

# The Regional Economy Contracts



# THE REGIONAL ECONOMY CONTRACTS: FEELING PAIN, BUT DOING BETTER THAN MOST OF THE REST

*It's a recession when your neighbor loses his job; it's a depression when you lose yours.*

– President Harry S. Truman

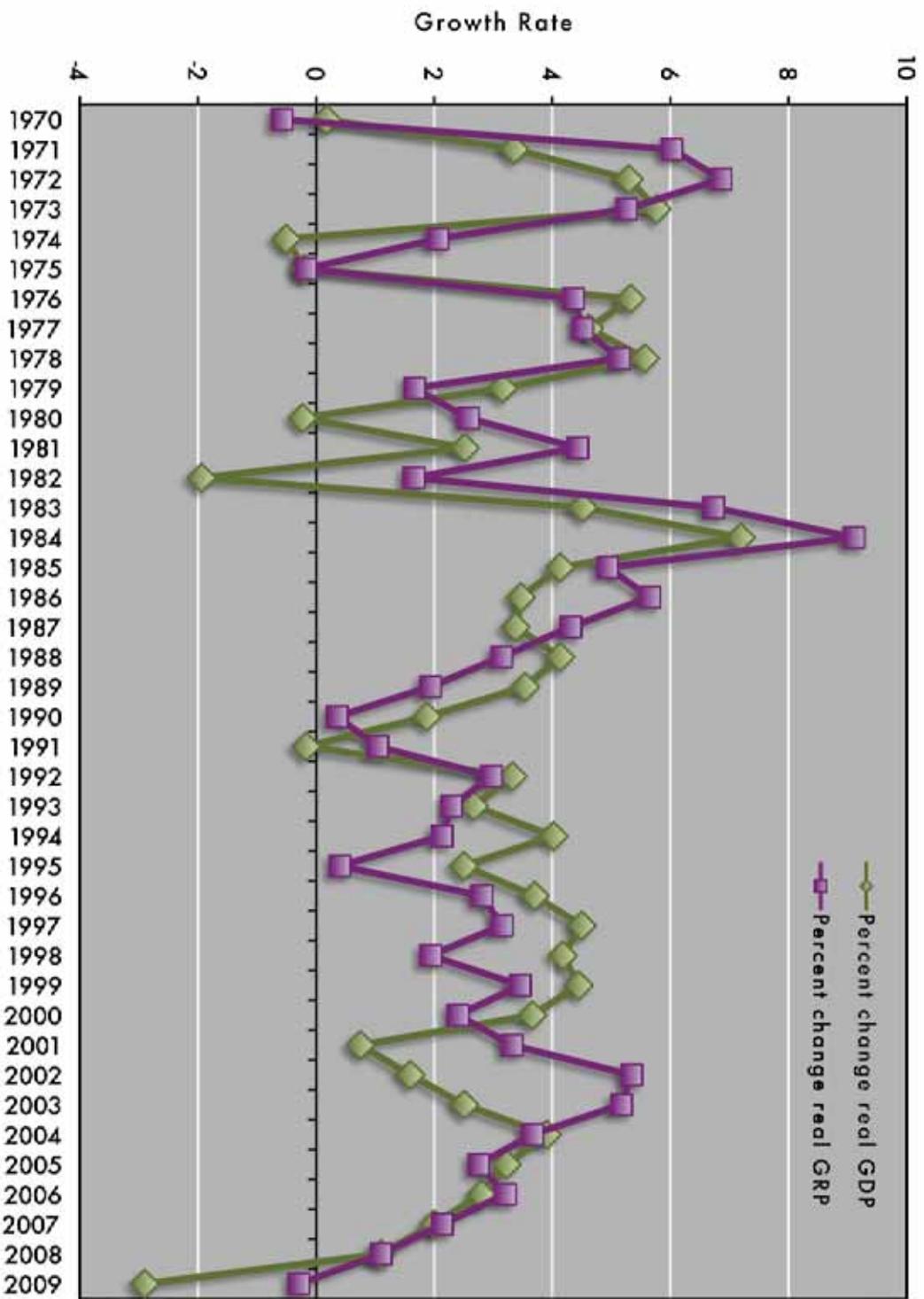
**S**ince fall 2008, serious financial and structural problems within the national and global economies have spread to Hampton Roads. When combined with economic issues peculiar to our region, these problems have put a crimp in our economic well-being. Hence, in 2009 we will experience negative economic growth. That is, our gross regional product (GRP), adjusted for prices, actually has declined in 2009. Table 1 estimates our negative economic growth at -.3 percent in 2009, a far cry from the heady 5+ percent growth rates we experienced early in this decade.

While a .3 percent decline in our GRP may seem modest, this recession will be our worst in 40 years. Graph 1 reveals that although the Hampton Roads economy flirted with negative growth in 1990 and 1995 during the post-Cold War defense drawdown, the region has not had a year of gross output decline since 1975, when GRP dropped by .2 percent. Further, the region has not experienced a larger output decline since 1970, when our gross output fell by .6 percent. In 1970, Hampton Roads reeled from a one-two punch in the form of a national recession and cuts in the region's military presence because of Vietnam.

<b>Year</b>	<b>Nominal GRP Billions of \$</b>	<b>Real GRP (2000=100) Billions of \$</b>	<b>Real GRP Growth Rate Percent</b>
2000	48.36	48.36	2.4
2001	51.16	49.96	3.3
2002	54.83	52.63	5.3
2003	58.89	55.34	5.2
2004	62.80	57.37	3.7
2005	66.51	58.86	2.8
2006	70.80	60.74	3.2
2007	74.24	62.04	2.1
2008	76.79	62.73	1.1
2009	76.84	62.55	-0.3

Sources: Old Dominion University Economic Forecasting Project. (Data incorporate U.S. Department of Commerce personal income revisions through May 2009.)

**GRAPH 1**  
**RATES OF GROWTH OF GDP (U.S.) AND GRP (HAMPTON ROADS)**



Source: Old Dominion University Economic Forecasting Project

## But There Is Some Good News

**The decline in our region's economic growth rate will be tempered by the large military presence in Hampton Roads and increased funding for U.S. Department of Defense (DOD) procurement and military operations.** Since 2000, estimated DOD spending in the region has nearly doubled (see Graph 2). Department of Defense direct spending in Hampton Roads for 2009 has approximated \$18.9 billion, a 4 percent increase over 2008. The Old Dominion University Economic Forecasting Project estimates that the sum of both direct and indirect effects of this spending accounts for roughly 45 percent of gross economic activity in Hampton Roads. This makes defense spending in the region a nice umbrella to keep us dry during the recessionary rain.

Of course, there is no guarantee that defense spending in the region will continue to rise, though it is worth noting that aggregate DOD spending in Hampton Roads in 2009 has increased despite the continuing negative impact of the Base Realignment and Closure Commission (BRAC) decisions. The effect of BRAC on the region's economy in 2009 approximates a \$200 million loss in GRP and about 1,800 jobs.

**Looking down the road, however, it may well be the case that defense spending in Hampton Roads will stagnate.** This could occur for two reasons. First, we may lose yet another aircraft carrier battle group to another state (such as Florida or Hawaii), or to the Pacific Rim. Each month an aircraft carrier task force is gone from Hampton Roads, this reduces our annual GRP by almost .1 percent. This translates to approximately \$900 million per year and constitutes a big hit by any standard – substantially larger than the negative economic impact of the Ford Motor Co. plant closure, for example.

The second potential adverse influence on regional defense spending relates to the increased emphasis within the Department of Defense on “boots on the ground,” that is, ground forces. This could cause marginal changes in defense spending that would benefit other regions of the United States more than Hampton Roads.

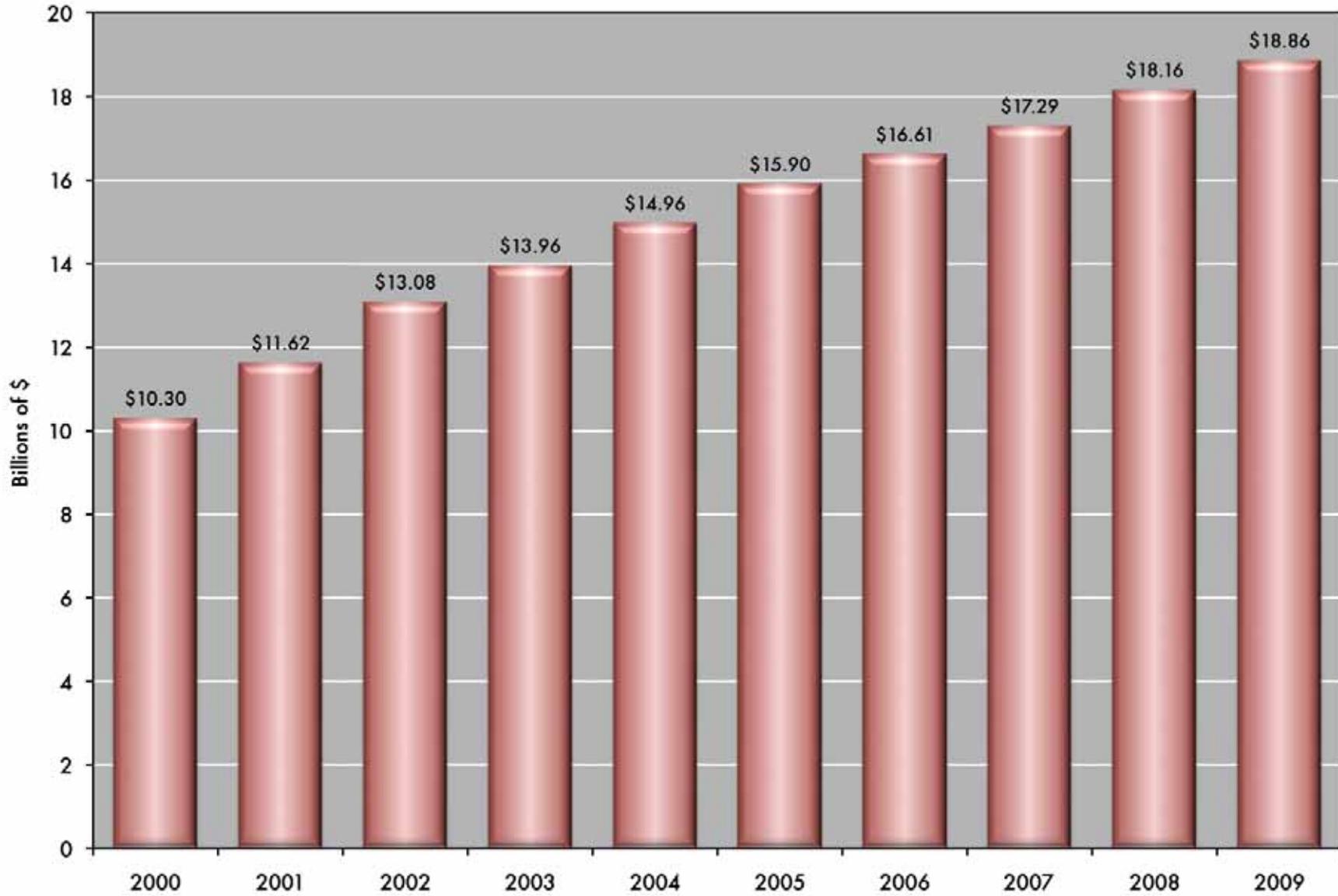
Against this, in the next few years, there is likely to be sustained interest in modeling and simulation projects within the DOD. Hampton Roads is well positioned to take advantage of such an emphasis.

