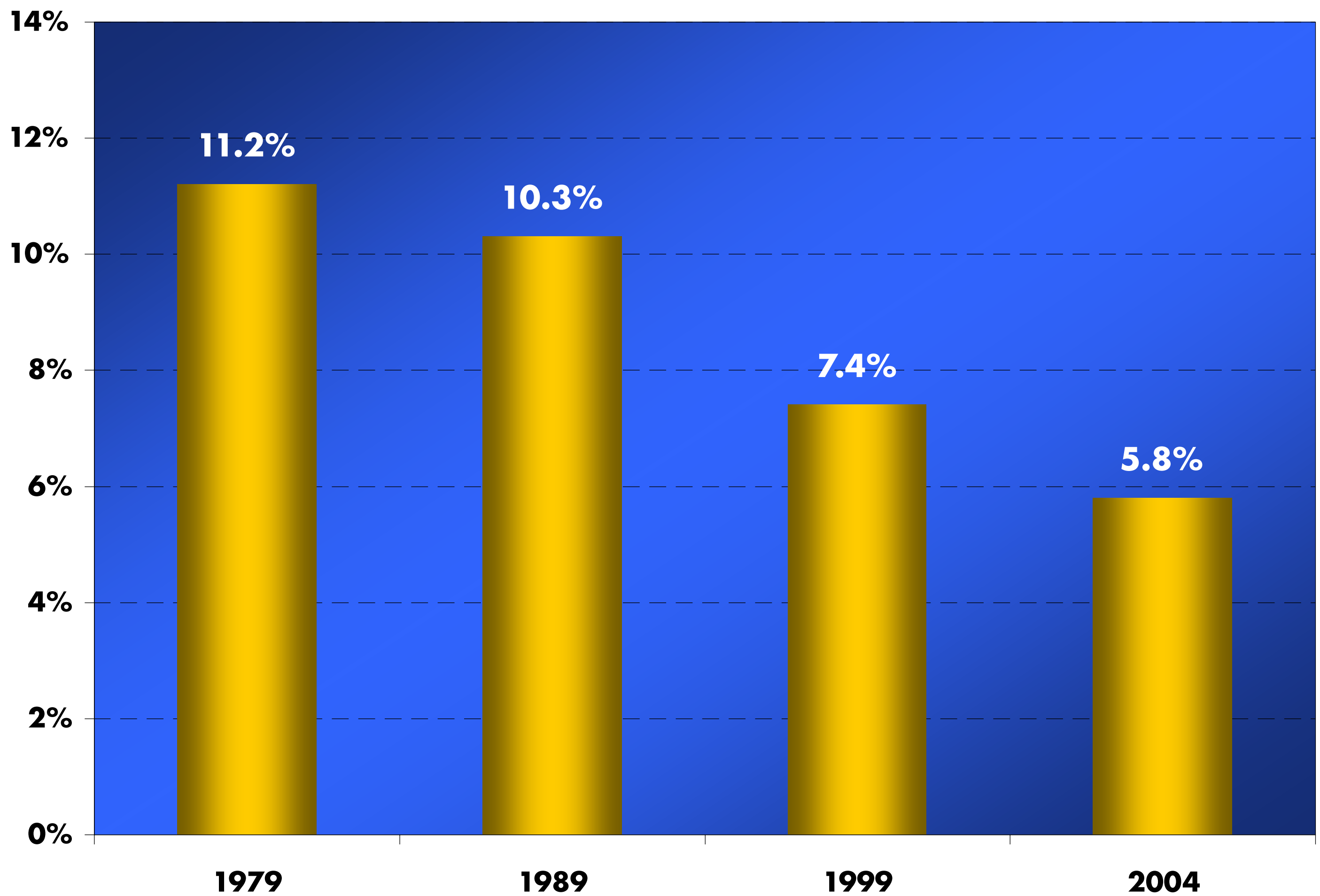
* Conventional 30-year mortgage with 100 percent financing
Sources: Office of Federal Housing Enterprise Oversight and the Old Dominion University Economic Forecasting Project

Of course, increased housing payments due to higher housing prices could choke off demand if households don't have the income to make the payments. The final column in Graph 11 reveals that rising household incomes have put a big dent in the higher mortgage payments. In Hampton Roads, for example, personal income per household rose by 21.6 percent between 1999 and 2004, not as great as the 28.2 percent increase in mortgage payments, but still a significant proportion of that increase. Further, this does not take into account the tax deductibility of mortgage interest and property tax payments. Adjusting for these would narrow or eliminate the gap between mortgage costs and household incomes in many communities, depending upon local tax levels.

In fact, between 1999 and 2004, the change in personal income per household *nationally* was only 3.1 percent less than the increase in mortgage payments. Only in Washington, D.C., a region identified by the Federal Reserve study as demonstrating a potential housing bubble, has the increase in mortgage payments significantly exceeded the increase in personal household income – by 18.4 percent. Hence, if a housing bubble exists in certain areas throughout the country, the Washington, D.C., SMA, of which Northern Virginia is a major part, might well qualify.

The key measure of the ability of the typical household to afford a home is the proportion of its income needed to pay the principal and interest on its mortgage. This measure is displayed in Graph 11 for both Hampton Roads and the United States. **Despite the more than 50 percent increase in housing prices over the past five years in Hampton Roads, the pro-**

GRAPH 10
30-YEAR CONVENTIONAL MORTGAGE INTEREST RATES

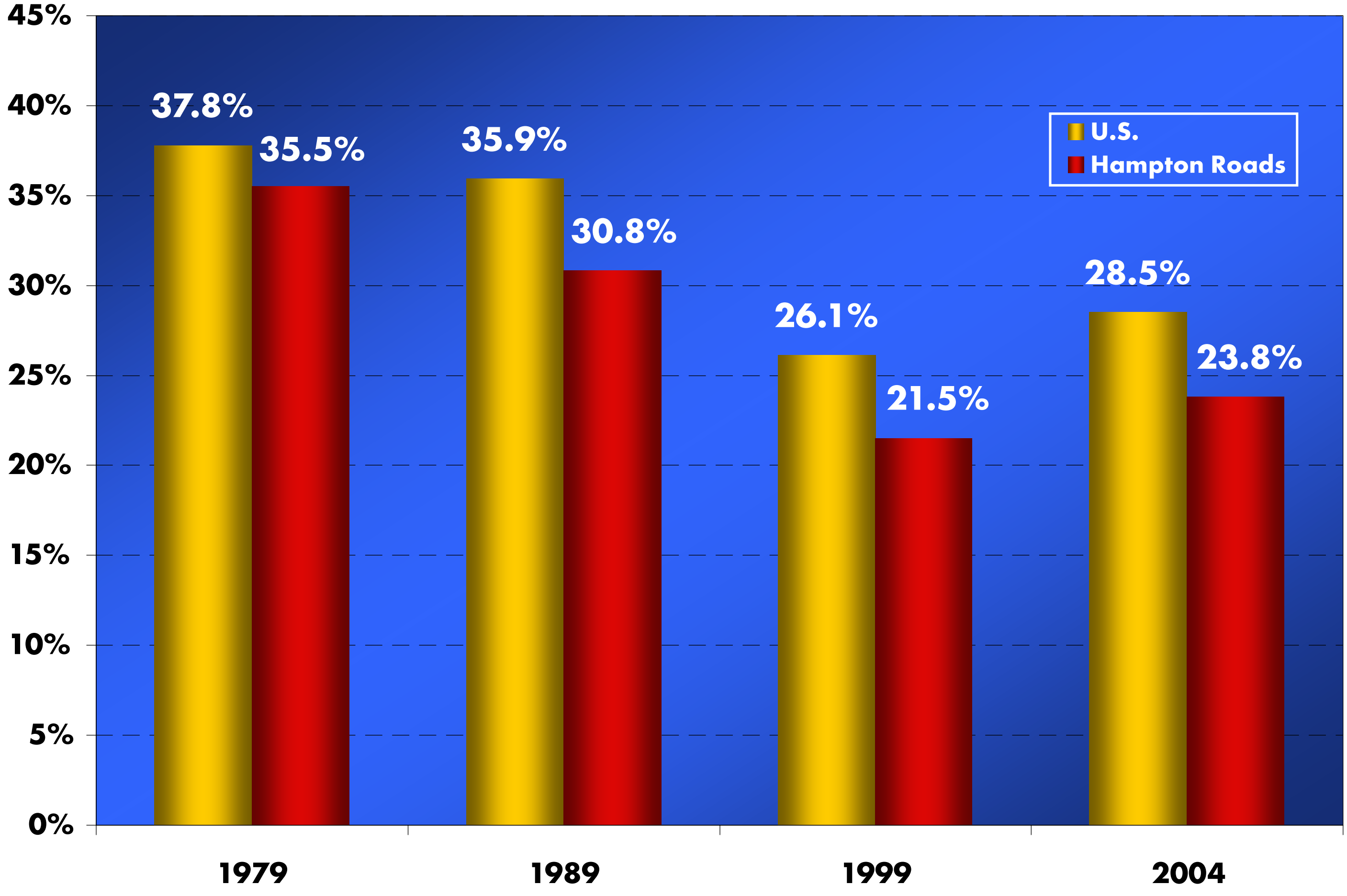


Source: Old Dominion University Economic Forecasting Project

portion of a household's total income necessary to purchase a typical home in the region increased by only 2.3 percent between 1999 and 2004. Further, the typical household is much better situated financially to purchase a home in 2004 than it was in 1989 or 1979. This is true both in Hampton Roads and nationally, and primarily reflects lower mortgage interest rates.

Simply put, despite the outsized recent increase in housing prices, relative to household income, the *typical* house in Hampton Roads is as "affordable" today as at most any time in the recent past. Further, housing continues to be more "affordable" in Hampton Roads than across the nation.

GRAPH 11
HOUSE PURCHASE BORROWING COSTS AS A PERCENT OF HOUSEHOLD INCOME IN HAMPTON ROADS AND THE U.S. (1979 TO 2004)



Source: Old Dominion University Economic Forecasting Project

So, Is There a Housing Bubble in Hampton Roads?

To answer this question, we need to define what a housing bubble is. We'll also examine the economic fundamentals supporting the region's housing market to help us render a judgment whether a housing bubble exists in the region's housing market.

WHAT IS A HOUSING BUBBLE?

The existence of a housing bubble implies to most people that housing is significantly "overpriced" and that, at some point in the future, the housing market will experience a painful drop in prices. The evidence presented above leaves little doubt that house prices in Hampton Roads have risen recently in an atypical fashion, historically speaking. In 2004, house prices rose at a faster pace than in any time over the past quarter century. But, if homes are overpriced, how can we tell?

The central feature of a price bubble is that an asset, in this case housing, trades at prices above those that can be justified by the underlying economic fundamentals. Typically, speculation fuels the market and causes prices to deviate from the solid fundamentals. When a bubble does exist, it can be pricked by a rapid and arbitrary change in buyer sentiment that results in a destabilizing collapse of prices.

We should not minimize the importance of such a price bubble, if one exists in housing. For a typical U.S. household, the value of its home represents more than two-thirds of its net worth. Thus, a significant decline in house prices would severely damage the financial position of many families. The decline in household net worth that would result from a decline in housing prices also would have adverse consequences for the region's economy. A $1 change in wealth nationally usually causes a $.03 to $.05 change in consumption. As a consequence, declining housing values would send negative ripples throughout our regional economy. At the least, we would experience a mini-recession.

HAMPTON ROADS HOUSING FUNDAMENTALS AND PRICES

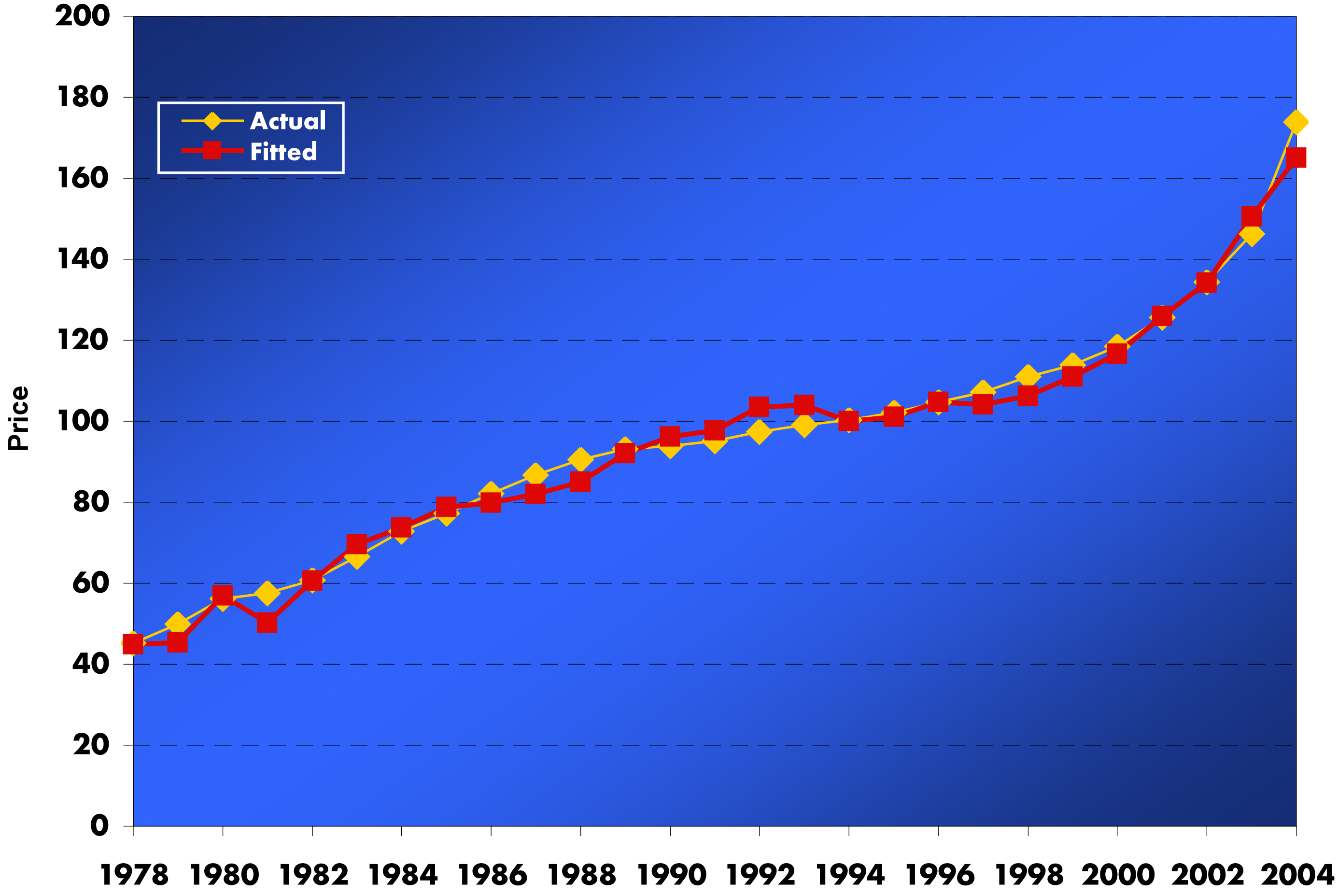
What are the housing "economic fundamentals" that should affect housing prices? The demand for housing – that is, the desire of individuals and couples to purchase homes – plausibly should depend upon the price of housing, mortgage rates, household incomes and job markets. The supply of housing – that is, the willingness and ability of developers to construct homes – should also depend upon the price of housing, interest rates that influence developers' borrowing, the costs of acquiring land and building materials, and so forth. It is the interaction between these two influences, demand and supply, that determines housing prices.

We've already traced the relationship between most of these factors and housing prices. By way of illustration, we observed in Graph 11 that mortgage costs as a percentage of average household income in Hampton Roads were only a bit higher in 2004 than in 1999, and were substantially lower now than in 1989 and 1979. The implication was that over the years the typical household has become better able to afford a home. Of course, not all households are "average," but Graph 11 does help us explain why homeownership in Hampton Roads has risen by about 10 percent over the past 15 years. The relationship of housing prices to income is among the economic fundamentals that determine housing prices in the long run.

Previous State of the Region reports have attempted to avoid sophisticated statistical presentations, and we don't intend to change that custom here. However, we can report that when we utilized advanced statistical methods to ask the question "What should housing prices be, given economic fundamentals such as mortgage rates, household incomes and so forth?" we did not find regional housing prices to be far out of line with economic reality.

Graph 12 displays our statistical estimates of what housing prices should be, based on economic fundamentals, compared to what they actually are in Hampton Roads. **Between 1978 and 2004, the Hampton Roads housing market closely tracked its underlying economic fundamentals. It is notable that despite the recent surge in the region's housing prices, the underlying market fundamentals more than supported these price increases until 2004. Further, most, but not all, of the housing price increase in 2004 was supported by underlying market fundamentals. How much**

GRAPH 12
HAMPTON ROADS HOUSE PRICE INDEX OF ACTUAL HOUSE PRICES AND PRICE SUPPORTED BY ECONOMIC FUNDAMENTALS



Source: Old Dominion University Economic Forecasting Project

of the 2004 price bulge cannot be accounted for by economic fundamentals? Our estimate is that the current Hampton Roads housing market was overvalued by 5 percent to 9 percent in spring 2005.

What does this imply? Is this estimated 5 percent to 9 percent overvaluation of houses an unusual departure from the market fundamentals of the region and is it likely to result in dramatic reduction in housing prices? Table 6 summarizes the larger departures of housing prices in Hampton Roads from underlying housing market fundamentals over the past quarter century. **In three previous instances where the housing market was overvalued by at least 5 percent, the housing market handled this without an actual decrease occurring in annual average house prices. Housing prices adjusted gradually over time, sometimes not increasing as**

TABLE 6
HAMPTON ROADS RESIDENTIAL REAL ESTATE PRICES RELATIVE TO THE REGION'S UNDERLYING ECONOMIC FUNDAMENTALS

Period	Residential Real Estate Market Condition
1978-1979	Overvalued by 5%
1981-1982	Overvalued by 15%
1986-1988	Overvalued by 10%
1991-1994	Undervalued by 6%
1997-1999	Overvalued by 5%
2004	Overvalued by 7%

Source: Old Dominion University Economic Forecasting Project

much as the Consumer Price Index and sometimes being stagnant for several years. However, actual average housing prices never did decline on a year-to-year basis. If these past experiences are any guide, there is little justification for panicky views that we are in for a wrenching deflation in housing prices in Hampton Roads.

This does not suggest that there are not submarkets inside Hampton Roads where prices have galloped well beyond economic fundamentals. Downtown Norfolk and some waterfront properties may fall into this category. Where typical housing properties are concerned, however, current prices are not far out of line.

Our conclusion also does not suggest that somehow all households can afford to purchase a home. While home ownership has increased dramatically within the region, it remains the case that some households, particularly those headed by a single wage earner with a moderate to low income, will find it extremely difficult to purchase a home. Affordable housing, then, remains a societal issue even though this region has excelled over the past decade in making home ownership a reality for tens of thousands of additional households. In this regard, however, the scenario in Hampton Roads is strikingly different from the circumstances we now observe in the hottest national real estate markets. In locations such as San Diego, it is almost impossible for a household earning the national average income to purchase a typical home.

If no precipitous decline in Hampton Roads housing prices is in the offing, then how is the current market overvaluation price adjustment process likely to unfold? Rather than seeing an actual decrease in the price of houses in the region, the market is likely to experience a period of price stagnation. Continued growth in the Hampton Roads economy – which is critically dependent upon the Department of Defense – will moderate any adjustments that do occur.

Here's what's likely to occur. Sellers will find it more difficult to sell their houses and those needing to sell quickly will have to adjust their price expectations. Others may simply withdraw their house from the market and wait for a better time to sell. As an added incentive to buyers, house sellers may begin to pay closing costs in greater numbers. Real estate brokers may find it in their interest to cut their commissions. Depending on market conditions, builders may buy down interest rates. The truth is, we've already experienced this situation, both in the early 1980s and the early 1990s. There will be some pain and disappointment, but our regional housing market is likely to adjust without extreme distress.

The same cannot be said for Northern Virginia, West Palm Beach, Boston or San Diego. One can make a strong case for the existence of housing bubbles in these communities that could burst and create considerable havoc, not the least because so many interest-only loans now are being granted in these metropolitan areas. Such loans typically do not require any payment on the principal of the loan for three to five years. Thomas Sowell (The Wall Street Journal, May 26, 2005) reported that 66 percent of new mortgages in the San Francisco Bay area were of the interest-only variety in spring 2005. These mortgages reflect buyers' hopeful speculations that both their incomes and housing prices will rise in the future. Either an economic downturn that eliminates jobs, or that results in both stagnant incomes and housing prices, would spoil this scenario. The end result could be an upsurge of bankruptcies and a sudden glut of houses that owners no longer can afford once they are required to begin to pay for their homes.

Are there any economic scenarios that might cause house prices in Hampton Roads actually to decline? The answer to this question is yes … there are several. For example, **at the current level of mortgage interest rates, a *sustained* decrease in Department of Defense spending of $1 billion in the region that lasts for two or more years *without any additional economic activity to replace it* would likely result in a roughly 5 percent decline in house prices. Or, a *sustained* rise in conventional 30-year mortgage rates to 8 percent over a period of two or more years *accompanied by zero economic growth* in the region could induce a 5 percent decline in house prices.** If both of these situations were to occur, then we might see a 10 percent or more decline in housing prices. However, since 1978, the worst year for housing prices was 1990, and even then the average sale price of a home rose by about 1 percent.