Nevertheless, all things considered, only Dr. Pangloss (who always foresaw the “best of all possible worlds”) would forecast defense expenditures within Hampton Roads that consistently exceed the growth of the consumer price index. We have been fortunate during this decade to be favored by significant increases in defense spending. However, we should remember that this has not always been the case. We would be well advised to remember the observation of economist Herb Stein: “If something cannot go on forever, it doesn't.” Simple advice, but worth remembering.



**GRAPH 2**

**ESTIMATED DIRECT DOD SPENDING IN HAMPTON ROADS, 2000-2009\***



Source: Old Dominion University Economic Forecasting Project  
\*Includes federal civilian and military personnel and procurement

# However, Bad News Predominates

**Defense spending not withstanding, the economic downturn in the national economy, as well as the lagged effect of the Ford plant closing and implementation of the BRAC directives, led to continuously declining employment in Hampton Roads throughout 2008.**

Still, the region's output growth rate exceeded that of the nation. Job losses were particularly heavy in the fourth quarter of 2008. U.S. Department of Labor data indicate that the region lost about 7,755 jobs between the fourth quarter of 2007 and the same period in 2008. Like their national counterparts, Hampton Roads employers struggled with declining demand for services and products, rising inventories and a significant tightening of available credit.

Regional employment losses continued into 2009, although the rate of decline began to taper off. We have, however, done better than most comparable metropolitan areas on the eastern seaboard (see Graph 3). Given that most of these regions outperformed us job-wise earlier in this decade, perhaps Hampton Roads can be permitted a tiny bit of *Schadenfreude*. Even so, as Graph 4 discloses, our region lost jobs in both 2008 and 2009.

Job losses in 2008 in Hampton Roads were concentrated in construction and retail trade (see Graph 5). Construction industry contractions that we documented in previous State of the Region reports have continued into 2009. Retail trade employment has found itself in a similar fix. Year-to-date through April 2009, this sector was 3,000 jobs below that of the same period in 2008, and the decline is expected to continue through the rest of the year.

**Job losses in manufacturing have resulted primarily from the decline, and in some cases disappearance, of the support industries for Ford truck production. This process will continue through 2009. The final toll of job losses attributable to Norfolk's Ford Motor Co. closing is expected to approach 7,000 jobs.**

On a more positive note, however, employment in another major contributor to Hampton Roads manufacturing jobs – ship and boat building – remained relatively stable in 2008, and continued stable employment is likely through 2009 because DOD procurement funds are continuing to flow to this industry.

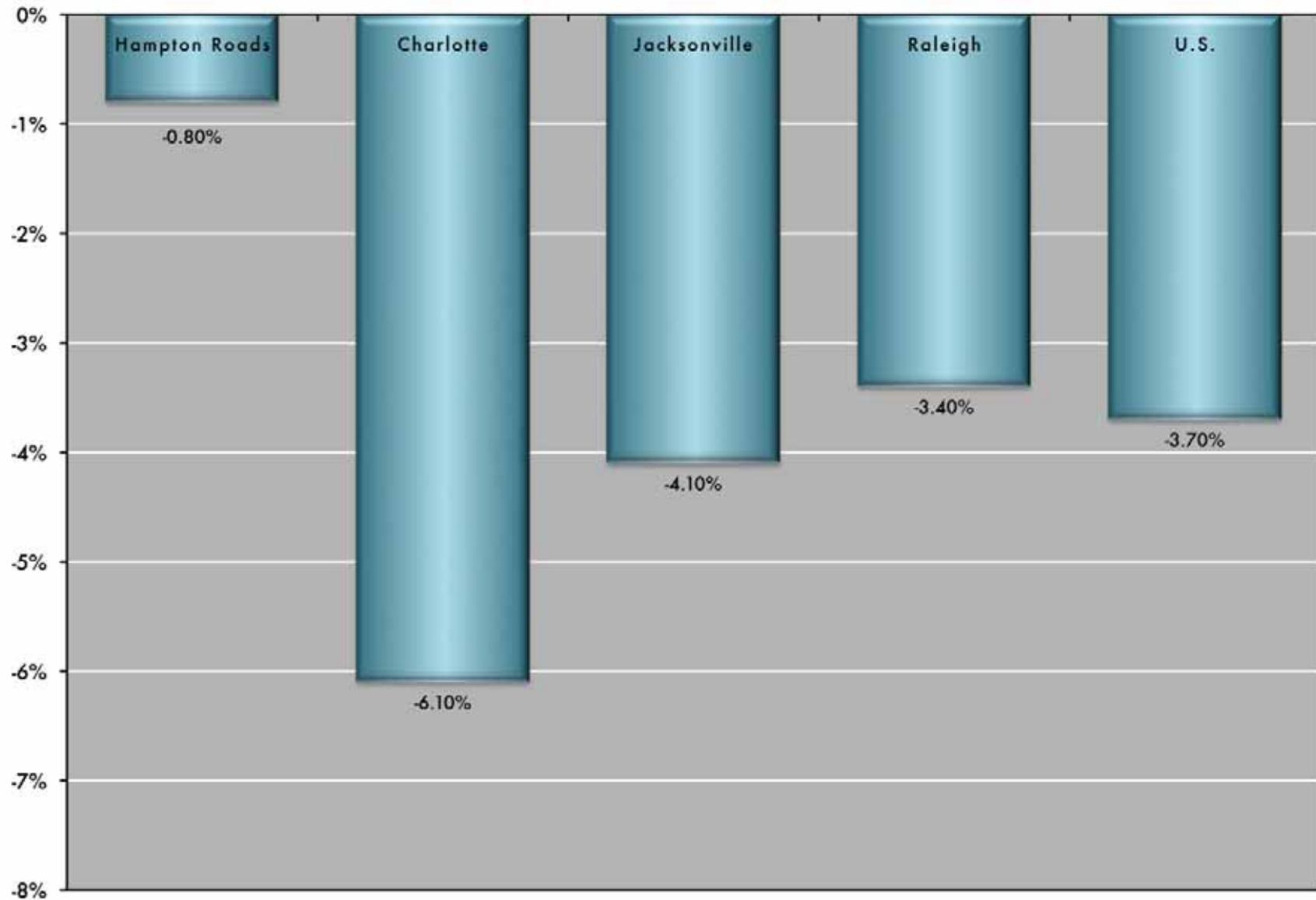
Employment in the transportation and warehousing sector suffered from declining port cargo, which fell by 13 percent in the fourth quarter of 2008, as well as from a lower volume of retail trade.

The region's job losses between September 2008 and May 2009 resulted in a dramatic increase in the number of people collecting unemployment insurance. Graph 6 shows that this number jumped by more than 50 percent between September 2008 and December 2008, and nearly doubled between September 2008 and March 2009 to 19,345, as job losses peaked. But all is not lost. Claims fell by 500 between March 2009 and May 2009, and the number of insurance recipients declined to 18,810. This suggests that our regional economic decline may be "bottoming out," to use popular terminology. We expect the regional unemployment rate to top out at about 7.5 percent in late 2009 and recovery, albeit modest, to take hold thereafter.



### GRAPH 3

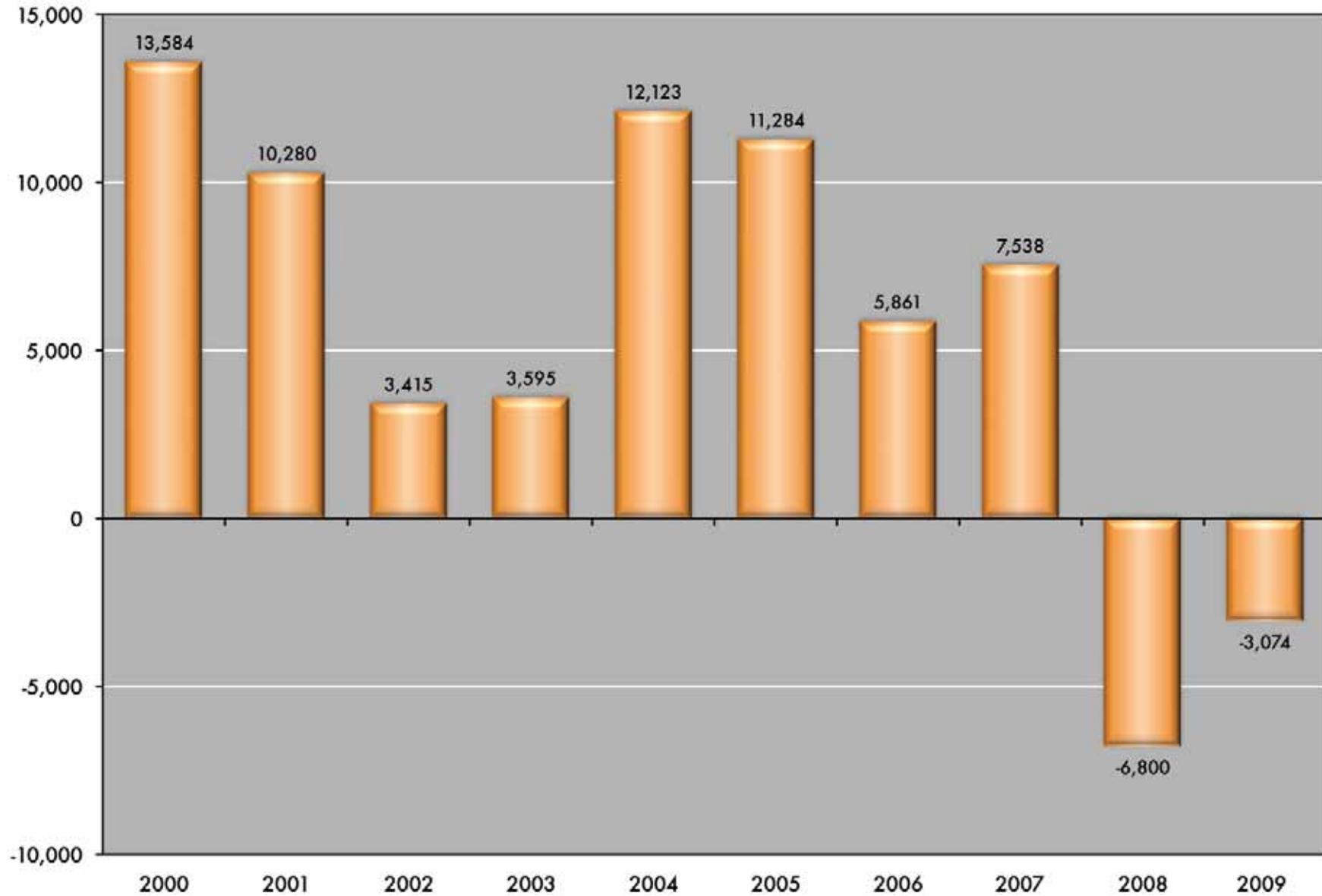
#### APRIL 2008 TO APRIL 2009 CIVILIAN EMPLOYMENT GROWTH RATE IN SELECTED MSAs AND THE U.S.



Sources: U.S. Department of Labor (5/26/08) and the Old Dominion University Economic Forecasting Project

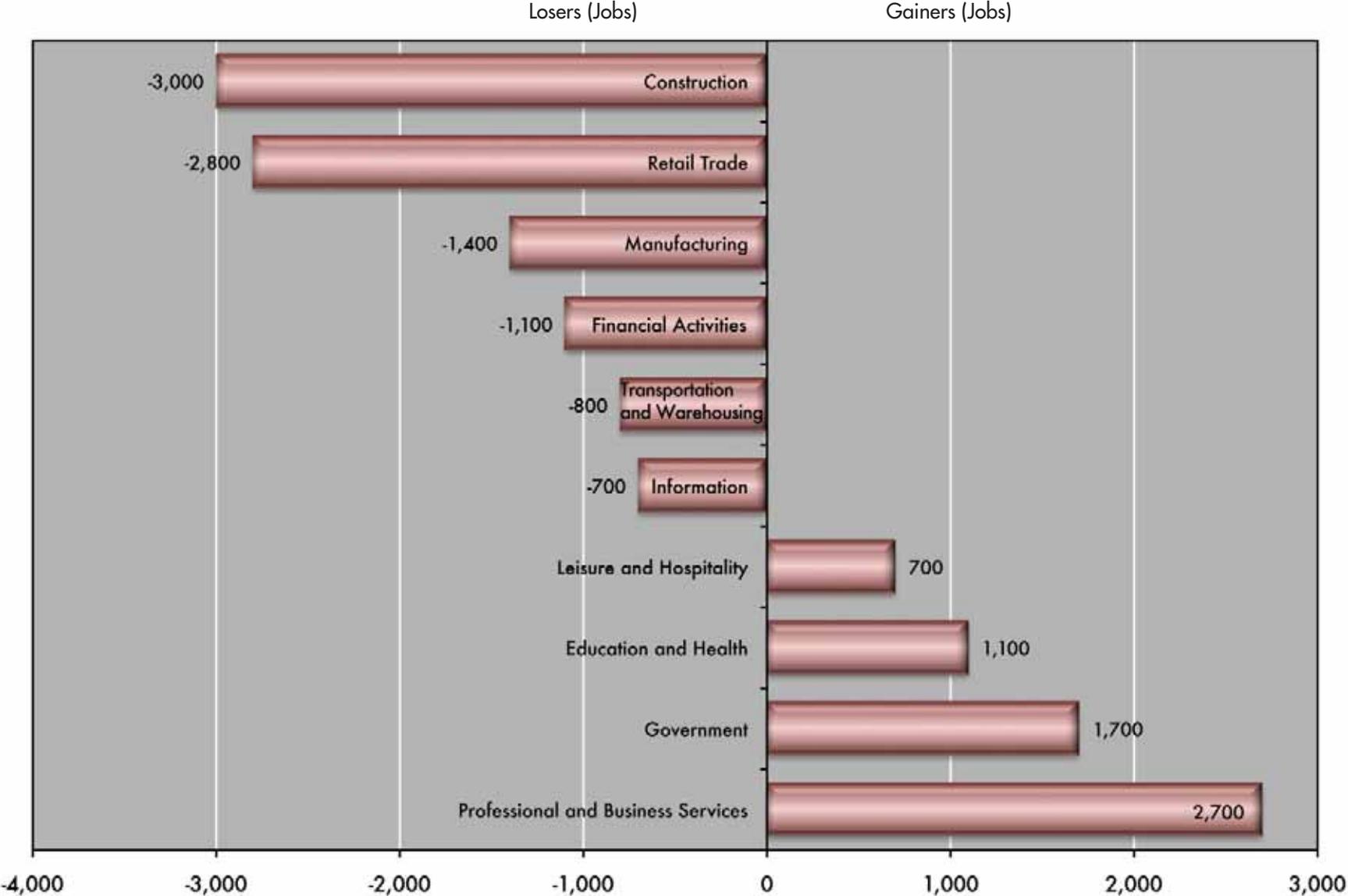
**GRAPH 4**

**NET NEW PRIVATE-SECTOR WAGE AND SALARY JOBS CREATED IN HAMPTON ROADS, 2000-2009**



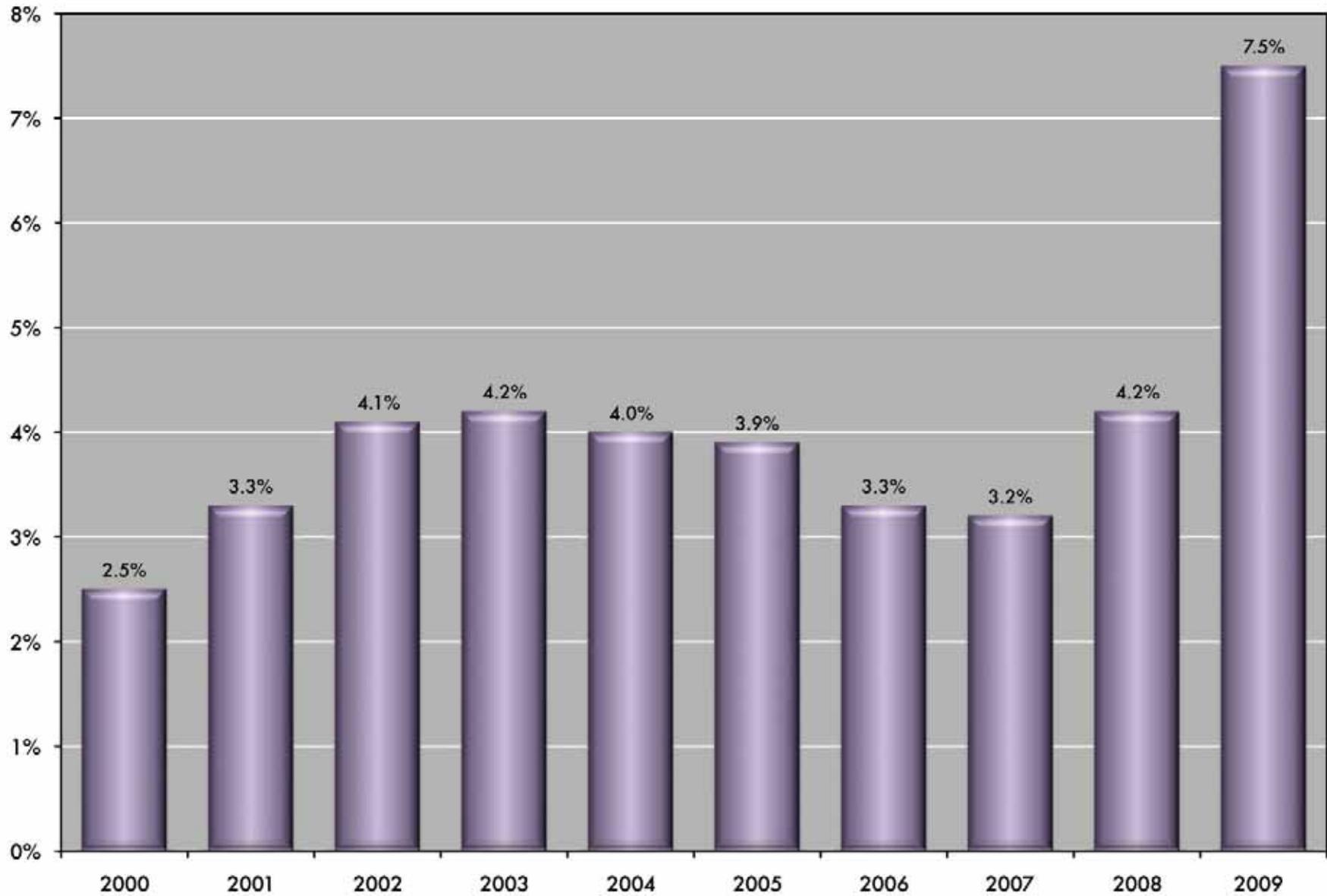
Sources: U.S. Department of Labor and the Old Dominion University Economic Forecasting Project

**GRAPH 5**  
**EMPLOYMENT GAINS AND LOSSES IN HAMPTON ROADS IN 2008**



Sources: U.S. Department of Labor and the Old Dominion University Economic Forecasting Project, as revised on March 10, 2009

**GRAPH 6**  
**HAMPTON ROADS ANNUAL UNEMPLOYMENT RATE, 2000-2009**



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

# Focus Upon Particular Sectors of Our Economy

## AUTOMOBILES

Retail automobile sales revenue, represented by its close proxy, taxable sales, declined substantially during the past year. The 6.5 percent fall in sales depicted in Graph 7 is the largest year-over-year decline since at least 1991, a time of national recession. New auto registrations dropped even more dramatically over the period, falling 37.5 percent.