Final Words

The 52.7 percent increase in Hampton Roads house prices over the last five years is the region's most rapid price growth for any comparable period in the past quarter century. In 2004, house prices increased at a faster rate than any year since at least 1978, the first year of our data. Developers have raised the quality of the region's housing stock and increased housing construction during the price boom, accounting for a considerable portion of the housing price increases we have observed. In addition, however, builders appear to have been prudent in their construction of new homes and this militates against a price collapse.

Increasing demand has been the primary driver of the region's growing house prices. Demand has been generated from three primary sources: a growing economy, renters who wanted to become homeowners and the most favorable mortgage conditions in 40 years.

To date, the house price run-up in Hampton Roads has not created a significant overall housing bubble. Our statistical model indicates that houses in Hampton Roads are currently overvalued by roughly 5 percent to 9 percent with respect to the economic fundamentals. Although the relatively large recent increase in the region's housing prices is unique historically, the degree of deviation of those prices from their underlying economic fundamentals is not. Over time, the realignment of house prices in accordance with market fundamentals most likely will unfold as a reduction in the growth rate of house prices, accompanied by other seller-unfriendly market mechanisms, such as seller payment of closing costs. A reduction in the general index of Hampton Roads housing prices is quite unlikely in the near future.

THE STATE OF

THE CREATIVE CLASS

RICHARD FLORIDA AND THE CREATIVE CLASSES OF HAMPTON ROADS

Few, if any, college professors in the United States recently have contributed more to debates over the relationship between economic growth and the quality of life than Richard Florida of George Mason University. **In his books, "The Rise of the Creative Class" (2002) and "The Flight of the Creative Class" (2005), Florida argues that our economy now is powered by human creativity. The kingpins of this new economy are individuals who have the ability to create meaningful new forms, that is, to innovate and see old issues through new lenses. Florida contends that creativity is the main source of competitive advantage. Hence, in the long-run, the winners are those people, those cities and those regions that have the power to create and innovate.**

Florida provocatively argues that creative people do not, as some have contended, gravitate toward places where there is an availability of jobs. Instead, they choose to go to areas that cater to and support their creative needs. He views the society's most creative people as becoming easily bored with the commonplace. In his eyes, they are attracted by variety, diversity and the unusual in living styles, entertainment, politics, art, music and people. True, they value safe streets, the consistent provision of public services and most democratic institutions. Still, the magnet that attracts them to a specific city or region, he says, is not a replication of Middletown, USA, but an eclectic social and economic milieu that allows and even encourages them to do their own thing, however they define it.

Florida defines the core of the creative class as people in a variety of areas such as science and engineering, architecture and design, education, arts, and music and entertainment, whose main objective is the contribution of new ideas and technology. The members of this class are knowledge workers who share a common spirit that embodies creativity, individuality, merit, diversity, openness, tolerance and, of course, creativity. On the basis of his research, Florida believes the following characteristics identify the creative class:

- The creative class is moving away from traditional corporate communities to what he terms "Creative Class Centers."
- These Creative Class Centers not only have high concentrations of creative people, but also host many innovative, technologically advanced industries that exhibit high rates of growth.
- The centers prosper less because of incentives that local authorities have given them and more because of the creative people who want to live there. Businesses and organizations then follow these people to cater to their needs.
- Creative-class people favor communities abundant in high-quality amenities and experience, those that are open to diversity, and those that allow them to pursue their individual identities.

In a nutshell, Florida believes that the spark plug of a 21st century economy is creativity and that creativity depends upon attracting and retaining high numbers of creative people. Florida emphasizes the "3T's: technology, talent and tolerance." In his own words:

> "Regional economic growth is powered by creative people, who prefer places that are diverse, tolerant and open to new ideas. Diversity increases the odds that a place will attract different types of creative people with different skill sets and ideas.

> Places with diverse mixes of creative people are more likely to generate new combinations. Furthermore, diversity and concentrations work together to speed the flow of knowledge. Greater and more concentration of creative capital in turn lead to higher rates of innovation, high-technology business formation, job generation and economic growth." ("The Rise of the Creative Class," p. 249)

Florida's hypotheses are easily understood and are empirical in nature. That is, one can test his hypotheses empirically and determine how well they fit the real world compared to more conventional explanations. Most conventional theories of economic growth have emphasized human capital as a central factor in regional, national and international growth. Numerous studies have established a link between economic growth and human capital, which is frequently measured by the level of higher education attained by residents. One distinction of Florida's approach to economic development is his view of human capital, which differs from traditional views in two respects. First, he identifies a specific type of human capital — creative people — as being the key to economic growth. Second, he specifies the underlying factors that shape their choice of residence. **He asserts that when creative people are deciding where to live, they value a labor market that provides numerous employment opportunities; prolific and eclectic lifestyle options; many venues for public social interaction, such as coffee shops, restaurants, bookstores, galleries and theaters; diversity of thought and open-mindedness; and what he describes as "authenticity" — the distinctive special cultural attributes that define a location.** All of these combine to provide a sense of identity and quality of place. Florida's creative class is unimpressed by a mall filled with nationally franchised stores. Instead, its members are attracted by distinctive bookstores, restaurants, bars and entertainment venues, as well as idiosyncratic physical features in their environments. Unconventional and even offbeat boroughs within an area, he believes, act as magnets for his creative legions.

More to the point, were he in Norfolk, Florida might wax eloquent about the entertainment and culinary delights of Granby Street, Ghent and the Freemason area, and such nearby venues as the Norva, Wells, Granby and Attucks theaters, along with the Harrison Opera House, Chrysler Museum, Harbor Park, d'Art Center and other amenities. In Florida's eyes, the remainder of our region might contain many interesting places and nice homes, but relatively few of the eclectic, distinctive intersections of people, place and atmosphere that he believes attract the creative class.

Florida further believes that high-technology industries are one of the keys to modern economic development. He argues that innovative industries that rely upon advanced technology are more developed in places with larger concentrations of creative-class members. He has developed several indices, including the *Talent Index, the Innovation Index, the Tech Pole Index, the Gay Index, the Bohemian Index and the Melting Pot Index*, to measure specific aspects of the extent to which communities might be regarded as havens for the creative. These indices are discussed below in the data section.

Professor Florida also has developed a *Creativity Index* that is a mix of four equally weighted factors: The creative-class share of the labor force, his Innovation Index, the Tech Pole Index and the Gay Index. Yet another index developed by Florida is the *Composite Diversity Index*, which is the sum of the Gay Index, the Melting Pot Index and the Bohemian Index. In "The Rise of the Creative Class," Florida finds high, simple correlations among many of these indices and economic development. He uses these correlations to support his view that a region's economic health is directly related to the number of young, talented, open-minded, tolerant and diverse people it can attract and retain. He believes that measures such as the Composite Diversity Index and the Bohemian Index may explain regional growth more reliably than measures such as education levels.

Statistically speaking, a major problem with Florida's work is his strong reliance upon simple correlations to fuel his conclusions. Just because two variables tend to move together does not mean movement in one is causing movement in the other. There are many spurious correlations (for example, between firetrucks appearing and fire damage resulting) that exist, but are meaningless. It's also true that on occasion the high correlation between two variables means nothing because what really is important is a third variable. Several decades ago, the television show "The Beverly Hillbillies" was popular. The Hillbillies were ensconced in a Beverly Hills mansion, which, among other things, had a beautifully sounding set of chimes at the front door. Every time the chimes rang, guests appeared. The Hillbillies concluded that the chimes were so beautiful that they attracted the guests, who came to listen. Clearly, if they had taken time into account and controlled for the guests' time of arrival, they would not have come to this humorous conclusion. They would have seen that the guests already were there prior to the chimes ringing.

This illustrates one of the problems with Professor Florida's work. He prefers bivariate analyses between pairs of variables even when a multivariate analysis including many different explanatory variables would be more appropriate. For example, perhaps it isn't the presence of immigrants and gay people per se in a metropolitan statistical area (MSA) that is critical, but rather their educational backgrounds. An appropriate analysis, then, must include educational preparation along with the other demographic variables. To not do so is to risk unwarranted conclusions.

Florida Versus Conventional Notions of Economic Growth

Richard Florida's hypotheses are both interesting and provocative. Most city and regional economic development personnel focus intently on acquiring jobs, preferably those that pay high salaries. They emphasize tax levels, the quality of schools, living costs, climate and other factors when they attempt to induce firms to locate in their areas. Since they believe these factors are important, they persistently lobby legislators, city council members and others to improve their area's standing on these variables, for example, by reducing the property tax rate or by improving traffic flows.

It's not that Florida denies the influence of factors such as taxes and traffic upon economic growth. Instead, he asserts that these really aren't the critical factors that cause individuals from the creative class to choose where to locate. Otherwise, why would any member of the creative class live in New York City, where taxes and traffic are highly problematic?

Instead, Florida opines, the economic development professionals of cities and regions would be better advised to focus their efforts upon increasing the quality of life of their areas. To him, this means they must make their areas more inviting to members of the creative class who are the fountains of innovation. Areas should focus on providing and respecting eclectic, even somewhat "edgy," lifestyle options; emphasize the establishment of public venues that support coffee shops, art galleries, bookstores and theaters; value diversity of thought and open-mindedness; and cultivate distinctive neighborhoods that evince Florida's "authenticity" rather than reflecting cookie-cutter characteristics. Florida has not uttered the famous line, "If you build it, they will come," but he clearly believes that those cities and regions that by accident or design now exhibit the diverse atmosphere and amenities just mentioned will reap dividends by their ability to attract and maintain a significant population of the creative class.

Testing the Florida Hypotheses

Florida's hypotheses are testable. We've done so for the 258 largest MSAs in 2000. As we note elsewhere in the State of the Region report, we have never emphasized sophisticated statistical presentations as the means to disclose and display information. Hence, while we are going to present results generated by a statistical technique known as multiple regression analysis, our readers should focus on the meaning and importance of the results rather than the statistical techniques. (Those who want to venture into the statistical forest behind our results should contact either James V. Koch at jkoch@odu.edu or Vinod Agarwal at vagarwal@odu.edu. We'll be happy to provide the details.)

Here's what we're going to do. Professor Florida says that the economies of the MSAs – the cities and regions – that have the diversity and eclectic environments we have discussed in the sections above will grow faster. So, we're going to test this proposition by means of an equation that makes the per capita income of the MSAs the dependent variable (the thing we want to explain) and a measure of regional education levels, Florida's index of the size of the Bohemian population, the sizes of the gay and immigrant populations, Florida's melting pot index and regional technological development as the independent variables (the things we are going to use to explain the dependent variable, variations in per capita income).

TABLE 1
TESTING THE RICHARD FLORIDA HYPOTHESES

The dependent variable (what we want to explain) is:
* Per capita income in 2000 for an MSA (PCI)

The independent variables (what we will use to explain the dependent variable) are:
* Percentage of an MSA's population that holds baccalaureate degree (EDUC)
* Percentage of an MSA's population classified by Florida as Bohemian (BOHEM)
* Percentage of an MSA's population that consists of same-sex couples (GAY)
* Percentage of an MSA's population that is immigrant or foreign-born (MPI)
* Percentage of an MSA's output that comes from high-technology industries (TECHPOLE).

For those accustomed to mathematics and statistics, we could state this as the following functional relationship:

PCI = f(EDUC, BOHEM, GAY, MPI, TECHPOLE).

WHAT DATA HAVE WE USED?

Nearly all of the data used in this study pertain to the year 2000 for the metropolitan areas in the United States. We were unable to obtain information regarding the number of patents granted per capita, which Florida calls his Innovation Index. But we were able to find metropolitan area data for a widely used high-technology index (TECHPOLE) developed by the Milken Institute. Our measure of economic development is the per capita income of each of our 258 MSAs:

- **Per Capita Income (PCI):** This is the variable we want to explain and it is the per capita income in each MSA. Both the income and the population data for MSAs were obtained from the Bureau of Economic Analysis, U.S. Department of Commerce.

- **Educational Attainment (EDUC):** This variable is the percentage of an MSA's population with a baccalaureate degree or higher. The data come from the U.S. Census Bureau, "Educational Attainment in the United States," March 2000. Conventional economic human capital theory predicts that EDUC should have a positive impact on per capita income.

- **Bohemian Index (BOHEM):** Here we measure the percentage of writers, designers, musicians, actors, directors, painters, sculptors, photographers and dancers in an MSA's population. The data source is the U.S. Department of Labor, Bureau of Labor Statistics. Florida predicts this variable will have a positive effect on per capita income.

- **Diversity Index (GAY):** This is the percentage of same-sex couples in the population of an MSA. The data are drawn from the 2000 decennial U.S. Census. Florida says this variable will have a positive effect on per capita income.

- **Melting Pot Index (MPI):** This variable measures the percentage of immigrant and foreign-born individuals in an MSA. The data are taken from the "American Fact Finder," 2000 decennial U.S. Census. This variable will have a positive effect on per capita income, according to Florida.

- **High-Tech Index (TECHPOLE):** The Milken Institute's TechPole is a composite index combining the percentage of national high-tech real output and the concentration of high-tech industries for each MSA. This measure is for 1999 (not 2000) and was taken from the Milken Institute study, "America's High Tech Economy." Both Florida and economists would expect this variable to have a positive effect on per capita income.

COMPARING THE CITIES AND REGIONS

The 258 MSAs we examine in our analysis represented 76 percent of the U.S. population in 2000. Table 2 provides a sense for the actual data we have used. For example, average per capita income for the 258 MSAs was $26,500 (similar to Hampton Roads). The lowest per capita income of any MSA was $13,578, while the highest per capita income in an MSA was $48,347. The average population for our 258 MSAs was 828,184 (about half the size of Hampton Roads).

TABLE 2
SUMMARY DESCRIPTION OF RAW DATA FOR 258 MSAs IN OUR SAMPLE

Variable	Mean	Minimum	Maximum	Total
Per capita income in 2000	$26,500	$13,578	$48,347	
Individuals with a bachelor's degree or higher	150,708	7,914	4,554,734	38,882,628
Population	828,184	80,183	18,356,575	213,671,503
Same-sex couples	1,923	59	52,666	496,004
TechPole Index	0.3456	0.0000	7.0630	
Scientists, engineers and health professionals	27,750	720	331,200	7,159,470
Immigrants or foreign-born individuals	111,856	915	5,182,255	28,858,797
Bohemian population	5,139	40	133,220	1,325,743

There is a big difference, however, between a large MSA such as New York City and a small MSA such as Peoria, Ill. Table 3 illustrates how the data vary among four different sizes of MSAs. Per capita incomes are higher in the largest MSAs, as are educational levels, technological development, and the percentages of gays, immigrants, foreign-born and Bohemians in the population.

TABLE 3
AVERAGE CHARACTERISTICS OF VARIABLES BY THE SIZE OF POPULATION OF THE 258 MSAs

Variable	Entire Sample	Population 1,000,000 or Greater	Population Between 500,000 and 1,000,000	Population Between 250,000 and 500,000	Population 250,000 or Less
PCI in 2000	$26,500	$31,961	$26,402	$26,442	$24,328
EDUC	15.12%	18.68%	14.32%	14.97%	13.95%
BOHEM	0.46%	0.65%	0.53%	0.43%	0.38%
GAYS	0.19%	0.23%	0.19%	0.17%	0.19%
MPI	6.34%	10.87%	8.02%	5.64%	4.43%
TECHPOLE	0.3456	1.4793	0.2970	0.0935	0.0379

WHICH EXPLANATORY VARIABLES ARE MOST SIGNIFICANT?

Which explanatory variables turn out to be most significant in explaining the differences in the per capita incomes among our 258 MSAs for the year 2000? **Table 4 reveals that when the entire sample of MSAs is our focus, then the educational attainment of the MSA's population, the percentage of Bohemian residents in the population and the concentration of high-technology industries in the MSA are the most significant explanatory variables. Much less significant are the percentage of gay individuals in the MSA and the percentage of immigrants and foreign-born individuals in the MSA (the Melting Pot Index variable).** Indeed, the coefficients of these latter variables fail to achieve statistical significance even at the 10 percent level and thus must be regarded as not being influential in determining per capita income levels in our MSAs.

Does the answer change when the largest MSAs in population are separated from the smallest MSAs? We divided our sample into two parts, using a 300,000 population in an MSA as the dividing line. This divided the sample almost exactly in half. **For the 128 largest MSAs, precisely the same variables turn out to be significant predictors of MSA per capita income – educational attainment, the percentage of Bohemians and the concentration of technology-based industries in the MSA. For the 130 smallest MSAs, only educational attainment and the percentage of Bohemians are significant; the technology variable loses its significance for this selection of MSAs.**

Thus, our multivariate analysis provides only mixed support for the Florida hypotheses. Indeed, only two of the four variables that Florida suggests are critical determinants of economic growth turn out to be such – the percentage of Bohemians in the population and a region's technological development, the latter of which is one that conventional models of economic development also identify. Both of these variables, however, shrink before an MSA's educational attainment as a determinant of that MSA's per capita income. Meanwhile, the percentage of gays in an MSA's population and the percentage of immigrants and foreign-born individuals in an MSA's population do not turn out to be significant predictors of an MSA's per capita income.

TABLE 4

STATISTICAL SIGNIFICANCE OF VARIABLES THAT SEEK TO EXPLAIN A CITY OR REGION'S PER CAPITA INCOME IN 2000

Variable	Entire Sample 258 MSAs	128 Large MSAs Population > 300,00	130 Small MSAs Population < 300,000
EDUC	Highly Sig.	Highly Sig.	Highly Sig.
BOHEM	Highly Sig.	Highly Sig.	Significant
GAYS	Not Sig.	Not Sig.	Not Sig.
MPI	Not Sig.	Not Sig.	Not Sig.
TECHPOLE	Highly Sig.	Significant	Not Sig.

While the preceding analysis does not provide strong support for Florida's hypotheses, neither does it destroy his analysis, for in reality he is only using variables such as those above to capture what he labels "The Power of Place" as a determinant of economic growth. By this, he means the distinctive characteristics and milieu of cities or regions that, all things considered, give atmosphere and tone to those locations. The variables he has cited in his work and we have utilized above no doubt are imperfect measures of the living atmosphere of which he speaks.

Hence, it seems likely that many members of Florida's creative class are in fact attracted to eclectic, diverse, tolerant environments, where they can do their own thing and regularly sample what they perceive to be a stimulating environment. Still, one can easily produce counterexamples of MSAs that have grown very rapidly in the past decade, but do not appear to evince the high degrees of eclecticism and diversity that Professor Florida trumpets. Like most other citizens, members of Florida's creative class can vote with their feet and move to MSAs they find congenial. As a consequence, they self-select MSAs and distribute themselves in locations they find amenable to their tastes and values. Accordingly, some members of the creative elite will locate in and around Salt Lake City, while others will opt for San Francisco. Still others will decide upon small, but rapidly growing MSAs such as Fargo, N.D., even as others find Atlanta or Los Angeles attractive.

"Different strokes for different folks" reigns supreme where the creative class is concerned. They are not a homogeneous group of people and hence do not uniformly prefer specific types of MSAs. Our analysis does suggest that Florida's attempt to represent the distinctive characteristics of MSAs by means of variables such as the proportion of Bohemians, gays and the like has only limited validity. There are too many other important MSA characteristics that are not included in his analysis. How can one talk about the attractiveness of an MSA without taking into account wages rates, cost of living, average temperature, nearness to water or mountains, transportation options, etc.? It isn't that Florida doesn't admit the importance of these things. Rather, the problem is that either he can't find a way to include these factors in his analysis, or he simply argues that they are less important than the demographic and technological variables he prefers. Thus, in his newest book, "The Flight of the Creative Class," he minimizes the economic challenge of countries such as India and China because the percentage of creative-class individuals in those countries still is relatively small. But this exposes the limited focus and power of his analysis, because it is obvious these countries have dynamic, rapidly growing economies. The world, then, is more complicated than Florida's modeling, which is based primarily on bivariate correlations between variables.

There are two additional statistical caveats that we must put forward. First, the variable that explains the most variability in per capita income among the MSAs is an "old" variable – the percentage of individuals in an MSA who have earned a baccalaureate degree. By itself, the EDUC variable explains more than 39 percent of the differences in the 2000 per capita income of the 258 MSAs. EDUC is an old-style human capital variable that bears some relationship to Bohemian, gay and immigration status (Florida's creative-class variables), but is far from identical. Witness Salt Lake City and Fargo, N.D. **The bottom line is that old-style explanations of economic growth do at least as well as Florida's interesting alternative if we want to know why some MSAs have higher per capita incomes than others.**

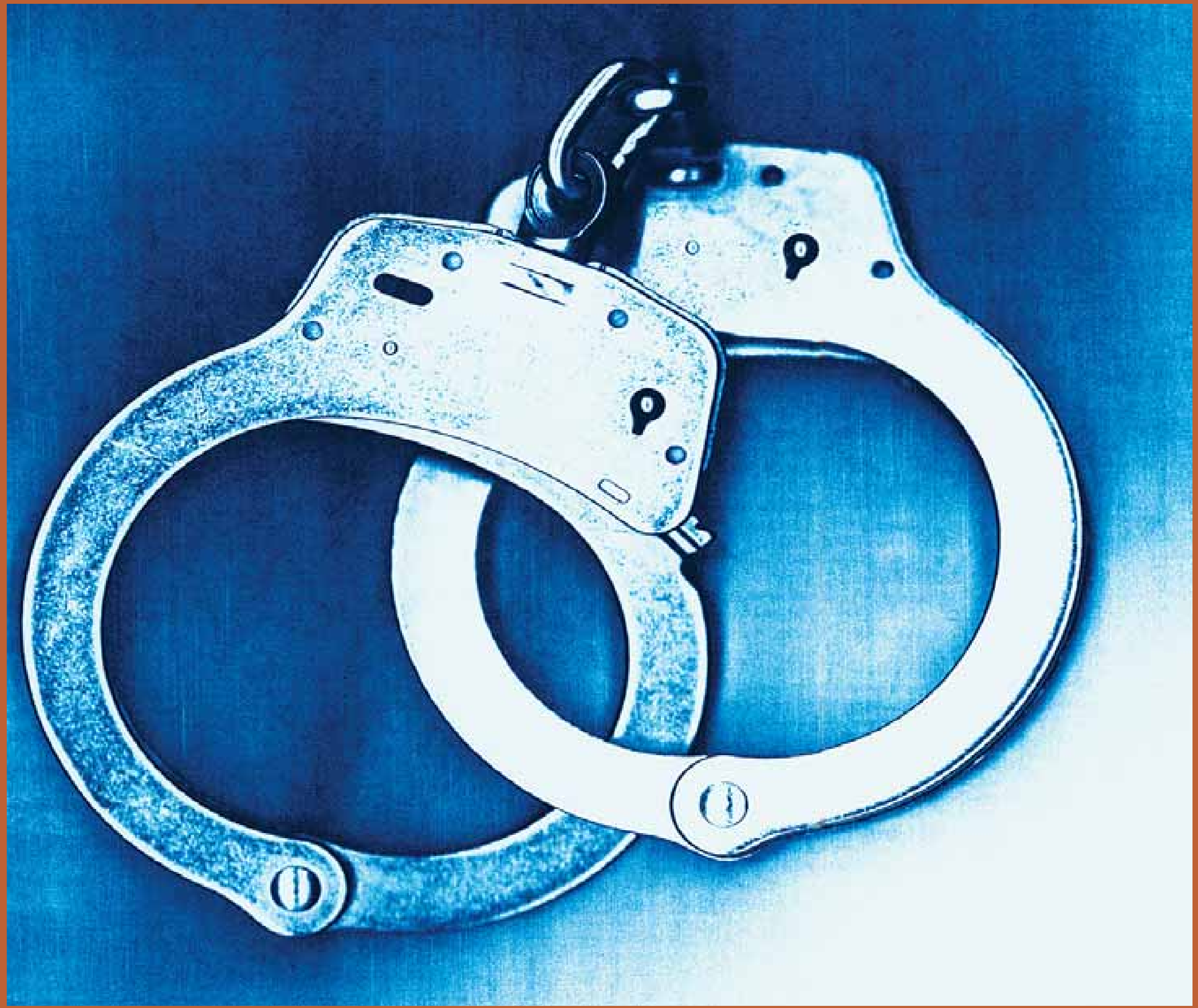
The second caveat is that even when our statistical analysis includes measures of education, Bohemian and gay populations, immigrant and foreign-born populations, and technological development, we can only explain about 50 percent of the differences in the per capita incomes of the MSAs. **Stated differently, we can't explain fully one-half of the ups and downs in the per capita incomes of America's cities and regions even when we utilize the preceding five variables. This underlines the reality that the determinants of local and regional economic growth are rather complex and variegated.** What works in one situation does not necessarily work in another. How else can we explain the success of Fargo and Salt Lake City alongside the success of Boston and San Francisco?

Final Thoughts

Richard Florida has sold many thousands of books, and his thoughts are always interesting and usually challenge conventional approaches to issues. It seems clear that many members of his creative class do value eclectic, diverse living situations in communities that they find tolerant and accepting of their eccentricities, if any. Yet, others have different preferences and locate themselves accordingly. **No model of economic development is capable of explaining all the situations we actually observe in the world. As we have seen, Florida's hypotheses fall far short of constituting a universal explanation and actually do not have as much explanatory power as some conventional theories.**

That said, Florida is on to something and his explorations will be ignored by policy makers at their own peril. It appears Hampton Roads would enhance its attractiveness to some members of Florida's creative class were we able to cultivate and develop additional areas for work and play that evince the eclectic, diverse and tolerant atmosphere of which he speaks. For a region of 1.6 million people, we boast relatively few such idiosyncratic areas and the national reputation of the entire region is not one of creativity, innovation and eclecticism. Instead, we are viewed by some as conventional, conservative and military-minded in outlook. This reputation can (and has been) beneficial to us in various ways in the past. However, to the extent that Florida's surmises are correct, such a reputation also might constitute a liability where economic growth is concerned.

One final point should be made. No region needs to reflect only one atmosphere and personality. One of Florida's concepts is that the most productive regions exhibit diversity and their residents tolerate that diversity in a "live and let live" approach. We need not, then, turn the region over exclusively to Bohemians, gays, the Rev. Pat Robertson's followers or the military in order to prosper. There is room for all to live and thrive and create if we are tolerant and respecting of our democratic traditions.



THE STATE OF

CIRCUIT COURTS

THE WHEELS OF JUSTICE: OUR REGIONAL CIRCUIT COURTS

A lawyer tells his client, "I have some good news and some bad news."

The client replies, "What is the good news?"

"The length of time of your sentence has been reduced," replies the lawyer.

"That's great! What is the bad news?" replies the client.

The lawyer then says, "You got the death penalty."

- Garrison Keillor

What happens to "parties" (individuals, firms, organizations) that are alleged to have violated criminal law and therefore enter the judicial system? What happens to still other parties that are participants in a civil action in which one has alleged wrongdoing by the other and as a consequence both enter the judicial system?

Many of these situations are handled by a court located in one of the Commonwealth's 31 Circuits. In 2003, the nine Circuits that are wholly or partially located within Hampton Roads dealt with 81,008 cases (35 percent civil and 65 percent criminal). Approximately 29 percent of the civil cases were more than one year old and 13 percent were more than three years old, so the wheels of justice turned slowly in some instances. Criminal cases move much more quickly; only 23 percent were more than six months old.

One of the reasons civilized societies thrive is adherence to the rule of law. Ideally, the exercise of the rule of law should be swift, clear, free of corruption and equitable. Significant departures from these conditions usually result in disorder, political unrest, increased crime and reduced economic prosperity. Witness the problems that have afflicted countries ranging from post-Gorbachev Russia to post-Saddam Iraq. Societies come apart at the seams when their courts either fail, or perhaps have never really existed in an uncompromised state.

Hence, there is ample reason for us to want to know how well our courts are functioning. They are supported by our tax dollars and their efficient operation represents a sine qua non for civilized living. The alternative is anarchy.

In this chapter, we examine the Circuit Court system in Hampton Roads, which constitutes only one part of our system of courts in the region.

Circuit Courts Within the Judicial System of Virginia

Circuit Courts in Virginia have two functions. They: (1) act as appeals courts that hear cases appealed to them from a General District Court, or from a Juvenile and Domestic Relations Court; and (2) hold trials, sometimes by jury, and in this role usually consider larger civil claims, misdemeanor and felony criminal cases, equity suits (such as property disputes) and divorce proceedings. There are 31 Circuits in Virginia, of which nine include some portion of the geography of Hampton Roads (see Table 1). Each Circuit ordinarily contains multiple courtrooms. For example, there are nine Circuit courtrooms and judges in the Norfolk Circuit.

Many legal matters that involve lesser sums of money are considered by 32 General District Courts in Virginia and (within the same boundaries), 32 Juvenile and Domestic Relations District Courts that hear issues such as domestic problems, delinquency, child abuse and custody issues involving divorce. By way of illustration, any matter in which more than $15,000 is at stake automatically is heard in a Circuit courtroom.

Above the Commonwealth's Circuit Courts stands the Virginia Court of Appeals, which hears appeals of cases from the lower courts, and the Virginia Supreme Court, which, among other things, reviews the decisions from lower courts involving cases that have been granted an appeal.

TABLE 1
LOCATION OF CIRCUIT COURTS, JUDGESHIPS AND JURIES IN HAMPTON ROADS

Circuit Court	Locality	Authorized Judgeships	Juries Impaneled	
			Civil	Criminal
1	Chesapeake	4	25	15
2	Accomack, Northampton, Virginia Beach	10	53	26
3	Portsmouth	4	28	47
4	Norfolk	9	73	52
5	Franklin City, Isle of Wight, Southampton, Suffolk	3	24	31
6	Brunswick, Emporia, Greensville, Hopewell, Prince George, Surry, Sussex	2 (plus one shared)	5	29
7	Newport News	5	26	32
8	Hampton	4	8	21
9	Charles City, Gloucester, James City, King and Queen, King William, Mathews, Middlesex, New Kent, Poquoson, Williamsburg, York	4	28	29

Sources: "The Judicial Year in Review: 2002 Supreme Court of Virginia" and the Virginia Circuit Court Caseload Reporting System, 2004

Criminal Activity in Hampton Roads

Table 2 records the distribution of criminal activity in Hampton Roads cities and counties reported to the police in 2003. If a crime is alleged to have been committed, then the matter is placed in the hands of a prosecutor (federal or Commonwealth) who will deal with the case, perhaps by seeking an indictment. Our interest here is with criminal activities that violate state and local laws and are dealt with by a commonwealth's attorney (prosecutor) attached to a city or county.

On a per capita basis, Newport News, Norfolk and Portsmouth report more criminal activity than other cities and counties in the region. Portsmouth had the largest proportion of cases per capita involving murder, robbery and assault, while Newport News had the highest burglary rate by far, and Norfolk clearly had the highest larceny and car theft rates. Suffolk had the highest rate of reported rapes, and arson cases were most numerous in Suffolk and Newport News.

Not surprisingly, there exists a positive relationship between population density and crime, though a negative relationship is evident between household income and crime. Reasonably prosperous, rural areas and / or smaller communities such as Poquoson and Williamsburg are, in general, much less likely to experience criminal activity. Among the larger cities, Hampton, Virginia Beach and Chesapeake boast the lowest crime rates in the region.

TABLE 2
INDICES OF REPORTED CRIME, HAMPTON ROADS, 2003

Rates per 100,000 Population

Crime / City	Williamsburg	Hampton	Suffolk	Newport News	Portsmouth	Poquoson	Chesapeake	Virginia Beach	Norfolk	H R Average
Overall Index	2,930	3,867	4,145	9,694	5,841	1,546	3,553	3,525	6,294	3,599
Murders	0	6.77	2.82	14.79	17.81	0	2.38	5.46	16.52	7.39
Rapes	50.67	37.89	53.63	51.49	42.55	0	4.29	27.08	35.53	33.68
Robberies	76	166.47	155.24	213.07	398.77	0	128.28	92.84	296.19	169.65
Assaults	84.45	194.21	351.42	406.98	432.42	25.35	324.27	85.79	223.07	236.44
Burglaries	202.67	606.32	575.82	4,623.56	1,166.63	168.99	472.58	486.51	736.96	490.72
Larceny	2,406.69	2,476.03	2,781.70	3,006.60	3,288.15	1,301.23	2,366.71	2,644.42	4,391.99	2,740.39
Car Thefts	109.78	378.95	224.40	536.80	494.76	50.70	254.65	183.18	894.03	347.47
Arsons	8.44	27.07	47.98	46.56	15.83	16.90	8.77	42.78	9.09	23.85

Sources: "2003 Federal Bureau of Investigation Crime Reports," FBI, Washington, D.C., and city of Chesapeake data for 2002, http://www.chesapeake.va.us/services/depart/police/police/stats.shtml

Disposition of Circuit Court Cases

Cases that come to a Circuit Court are either civil or criminal. Civil cases involve disagreements between parties, perhaps over an alleged injury to person or property. Issues such as damage to a home or business, or personal injuries suffered because of an automobile accident or medical malpractice, fall into this category. Criminal cases involve the violation of a specific law or statute, for example, those against robbery, rape, malicious wounding or murder. Criminal acts may be further subdivided into those which are classified as misdemeanors (crimes that may result in a maximum punishment of a fine of $2,500 and / or a year in jail) and more serious acts such as robberies and murders that are considered felonies (punishment could include execution). In Hampton Roads, 38 percent of all cases that enter the Circuit Courts involve misdemeanor charges, while the remaining 62 percent involve felonies.

What happens to an individual who enters the court system in Hampton Roads as a defendant? Tables 3 and 4 address our region.

TABLE 3 DISPOSITION OF CIRCUIT COURT CIVIL CASES HAMPTON ROADS, 2004									
Circuit	Settled / Dismissed	Default Judgment	Trial by Judge	Decree on Deposition	Report by Commis-sioner	Trial by Jury	Purged – 2- or 3-Year Rule	Other	Total Cases
Ches	25%	1%	15%	0%	22%	1%	14%	9%	2,520
VaBch	25%	2%	27%	0%	23%	0%	10%	13%	7,223
Portsmouth	57%	3%	2%	2%	7%	1%	25%	5%	4,180
Norfolk	33%	2%	55%	0%	3%	1%	0%	5%	5,671
Suffolk	37%	1%	17%	18%	5%	1%	2%	19%	1,490
Emporia	19%	2%	14%	28%	0%	0%	12%	15%	1,237
N News	32%	2%	1%	50%	0%	1%	2%	11%	1,904
Hampton	28%	1%	0%	1%	27%	0%	15%	28%	1,939
JCC / York	26%	1%	10%	23%	1%	1%	14%	24%	2,590
HR Average	32%	2%	22%	8%	12%	1%	10%	12%	3,195
VA	30%	2%	20%	17%	5%	1%	9%	15%	100,620

Source: Virginia Circuit Court Caseload Reporting System, 2004

CIVIL CASES

There are at least seven different actions that can be taken in order to resolve a civil case after a complaint has been filed. First, significant percentages of civil cases are settled by the parties to the case and do not result in a trial in court. In recent years, increased emphasis has been placed on mediation and arbitration as ways to settle disputes. The cities of Portsmouth, Suffolk and Norfolk exhibit the largest case dismissal rates.

Second, there is also the possibility of a default judgment, which can occur when a party does not take a required or timely step in a lawsuit, such as filing the proper paperwork on time. This seldom occurs in Hampton Roads (less than 2 percent of the time in most Circuit Courts).

Third, another outcome of a civil case is a decree on deposition. This could involve an equity issue where money is not an immediate point of contention. For example, a decree could finalize a marital divorce, impose an injunction on a party to a lawsuit or deal with a social services case. Decrees are used much more frequently in Newport News than any other city or county and are virtually never used on the urban Southside. This appears to reflect local custom and preference rather than efficiency concerns.

Instead, a fourth possibility is often utilized in cities such as Hampton, Virginia Beach and Chesapeake – a report by commissioner. This refers to a document written by a commissioner appointed by the judge. The commissioner files a report, often with recommendations, and the judge then may choose to make a decision based on that report. Hampton easily pursues this approach most often, while Norfolk, Suffolk and Newport News seldom utilize it.

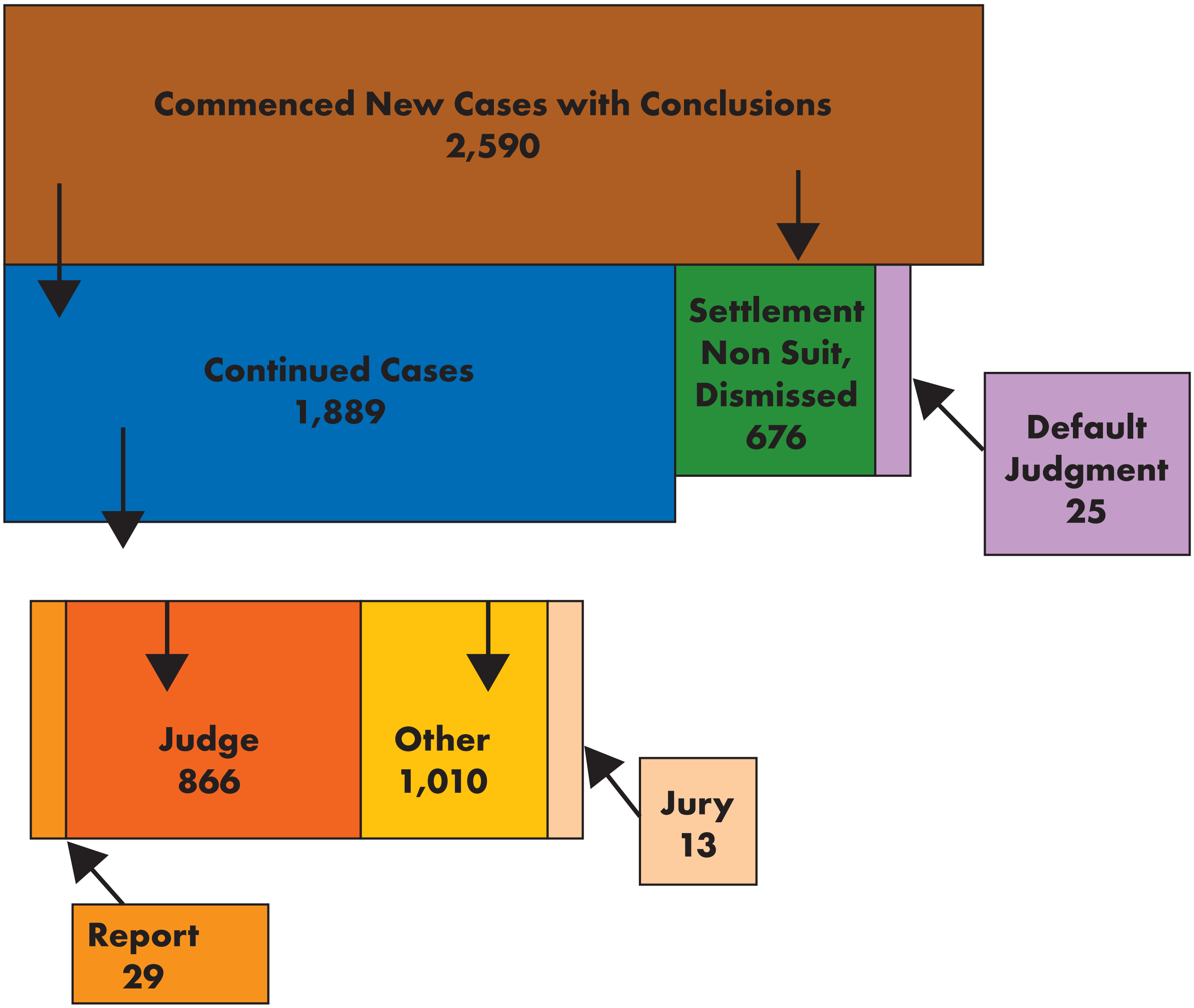
Fifth, a case could result in a trial by jury; however, these instances are surprisingly rare in civil cases within Hampton Roads. Newport News had the largest percentage of civil jury trials, but this still accounted for only 1 percent of its civil cases.

Sixth, guidelines issued by the Virginia Supreme Court recommend how quickly cases should be dealt with by the courts. If the cases are not handled within the specified time frames, they may be "purged," that is, dismissed. Portsmouth, at 25 percent, has had the highest purge rate, while Norfolk had a zero purge rate. While a variety of factors could influence a Circuit Court's purge rate, a low rate clearly is preferred to a high rate and many regard a low purge rate as an indicator of judicial efficiency, though other factors could be at work.

Seventh, the "Other" category refers to disposition methods not elsewhere classified. An example is a change in venue. This is the dominant disposition result in Hampton and is often used about 20 percent of the time in the more rural districts.

FIGURE 1

CITIES OF WILLIAMSBURG AND POQUOSON, PLUS CHARLES CITY, GLOUCESTER, JAMES CITY, KING AND QUEEN, KING WILLIAM, MATHEWS, MIDDLESEX, NEW KENT AND YORK COUNTIES DISPOSITION OF CIVIL CASES: 2004



Sources: Virginia Circuit Court Caseload Reporting System, 2004, and Circuit Court Caseload Report Quick Guide to the Reports, 2004

It is instructive to understand the processes that eventually produce cases that reach our regional Circuit Courts. Figure 1 illustrates how civil cases were disposed of in the Williamsburg / James City County / York County judicial district (Number 9) in 2004. Only about .5 percent of all cases initiated resulted in a jury trial and only about a third of these cases resulted in a bench trial.

CRIMINAL CASES

Table 4 reports on the disposition of criminal cases. Note, however, that the table discloses only those cases that have proceeded beyond a preliminary hearing. A case against a prospective defendant might be dismissed by a judge in a District Court at a preliminary hearing. But, assuming a case is certified for indictment in a Circuit Court, it is generally handled in one of three ways: *Nolle prosequi* / dismissal, guilty pleas or a trial in front of a judge. *Nolle prosequi* occurs when the prosecutor decides not to proceed with a case and dismissed cases are those that are dismissed by a judge. Hampton had the largest percentage of cases not prosecuted in the region (36 percent), while the Circuit Court in Virginia Beach had the lowest percentage (15 percent). In three of the other Circuit Courts, Chesapeake, Portsmouth and Emporia, the percentages of cases not prosecuted were also relatively high. High rates of non-prosecution could reflect inadequate police work, lazy or incompetent prosecutors, overly high workloads, newly available information or still other factors.

Among the other factors that change dismissal rates are differences in custom and practice in various jurisdictions. One city might tend to dismiss many cases already at a preliminary hearing in a District Court, whereas another city might push those cases on to a Circuit Court, where they will be dismissed. It's also possible that a jurisdiction might choose not to prosecute a charge now, but later choose to do so. In addition, in some jurisdictions (Chesapeake provides an example), Circuit Court judges seldom grant continuances to prosecutors if that continuance will push the case beyond 120 days from arrest. As a consequence, in Chesapeake many cases are not prosecuted, but the accused is then re-indicted and the clock starts over. This scenario might occur for legitimate reasons, such as a delay in receiving evidence from a forensic laboratory. All of these examples demonstrate that one must be careful in drawing strong evaluative conclusions on the basis of the data presented in Table 4.