## TOURISM

**Regional tourism activity did not escape the national and local economic downturn. Hotel revenue in Hampton Roads declined by 4.5 percent between the first quarter of 2008 and the first quarter of 2009.** Grim as these data are, regional tourism fared better than for the nation as a whole, where hotel revenue dropped by an estimated 11.6 percent. (In a succeeding chapter of this report, we focus more intently upon the hotel industry in Hampton Roads.)

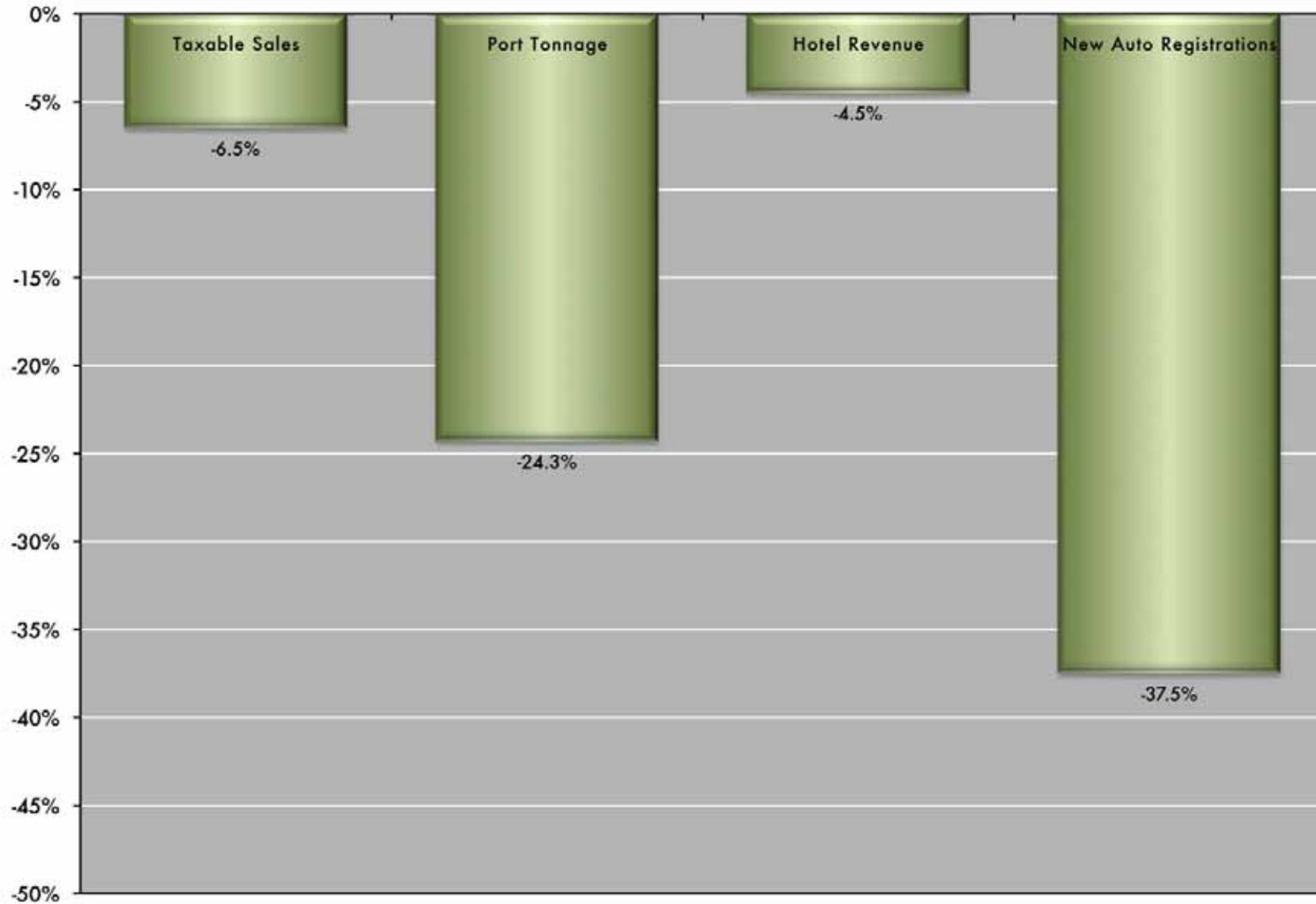
The decline in hotel revenues was not spread equally across the region, however. Williamsburg, in particular, has suffered significantly during this recession, as one can see in Graph 8. This graph also reveals that the plunge in tourism revenues was much more dramatic after September 2008, when several major national financial organizations, such as Lehman Brothers, either failed or had to be rescued.

## THE PORT

During 2008, the Port of Hampton Roads experienced a modest increase of .6 percent in its general cargo tonnage. However, this figure obscures the fact that both the amount of cargo tonnage and containers handled, much like tourism within the region, fell dramatically from September to December of 2008 as international trade throughout the world declined substantially. Graph 9 reveals that what looked like a reasonable year of modest growth evolved into something much different in the latter part of 2008. **A review of Graph 7 reminds us that cargo tonnage shipped through the Port of Hampton Roads fell by almost 25 percent from first-quarter 2008 to first-quarter 2009.**

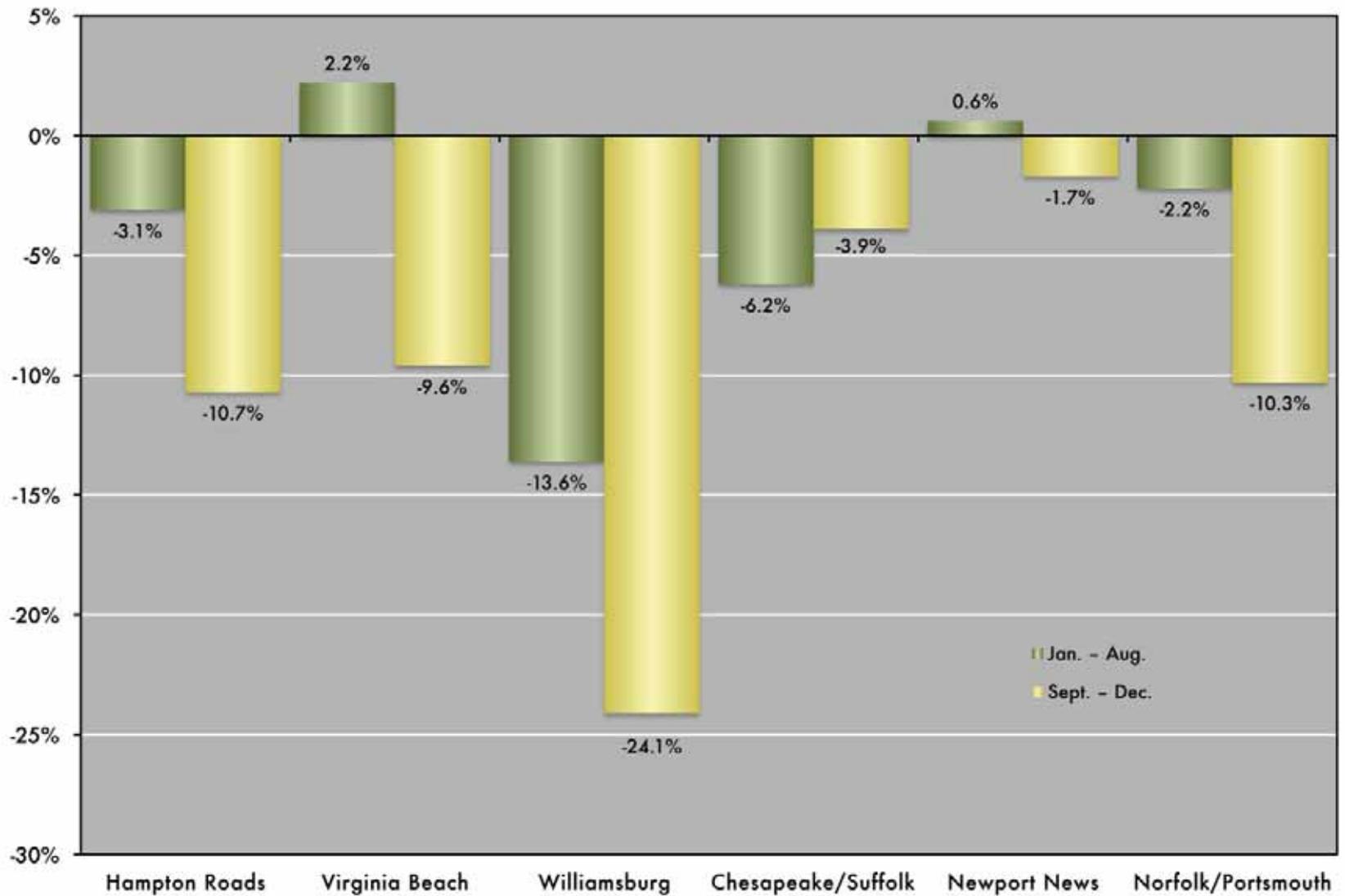


**GRAPH 7**  
**ANNUAL PERCENT CHANGES IN TAXABLE SALES, PORT TONNAGE, HOTEL REVENUE AND**  
**AUTO SALES, HAMPTON ROADS, 1<sup>ST</sup> QTR 2008 TO 1<sup>ST</sup> QTR 2009**