TABLE 4
DISPOSITION OF CIRCUIT COURT CRIMINAL CASES HAMPTON ROADS, 2004

Circuit	Withdrawn Prior to Trial	Nolle Pros. /Dismissed	Guilty Plea Prior to Trial	Judge Trial	Jury Trial	Other	Total Concluded Cases
Chesapeake	3%	31%	33%	31%	1%	1%	6,039
Virginia Beach	2%	15%	56%	22%	1%	4%	10,781
Portsmouth	1%	30%	37%	28%	2%	2%	5,529
Norfolk	4%	22%	42%	29%	1%	2%	10,283
Suffolk	1%	27%	30%	38%	1%	4%	4,032
Emporia	3%	30%	40%	24%	1%	2%	2,701
Newport News	0%	23%	22%	41%	1%	13%	4,946
Hampton	1%	36%	29%	31%	2%	1%	3,280
JCC / York	3%	23%	31%	36%	1%	6%	4,661
HR Average	2%	24%	38%	30%	1%	4%	5,806
Virginia	2%	24%	36%	31%	1%	4%	172,090

Source: Virginia Circuit Court Caseload Reporting System, 2004

Defendants in criminal cases may plead guilty prior to trial and may do so if they surmise they might fare worse if their case actually were to go to trial. Guilty pleas were taken fully 56 percent of the time in Virginia Beach. This appears to reflect the tendency of the Virginia Beach commonwealth's attorney to place nearly all alleged drug offenses in front of a jury unless they are settled beforehand. Defense attorneys, perhaps fearful of what a jury might do to their clients, often recommend a guilty plea. Thus, a plea agreement results and the case does not go to trial. Norfolk and Emporia had the only two other Circuit Courts that were above the Virginia average in this regard.

Does a high percentage of guilty pleas represent good police work, or is it the result of police declining to bring charges against alleged perpetrators unless the police are extremely confident of a conviction? We cannot make that judgment, but this question is one that bedevils the evaluation of police work throughout the country. Police have considerable control over the character of the incidents that wend their way in the form of a case to a prosecutor or to a Circuit Court. Prosecutors similarly possess immense discretion to prosecute or dismiss cases. **Hence, it is not easy to evaluate the performance of the police, or a prosecutor's office or a Circuit Court because the work of each depends so significantly on the work of the others.**

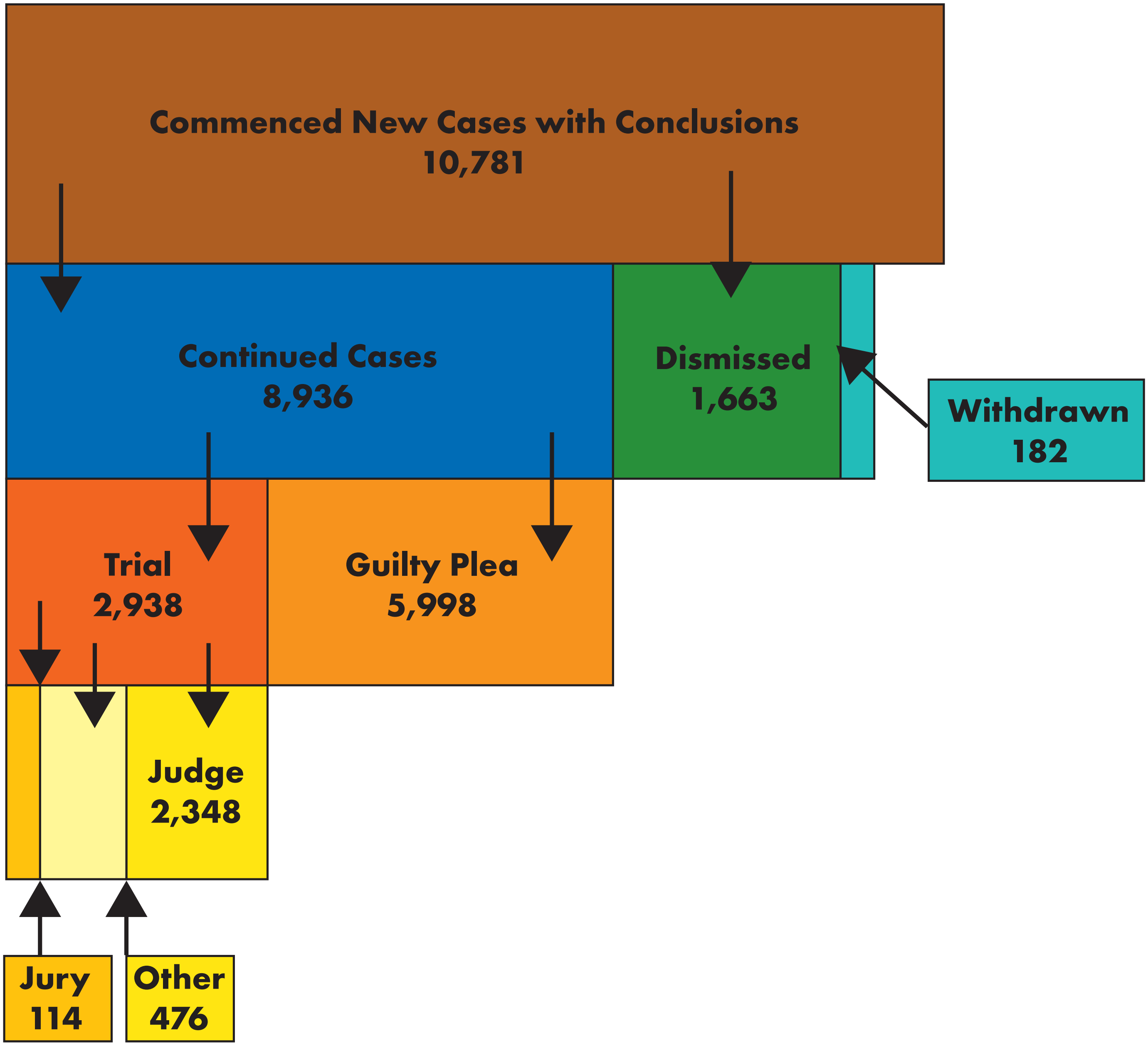
The second most common way to dispose of a criminal case is via a bench trial in front of a judge (without a jury). Bench trials are relatively more common in Newport News and Suffolk, but are used less frequently than the state average in Virginia Beach, Emporia, Portsmouth and Norfolk. In general, there has been a decline in the proportion of jury trials in Virginia and such trials do not occur more than 2 percent of the time in criminal cases in any of the region's Circuit Courts.

Note that many criminal cases in Hampton Roads' Circuit Courts involve alleged probation violations ("reinstatements"). The accused have no right to a jury trial in such instances and there is no preliminary arraignment or plea entered by the accused. If a Circuit Court judge tends to ask the accused if he / she pleads guilty, and the accused does so (a frequent occurrence), then there will be no bench trial. Once again, local custom may skew what otherwise might seem to be straightforward criminal case data.

Again, it is helpful to see how cases eventually reach a Circuit Court. Figure 2 illustrates how Circuit Court District 2 (primarily the city of Virginia Beach) disposed of 10,781 criminal cases in 2004. Note that more than half of these cases (56 percent) resulted in a guilty plea by the defendant and that 17 percent of the cases resulted in the dismissal or withdrawal of the case by a prosecutor.

FIGURE 2

CITY OF VIRGINIA BEACH PLUS ACCOMACK AND NORTHAMPTON COUNTIES
DISPOSITION OF CIVIL CASES: 2004



Sources: Virginia Circuit Court Caseload Reporting System, 2004, and Circuit Court Caseload Report Quick Guide to the Reports, 2004

Evaluating the Courts

Evaluating the end product of our regional judicial system and, more particularly, the Circuit Court system, is not an easy task. First, there is no agreement how to define the end product of the Circuit Courts. For example, is the end product of the judicial system arrests, prosecutions, convictions, some combination of these actions or something else?

If we expect the system to arrest criminals and prosecute them, then it is apparent that there is a lot of this going on – more than 81,000 cases in 2003 among our nine regional Circuit Courts. Of course, we have no way to know what proportion of the total number of offenses committed that these 81,000 cases represent. Remember that many charges are dismissed in a District Court before they reach a Circuit Court. Such instances are not included in the Circuit Court data presented here. We can note, however, that the rates of reported crimes have been falling throughout Hampton Roads and most parts of the United States in recent years.

On the other hand, if we expect prosecutors to attempt to convict each of these 81,000 defendants, then we will emerge disappointed, for about 30 percent of all civil cases are dismissed or not prosecuted in Hampton Roads, while approximately 26 percent of criminal cases similarly are dropped.

Or, if our notion of justice served involves an actual trial, then we will be similarly disappointed, because only 23 percent of civil cases and only 31 percent of criminal cases actually go to trial locally. More than one of every three regional criminal defendants pleads guilty prior to a trial and that classic American institution, the jury trial, takes place in only about one of every 100 cases. The Virginia Supreme Court recently has placed increased emphasis on mediation and arbitration as means to settle disputes and lighten the load of the Commonwealth's courts. Hence, the relatively low proportion of cases that actually goes to trial reflects this desire.

Defining the "output" of our three-pronged judicial system (the police, the prosecutors, the judges in their courts) is rather like attempting to nail Jell-O to a wall. In fact, what we desire is a system that detects and arrests many, though certainly not all, of those who violate the law or commit crimes. We expect both the police and the prosecutors to overlook numerous *de minimis* violations of the law (for example, small-scale automobile speeding) and to focus their limited resources on those violations that society deems most critical and important. Further, we expect judges to deal wisely with the cases brought to them, though one need peruse the media only briefly to ascertain that there are just about as many perceptions of wisdom as there are citizens. **Despite some notions to the contrary, there is no set of rules that clearly defines all of the value judgments that police, prosecutors and judges must make on a daily basis.** True, legislators and citizens sometimes attempt to provide specificity to the process. With increasing frequency, we see laws that prescribe how police must behave, or the sentences that judges must dispense. **Nevertheless, the justice system abounds with discretion, albeit bounded, and most citizens, upon learning about the situation, would not have it any other way.** A mechanistic judicial system would not suit us well and would inspire legions of complaints.

Hence, while we have made several stabs above at assessing how law enforcement officials, prosecutors and the Circuit Courts triage the cases that come to them, **it is a treacherous undertaking to impose one's own judgment on the decision of law enforcement officials of when to make an arrest, or a commonwealth's attorney's subsequent decision to prosecute or drop a case, or a subsequent Circuit Court judge's decision, say, to dismiss a case.**

Those closest to police departments and the courts necessarily formulate opinions over time about the comparative wisdom and energy of the individuals who operate the justice system. When these assessments are adverse, they sometimes boil over into the media and we observe one member of the triad (police, prosecutor or judge) being attacked for lack of wisdom, bad work habits or some other alleged inadequacy.

It is well beyond the scope of this chapter to assess individual actors in the judicial process, exciting as that might be. It suffices for us to point out that Circuit Court judges deal only with those cases that come to them and hence they have little ability in the long-run to determine the mix and quality of cases that come to their courtrooms. Indeed, in a typical Circuit, the parties to a case do not know to which judge their case will be assigned. Hence, they cannot "shop" judges and specific courtrooms. As a consequence, the Circuit Courts are somewhat like professors who encounter the students who register for their classes. They must accept, however grudgingly, whichever students enter their classroom.

In theory, however, it is possible for the plaintiffs to shop Circuits within the Commonwealth. Over time, some Circuit Courts become known for handling certain kinds of cases, for example, alleged personal injuries resulting from a railroad accident, and plaintiffs and defendants may do their best to see that their cases are heard (or not heard) in that Circuit. Still, inside a Circuit, the possibilities for "judge shopping" are very small.

SPEED OF HANDLING CASES

Our previous statements notwithstanding, the speed with which cases are handled is one obvious criterion for evaluating our judicial system. The Circuit Courts, of course, are only one part of this system. In Table 5, we consider both civil and criminal cases from their date of inception (which is not necessarily the same as the date of arrest, which might provide a more relevant view of the speed with which cases are handled).

A typical Circuit Court in Hampton Roads will dispose of 30 percent to 40 percent of its civil cases within three months and 70 percent to 90 percent of its cases within one year. While the typical civil case is disposed of in Portsmouth much more rapidly than the regional and state averages, the disposition of cases by all of the other Circuit Courts approximately matches the Virginia three-year average in terms of speed of disposition.

With regard to criminal cases, 33 percent of all cases are disposed of within two months, statewide. Within Hampton Roads, the disposition rates range from only 19 percent in Emporia to a high of 48 percent in Portsmouth. Most of the region's Circuit Courts are at or above the Virginia average in this regard, and this relationship holds true after four months and six months as well. Hence, the region's Circuit Courts must receive high marks for the speed with which they handle criminal cases.

TABLE 5
AGE OF CONCLUDED CASES, CIVIL AND CRIMINAL IN THE CIRCUIT COURTS, HAMPTON ROADS, 2004

Circuit	Age of Civil Cases from First Filing				Age of Criminal Cases from First Filing			
	Total Cases	3 Months	1 Year	3 Years	Total Cases	2 Months	4 Months	6 Months
Chesapeake	2,520	31%	64%	82%	6,039	40%	71%	85%
Virginia Beach	7,223	36%	71%	88%	10,781	35%	67%	82%
Portsmouth	4,180	55%	66%	75%	5,529	48%	63%	82%
Norfolk	5,671	39%	84%	99%	10,283	29%	68%	82%
Suffolk	1,490	34%	68%	95%	4,032	28%	60%	77%
Emporia	1,237	37%	64%	79%	2,701	19%	47%	69%
Newport News	1,904	42%	73%	93%	4,946	26%	50%	67%
Hampton	1,939	24%	61%	79%	3,280	26%	51%	64%
JCC / York	2,590	37%	65%	85%	4,661	30%	46%	63%
HR Average	3,195	39%	71%	87%	5,806	32%	61%	77%
Virginia	100,620	39%	71%	89%	172,090	33%	59%	75%

Source: Virginia Circuit Court Caseload Reporting System, 2004

These data, however, cannot be taken without qualification. Suppose an individual is arrested and indicted for possession of cocaine. But the forensic laboratory faces a work backup and does not produce the necessary report quickly. The prosecutor then may drop the charge with leave to reinstate, or request a continuance, which may well be denied by a Circuit Court judge. Subsequently, the charge may be reinstated after forensic results have been obtained. In such a scenario, it will appear as if the case was handled quite rapidly, but this might be deceptive.

FOLLOWING THE SENTENCING GUIDELINES

Table 6 provides information on the degree to which the different courts follow the sentencing guidelines suggested by the "Virginia Sentencing Guidelines and Manual" (the 7th edition appeared in 2004). If requested, a probation officer typically completes a presentencing investigation report on each convicted defendant and the judge then utilizes this information when he / she issues a sentence. Sentences may be in line with the state's sentencing guidelines, or be less harsh (a "mitigation") or more harsh (an "aggravation"). Sentences also may be served concurrently, which alters the situation. Concurrent sentencing is more common in Virginia Beach and less common in Norfolk, where one charge might well be dropped if it would result in concurrent sentences. If a judge does not follow the recommended sentencing guidelines, then he or she must explain why. Across all the court districts within Virginia, the state average compliance rate was 79 percent in 2003. Six Circuit Courts within Hampton Roads were above that rate: Newport News, Chesapeake, Suffolk, Virginia Beach, Hampton and Norfolk.

Mitigation occurs 9 percent of the time in Virginia. There are numerous reasons why mitigation might occur – for example, a judge's evaluation of the possibility of rehabilitation and / or a lack of intention by the perpetrator to do the victim harm. Mitigation might occur more often if a judge decides to utilize programs such as the Drug Court, the Mental Health Court, jail-based drug programs, and detention and diversion programs. If so, the sentence will reflect a downward departure from the Commonwealth's guidelines. Three of the region's Circuit Courts appear to invoke more downward departures from the sentencing guidelines on average: Norfolk, Emporia and Hampton. Aggravation in sentencing occurs 9 percent of the time in Virginia. Reasons for aggravation include a judge's assessment of the flagrant or violent nature of the offense and a predicted lack of rehabilitation of the criminal. Three of the region's Circuit Courts exceed the statewide aggravation rate: Emporia, James City / York County and Portsmouth.

TABLE 6
RESULTS OF CIRCUIT COURT ACTION, HAMPTON ROADS, 2003 and 2004

Circuit	Sentencing Compliance Rates		
	Compliance Percent	Mitigation Percent	Aggravation Percent
Chesapeake	89%	5%	6%
Virginia Beach	82%	9%	9%
Portsmouth	78%	10%	12%
Norfolk	80%	16%	4%
Suffolk	84%	8%	8%
Emporia	73%	12%	15%
Newport News	90%	5%	5%
Hampton	81%	11%	8%
JCC / York	79%	7%	13%
HR Average	81.8%	9.2%	8.9%

Sources: Virginia Sentencing Commission Annual Report, 2003, and Virginia Sentencing Commission Annual Report, 2004

THE CLEARANCE RATE

Another evaluative criterion is the clearance rate, which is the ratio of cases concluded in a court to the cases commenced in that court. This ratio may be greater than 100 percent if a court clears old cases from its docket held over from past years. While clearance rates can be manipulated, most authorities agree that higher clearances rates are preferable to lower clearance rates. Thus, they are viewed by some as a measure of the overall efficiency of a judicial system.

Table 7 provides information on clearance rates for both 1994 and 2004, and we compute the change between the years. It is readily evident that clearance rates fluctuate substantially, both among cities and between civil and criminal cases. Clearance rates typically are lower for civil cases. The Newport News Circuit Court exhibits much lower civil case clearance rates than other courts, but this is not true for its criminal cases. It would be difficult to draw strong conclusions on the basis of the clearance rate data provided in Table 7. Hence, despite the popularity of clearance ratios among some as a measure of the joint efficiency of the police, prosecutors and judges, they do not provide us with definitive information. In any event, it does appear that all of the Circuit Courts display adequate clearance rates.

TABLE 7
CLEARANCE RATIOS FOR CIRCUIT COURT CASES, HAMPTON ROADS, 1994 and 2004

	Civil Cases			Criminal Cases		
	1994	2004	Change	1994	2004	Change
Chesapeake	82.3%	95.4%	13.1%	100.5%	99.8%	-0.7%
Virginia Beach	88.9%	97.2%	8.3%	96.6%	99.3%	2.7%
Portsmouth	77.3%	118.6%	41.3%	128.4%	95.5%	-32.9%
Norfolk	106.1%	94.8%	-11.3%	106.6%	93.7%	-12.9%
Suffolk	86.3%	103.4%	17.1%	101.6%	101.1%	-0.5%
Emporia	86.1%	98.1%	12.0%	97.7%	94.5%	-3.2%
Newport News	74.9%	67.6%	-7.3%	103.6%	93.4%	-10.2%
Hampton	81.2%	91.0%	9.8%	100.7%	88.9%	-11.8%
JCC / York	91.1%	94.6%	3.5%	104.8%	100.0%	-4.8%
HR Average	86.0%	95.6%	9.6%	104.5%	96.2%	-8.3%
Virginia	94.1%	94.7%	0.6%	99.9%	97.3%	-2.6%

Source: Virginia Circuit Court Caseload Reporting System for the Years 1994-95 and 2004

Conclusions

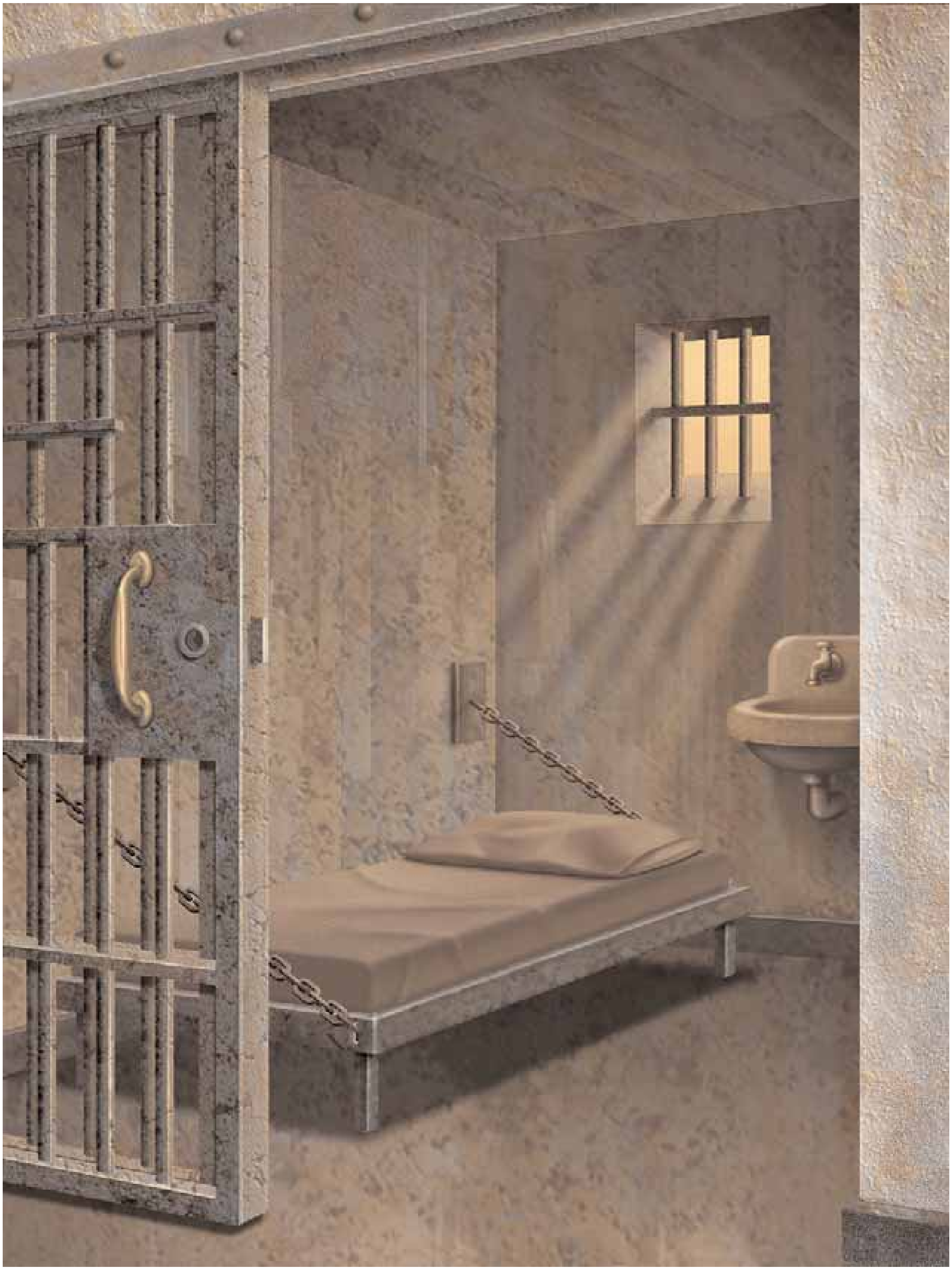
When it was originally suggested that the State of the Region report focus on Hampton Roads' judicial system, and specifically upon the Circuit Courts, the presumption of those proposing this topic was that vast differences exist among the nine Circuit Courts that deal with portions of our region. The assertions were that some Circuit Courts were far more efficient than others and that some were far more lenient (or harsh) than other courts.

We have not found significant evidence to support these notions. **While it may well be true that individual judges are more or less efficient, more or less skilled, and more or less lenient in their sentencing, we have not found disturbing aggregate differences in behavior among the nine Circuits.** It's true that some courts (for example, Newport News) prefer decrees on deposition, while others prefer reports by commissioner (which constitute a favorite approach in Chesapeake, Hampton and Virginia Beach). **It's also true that Norfolk tends to send the majority of its civil cases to trial before a judge (55 percent in 2004) rather than pursuing other modes of disposition. This may at first glance seem inefficient, particularly when Newport News sent only 1 percent of its civil cases to trial before a judge, but it isn't possible to render a judgment on this without having available court dockets, cost data and other measures that could lead to a benefit/cost analysis. It doesn't seem likely that two very different approaches to disposing of cases are equally efficacious. Even so, we would be hard pressed to explain the superiority of one over the other.**

What we *have* found are apparent differences in the comparative efficiency of the various prosecutors' offices within the region. In Portsmouth, for example, 57 percent of all civil cases are settled or dismissed prior to trial. One wag suggested that this represented "real efficiency!" However, Portsmouth's settlement/dismissal rate was 20 percent higher than any other jurisdiction in 2004 and, if media reports and the opinions of attorneys are accurate, this stemmed substantially from inefficiencies in the prosecutor's office (which apparently have since been addressed) rather than bad police work. Further, this apparent lack of efficiency did not spill over in the Portsmouth Circuit Court, which boasted admirably high rates of disposition of the cases in front of it.

We also uncovered some interesting differences in the proportion of criminal cases that results in guilty pleas prior to trial. **Virginia Beach obtained guilty pleas in 56 percent of its criminal cases in 2004, 14 percent higher than the next highest jurisdiction. It's difficult to know what to make of this — great police and prosecutor work, reluctance to charge individuals without an open-and-shut case, a different mixture of cases, etc.** It does appear, however, that Virginia Beach treats drug-related cases differently from other jurisdictions and this leads to more guilty pleas. Jurisdictions such as Hampton and York County obtain guilty pleas only slightly more than half as often as Virginia Beach. Once again, more detailed information and analysis would be necessary before we could reach conclusions about these data.

The bottom line is that our nine regional Circuits handle a myriad of cases annually — more than 81,000 in 2004. Some 270 civil-case juries were impaneled in the Circuit Courts, along with 282 criminal-case juries. Together, these constitute almost three juries impaneled per available court day. Still, only 45 authorized judgeships handle all of these cases. If, as some argue, the bringing of these cases constitutes one of the major bulwarks of society against social upheaval and dissolution, **then a reasonable overall conclusion is that our judicial system has been functioning reasonably well and that the time of our Circuit Court judges is well spent.**



THE STATE OF

ART GALLERIES

AND MUSEUMS

OUR ART GALLERIES AND MUSEUMS: WILL THEY SURVIVE?

William Hennessey, director of the Chrysler Museum of Art, Hampton Roads' flagship art institution, voices what many regional aficionados of the visual arts know to be true when he says that "the range and depth of the cultural and historic treasures in the region are surprising." Given the erosion in public funding, what is truly astonishing is that our museums, community art centers, and university and college galleries have maintained their high standards in the face of four years of debilitating budget cuts. Indeed, Crystal Warlitner, executive director of the Peninsula Fine Arts Center in Newport News, remains confident that regional arts organizations could survive further harsh budgetary years because they are "run by creative people who will find solutions to the problems by looking at them from multiple perspectives and thinking outside the box."

Creativity aside, diminishing budgets have significantly altered not only how often one is able to see art in the region but, more importantly, what one sees. Escalating shipping and insurance costs have made traveling shows and blockbuster exhibitions of popular styles like French Impressionism or retrospectives of individual artists like Manet or Picasso, which were so common across the nation in the 1980s and '90s, inconceivable. Virtually every institution has had to reduce staff, pare down operating hours and begin to charge admission fees in order to meet shrinking income. From the smallest university and collegiate galleries to the largest, most venerable museums, the effects of a half-decade of cuts are all too visible.

The Chrysler Museum of Art

Behind the scenes at the Chrysler Museum, as positions disappear in all departments, curators are piggybacking duties once held by a single expert. Jefferson Harrison, curator of European art and now of American and contemporary art, a position vacant since 2002, is planning the celebrations coinciding with the 35th anniversary of Walter P. Chrysler Jr.'s first gift of 8,000 works in 1971, a donation that led to a renaming of the institution and set the stage for its elevation to national status. The erstwhile Norfolk Museum of Arts and Sciences evolved from a coalition of arts organizations active in Norfolk from the 1890s. Plans for the core of the present structure date to 1933, a building project firmed up the next year with a $45,000 grant from the New Deal's Public Works Administration and a long-promised loan from Norfolk itself, aggressively pursued by the fledgling museum's local supporters. Had the federal government not stepped up to support the cultural desires of the community, the museum would likely have remained merely its collective dream.

But it was Chrysler's donations, finally amounting to more than 15,000 pieces, that arguably jump-started a cultural explosion in Hampton Roads, creating a flagship institution for the Southside's urban center. Many of Walter Chrysler's donations, as well as other works, have been in storage ("resting," in curatorial parlance), and Harrison plans a grand overview of these seldom- or never-seen pieces in "Hidden Treasures," to run from Oct. 21, 2005, through March 2006. Aided by the museum's other curators, photography specialist Brooks Johnson and multitasker Gary Baker, Harrison will hang Baroque and 19th-century works "academy style," a floor-to-ceiling presentation that alludes to historic methods – and points to the lack of space needed for their permanent display. The museum's 24-member Business Exhibitions Council is sponsoring this particular show, which spotlights the museum's own holdings, an increasingly common strategy for the new millennium.

In 2002, the Chrysler launched a $40 million capital campaign, the institution's first since a 1980s expansion-related drive. Directed toward endowing operations and further renovations – the Kaufman Theatre has already benefited from the campaign funds – the new drive will aid in the ongoing restoration of the Moses Myers House, overseen by Gary Baker, curator of glass and decorative arts, more recently also curator of historic houses. The Willoughby-Baylor House, also under his aegis, is being prepared for its coming role as the Norfolk History Museum.

Andrea Barr, deputy director for development, notes that future projects for this capital fund will include re-installation of galleries to accommodate the Chrysler's world-class glass collection, as well as long-needed renovations to the conservation laboratory and a full refit for the expansive American galleries.

Often in the arts, when federal or state funding flags, corporations have been relied upon to provide the necessary aid. But there are only two Fortune 500 firms with headquarters in Hampton Roads – Norfolk Southern and Smithfield Foods – and even when they are joined by The Norfolk Foundation's Business Consortium for the Arts, Barr still sees this as fishing in a "shallow pool." Nonetheless, she says, such external support is crucial to help establish endowments, the "self-protection" necessary to "survive the vagaries of government intervention." In the late 1990s, the Chrysler received $1 million per operating budget from the state, but over the last five years this support has withered. In 2004, the Virginia Commission for the Arts, the state's "cultural dispensary," doled out a mere $55,000 to each of the region's major museums. In 2005, the Chrysler hoped – and asked – for $500,000; it received $40,000.

Hennessey has thus had the difficult job year after year of cutting positions, operating hours (the museum is now closed on Tuesdays as well Mondays) and exhibition plans. Echoing Barr's assessment of the situation, he says, "There is no self-justified existence for today's museums; we need to think like a business, be market-oriented, but be values-driven."

Hampton University Museum

While the Chrysler may be the most visible museum in Hampton Roads, it is not the oldest. That distinction belongs to a specialized museum on the campus of Hampton University. Founded in 1868 as the Hampton Normal and Agricultural Institute, the school is dedicated to the education of people of color, which has given its museum collections a unique focus.

In 137 years, the Hampton University Museum has become an unparalleled historic and artistic repository, benefiting from loyal alumni, national philanthropies like the Harmon Foundation (which stimulated the growth of the Harlem Renaissance), and Africa-bound missionaries. The collections eventually overflowed the museum's first site, the Wren Building, finding their present home when the library moved from the Huntington Building in 1997. With grants from the National Endowment for the Humanities and the Lila Wallace-Reader's Digest Fund, the museum's curators were finally able to install major components of the wide-ranging holdings, such as the William H. Sheppard Collection of African Art, in permanent exhibitions.

According to director Mary Lou Hultgren, **the collection comprises a unique chronology of African American art from 1805 to the present, and individual works are always being borrowed for major exhibitions. The largest such show, of painter Jacob Lawrence's twin series of Frederick Douglass and Harriet Tubman, has been circulating since 1990, supported along the way by grants from the National Endowment for the Arts and the Ford Foundation.** The museum's impressive publications include exhibition catalogues and an influential journal, The International Review of African American Art, now in its 30th year.

Hampton University's venerable museum rests on two supports: the grantsmanship that a succession of directors clearly has exercised, and the generosity of alumni and friends. Unfortunately, this regional treasure has fared no better with state funding than have its peers among the area's institutions.

Colonial Williamsburg

A conversation with Colonial Williamsburg Foundation's chief of collections Ron Hurst yielded information about one of the region's most popular tourist destination. There has been a steady decline in attendance at the nation's historic sites since 2001, including Virginia's Mount Vernon and Jamestown. The 1992 data for Colonial Williamsburg tallied 2.1 million visitors; by 2004 the count had dropped to 703,000. Shrinking resources at Colonial Williamsburg, a nonprofit attraction established in the 1930s, has led to the usual staff reductions, though Hurst's twin art institutions, the DeWitt Wallace Museum of Decorative Arts and the Abby Aldrich Folk Art Museum, have not faced similar cuts. The foundation provides rewarding work experiences almost unique among collections devoted to material culture, and its award-winning curators and conservators at both museums travel internationally, sharing their collections and expertise often and easily.

In October 2006, the two museums, long separated on the map of Colonial Williamsburg, will be united. The Abby Aldrich Folk Art Museum, in operation since 1957 with only 47 percent of its original donor's superb collection on view, will be attached to the DeWitt Wallace Museum of Decorative Arts, and admission tickets to both will be available at the contiguous site. An endowment campaign has raised the $6.1 million necessary for the museums' operation, which promises more flexibility for the Aldrich's curator, Barbara Luck. She will finally be able to plan changing exhibitions highlighting the 5,000 objects that the far-sighted collector amassed before the 1920s, when the reconstruction of the Colonial capitol was but a dream of the Rockefeller family.

The DeWitt Wallace expansion will follow the Aldrich project, the two building extensions costing a total of $16 million. Together, these collections comprise some of the best – and most often reproduced – examples of material and aesthetic culture in the country, affording anyone interested in American Colonial history a tactile grasp of its reality. Indeed, **Hurst perceives the true value of art museums to be far more than an afternoon's entertainment: "They have never been money-making institutions. Like universities, they are educational."**

The College of William and Mary

Nearby, on the campus of William and Mary, plans for the full restoration of the school's Muscarelle Museum of Art are afoot, according to David Brashear, chairman of the museum's board. Although the museum has never actually been closed, it did endure a five-year "transition," during which both state and university support flagged. Ten budget cuts forced staff layoffs and a scramble for community funding that "went out the door as soon as it came in," leading to what the board calls the museum's "dark days." But, even during its worst period, the Muscarelle never really shut the doors that first opened in the 1980s with a small but choice permanent collection of prints and drawings from the Fred Herman collection, as well as a broad base of enthusiastic support from alumni.

The board raised the bulk of its operating funds privately, cutting that crucial part of its budget by 50 percent while seeking reasonably priced exhibitions, which ranged from $5,000 to $150,000, the latter spent on one special show. Alumni stepped in to aid the installation of successful exhibitions, such as the one of prints from African American artists culled from a private collection, virtually cost-free to the museum. Brashear admits that the Toulouse-Lautrec poster show cost top dollar, but its appeal made it irresistible.

A recent bequest from alumna Doris Lamberson, who left her entire estate to the Muscarelle, jump-started a new endowment fund. Her generosity will aid operations and allow the museum to hire a director to join the curator (now temporarily serving in that post as well) and to rebuild the staff.

Once new director Aaron DeGroft, recently at the Ringling Museum in Sarasota, Fla., gets started, Brashear hopes to begin to build more than just staff. The board is eager to enlarge the relatively tiny museum, something that had been anticipated when it was first designed, or, as Brashear notes, “put together on a shoestring, for well under $10 million.” The Muscarelle “desperately needs larger space for exhibitions, functions and events,” he adds. An auditorium would support lectures and even serve the college’s art department for classes related to the exhibitions.

Brashear is confident that some of the state funding lost to the college will be restored, opining that “the region can’t afford to lose a single cultural institution.” Clearly thinking of national precedents, he notes that a number of states now match their art institutions’ capital campaigns, thereby endowing operations into perpetuity. This support, which could change year by year with revenue fluctuation, builds state infrastructure and, more importantly, “responds positively to its citizenry by supporting the desires of the community,” he says.

Peninsula Fine Arts Center

The Peninsula Fine Arts Center, nestled in the confines of a vast park next to the Mariners’ Museum in Newport News, has a history of providing some of the best contemporary exhibitions in the region, including biennial, one- and two-person, and thematic shows in spacious, light-filled galleries. Budget shortfalls have had a significant impact behind the scenes at the center, where new executive director Crystal Warlitner continues to juggle staff reductions while moving toward the first balanced budget in PFAC history. Like the Chrysler Museum, the center has seen state money disappear, and what provided a third of the operating budget for years is now so sparse that little can be done with that public infusion. Funding from the Virginia Commission for the Arts used to range from $200,000 to $250,000 yearly, but after the millennium the state’s portion dropped to $54,000, and then plunged to $19,000.

The center has had to replace this lost revenue by soliciting the city of Newport News and adding a mixture of community support comprising revenues from its ever-popular art classes, admission fees (the first in 40 years), memberships, special events connected to the exhibitions, and corporate grants. Warlitner believes that the Peninsula’s business community contributions are substantial enough to prove them to be “responsible corporate citizens.” The center has relied upon the major shipbuilding industries, Ferguson Enterprises, Noland Corp., Canon Virginia and SunTrust, among others, to contribute approximately $60,000 in support. Individual amounts vary from business to business, which often donate to specific exhibitions or educational programs. The center’s long-standing and highly regarded biennial exhibit, which generates national recognition and brings in top critics and curators as judges, has kept the PFAC in the spotlight.

Grants also provide funding for specialized exhibitions, like the shows revolving around the art and culture of Mali, mounted in two successive years. These shows coincided with the third-grade Standards of Learning, which emphasized African nations during that biennial. The center hired a part-time curator for these, and provided free buses to special events – dance programs, crafts demonstrations and video screenings – for the Peninsula’s elementary schools.

Warlitner was forced to cut staff when she arrived at the center two years ago, a painful process that all arts organizations have experienced, since “people are the biggest portion of the budget.” Yet, she remains confident that her new multitasking staff will help “develop different ways to deliver an optimum experience” for the center’s visitors. The small admission fee may seem somewhat punitive, but Warlitner contends that it lets people know there’s a value attached to what they choose to see. After all, she says, people pay much more for admission to movies, sports events and antique shows. This fee also has the advantage, perhaps unforeseen but surely positive, in promoting memberships, which come with invitation-only receptions at openings and other privileges, thus creating a visibly definable community. This, in turn, may well lead to future funding from grants, corporate support – and even improved state aid.

Warlitner stresses the importance of public financing, which, she maintains, should come from the Virginia Commission for the Arts. Line-item funding from the state budget includes non-art requests from non-state agencies. However worthy, this year’s requests involving, for example, a championship horse show planned by the Virginia chapter of the 4-H and an undesignated request from the Jewish Foundation for Group Homes, have appeared to some to fall under the rubric of “pork barrel,” as state legislators jockey for pieces of the Commonwealth’s fiscal pie. Of course, one person’s piece of coal is another person’s diamond, and the nature of the political process is that influential special interests always are likely to claim their share of the pie, however worthy or frivolous their requests may appear to be.

Disheartened by disparate line-item funding that competes with visual arts organizations’ needs, Warlitner says, “My position from day one was that all funding for the arts should go through the Virginia Commission for the Arts, which has a better perspective on organizations and their impact in the community.”

She goes further, stating that “when your survival is based on politics, you are only as successful as the people in Richmond consider you to be.” Operating as both the director and development officer for the PFAC, Warlitner has had to become politically savvy, shouldering the burden of two positions and keeping a high profile in Richmond while maintaining a positive vision for one of the region’s most successful mid-size centers.

Contemporary Art Center of Virginia

Virginia Beach’s Contemporary Art Center of Virginia evolved from one of the East Coast’s largest outdoor art shows, the annual Boardwalk Art Show & Festival, celebrating its 50th year in 2005. The center itself has grown from a small cottage near the oceanfront where local artists gathered to the expansive facilities nestled among the pines on Parks Avenue, a site nearly doubled with the aid of a $1.8 million capital campaign. The new Rodriguez Pavilion, the first expansion since 1989, gives the center a refurbished theater, additional gallery space and room for storage and festivities. The city of Virginia Beach, which contributed $750,000 for this specific project, always works to ensure that the center succeeds and budgets it under the Convention and Visitors Bureau.

This gives executive director L. Cameron Kitchin fewer headaches than many of his peers. He has a full-time staff of 17, admittedly fewer employees than five years ago, but growing again as the capital campaign fuels more strategic plans. The next phase, he says, will be the addition of a studio / school wing, which will be an asset to the city’s growing educational system. Since classes are already booked to capacity, Kitchin expects the city will step up as a principal source for that effort, which even now ranges from Governor’s School programs to adult classes taught by area professionals. “We have been reclassified by the American Museum Association as a ‘museum and studio school,’ a designation referring to a permanent collection amassed from Boardwalk show winners, a uniquely historical selection accumulated from 50 years of changing styles.”

Kitchin, whose tenure as executive director is relatively new, has a fresh focus on what might be termed the center's "mission." The CAC has always focused on contemporary art, and its curators have been exceptionally canny, exhibiting excellent examples of the craft arts for more than 20 years, a period when this direction became the vanguard in the art world. But now Kitchin has raised the bar, positioning the CAC "right at the forefront nationally for museums acting as town squares, where social discourse can happen." Two deliberately controversial shows, the "Home / House Project," which originated at North Carolina's Southeastern Center for Contemporary Art, and Pepon Osorio's "Trials and Turbulence," brought the real-world issues of affordable housing and judicial problems surrounding foster care into the galleries during fall 2004 and spring 2005. A further pair of exhibitions, "100 Artists See God" from California, and the center's own curatorial effort, "Letters from Iraq," promise to engage viewers throughout 2005. **In sum, the city of Virginia Beach has offered "one of the most supportive situations" the director has ever experienced – a solid partnership between a sole major visual arts organization and an oceanfront community that increasingly recognizes its need for year-round cultural opportunities.**

Portsmouth's Courthouse Galleries

Like Virginia Beach, the city of Portsmouth funds a portion of its museums, but it has turned its attention from its Courthouse Galleries on High Street, a visual arts venue, to the Children's Museum of Virginia and the Virginia Sports Hall of Fame and Museum. **A single director, Nancy Perry, runs them all, which together once employed 52 people. Attrition here has been the highest in the region, as the museums now share a mere 26 employees.** Gayle Paul, hired in 1996 as the Courthouse Galleries director, is now also its curator, building supervisor and personnel manager. Educational outreach has shifted to the Children's Museum, and the galleries' schedule of exhibitions is now funded entirely by grants, which Paul continually writes.

The Courthouse Galleries still install eight to 10 shows each year, even though the operating budget has suffered cuts of 25 percent for several years running. One show, "Winter Wonderland," a seasonal display created at a local nursery now out of business, has become a holiday fixture, largely staffed by volunteers seven days a week from 10 a.m. to 9 p.m. at Christmastime. Summer hours are comparable, putting a severe strain on the small staff and volunteer pool available to Paul.