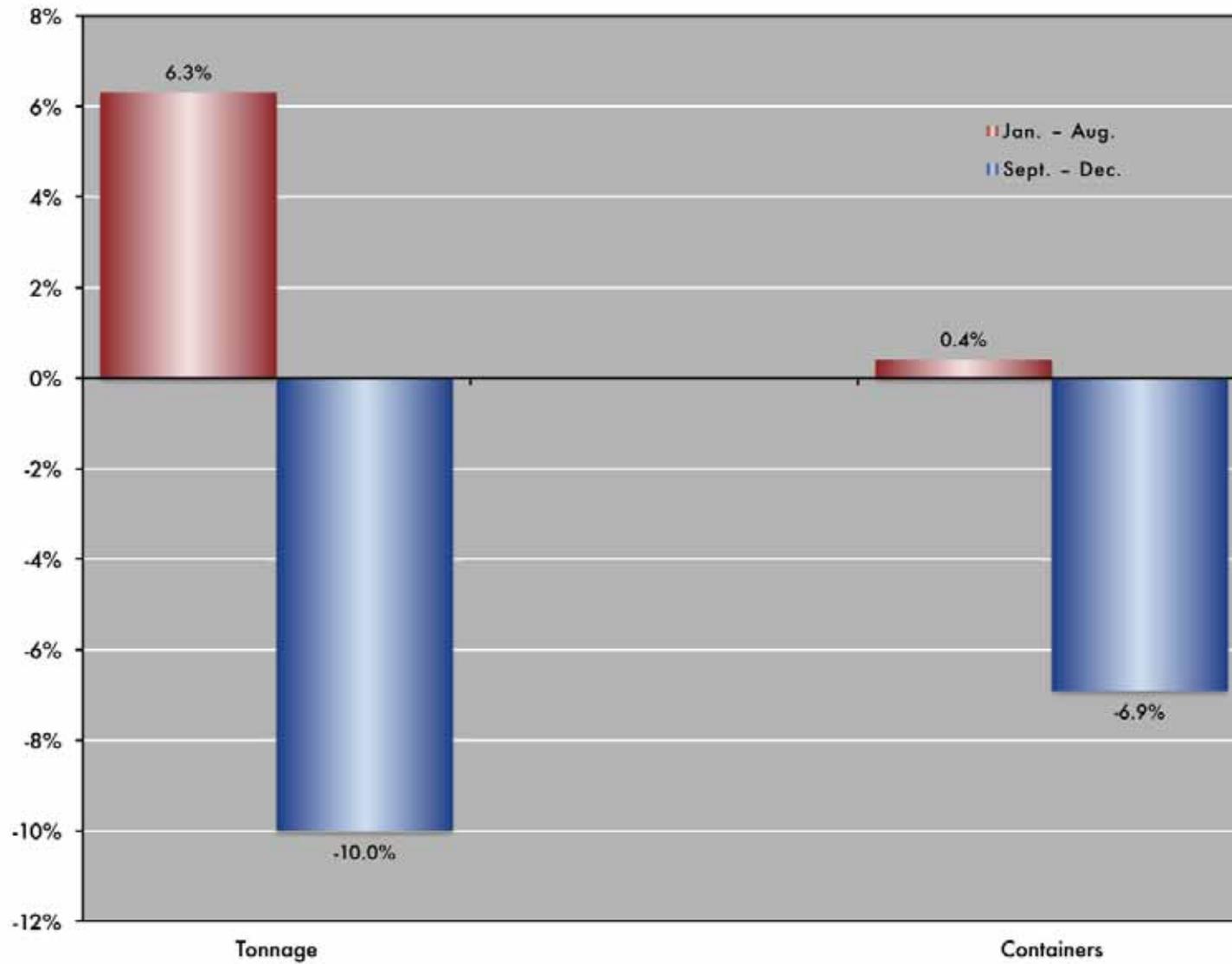
Source: Old Dominion University Economic Forecasting Project

**GRAPH 8**  
**CHANGE IN HOTEL REVENUES FROM 2007 TO 2008,**  
**JANUARY TO AUGUST, AND SEPTEMBER TO DECEMBER**



Sources: Smith Travel Research Trend Report, Feb. 10, 2009, and the Old Dominion University Economic Forecasting Project

**GRAPH 9**  
**CHANGE IN CARGO TONNAGE AND CONTAINERS FROM 2007 TO 2008,**  
**JANUARY TO AUGUST, AND SEPTEMBER TO DECEMBER**



Sources: Virginia Port Authority and the Old Dominion University Economic Forecasting Project

# Households Under Siege

We estimate that household income in Hampton Roads rose by about 3 percent in 2008 and is expected to remain relatively stable in 2009. If this is true, then why have local retail and auto sales, noted previously, suffered so much? We believe there are three reasons:

- Significant declines in regional household wealth
- Tightening of lending standards and credit
- Higher household savings rates.

We'll now discuss each of these trends. Household wealth is very different from income. Wealth refers to household assets that have fluctuating value and includes houses, cars, retirement accounts, savings accounts and stock market holdings. There is a "wealth effect" associated with assets. For every dollar increase in their wealth, households are likely to spend an additional four cents. Thus, if the value of one's home increases by \$100,000, then this is likely to spur an additional \$4,000 of consumption by that individual.

The opposite holds true if wealth is declining. **Graph 10 reports that the household net worth (wealth) of Hampton Roads families declined by an estimated 16.6 percent, or about \$47 billion in 2008. If the 4 percent rule holds true, then this would lead to a \$1.88 billion decline (\$47 billion x .04) in regional household consumption.** This is not peanuts and goes far to explain declining retail sales, automobile purchases and tourism expenditures in our region.

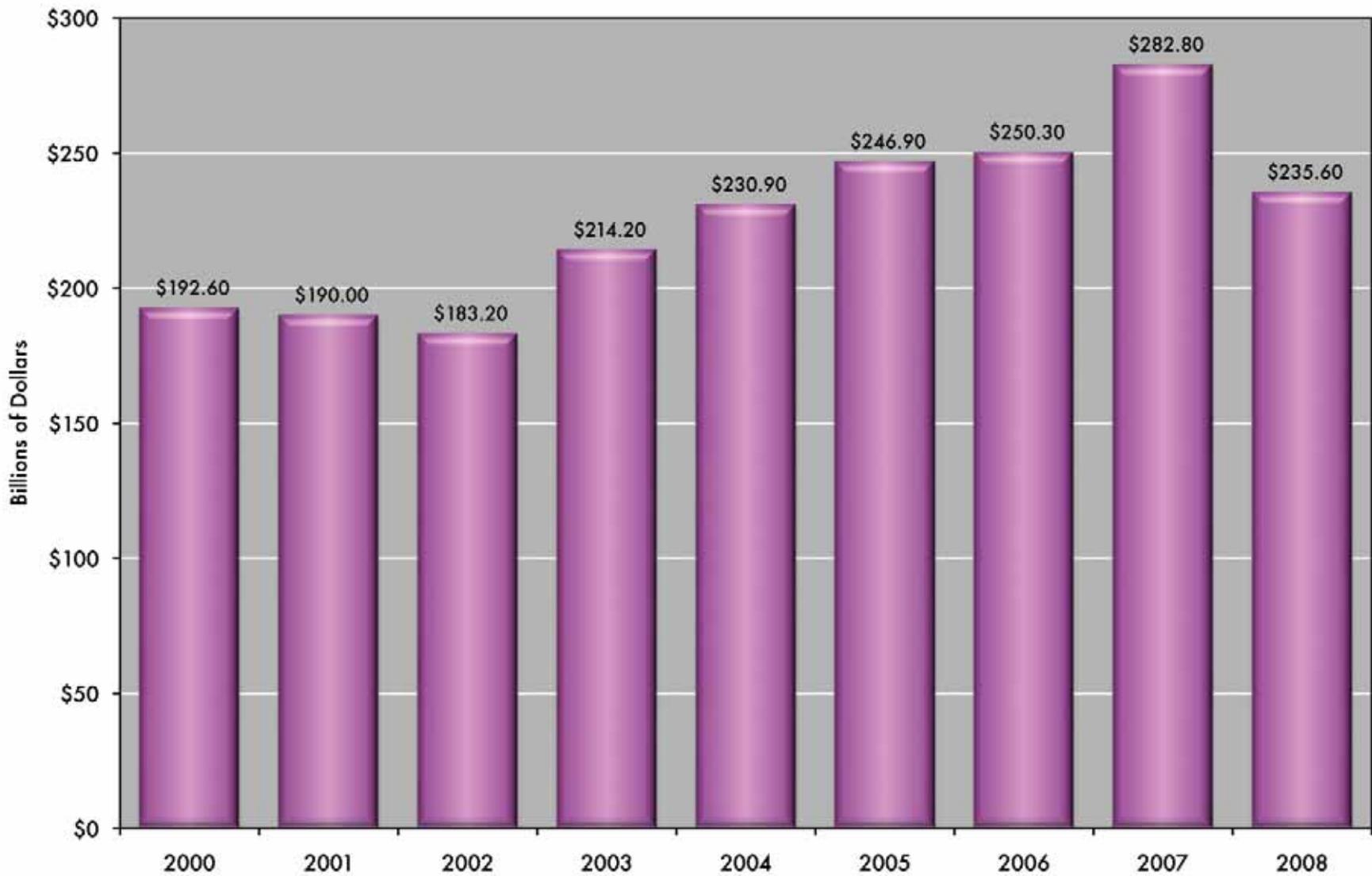
The tightening of lending standards and falling housing prices has made credit harder to obtain for Hampton Roads households. It is also true that households' demand for credit have slowed as they attempt to repair the damage inflicted upon their balance sheets by recent economic events. Graph 11 provides estimates of the changes in outstanding quarterly consumer loan balances for Hampton Roads households for 2007 and 2008. Included in these balances are mortgages, home equity loans, auto loans, and consumer and student loans. While the size of overall household debt balances actually is increasing,

note the continuous decline in the rate of growth of these balances from the fourth quarter of 2007, through the fourth quarter of 2008. This means that the discretionary spending capability of Hampton Roads households has tapered off substantially.

One indicator of loan balances that have become too large for households to handle is the volume of bankruptcy filings. Unfortunately, these have roughly quadrupled in Hampton Roads between 2006 and 2009 (see Graph 12). However, this is due not only to deteriorating economic conditions, but also to the passage of the new bankruptcy law in 2005. The 2009 number (8,020) translates roughly to 1 in every 77 households in the region – historically a high number, but only a fraction of the bankruptcy rates in states such as California, Florida and Michigan. Regardless, households that declare bankruptcy usually are not eligible for new credit, and therefore this is another reason why the total amount of credit extended to households in the region has grown only modestly in recent months.