Grants from the Southside's Business Consortium for the Arts support this heavy exhibition schedule, though the galleries' original focus on national contemporary art has been altered to one of historical shows, typified by Robert Knox Sneden's 19th-century watercolors of Civil War sites, curated by Richmond's Virginia Historical Society. The show was slated to open this summer. While Paul still schedules innovative artists such as those in "Flora and Fauna," a traveling show supported by grants, and continues to mix regional artists in smaller rooms at the galleries – to give what she hopes will be "a little bit of something for everybody" – she has to admit that "it's just bare bones."

Hampton's Charles Taylor Arts Center

The situation at Hampton's Charles Taylor Arts Center is somewhat sunnier, largely because the city created the Hampton Arts Foundation in 1994, and the two organizations covered by it – the Taylor and the American Theatre – operate entirely in the black. In addition, the city's Excel Fund, created by former Mayor Jimmy Eason, funnels revenue from cable television fees to help support the arts. The city owns, operates and maintains both venues for $1.4 million. According to Michael Curry, the director of both sites, 60 percent of the foundation's budget is raised through ticket sales and registration fees.

The Taylor's newly hired gallery manager, James Warwick Jones, who worked for many years at the Peninsula Fine Arts Center, sees a great deal of "untapped potential" in the city's visual arts community, which includes Hampton University's museum as well. The only problem he foresees with the 1925 library, which the city renovated for the CTAC over a decade ago, is space. Currently, a series of annual shows, including the Bay Days and Peninsula Glass Guild juried exhibitions, suffer from a lack of available wall space. However, Jones is opening up the second floor for expanded art classes and a large gallery, a move that should improve the situation. **Hampton's critically acclaimed and financially successful American Theatre, already a regional magnet, attests to the city's wise sponsorship. If and when the Taylor Arts Center attains the same level of prominence, Hampton will be home to a trio of arts venues essential to the region.**

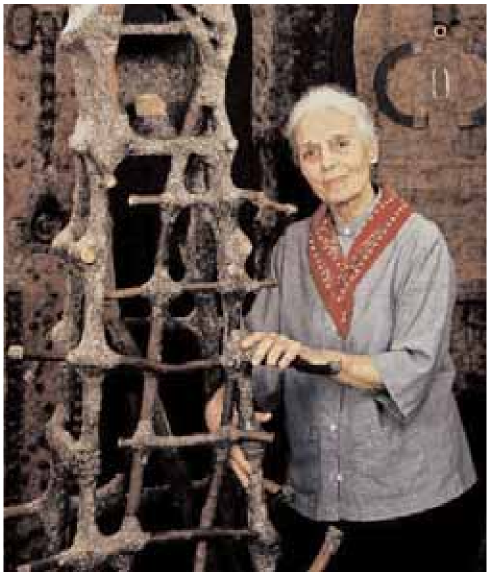
Suffolk Center for the Arts and Museum

Hampton Roads' most rapid growth is currently taking place in Suffolk, which is responding to its new residents' desire for cultural activities by renovating the old city high school, with its acoustically perfect theater, for a new Center for the Arts to complement the smaller Suffolk Museum. The latter facility, which houses the city's Art League, has been directed for seven years by Nancy Kinzinger, who sees its future as "the other gallery" in what is becoming a destination for regional culturati. The Suffolk Fine Arts Commission has been active in seeking annual grants from the Virginia Consortium for the Arts (VCA) for the museum, whose designation refers to a small but significant collection of ephemera and artifacts from the old town's African American community. But Kinzinger has been running its programs, comprising contemporary exhibitions and classes, under the aegis of Parks and Recreation, which allots $4,500 a year for operations. She was looking forward to moving to a new municipal department for tourism in July 2005, thereby garnering a ten-fold increase in the museum's budget. The little collection housed at the Bosley Avenue facility will likely be transferred this year to another historic museum planned for the downtown Phoenix Bank.

This explosion of developmental activity has altered the situation at the Suffolk Museum, which has experienced unprecedented crowds at its openings. The museum's shows are occasionally derived from exhibits lent by the Virginia Museum of Fine Arts, which has supported smaller statewide centers for years, but locals flock to the annual camera-club exhibitions and a single large show arranged annually by Kinzinger with the aid of grants. This year's show featured the popular work amassed by the Museum of Bad Art in Dedham, Mass., perhaps the ultimate collection of "found art" in the country, and a sure crowd-pleaser. **Kinzinger anticipates substantial growth in Suffolk's cultural scene in the coming decade, a promising outlook somewhat uncommon in the region.**

The Smaller Towns and Counties in Western Hampton Roads

The largely rural areas of western Hampton Roads have seen a concentration of energy devoted to cultural development. Both Smithfield and the area shared by the towns of Franklin and Courtland have organized art centers: Courtland's Rawls Museum Arts and Smithfield's Cultural Arts Center.



Three years ago, the 200-strong Isle of Wight Arts League bought a stately Victorian house on Smithfield's Main Street for its exhibition and studio / class space. Five years ago, the league, privately organized in 1991 and subsequently converted to nonprofit status, retained an acting director, Kim Pugh. She set out to hire a quartet of part-time employees to augment the 15 volunteers who help install shows and maintain the facilities. The league's board of directors handles not only the gallery but also two popular music programs, the larger of which has been running for 18 summers with funding provided by the Smithfield Times.

Rick Bodson, vice president of the board, says that 25 percent of the center's income comes from VCA grants, the town of Smithfield and the Business Consortium for the Arts; one-third from memberships and donations; and the rest from retail sales in the center's shop, class fees and studio rental. Bodson reports positive figures for yearly attendance, showing a 69 percent rise, and the center has begun the process of seeking grants from The Norfolk Foundation (a successful bid garnered $8,000 for new climate-control and security systems) and the town's Fortune 500 corporation, Smithfield Foods.

Recently, the center has hosted such exceptional exhibitions as "Her Own Woman," a tribute to Louisiana sculptor Clyde Connell drawn from her grandson's private collection, much of which has never been publicly shown, and an exhibit featuring works by African American Virginia artist Betty Blayton, the recent recipient of a lifetime achievement award from the Virginia Consortium for the Arts. With shows like these on the year's agenda, the Smithfield Cultural Arts Center has "earned the right to 'ask for the order' " from Smithfield Foods, says Bodson, explaining that the term is business jargon meaning "sign on the dotted line" – for a very good cause indeed.

The Rawls Museum Arts offers an enviable model for development, serving two towns in a picturesque corner of Hampton Roads as yet untouched by suburban sprawl. The museum has received funding of $10,000 to $15,000 per annum from Southampton County and a similar amount from Franklin, which has two-and-a-half times the population of Courtland, its home site. Executive director / curator Leigh Anne Chambers is a dynamo, having garnered matching governmental grants for the museum's 1999 expansion, which added 1,800 square feet of gallery space that the Rawls had long needed. She also convinced the Camp Foundation, associated with the region's chief corporate entity, to give the museum $20,000.

In addition, Chambers has established an annual fund, with corporate sponsorship of exhibitions beginning at $300 and rising to $1,000, a level that includes free rental of the facility. Last year, these rentals raised an extra $3,000 for operations, and she expects that sum to increase in 2005. Chambers has worked the system, writing a matching grant from The Norfolk Foundation to fund study in arts administration at New York University, a strategy that has paid off for the Rawls. She learned how to emphasize the educational value of art when speaking to businesses about potential support, particularly relevant for a rural community whose access to facilities is minimal.

Alternative funding methods, such as facilities rentals practiced by practically every national institution from the Metropolitan Museum to the tiny Rawls, and the art auction with its raffle tickets and competitive bidding, are strategies that any director should be able to implement successfully. Middle- and high-school workshops have been supported at the Rawls by a number of local corporations and even by the Cameron Foundation in faraway Pittsburgh. **Chambers manages, in just two galleries, to mount a series of 14 to 16 shows a year featuring photography, sculpture and a juried exhibition, a schedule that many of her colleagues in larger centers would find daunting.**

Old Dominion University

The Southside's two public universities maintain galleries connected to the activities of their art departments. The most visible, on 21st Street in Norfolk's Ghent section, belongs to Old Dominion University. Started 25 years ago as an improvisational space rented by faculty members on Granby Street in the city's Brambleton district, the gallery was moved to its present location in 1999 in order to establish a community-centered venue devoted to contemporary art. The goal was to complement the Chrysler Museum. Art department chairman Robert Wojtowicz credits the university's support, along with an endowment created by the sale of works from the estate left by photographer and former art department faculty member Wally Dreyer, plus a pair of funds dedicated to visiting artists, for the continuing success of the gallery. Its curator, who also serves as an arts properties manager for the university's diverse collection, mounts 10 shows per year with a budget of $10,000, a sum established by the dean of the College of Arts and Letters.

The Governor's School for the Arts, which contributes to this budget, usually has a spring exhibition, and the remainder of the year-round schedule is devoted to one- and two-person shows by national artists, thematic exhibits, student competitions and shows curated or suggested by faculty members. **Wojtowicz is cautiously hopeful that a regular line-item budget will replace the current one, especially after the gallery moves, once again, to campus in the new University Village complex, a relocation planned for 2006.**

Norfolk State University

Norfolk State University's small Wise Gallery, managed by faculty, hosts nine shows per academic year. Its dedicated line-item funding is culled from the art department budget, but current director Shinedu Ocala hopes more substantial support will come from a shift to putting the gallery under the administration's aegis. Faculty recommend most exhibitions mounted at the Wise, though several are connected to the joint graduate program that NSU runs with Old Dominion. But, unlike the larger university's off-campus gallery, which has regular hours of operation, the Wise is open only upon request, a stricture that reduces its attendance and impact.

Tidewater Community College

Tidewater Community College, whose downtown Portsmouth facilities are entirely dedicated to the visual arts, runs an on-site gallery with shows that complement its schedule of classes. Curator Shelley Brooks organizes six shows per year, ranging from faculty and student exhibitions to thematic ones incorporating work by area professionals. Funded by the college at approximately $10,000 per year, the gallery is able to extend its programming into the summer months, when shows often coincide with programs at the nearby Children's Museum of Virginia. Local art historian Rhonda Deussen has paired with Brooks to plan a series of panel discussions, studio visits and gallery talks for the coming season's slate, which includes a retrospective of longtime TCC art department chair Ann Iott's career, and "9 x 9," an exhibition of contemporary prints.

Current chair Ed Gibbs, whose colorful digital work filled ODU's gallery last year, is confident that Brooks will provide the region's artists and viewers with the best of Hampton Roads' current creative endeavors – and that the college will provide the necessary funding to do so.

ASSESSMENT AND CHALLENGES

It is clear that after decades of steady growth, the vitality of Hampton Roads' arts institutions has faltered as severe budget cuts have eroded their ability to continue the thorough programming of exhibitions, visiting artists and educational classes once readily available. Yet, through capital campaigns and grantsmanship, many of these institutions and smaller centers have expanded their facilities during the lean years. Even so, buildings may have grown larger, but neither personnel nor exhibitions have kept pace with this architectural explosion; nor have any of these venues been open to the public as long or as often as they once were. The lights are out for too many days, while admission fees are rising rapidly. Most sobering of all, the shows have gradually become smaller and less diverse.

Despite all these negatives, however, each of these institutions holds classes for children and adults that often fill up as soon as they are announced. These educational programs, many of which support the national Standards of Learning dictates for arts and cultural instruction, offer our children the promise of lives enriched by constant connection with the visual aspects of an increasingly globalized culture.

Unfortunately, it is difficult to avoid the conclusion that we have contradicted much of this promise by diminishing the financial support necessary for our regional art organizations to provide such opportunities. In recent years, we have observed a classic example of the oxymoronic notion "We want you to maintain or increase our services, but at the same time lower our taxes."

Alas, we have found we cannot do both in the current fiscal climate. Consequently, arts and cultural institutions have sustained deep cuts in the financial support they receive from the Commonwealth even while the overall state budget has increased more than 10 percent per year.

"It's all a matter of priorities," some would argue, and that is true. **The blunt truth is that many of our elected leaders have, by their actions, placed a rather low priority on funding the arts and cultural institutions even though their rhetoric might suggest otherwise. Burgeoning state tax collections in recent years have been accompanied by truly discouraging cuts in public support for the arts and culture.**

Hence, must we rely upon the "shallow pool" of corporate sponsors and generous private donors to step in when our tax dollars don't stretch past the demands of our congested highways? **We put our cultural heritage at risk and diminish the quality of our lives if we do not take advantage of human creativity found in our artistic and cultural institutions.** As the PFAC's Crystal Warlitner has observed, innovative artists and their supporters often find "ways to get around" the roadblocks placed in their paths. We are fortunate that we already have in place some impressive artistic institutions. Peter Sander's "Cities Ranked and Rated" (2004) gives the museums of Hampton Roads a rating of 9 (out of 10) when the average city or region's rating nationally is only 6. One wonders, however, how long we will be able to maintain this rating if public support for the arts continues to decline.

The visual arts are vital components of our social organism. A healthy regional community can be brought to experience its historic values, its present concerns and its brighter future through the open doors of arts institutions. Widen those doors and the community of greater Hampton Roads will enter.

ART GALLERIES AND MUSEUMS PHOTO CAPTIONS

Chapter Cover	William Henry Johnson "Jitterbugs (V)" (1941-42) COLLECTION OF HAMPTON UNIVERSITY MUSEUM
Page 68	Pierre Auguste Renoir "The Daughters of Durand-Ruel" (1882) COLLECTION AT CHRYSLER MUSEUM OF ART
Page 69	Henry Ossawa Tanner "The Banjo Lesson" (1893) COLLECTION OF HAMPTON UNIVERSITY MUSEUM
Page 72	Ginny Ruffner "Creativity: The Flowering Tornado" CONTEMPORARY ART CENTER (fall 2004)
Page 74	Signature photo from the exhibit "Her Own Woman: Clyde Connell" SMITHFIELD CULTURAL ARTS CENTER (May 25-July 3, 2005) photo by Martin Vandiver
Page 75	Alexander Anufriev "The Angel of Moses" (2005) Old Dominion University Gallery (spring 2005)

THE STATE OF

BOAT TAXES

THE RACE TO THE BOTTOM OF THE BAY: BOAT TAXES IN HAMPTON ROADS

Many regional citizens enjoy boating, so much so that 52,006 private and pleasure boats were registered in Hampton Roads in 2004. These boats ranged from very small vessels that might be most usefully classified as rowboats to large pleasure craft, yachts and vessels used for business purposes.

The collective thinking among most citizens of Hampton Roads is that boats are a good thing, socially and economically, for our region. One part of this notion is that boat owners are likely to be tax-paying, high-spending citizens whose patronage should be cultivated.

This perception has led to a series of reductions in taxes levied upon boats, especially pleasure boats, by the cities and counties of Hampton Roads. Indeed, there has been a race to the bottom by local governments where boat taxes are concerned. Acting competitively, the cities and counties have successively lowered the taxes they impose on boats. Virginia Beach, for example, lowered its boat tax rate per $100 of valuation to a miniscule $.000001 in 2002. Thus, even a yacht valued at $10 million would pay only 10 cents in tax. Clearly, Virginia Beach, along with several other cities in the region, no longer has a meaningful tax on boats.

This is a wonderful circumstance for boat owners. However, from the standpoint of the cities, it represents a judgment (perhaps even a gamble) that their reduced boat tax revenues will be more than compensated for by increased tax revenues generated from the spending on other goods and services by a larger number of boat owners. **In fact, several cities believe that their tax stratagems have attracted additional boats.**

Alas, this is not what has occurred. Instead, the share of boats ported in each city or county within the region has hardly changed since 1998. Further, the number of boats overall within the region declined by 1.5 percent from 1998 to 2004, sinking the hopes of those who argued that Hampton Roads would become a magnet for boat owners on the East Coast. Hence, any additional tax revenue related to spending by boat owners is dramatically less than the boat tax revenue lost. **All in all, it is difficult to avoid the conclusion that the cities and counties of Hampton Roads have shot themselves in their proverbial feet if they hoped they would be better off economically by reducing boat taxes.** We risk sounding the unseemly trumpets of class warfare when we observe that the boat tax reduction has simply reduced the tax burden of a select group of the region's more wealthy citizens, thereby forcing all other citizens to pick up the slack. Rest assured we carry no brief for high taxes. Even so, we must wonder if the cities and counties are cognizant of what they have done in this public policy arena.

How Did We Get Here?

Data from the National Marine Manufacturers Association clearly suggest that Virginians enjoy boating. The Commonwealth ranked 20th among the states in 2001 in total boat registrations with more than 240,000 registered vessels. This compares with North Carolina, which ranked 12th with about 350,000 registered boats, and Maryland, ranked 26th with approximately 200,000 registered boats.

The city of Portsmouth initiated the trend toward reducing taxes on pleasure boats in 1987 when it dropped its tax rate to 50 cents per $100 of assessed value. Virginia Beach responded with a tax reduction to $1.50 per $100 of assessed value the following year. Portsmouth again reduced its tax to only 1 cent per $100 of assessed value in 1992. Hence, in 1992 in

Portsmouth, residents who owned a boat valued at $10,000 saw their property tax drop from $50 to $1. In 2000, Norfolk reacted by reducing its tax rate to one penny per $100 of assessed value. However, as we shall see, the cities weren't finished with their tax reductions.

The boat tax reductions are best viewed as attempts by the cities and counties to expand their tax bases. **The idea of reducing taxes in order to expand economic activity has been around for some time and was made popular by the argument issued by Arthur Laffer to then California Gov. Ronald Reagan (Laffer allegedly drew a graph on a paper napkin) that lowering the marginal tax rate on income would expand work effort, increase the tax base and generate more tax revenue. While this technique would not be expected to have as large of an impact at the local level as the federal level, the fundamental economic argument is the same.**

Table 1 summarizes recent boat tax reductions in Hampton Roads. Virginia Beach eventually trumped all of the cities and counties in 2002 when it effectively reduced its tax to zero by dropping its rate to $.000001 per $100 of assessed value. Even a boat valued at $100 million would have tax due of only $1 – so low that tax officials stated they would not bother to mail out such tax bills. The most recent drop to what is in essence a zero boat tax occurred in 2003 when the city of Hampton matched the Virginia Beach decrease.

TABLE 1
BOAT TAX RATES IN VARIOUS HAMPTON ROADS COMMUNITIES

City/County	Boat Tax Rate per $100	Recent Modifications	City Decal Fee	Tax Rate Prior to Reduction
Chesapeake	$1.58	None	None	NA
Hampton	.000001	Reduced in 2003	None	$1.00
Newport News	1.00	None	None	NA
Norfolk	0.01	Reduced in 2000	$10 or $25, depending on length	1.50
Portsmouth	.01	Reduced in 1987 to 50 cents, most recent reduction in 1992	$20	.50
Virginia Beach	.000001	Reduced in 2002	None	1.50

Sources: Commonwealth of Virginia and the Old Dominion University Economic Forecasting Project

What Are the Issues?

There are at least five issues relating to boat taxes that are worthy of discussion. The first of these relates to the significance of personal property tax collections on boats in the different cities. In the region's larger cities, the reduction in the tax rate on boats usually did not make a significant dent in their overall tax collections. However, in some communities, the personal property tax revenue from boats is quite significant. For example, the Daily Press (June 16, 2004) reported that boat taxes account for almost 10 percent of total tax collections in Middlesex County, where the tax on boats is $1.223 per $100 assessed value. By contrast, Hampton lost only about 1 percent of its total tax revenues when it reduced its tax rate on boats to virtually zero (Daily Press, June 16, 2004).

A second issue is the potential spillover benefits from the reduction in the tax due to increased economic activity associated with affiliated activities, such as restaurants located next to marinas and repair and maintenance expenditures at marinas. To the extent that this occurs, this will increase local sales tax revenues to the cities and counties.

A third issue relates more to the income distributional effects of the decline in boat taxes. A Chesapeake resident argued, via a letter to The Virginian-Pilot on July 28, 2004, that the boat tax is essentially a luxury tax and those who own boats should be required to pay the tax. The citizen's argument was that the foregone tax revenue would have to come from other revenue sources, which would have a greater impact on those who are less wealthy than on owners of expensive boats. That, he said, was unjust.

A fourth issue relates to the potential benefits that might spring from low taxes attracting boats to the region from other states. A letter to the editor of The Virginian-Pilot (July 26, 2004) argued that after Virginia Beach reduced its boat tax, the percentage of boats from non-Hampton Roads cities in Virginia Beach has increased from 15 percent to 22 percent. However, as we already have noted, the overall number of boats in Hampton Roads declined between 1998 and 2004.

A fifth issue focuses on how governments should respond to their constituents. The Virginian-Pilot editorialized on July 24, 2004, that the city of Chesapeake would be giving in to blackmail if it lowered its tax because of a threat by a local developer not to build a marina if Chesapeake did not do so. **The editorial board asserted that boat taxes should be significant and roughly equal across the cities and counties of the region, and that no jurisdiction should cave in to developers who threaten to move elsewhere.**

Fiscal Impacts

When a boat tax is reduced, there are two countervailing fiscal effects:

- The drop in the tax rate reduces tax revenues collected from boat owners unless the number of boats increases more than proportionately.
- If there is an increase in the number of boats, this will contribute to the local economy via increased local spending by the boat owners. The increased spending will create jobs and subsequently stimulate sales and business property tax revenue.

Which of these effects dominates? This is an empirical question. Are the costs of lowering the boat tax (measured by the direct reduction in tax revenue) less than the benefits of the boat tax reduction (measured by increased local spending)?

In order to weigh these offsetting effects we will use the results of a detailed Maryland study (Lipton and Miller, Maryland Sea Grant Extension publication, 1995) to estimate the impact of the reduction in the boat tax on the local economies in Hampton Roads. Maryland's situation is substantially similar to that of Hampton Roads and we have updated the data to 2005.

The Lipton and Miller study estimated the impact of recreational boating on the economic sectors associated with boat and trailer manufacturing, equipment manufacturing, marinas and boat yards, and marine trade and marine services. Further, the impact of spending on food and lodging, fishing supplies and fuel were included in order to account for the expenditures made by the boaters when they weigh anchor and travel.

The Maryland study compared spending and boat expenses for three different kinds of boats: powerboats on a trailer, in-water powerboats and sailboats. Sailboats were found to generate the largest maintenance and repair expenses – $4,454 annually, plus individual average trip expenses of $720. Lipton and Miller found trip expenses to be lower for sailboats than motorboats because of the lower fuel requirements, but to be greater than powerboats because of higher marina and yacht club costs and fees. Also, the cost of moving a sailboat on land usually is larger than for a motorboat.

When boat-related and trip-related expenditures were combined for all three classes of boats, sailboats averaged expenditures of $5,174 per year; in-water powerboats averaged $4,041 per year; and trailer powerboats averaged $2,479 per year. When adjusted to 2005 prices, these expenditures climb to $6,895 for sailboats, $5,385 for in-water powerboats and $3,304 for trailer powerboats. Note that even if we were to double expenditures on gasoline to reflect higher fuel costs, sail-boat spending would still be greater than the spending on the other two classes of boats.

Since we do not want to underestimate the economic impact of pleasure boats, we will utilize the larger sailboat estimate ($6,895 annually) for all three classes of boats. Thus, the following represents an upper-bound estimate of the economic benefit of attracting more boats to Hampton Roads.

The 2005 data are interesting, but Virginia Beach made the decision to lower its boat tax rate in 2001. Let's see what the effects of that decision were. In 2001 prices, the expenditures per boat were $6,331. Let's assume there was a multiplier effect associated with these boat expenditures that rippled through the community. Generously, let's use a multiplier of 2.0. This yields a total additional expenditure impact per boat of $12,662 in 2001.

How much additional sales tax revenue did these expenditures generate? A 1 percent local sales tax applied to these expenditures generated revenue of $126.62 per boat, with another $253.24 in revenues going to the Commonwealth. However, in a June 2003 memo prepared for the city manager of Virginia Beach, Catheryn R. Whitesell, a city economic analyst, argued that the sales tax benefits from the reduction in the boat tax rate still would be much less than the tax revenue lost. She also argued that the city of Virginia Beach incurred costs to maintain local waterways and hence a user tax on boats was appropriate.

In 2002, Virginia Beach's virtual elimination of its boat tax caused personal property tax revenue from that source to fall by approximately $1.1 million. At the same time, the number of boats in Virginia Beach increased by only about 1.4 percent from the previous year to about 12,500. Between 1998 and 2004, the number of private boats in Virginia Beach increased only .78 percent.

The number of new boats necessary to recover the $1.1 million of lost boat tax revenue, based upon sales tax revenues of $126.62 per boat, is 8,687. This means that the number of boats in Virginia Beach would have had to increase by an astounding 69 percent simply for the city to break even. Even if all the sales tax revenue generated by the increased spending were distributed back to the city of Virginia Beach, with no tax revenue going to the Commonwealth, 2,896 new boats would be needed to compensate for the lost boat tax revenue. However, the number of private boats in Virginia Beach rose by only 213 between 1998 and 2004. And, even some of this modest growth must be attributed to population and income growth rather than to the boat tax reduction.

Does this assessment of the fiscal impact on a city suggest that it was a bad idea for the cities and counties of Hampton Roads to lower their boat taxes? The answer is yes, if they were concerned about tax revenues. Once one city reduced its boat tax, it was

TABLE 2
NUMBER OF PRIVATE BOATS IN HAMPTON ROADS

	Boats 1998	Boats 2002	Boats 2004	Regional Share Change (1998-2004)
Chesapeake	6,126	5,980	5,843	-0.36%
Franklin	198	231	240	0.09%
Gloucester County	4,069	4,199	4,132	0.24%
Hampton	4,352	4,220	4,283	0.00%
Isle of Wight County	2,059	2,169	2,155	0.25%
James City County	2,037	2,183	2,266	0.50%
Newport News	3,842	3,509	3,274	-0.98%
Norfolk	4,714	4,514	4,437	-0.39%
Northampton County	1,615	1,652	1,689	0.19%
Poquoson	1,333	1,467	1,384	0.14%
Portsmouth	3,317	3,081	2,967	-0.57%
Suffolk	3,214	3,321	3,268	0.20%
Virginia Beach	12,532	12,563	12,745	0.78%
Williamsburg	378	448	420	0.09%
York County	3,037	3,003	2,903	-0.17%
Totals	52,823	52,540	52,006	-1.5%

Source: Virginia Information Technologies Agency for the Virginia Department of Game and Inland Fisheries inevitable that other cities and counties would follow suit. The fiscal impacts of these reductions are clear. **The boat tax reductions have decreased tax revenue without a noticeable increase in the number of boats, either regionally or in a particular city (see Table 2). Thus, it's difficult to avoid the conclusion that the cities and counties have made themselves worse off by their own actions. For example, it appears that Hampton has lost about $553,000 in annual tax revenue, Norfolk about $2.2 million and Virginia Beach approximately $3.7 million.**

Conclusions

Citizens do not like to pay taxes, and boat owners are no exception. Boat owners, however, may be relatively more influential and articulate than many other citizen groups. Once they convinced one jurisdiction to make a dramatic reduction in its boat tax rates, competitive forces pressured other cities and counties to follow suit.

What has developed in the realm of boat taxes is a situation that game theorists label "the prisoner's dilemma" – where a group of decision makers compete themselves into a much less favorable position than they enjoyed before the competition began. We are familiar with this phenomenon in certain advertising scenarios – for example, where Coca-Cola and Pepsi-Cola both spend enormous amounts on advertising and these expenditures eventually appear to cancel out each other. Some argue that the same "cancel each other out" dynamic exists with respect to countries' military expenditures and universities' admission activities.

The end result of the prisoner's dilemma, as well as the competitive boat tax reductions, is a situation in which the various competitors end up worse off, often to their own surprise. In most cases, competition yields superior results; the prisoner's dilemma is one exception. If one city or county could have reduced its boat tax without other nearby jurisdictions matching that reduction, that city or county might have gained boats and revenue. When all jurisdictions followed suit, however, this was quite unlikely to occur. Other than boat owners, no one benefited from the boat tax reductions. Indeed, the boat tax reductions forced the cities and counties to find sources of replacement revenue for their lost boat tax receipts. The effect, then, was a transfer (some would say subsidy) from all taxpayers to boat owners.

THE STATE OF

HIGH TECH

UNREALIZED POTENTIAL: HIGH TECHNOLOGY IN HAMPTON ROADS

On the face of it, given our region's assets, it would seem that Hampton Roads should be a major locus of technological power and sophistication. We boast several world-class federal research facilities, are home to higher education institutions that enroll more than 80,000 students, have been named in national surveys as a Top 10 region in terms of being a good place to do business, and we are reasonably close to the halls of political power in Washington, D.C. These assets appear to constitute a superb recipe for technological progress, if not dominance.

Yet, Hampton Roads has never really made it in the realm of technology and our technological performance over the past few decades has been lackluster. **Our technological development is distinctly inferior to that of Northern Virginia and most other comparable metropolitan areas along the Atlantic Coast. Yes, Hampton Roads has tremendous potential and still possesses some unrealized opportunities to surge forward in technology-intensive markets, but it hasn't happened yet — and it may never happen.**

Let's see why. The first step is to audit our current technology assets and performance.

Virginia as a High-Tech Leader

The Commonwealth of Virginia has established itself as a leader in high-technology industries and employment. Several independent measures place Virginia among the top five high-tech states. But this overall success has not been shared by all regions of Virginia.

In "Cyberstates 2005: A State-by-State Report of the High Technology Industry," released by the American Electronics Association (AEA) in April 2005, Virginia was ranked fifth among the states, up from sixth place in 2002. Here's why Virginia has done so well:

- 244,200 high-tech workers;
- 88 of every 1,000 private-sector workers were employed in high-tech firms in 2003, ranking Virginia second nationwide;
- High-tech workers earned an average wage of $74,600, or 96 percent more than the average private-sector wage earner;
- High-tech payroll of $18.2 billion in 2003, ranking Virginia fifth in the nation;
- 12,800 high-tech establishments in 2003, ranking Virginia seventh in the nation;
- High-tech exports totaling more than $1.6 billion, or 14 percent of Virginia's exports in 2004, ranking Virginia second nationally; and
- Expenditures in research and development totaling $5.9 billion in 2002, ranking the state 13th in the nation.

The AEA offered these additional rankings for Virginia's national industry segments:

- Second in computer systems design and related services with 98,300 jobs;
- Third in computer training employment with 1,400 jobs; and
- Fourth in engineering services employment with 43,100 jobs.

(For more information about the AEA report, visit aeanet.org.)

The Milken Institute, an independent economic think tank, also ranked Virginia fifth among the states in its most recent National State Technology and Science Index ("State Technology and Science Index: Enduring Lessons for the Intangible Economy," 2004, Ross DeVol and Rob Koepp). Virginia followed Massachusetts, California, Colorado and Maryland. While Maryland ranked fourth, Virginia's other neighbors did not do as well. North Carolina, often touted as a high-tech state, was ranked 10th, Tennessee was 34th and West Virginia was 46th. Georgia recently has become known for its progressive policies, but on this ranking came in 18th.

The Milken Institute rankings are based on five major factors, which are supported by 75 different measures. The factors are research and development assets, risk capital and entrepreneurial assets, human capital capacity, technology and science work force, and technology concentration and dynamism.

Among the five factors, Virginia ranked first among the states in the technology concentration and dynamism component, which consists of 10 indicators. As explained in the study, "this composite index aims to measure the degree to which each individual state's economy is fueled by the technology sector. In essence, the composite illustrates the effectiveness of each state's entrepreneurial, governmental and policy-formulating success, or lack thereof." That is quite a compliment for the Old Dominion.

Virginia maintained its fifth-place ranking overall in the Milken study even though it did not rank in the Top 10 in the factors of risk capital and infrastructure or human capital capacity. These factors deserve careful monitoring for considering future economic development, and they require a close look as the regions of the state are examined.

The Milken report offers some advice in interpreting the index:

> *Just as a high ranking should not be interpreted to mean that a state should be complacent about its competitive position, a lower ranking similarly should not be taken to mean that a state is consigned to a fate of underperformance. Virginia, though not a part of the Deep South, is geographically a southern state. Its rise to high-tech economic dynamism over recent years can offer lessons for states that aspire to a more prosperous future in the intangible economy.*

TABLE 1

TECHNOLOGY AND SCIENCE RANKING FOR SELECTED STATES

Massachusetts	1
California	2
Colorado	3
Maryland	4
Virginia	5
North Carolina	10
Georgia	18
Tennessee	34
West Virginia	46

Source: Milken Institute, 2004

TABLE 2

VIRGINIA'S RANKING AMONG THE STATES ON MAJOR MEAURES OF TECHNOLOGY AND SCIENCE, 2004

Overall Ranking	5
Research and Development	10
Risk Capital and Infrastructure	15
Human Capital Investment	14
Technology and Science Work Force	4
Technology Concentration	1

Source: Milken Institute, 2004

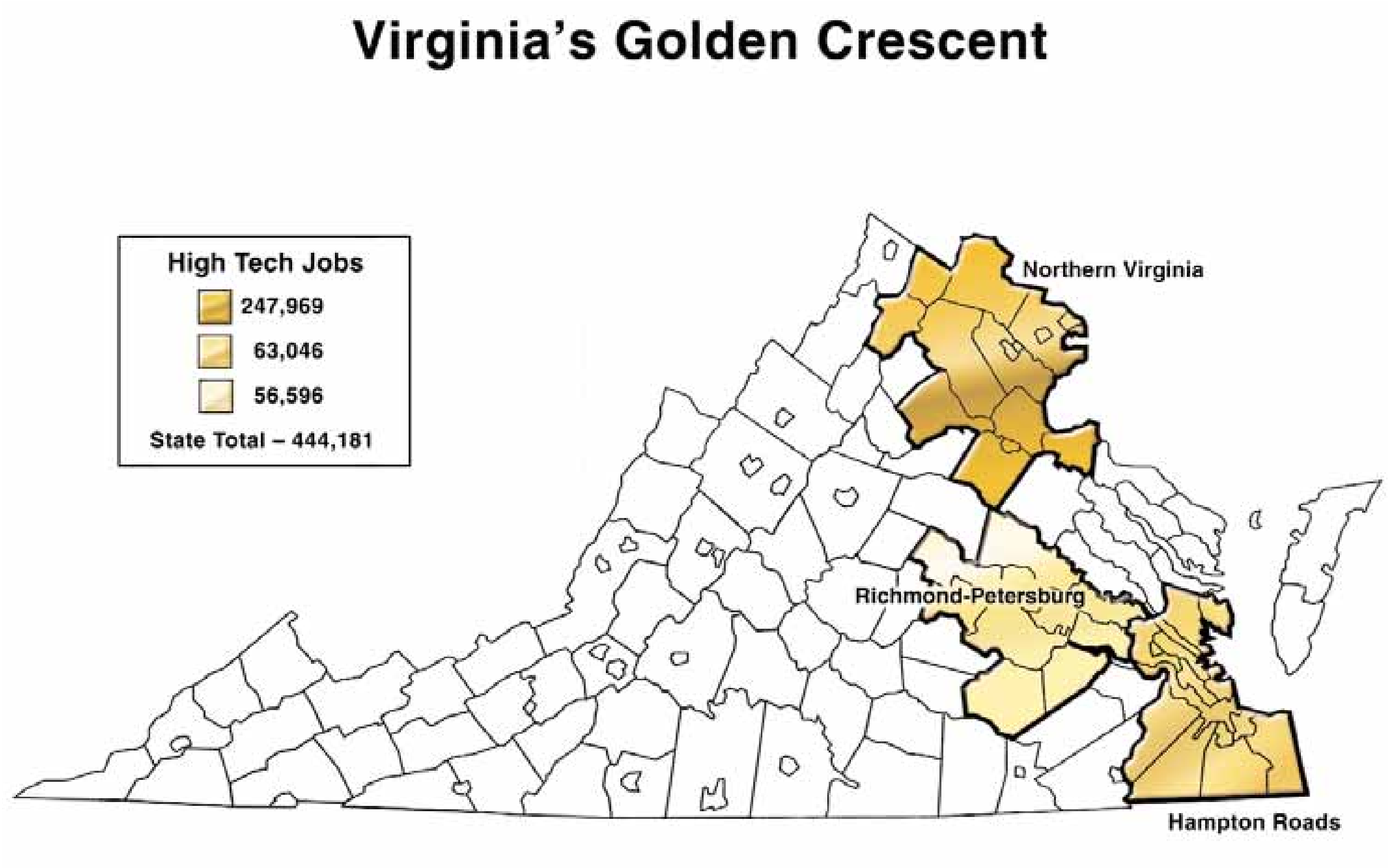
As we review the rankings of the regions of Virginia, this advice from the Milken Institute should be kept in mind, for it may apply to regions as well as to states.

Comparing High Tech in Hampton Roads to Other Regions

While technology shines brightly in the Northern Virginia suburbs, it diminishes in luster in Richmond and in Hampton Roads. Hampton Roads registers a distant second to Northern Virginia in high-technology companies, employment and investments. Northern Virginia is so far ahead as to make comparisons appear skewed, but the metropolitan areas of the Commonwealth's "Golden Crescent" (see Graph 1) are compared to each other here so that we might come to grips with the unrealized potential of our region.

Table 3 reports the growth of high-tech firms in Virginia from 1994 to 2004.

GRAPH 1



Alas, Table 3 also demonstrates that the degree of technological imbalance in Virginia actually increased between 1994 and 2004. **Hampton Roads (and for that matter, Richmond) are farther away from Northern Virginia now than we were 10 years ago, at least where the number of high-technology firms is concerned. Only Charlottesville and Blacksburg, the homes of the Commonwealth's two largest research universities, came close to Northern Virginia's percentage of growth. This underlines what is by now a well-established truth: one of the royal roads to technological progress is the presence of a large research-oriented university that offers work through the doctorate in most science and engineering disciplines.** Such institutions generate technological progress by their invention and innovation, and they capitalize on technological assets that may already be present nearby.

TABLE 3
HIGH-TECH FIRMS IN VIRGINIA 1994 to 2004

Metro Areas	1994	2004	Percentage Increase
Bristol	90	125	39%
Blacksburg	174	290	67%
Danville	76	95	25%
Roanoke	450	645	43%
Lynchburg	12	16	33%
Harrisonburg	118	153	30%
Charlottesville	358	601	68%
Richmond	1,910	2,882	51%
Northern Virginia	6,919	11,829	71%
Hampton Roads	1,694	2,630	55%

Source: Chmura Economics and Analytics

The truth is that Hampton Roads does not have a large, research-intensive university. Old Dominion University is the most logical candidate to occupy that role by virtue of its mission and background, but the presence of several other state universities in the region, the paucity of state funding and fragmented leadership have prevented that from occurring. Were all of the research institutions (including Eastern Virginia Medical School) in Hampton Roads united to form a single entity, they would constitute a competitive entrant into the research arena that might rival Virginia Commonwealth University. **One can only muse about what might have been the case in Hampton Roads had its higher education complex grown up in the same fashion that George Mason University now is doing in Northern Virginia. There, regional legislators recognize that GMU is their primary ticket to higher education and technological progress, and they support it accordingly. There are no other major state university competitors in that region and George Mason now has added nearly every major academic program except a medical school. No such consensus exists in Hampton Roads.**

Table 4 reveals that the biggest contributor to Virginia's high-technology success easily is Northern Virginia. In 2004, Northern Virginia claimed 247,969 high-tech jobs, a 6.7 percent increase over the previous year. Those jobs produced more than $5 billion in wages and salaries, for an average value per job of $20,404. Fifty-six percent of all high-technology jobs in the state are located in Northern Virginia.

TABLE 4
HIGH-TECH JOBS AND WAGES AND SALARIES IN VIRGINIA, 2004Q2

Region	Jobs	Wages and Salaries
Bristol	5,487	$50,164,000
Charlottesville	7,862	100,240,000
Danville	1,371	11,618,000
Hampton Roads	63,046	804,175,000
Lynchburg	7,304	76,479,000
Northern Virginia	247,969	5,059,621,000
Richmond	56,596	891,832,000
Roanoke	13,724	178,621,000

Source: Chmura Economics and Analytics

Hampton Roads claimed 63,046 high-tech jobs in the second quarter of 2004, up 3.9 percent from the previous year, according to statistics from Virginia Economic Trends, published by Chmura Economics and Analytics, an economic research firm located in Richmond. Those jobs produced approximately $804 million in wages and salaries, up 12.4 percent from the previous year.[1] However, the average value of each of these jobs was only $12,755.

The Richmond-Petersburg metropolitan statistical area (MSA) fielded 56,596 high-tech jobs during the same period, but this smaller number of jobs produced $891.8 million in wages and salaries, for an average of more than $20,000 per position. High-technology employment in Richmond-Petersburg was unchanged from the previous year, even though statewide high-tech employment had increased 4.2 percent.

The total magnitude of high-technology employment in the remainder of Virginia should not be discounted, but it is less than either Hampton Roads or Richmond. A considerable portion of the Commonwealth's high-technology research may be conducted in precincts such as Blacksburg and Charlottesville, but that is not where the great mass of high-tech jobs is located. More than 80 percent of these jobs are located in the Golden Crescent.

We in Hampton Roads host 14 percent of all the high-technology jobs in Virginia, though our region's population constitutes 21.4 percent of the state's population. **While Hampton Roads has the second-highest concentration of high-tech jobs in the state, there are four times as many (56 percent) high-tech jobs in Northern Virginia** (see Graph 2).

The bottom line is that Hampton Roads is a distant second in a state that, in an overall sense, currently is doing very well in high technology. If Northern Virginia's contribution were removed from the totals, it would quickly become apparent that Virginia is not really a high-tech state, by most definitions. We will have more to say about this, and its implications for Hampton Roads, in sections below.

High-Technology Assets in Hampton Roads

From a distance, the profile of Hampton Roads is such that one might readily assume it would be a high-technology leader nationally. Our area contains the largest naval base in the world plus other significant defense installations, several world-class government research facilities and a rather large number of college students. In addition, our region is externally regarded as a good place to live and to do business. But our case for technology leadership is weaker than it first seems. Let's see why.