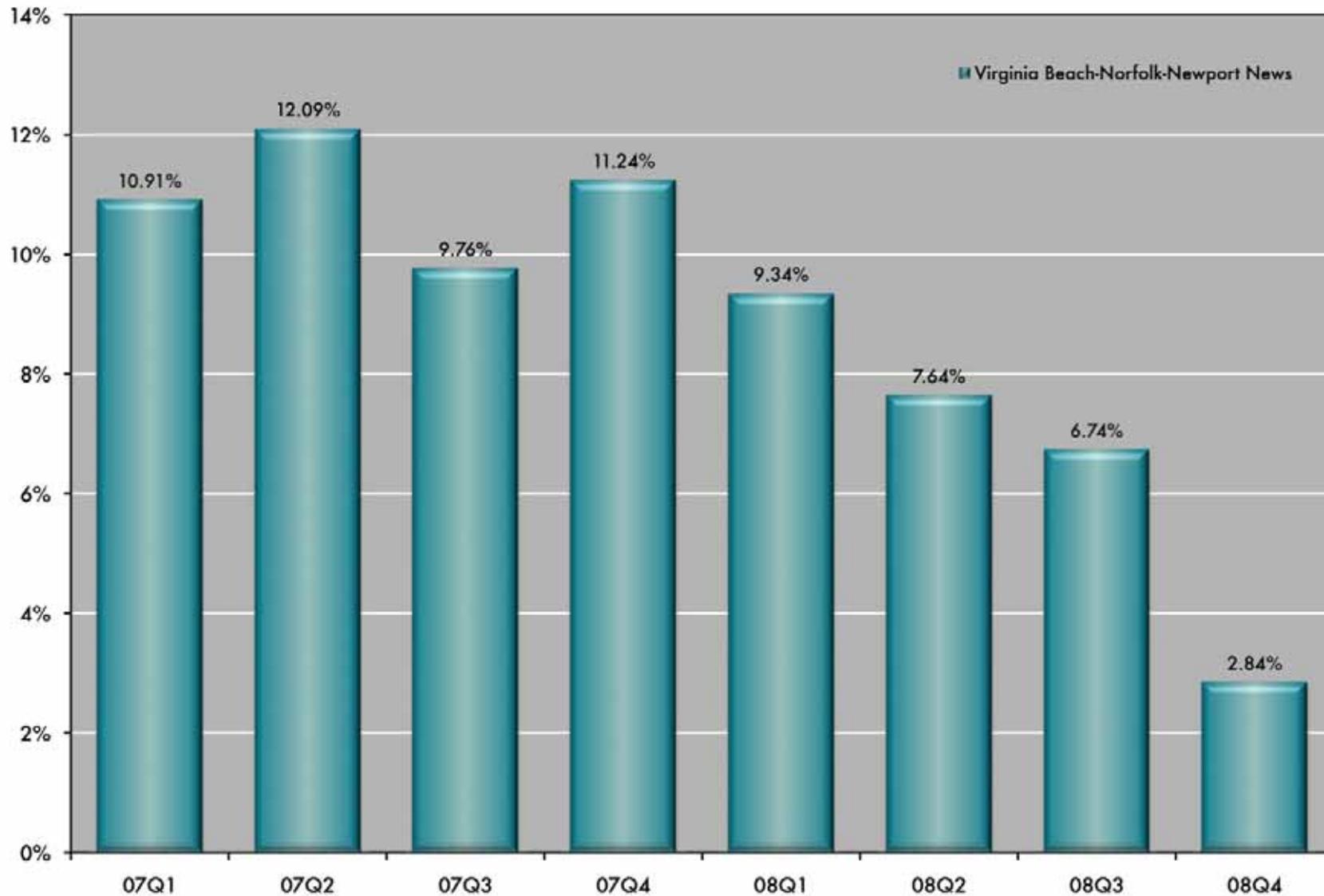
The third prong of our explanation of why retail sales have fallen in Hampton Roads even while income has been rising is household savings rates. Graph 13 illustrates that personal savings rates have spiked upward since first-quarter 2008. In the long term, this is quite a good thing, as it will result in fewer bankruptcies, larger pools of funds to finance vital investments, a stronger dollar and lower interest rates. All of these developments usually spur economic growth. In the short term, however, higher savings rates put a damper on consumption and many merchants in Hampton Roads are feeling the effects.

**GRAPH 10**  
**ESTIMATED HOUSEHOLD NET WORTH, HAMPTON ROADS, 2000 TO 2008, BILLIONS OF \$**



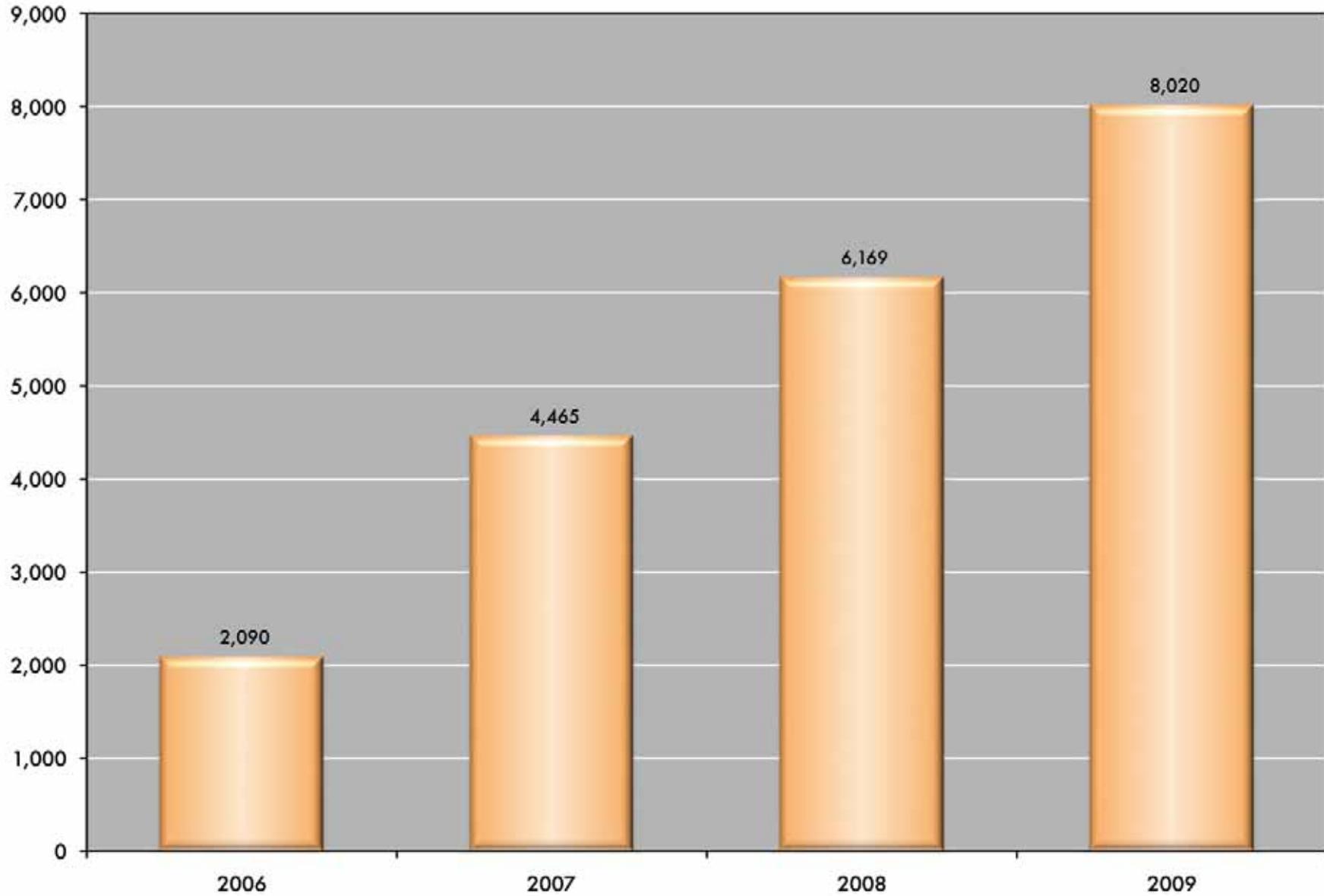
Source: Old Dominion University Economic Forecasting Project

**GRAPH 11**  
**PERCENT QUARTERLY CHANGE, CONSUMER LOAN BALANCES,**  
**HAMPTON ROADS, 1<sup>ST</sup> QUARTER 2007 TO 4<sup>TH</sup> QUARTER 2008**



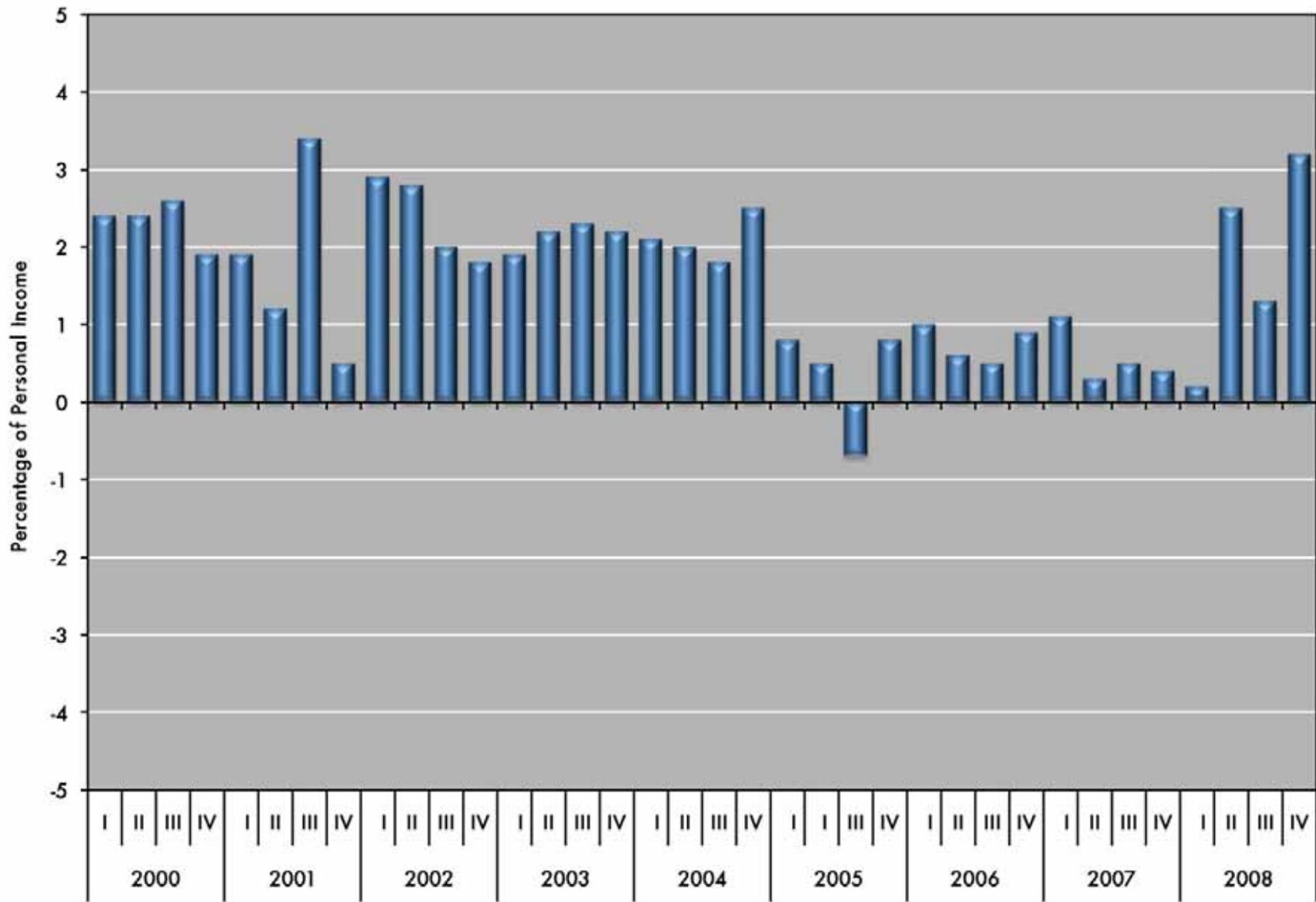
Sources: Equifax, Moody's Economy.com and The Wall Street Journal, March 30, 2009  
(Balances include mortgages, and home equity, auto, consumer and student loans.)