DEFENSE

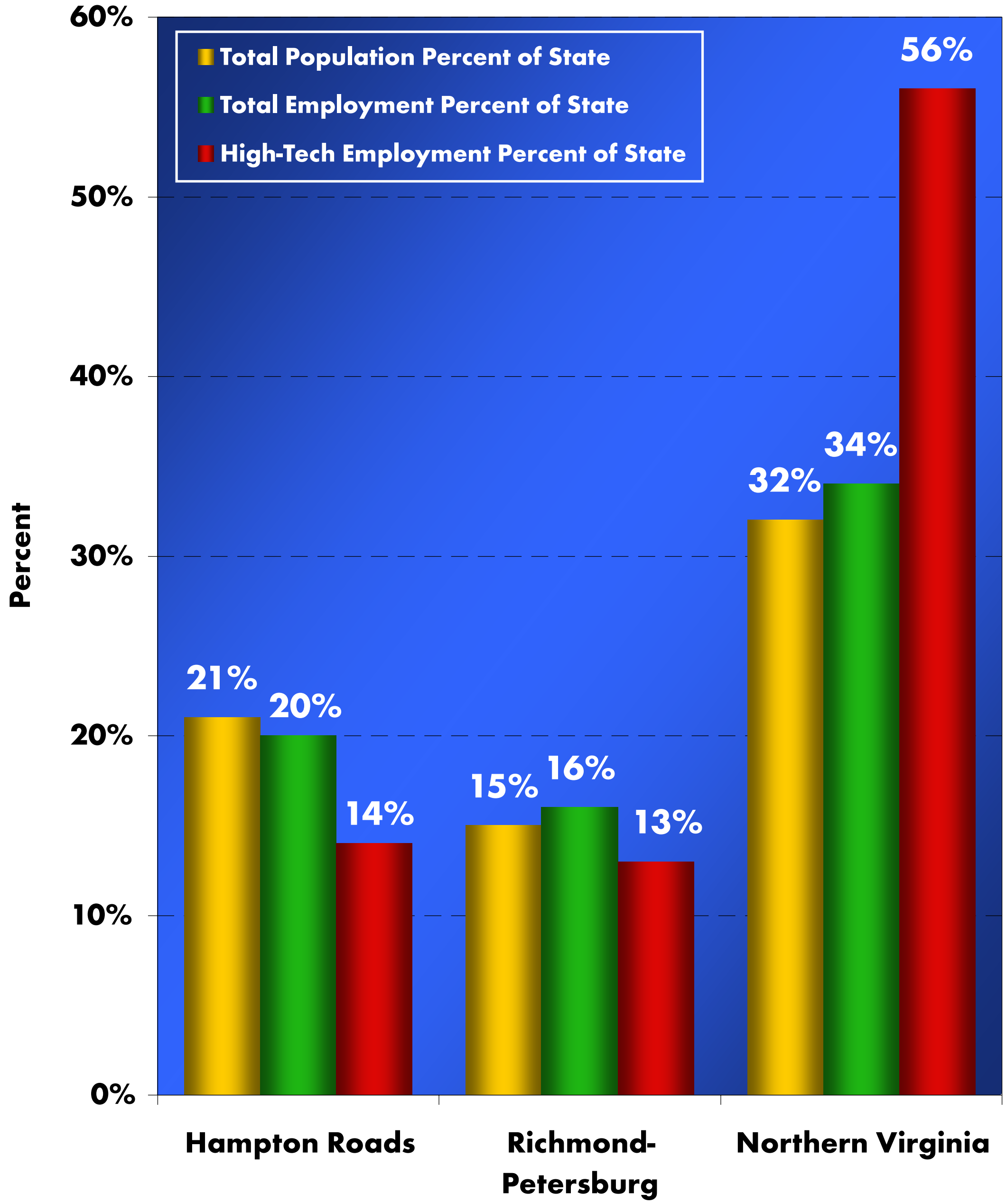
A 2004 study conducted by the Hampton Roads Planning District Commission, "The Role of the Military in the Hampton Roads Economy," found that the region ranked first among more than 300 MSAs in terms of military personnel population. We ranked eighth for the number of military personnel as a percentage of total regional employment. This is what one would expect, given that more than 36 percent of our regional economy is dependent upon defense expenditures, up from 29 percent in 2000 (see the first chapter of this report).

It is clear that defense expenditures constitute the single most important driver of the region's economy. **During the past few years, defense expenditures have been responsible for 77 percent of all economic growth in the region. While we value the jobs and the income that flow from defense expenditures, it has not escaped some observers that most of this money has not yet built a private-sector research and technology infrastructure within the region. In a phrase, the spinoff effects of defense expenditures have been relatively small.**

The federal presence in Hampton Roads that has been the most successful thus far in attracting spinoff activities has been the U.S. Joint Forces Command's **Joint Training, Analysis and Simulation Center (JTASC)** in Suffolk. All branches of the military

[1] Chmura Economics and Analytics uses the definition of high tech as a set of North American Industry Classification System (NAICS) codes suggested by Daniel Hecker ("Higher Technology Employment: A Broader View," Monthly Labor Review, June 1999) and updated for current industries.

GRAPH 2
VIRGINIA'S GOLDEN CRESCENT: COMPARISON OF POPULATION, EMPLOYMENT AND HIGH-TECH JOBS



utilize modeling and simulation extensively at JTASC to develop doctrine, test and evaluate doctrine and equipment, and train military personnel. This activity has attracted a number of national corporations to the region to support the military's requirements for modeling and simulation, and it is apparent from job creation data that these firms have been in a hiring mode. In the past year, the region added almost 5,000 jobs in computer- and technology-related areas, many of which were connected to JTASC. This is the first time that such private-sector spinoff activity has occurred to any great extent within the region. Old Dominion University's **Virginia Modeling, Analysis and Simulation Center**, which is closely connected to JTASC, recently estimated generously that modeling and simulation contributes more than $500 million to related business activity in the region.

The 2005 session of the Virginia General Assembly approved an appropriation of $1.45 million to support Old Dominion's modeling and simulation activities connected to JTASC. The funds also include support for a new Emergency Management Training, Analysis and Simulation Center, which has a major opportunity to prosper for many years. In addition, Lockheed Martin announced in April 2005 that it would invest $30 million for a new Center for Innovation in Suffolk. An estimated 50 technology-related jobs are associated with this investment.

The salient question is, Will these and similar private-sector jobs remain if and when Department of Defense expenditures stagnate? If the answer is no, and private-sector modeling and simulation efforts disappear, then our region will be back at the proverbial technology starting gate. Developments thus far have been promising, but one cannot yet tell if private-sector commercialization of modeling and simulation technology is occurring, or could occur in the future. Much of the region's economic future rides on this outcome.

There is another research and development enterprise within the region that is directly dependent upon defense expenditures, even though it is not supported by the federal government. The **Virginia Advanced Shipbuilding and Carrier Integration Center (VASCIC)** was established by the General Assembly to support Northrop Grumman's shipbuilding and repair efforts in Newport News. Northrop Grumman Newport News manages VASCIC, which is housed in a state-of-the-art facility in Newport News. There, electronic system suppliers, software suppliers, the U.S. Navy and several of Virginia's institutions of higher education work together to develop new technologies for aircraft carriers and advanced shipbuilding.

Construction on the Navy's next new aircraft carrier (CVN 21) is scheduled to begin in 2007 at an estimated cost of $1.4 billion. Many thousands of jobs will be attached to this multiple-year process. Thus, it is apparent that VASCIC's efforts play an extremely important role in the region's economy. Still, it is not yet clear what impact VASCIC has had on Northrop Grumman, as the center's efforts have not been widely publicized.

Further, if one regional goal is to find ways to transfer military technology into the private sector and commercialize it, then candor requires us to admit that it is not a snap to find appropriate military ship technology to transfer to private boats. After World War II, technologies such as radar and ASDIC (a technology that uses sound waves to chart the ocean's bottom and to detect other boats and obstructions) had immediate applicability to the private sector. The economic equivalents have not yet been generated by recent military shipbuilding.

Taking a broader view, defense and defense-related expenditures in Hampton Roads have been substantially devoted to: (1) the jobs occupied by those who work for the Department of Defense; (2) the purchase of supplies and procurement from supplier organizations; and (3) ship repair. Needless to say, these expenditures are quite valuable to the Hampton Roads economy and, as noted, accounted for 77 percent of the region's net economic growth between 2000 and 2005. However, these expenditures rise and fall with the DOD budget and it is inevitable that defense expenditures eventually will taper off or perhaps even decline. Then what? Most of these expenditures do not leave a long-term imprint on the region's private sector sufficient to survive a reduction in defense expenditures.

If defense expenditures do taper off or decline, fewer automobiles will be sold in the region, fewer pizzas served and the sale of many other goods and services will decline. Unemployment will result and incomes will stagnate. There is no question that we would feel the adverse effects of such a development. Some defense expenditures, however, have the potential to create less ephemeral, more permanent jobs and industries. They do this by stimulating the development of firms and industries that transfer defense technology and processes to the private sector, where they are successfully commercialized. The radar and ASDIC examples cited above are illustrative.

A fair assessment is that the region's economy has not yet benefited from very many visible spinoffs that have generated new firms and industries reliant upon technologies originally developed for the Department of Defense. **One does not yet see in Hampton Roads anywhere near the number of spinoff firms that have appeared in Northern Virginia as a consequence of federal government investments in areas such as the Internet.**

No doubt it is unrealistic to expect a spinoff the size of the aircraft industry to build up in Hampton Roads as did aircraft construction and testing in Los Angeles and Seattle after World War II. Truth be told, however, there has been rather little private-sector spinoff in Hampton Roads from defense expenditures that would survive a tapering off of defense budgets. The promising recent developments around JTASC in Suffolk show great potential to reverse this judgment. Important parts of modeling and simulation technology developed for the Department of Defense also have civilian applications in areas such as transportation and medicine. It remains to be seen, however, if the corporations currently servicing JTASC will become part of a technology transfer environment that will cause them to grow permanent roots in Hampton Roads – roots that are not dependent on defense expenditures.

WORLD-CLASS FEDERAL RESEARCH FACILITIES

The **Thomas Jefferson National Accelerator Facility (Jefferson Lab)** in Newport News is a center for basic research of the atom's nucleus at the quark level. Jefferson Lab represents an investment of $600 million, primarily emanating from the U.S. Department of Energy. The lab is managed by a consortium of 62 universities, which are members of the Southeastern Universities Research Association (SURA).

With industry and university partners, the Jefferson Lab also conducts applied research, using its Free-Electron Lasers, which is based on technology developed in the conduct of physics experiments. Local institutions, led by Old Dominion and William and Mary, have invested considerable resources in faculty and staff positions connected to the Jefferson Lab. Frequently, these individuals work at the **Applied Research Center (ARC)** adjacent to the Newport News lab. ARC provides 122,000 square feet of offices and laboratories where university, industrial and Jefferson Lab researchers collaborate in applied research, such as the use of lasers and light as a tool in manufacturing. ARC's Free-Electron Laser Program builds on the success of the Jefferson Lab's superconducting electron-accelerating technology, but has yet to record a high-visibility success.

On the other hand, the accelerator itself at the Jefferson Lab has been a spectacular scientific success. It has delivered more polarized electrons to targets than all other electron machines combined have in their entire lifetime. In 2003, the Department of Energy named Jefferson Lab's upgrade as one of the 12 near-term priorities in its 20-year facility plan. Still, the challenge remains to privatize and commercialize elements of this science so that viable private-sector firms and jobs are created.

The same general conclusion applies to the region's two large NASA installations. Personnel at **NASA Langley** and **NASA Wallops Island** have expressed considerable interest in finding ways to transfer technology and ideas to the private sector, but a fair reading of the evidence is that successes thus far have been limited. Still, the potential for NASA to foster civilian aircraft development and production is high, as are the possibilities for NASA Wallops Island to develop a civilian spaceport.

Potential, however, is not the same as realization. **Thus far, the economic impact of the two NASA installations upon the region's technology sector has been far more limited than, say, the Internet explosion in Northern Virginia or biotechnology in the Richmond area. There has been more talk of potential than action.**

This does not exhaust the list of major research centers in the region. Worthy of note also are the **Virginia Institute of Marine Science (VIMS)**, which is a constituent element of the College of William and Mary and provides valuable research; the more than a dozen centers of excellence at Eastern Virginia Medical School, with the best known being the **Jones Institute for Reproductive Medicine**; and the many centers at Old Dominion University, including the **Center for Advanced Ship Repair and Maintenance** and the well-respected **Center for Coastal Physical Oceanography**. Hampton University also has begun to make its mark in research, though its efforts are still young. Hampton's status as a Historically Black College or University (HBCU) has resulted in significant research and development funding that eventually could lead it to become a major research institution within the Commonwealth.

HIGHER EDUCATION INSTITUTIONS

Throughout this chapter, considerable attention has been given to the region's institutions of higher education. Every region of the United States that is growing rapidly and has a strong technology base also has at least one large research university that is a most important part, usually the leader, of that growth dynamic. In Seattle, it is the University of Washington, which brings in about $800 million in externally funded research annually. In Baltimore, it is Johns Hopkins University, which attracts a stupendous $1.2 billion of research support yearly.

It is apparent that Hampton Roads, and indeed the entire Commonwealth of Virginia, falls well short here. The highest-ranking university in Virginia in terms of funded research activity is Virginia Tech ($232 million in 2002), but it struggles to find a place among the nation's top 50 institutions in a given year. The University of Virginia typically ranks about 70th and Virginia Commonwealth University usually ranks between 90th and 100th. No institution within Hampton Roads ranks higher than 158th.

The blunt truth for Virginia is this: While the work being done by institutions such as Virginia Tech is both valuable and impressive, and we must be grateful for it, it is nonetheless dwarfed by what is going on 100 miles to the south in North Carolina's research triangle, where Duke University, the University of North Carolina at Chapel Hill and North Carolina State University each rank in the top 35 of the nation in funded research and together recorded $1.1 billion in funding for 2002.

If one consolidates the value of the research activity at all the universities in Hampton Roads plus Eastern Virginia Medical School, then the total is respectable — $113 million in 2002. But even this would not place the combined enterprise in the Top 100 of the United States. We may be the 35th-largest metropolitan area in the nation, but candor requires noting that our research and development activity does not place us even close to the Top 100. This, then, is one of the critical missing engines of economic growth for our region.

Higher education is not the only thing needed for economic growth in Hampton Roads, but it is crucial to the growth of a high-technology economy. A set of historical circumstances and palpably unwise leadership decisions by regional leaders and legislators decades ago prevented Old Dominion University from assuming the dominant research role that doctoral public universities nearly always assume in metropolitan areas around the country. While the current assemblage of public institutions of higher education in the region offers much to commend, it is a quite ineffective structure to generate world-class research and development.

Further, medical and biomedical research always is one of the centerpieces of technology-driven economic development. However, Old Dominion and Eastern Virginia Medical School grew up separately. EVMS never has acquired significant public financial support and always has been something of a financial orphan. It badly needs a university connection and financial succor. Forward-thinking regional leadership decades ago should have accomplished this.

Historically, our regional leaders — elected and unelected — chose to emphasize other developments, most of which were worthy, but retrospectively this turned out to be a less productive use of resources. It is only now, in 2005, that we recognize how costly these past decisions have become. One need only compare Virginia to North Carolina to assess the magnitude of opportunities the Commonwealth and Hampton Roads missed because of shortsighted priorities.

Even were Hampton Roads and Virginia to reverse their courses today on these matters, the impact of these changes in the short-run probably would be small. At the end of the day, it takes time to develop a nationally significant research enterprise. **Productive research enterprises take years to develop, not the least because they depend on highly talented, entrepreneurial faculty who must be recruited and retained. Research-oriented investments in an institution such as Old Dominion University must be increased continuously for decades in order for it to vault into the Top 100 public research institutions nationally, which it has proclaimed as a praiseworthy, but currently unrealistic, goal. Old Dominion and EVMS could and probably should merge, but this would require a substantial inflow of state funding, something the Commonwealth actually could now afford. Nonetheless, this is a development that might well outpace the political wills of our regional leaders and legislators.**

GOOD PLACE TO LIVE AND TO DO BUSINESS

But all is not darkness concerning our technological development. Virginia boasts some of the best places in the country to jump-start a business or a career, according to Forbes magazine (May 23, 2005). Virginia, with three metropolitan areas, and Texas with four, were the only states to place more than one locale in the upper echelon of the 150 biggest metropolitan areas (populations over 345,000) ranked by Forbes as the "best places for business." In the Forbes study, Northern Virginia as part of the Washington, D.C., metro area was ranked fourth, Norfolk eighth and Richmond 14th in the country as the "best places to do business." That said, no other Virginia community made the list.

Table 5 reveals that Norfolk competed well on all of the factors Forbes considered, except educational attainment and net migration. The education criterion exposes a long-standing regional weakness. According to the 2000 census, 81.5 percent of adults over age 25 in Virginia have completed high school and 29.5 percent have earned a bachelor's degree or higher. Hampton Roads exceeds the Commonwealth average for the percentage of adults who have completed high school (84.5 percent). However, the percentage of Hampton Roads adults who have earned a bachelor's degree or higher (23.9) is below the state average. In Richmond, 31.4 percent of adult residents have earned a baccalaureate degree or higher. Still, both metropolitan areas fall well short of Northern Virginia, where 50.7 percent of adults have earned a baccalaureate degree or above and 89.8 percent have completed high school.

TABLE 5
BEST PLACES TO DO BUSINESS
NATIONAL RANKINGS OF 150 AREAS

	Northern Virginia/ Washington, D.C.	Norfolk	Richmond
Overall	4	8	14
Engineers	33	20	83
Cost of Doing Business	105	51	60
Cost of Living	131	65	77
Crime Rate	47	57	79
Culture and Leisure	7	45	72
Educational Attainment	2	79	29
Income Growth	16	8	16
Job Growth	20	31	51
Net Migration	35	74	54

Source: Forbes, May 2005

As noted in previous State of the Region reports, many Hampton Roads residents leave the region to access higher education elsewhere, or they earn their degree here and subsequently depart. Why do they leave? Surveys suggest the availability of good (that is, higher-paying) jobs elsewhere is the most important reason, though a variety of other factors, ranging from our regional milieu and atmosphere (see the Richard Florida chapter) to climate, apparently also make a difference.

Entrepreneurship and Technology

In an April 2005 report, "The Innovation-Entrepreneurship NEXUS: A National Assessment of Entrepreneurship and Regional Economic Growth," the Small Business Administration reiterated a conclusion that by now has been put forth by dozens of studies. The SBA found empirically that both entrepreneurship (the founding of new firms) and innovation (measured by patents, R&D and high-tech industries) are vitally important indicators of regional economic growth. The SBA examined a mixture of 394 small and large regions, 10 of which were in Virginia. Virginia Beach and Newport News were included in the sample, though not Chesapeake, Norfolk, Hampton or other large cities within the region.

The SBA study developed a Regional Entrepreneurship Index, which was the average of each region's rankings in three areas: (1) the number of new firm births per 1,000 labor force; (2) the average annual change in new firm births between 1990 and 2001; and (3) the percentage of firms growing rapidly between 1991 and 1996. The region with the highest average, Glenwood Springs, Colo., was assigned an index of 100, and the relative rank of every other region was calculated as a percentage of the highest value.

The rankings for the Virginia communities and those in neighboring states are listed in Table 6. No Virginia community scored above 69.9, with Virginia Beach attaining a 52 and Newport News scoring 28.2. North Carolina had three communities above 95.9. Regions rich in entrepreneurship are high-technology regions, according to the SBA study. While it's not clear whether technology proficiency attracts entrepreneurs, or vice versa, it is apparent that the SBA entrepreneurship index functions much like a thermometer. It provides us with information about how we are doing. **It's difficult to avoid the conclusion that the SBA results reflect a mediocre or even poor performance for the Commonwealth and our region. Once again, for Hampton Roads, the absence of a large research university and a prosperous medical school appears to be causal, for numerous studies have demonstrated that such organizations stimulate entrepreneurship and innovation.**

TABLE 6
RANKINGS OF REGIONAL ENTREPRENEURSHIP ACTIVITY

Region	Index Ranking
Wilmington, NC	98.9
Charlotte, NC	96.4
Raleigh, NC	95.9
Asheville, NC	92.3
Greenville, SC	84.4
Hickory, NC	83.4
Macon, GA	79.3
Wilmington, DE	77.8
Richmond, VA	69.9
Arlington, VA	67.9
Columbia, SC	66.1
Roanoke, VA	63.3
Rocky Mount, NC	60.8
Winston-Salem, NC	60.0
Charlottesville, VA	55.4
Virginia Beach, VA	52.9
Lynchburg, VA	48.6
Harrisonburg, VA	30.0
Galax, VA	29.0
Newport News, VA	28.2
Staunton, VA	12.7

Summing it up

There are many arenas in which our region excels. One need only peruse Sperling and Sander's "Cities Ranked and Rated," as we did in the 2004 State of the Region report, to see that we fare quite well compared to other regions when the subject is cultural assets, climate or air quality. We do not measure up, however, when the subject is technology. We are technologically primitive compared to Northern Virginia and most comparable regions in the country. Hampton Roads may constitute the 35th-largest metropolitan area in the country in terms of population, but is not near the Top 100 in terms of most measures of technology.

One might be tempted to utter, "Well, that's the breaks. So what?" The "so what" of the matter is the vast impact of technology on modern economic growth. Technological competence produces economic growth and higher living standards. The region's economy currently is riding high because of expanding defense expenditures, not because of a burgeoning private sector. Should defense expenditures decelerate and stagnate, we are in for trouble, economically speaking. The absence of both an extensive private-sector technology base and a Top 100 higher education / medical research complex within the region will continue to punish us in the form of very low rates of economic growth, higher rates of unemployment and constant, or even declining, inflation-adjusted incomes.

The "technology situation" in Hampton Roads (if we can pull together everything in this chapter under this label) is in many ways similar to our transportation situation. Action to improve our circumstances in either area will

take many decades before we see the benefits. Just as the gestation period for a new bridge-tunnel across the James River ("the third crossing") may take 15 to 20 years, so also changing our regional technology position for the better might take as much time. Unfortunately, in the short-run we are destined to pay the costs of our past inaction and unwise decisions concerning technology and education. As Nobel laureate Milton Friedman once famously pointed out, there is no such thing as a free lunch. We figuratively ate our lunch between 1960 and 2000 and now, it appears, are destined to go hungry.