**GRAPH 12**  
**HAMPTON ROADS BANKRUPTCIES, 2006-2009**



Source: Old Dominion University Economic Forecasting Project

**GRAPH 13**  
**PERSONAL SAVINGS RATES, U.S.: 2000-2008**



Source: U.S. Bureau of Economic Analysis



# Housing Markets in Hampton Roads

We now return to a hardy perennial in the State of the Region reports – the status of our housing markets. **Our region is in the process of working through wrenching housing market adjustments that feature falling prices, excessive inventory due at least partially to past overbuilding, relatively low rental rates, relatively high home-owner vacancy rates, and longer times between listing and sale.** As if this laundry list of maladies were not enough, until late into the first quarter of 2009, many prospective borrowers found that mortgages were quite difficult to obtain. Or, if they were offered a mortgage, it often featured relatively high interest rates and high down payments. Recent actions by the Federal Reserve System have whittled down these difficulties, though the heady days of “NINJA” mortgage loans (no income, no job or assets) are long gone. This also is distinctly a good thing, but the adjustment process is not easy.

What follows is a wide-ranging discussion and documentation of different aspects of Hampton Roads housing markets.

## HOUSING PRICES

Housing sale prices have fallen across the board regionally over the past several years. In every category – new homes, existing homes, condominiums – prices have fallen. Graph 14 provides a specific example, the decline in the median (50th percentile) prices of existing homes, both in Hampton Roads and the United States. However painful housing market adjustments have been locally, they pale before those afflicting many other areas of the country. That said, we do need to point out that the data presented in Graph 14 are in some ways “apples and oranges” sales numbers because they reflect the reported selling prices of all homes, not comparable homes. Thus, these data do not control for changes in the mix of houses that are sold from one year to the next, and therefore may not provide us with the information we seek. With this caveat in mind, however, we have confidence in asserting that the price of the median house sold in Hampton Roads has been declining. It appears that housing

prices in our region peaked in the third quarter of 2007, two years later than the entire country.

**If there is an exception to our sweeping dictum about falling home sale prices, it is lower-priced, existing homes, most often those \$225,000 and below.** Prices in this category have been sticky downward, though even here, effective sales prices actually may be falling because real estate agents tell us that price concessions averaging 7 percent of sales prices have become routine. Rather than settle for and publicize lower prices, sellers will pick up closing costs, pay for upgrades, etc. Published residential housing price data therefore may be a less reliable guide today than they have been for some time.

As shown in Graph 14, the decline in Hampton Roads existing home prices has been half that of U.S. prices. Housing prices in the region continued to fall on a year-to-date basis through May 2009, the latest data available at this writing.

## RESIDENTIAL HOME INVENTORIES

The inventory of residential homes is the number of homes that are listed for sale, but as yet unsold. **As can be seen in Graph 15, Hampton Roads’ existing residential home inventory more than quadrupled since 2004, while our inventory of new homes more than tripled over the same period.** Even though home prices have fallen by 13 percent since the third quarter of 2007, the price decline has not been sufficient to reduce inventory significantly. Nevertheless, the inventory of unsold homes would be much larger were it not for the decline in home prices. We estimate that the total inventory of new and existing homes will decline from 15,324 houses in 2008 to 14,325 houses in 2009. According to some veteran observers of local real estate markets, this rather modest decline may reflect the reality that some homeowners who have wished to sell their houses have not placed them on the market and instead have decided to wait for improved selling conditions. If so, then these homes progressively will trickle into the market and prop up inventory numbers.

The region’s large housing inventory has influenced the behavior of local builders. Graph 16 shows that new-home builders reacted to the relatively large

increase in 2006's new-home inventory with a 22 percent reduction in construction in that year. Those reductions continued through 2009, when new-home permits sank to approximately 1,250, the lowest in 30 years. Prior to 2007, the lowest new-home permit year was 1981, with 4,674 permits. Because housing permits from previous years can be utilized by builders, it appears that the actual number of new homes constructed in Hampton Roads in 2009 has been 1,887, a 76 percent decline from 2003.

Graph 16 also demonstrates a crucial relationship – that between total regional employment and the level of new-home construction in Hampton Roads. In fact, total employment, including military personnel, is an important aid in predicting new-home construction. Military employment is likely to remain stable in 2009. However, civilian employment has fallen in 2009. **Given falling employment numbers and an already large inventory of homes for sale, it does not seem likely either that new-home construction will increase significantly, or that housing markets will improve dramatically in 2010.**

## HOUSING FORECLOSURES

A housing foreclosure is the legal process whereby the ownership of a property is terminated. Typically, it involves the forced sale of the property by the lender to a new owner, sometimes at a public auction. Foreclosures influence both the existing and future supplies of for-sale housing. **Graph 17 reveals that foreclosure filings in Hampton Roads were 11 times higher in 2009 than in 2006.** Although the federal government has allocated significant financial resources through the Troubled Asset Relief Program (TARP) in an effort to help keep stressed homeowners in their houses, 2009 filings in Hampton Roads are expected to rise by 30 percent over those of 2008. The large number of recent foreclosure filings (some of which involved renegotiated mortgages with easier terms) poses a serious threat to home prices in Hampton Roads and will delay housing price stabilization.

## VACANCY RATES

Oftentimes, homes that cannot be sold either stand vacant, or they are rented. What has been happening in this regard in Hampton Roads? Approximately

14,200 homes stood vacant in 2008. This is about 4,500 units above the historical mean for our region. Large numbers of home vacancies help create impressions of weak and struggling housing markets. **Graph 18 demonstrates that home vacancy rates are higher now than they have been in the past 20 years. Meanwhile, rental vacancy rates have fallen more than 50 percent since 2004-05. In a nutshell, many people have chosen to rent rather than to own.** This could reflect the fact that their economic circumstances have deteriorated, or that higher mortgage standards mean they cannot obtain a mortgage.

## COMPARING OWNING TO RENTING

Rational home buyers weigh the price of renting against that of owning before purchasing a home. Table 2 compares the median cost of renting a three-bedroom home to the monthly mortgage payment for a comparable home. One can see that in 2003, owning one's own home, and paying down a mortgage, appeared to be a better deal than renting the same home. However, as housing prices inflated rapidly, by 2006 it was clear that renting was increasingly attractive.

**The "owning versus renting" ratios in Table 2 tell us that the calculus has recently swung in favor of buying rather than renting.** While many factors determine whether one chooses to own or rent, the limited analysis presented in Table 2 informs us that the general economics of owning a home are about as favorable in 2009 as in 2001, before the housing bubble inflated. Viewed historically, mortgage rates are relatively low and this contributes to the lower ratios.

The decline in the owning versus renting ratio should add buyers to the housing market, assuming they have jobs generating respectable incomes and can obtain mortgages. Let's focus on the income aspect of this situation. Since 2006, median household income needed to pay the principle and interest on a mortgage for the purchase of the median-priced home in Hampton Roads has fallen by one-third. Indeed, Graph 19 shows that by this measure, regional housing is at its most affordable level in 10 years and is not very far away from its most affordable scenario in the past 30 years. Housing prices have fallen, mortgage rates are modest and regional incomes have been rising, albeit not

**TABLE 2**

**ESTIMATED HOUSE RENTAL AND PRINCIPLE AND INTEREST FOR A HOUSE PAYMENT IN HAMPTON ROADS, 2000-2009**

	<b>Median Monthly Rent for a Three-Bedroom House</b>	<b>P&amp;I Monthly for a Median House</b>	<b>Ratio of Monthly P&amp;I to Rent</b>
2000	\$882	\$ 854	0.97
2001	911	809	0.89
2002	1,037	827	0.8
2003	1,044	779	0.75
2004	1,087	971	0.89
2005	1,118	1,202	1.08
2006	1,164	1,459	1.25
2007	1,257	1,495	1.19
2008	1,336	1,472	1.1
2009	1,315	1,171	0.89

Sources: U.S. Department of Housing and Urban Development and the Old Dominion University Economic Forecasting Project

by a lot. The bottom line? **The data tell us this is one of the best times in recent decades to purchase a home.**

The increased affordability of housing enhances the pool of buyers eligible to purchase homes in Hampton Roads, if these individuals have the confidence to do so and can qualify for a mortgage. Of course, realism requires us to note that one's ability to obtain a mortgage is not the same in 2009 as it was in 2001. A non-negligible down payment now is required in most cases, prospective borrowers must have good credit records, and they must be able to document their employment and income stream. These requirements may seem to represent the essence of common sense, but often were relaxed or eliminated in the first half of this decade by many lenders. This ill-advised behavior was one of the causes of the housing crisis we now are observing.

RELATING HOUSING SUPPLY TO HOUSING DEMAND

Despite the recent draconian reductions in new-home building, the current supply of houses in the Hampton Roads housing market is near historical highs. On the demand side, rising unemployment and rising consumer caution have more than offset the decline in the relative price of owning versus renting and the greater affordability of housing. Putting these two sides of the Hampton Roads housing market together, it appears that 2009 will see continued distress as housing prices continue to edge downward to correct the imbalance between demand and supply.

Graph 20 displays estimates of excess supply and demand in regional housing markets relative to annual changes in real (inflation-adjusted) house prices for 1995 to 2009. For example, in 1996, there was an excess supply of housing amounting to more than 2,000 units in light of the supply-and-demand influences we have just sketched. By 2004, things had reversed and there was excess demand for housing by 5,028 units. In that year, home prices increased 22 percent in Hampton Roads. Many readers may remember homes being sold before even going formally on the market; unsolicited buyers appearing at someone's front door; buyers actively bidding against each other for specific properties; low interest rates; lax lending standards; and homes selling for more than their owners' asking prices. It appeared that there was a shortage of homes for sale. This was excess demand in full flower and it contributed to the housing price bubble, which began to deflate already in early 2007.

By 2008, the estimated excess supply of housing had risen to 4,555 units and remains historically high at 4,318 units in 2009. It is this excess supply that continues to put downward pressure on prices in the region's housing market.

Is the current excess supply condition likely to change? **The Old Dominion University Economic Forecasting Project estimates that home prices will decline another 5 percent in 2009. It seems likely that additional downward price adjustments are likely in 2010.** Graph 21 shows that it will take time to bring the housing market back to equilibrium. Sales have been declining and the typical home now remains on the market 83 days, up from only 27 days in 2004. This will do little to diminish the excess supply of homes for sale.

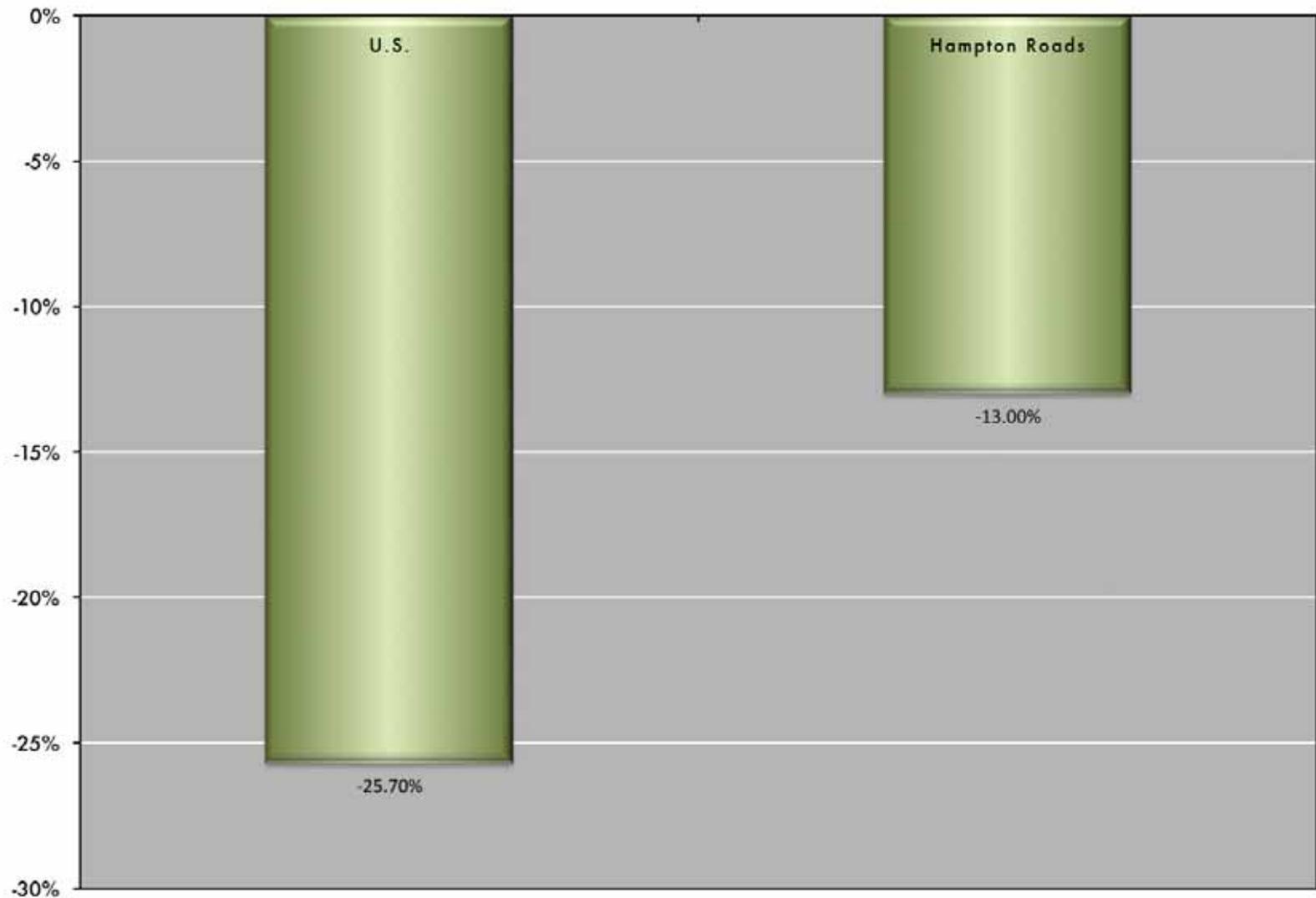
Ironically, if the housing crisis had been deeper in Hampton Roads, and home prices had fallen more, then the region's chances for a quick rebound would be more favorable. It's not a mystery. Other things held constant, falling prices stimulate sales. When prices don't fall very much (and they have fallen much less in Hampton Roads than nationally), it takes housing markets longer to "clear," that is, to attain rough equilibrium between supply and demand.

**Miscellaneous blips in housing numbers during the past year have caused some observers to posit that regional residential housing markets are "turning around." There are at least four major measures of residential housing market performance – unsold inventory, number of sales, sales price and days on market until sale. In any given month, one of these variables might reverse course, but it signals little. When all four indicators reverse course, it will be time to take notice. The harsh reality is that this is unlikely to occur unless employment within the region begins to move upward. Until then, regional housing markets are unlikely to change significantly.**

Since World War II, Hampton Roads has experienced several spells when housing markets were in the doldrums for half a decade. We could be traversing such a time period now – one that began in early 2007, but still has a ways to go. We have spoken of several harsh realities. Yet another is that the general, overall economic conditions to which our housing markets are so sensitive are determined substantially by factors well outside of our local and regional control. Let's examine one of those outside factors, the federal government's economic stimulus plan, in the next section.



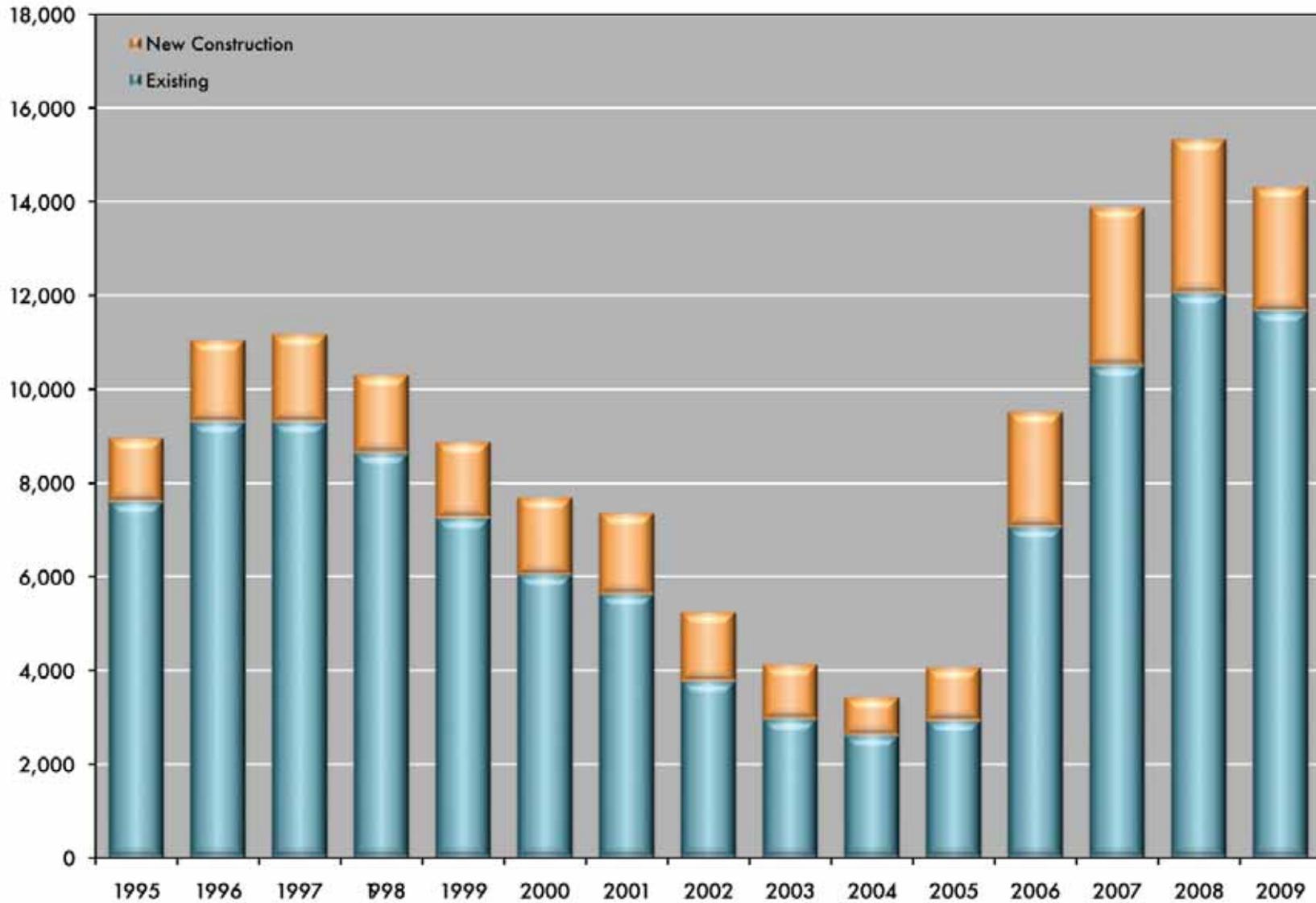
**GRAPH 14**  
**CUMULATIVE DECLINE IN MEDIAN SINGLE-FAMILY HOUSE PRICES FOR**  
**EXISTING HOMES, FROM PEAK\* TO 1<sup>ST</sup> QUARTER 2009**



Sources: National Association of Realtors (NAR), the Real Estate Information Network Inc.(REIN) and the Old Dominion University Economic Forecasting Project

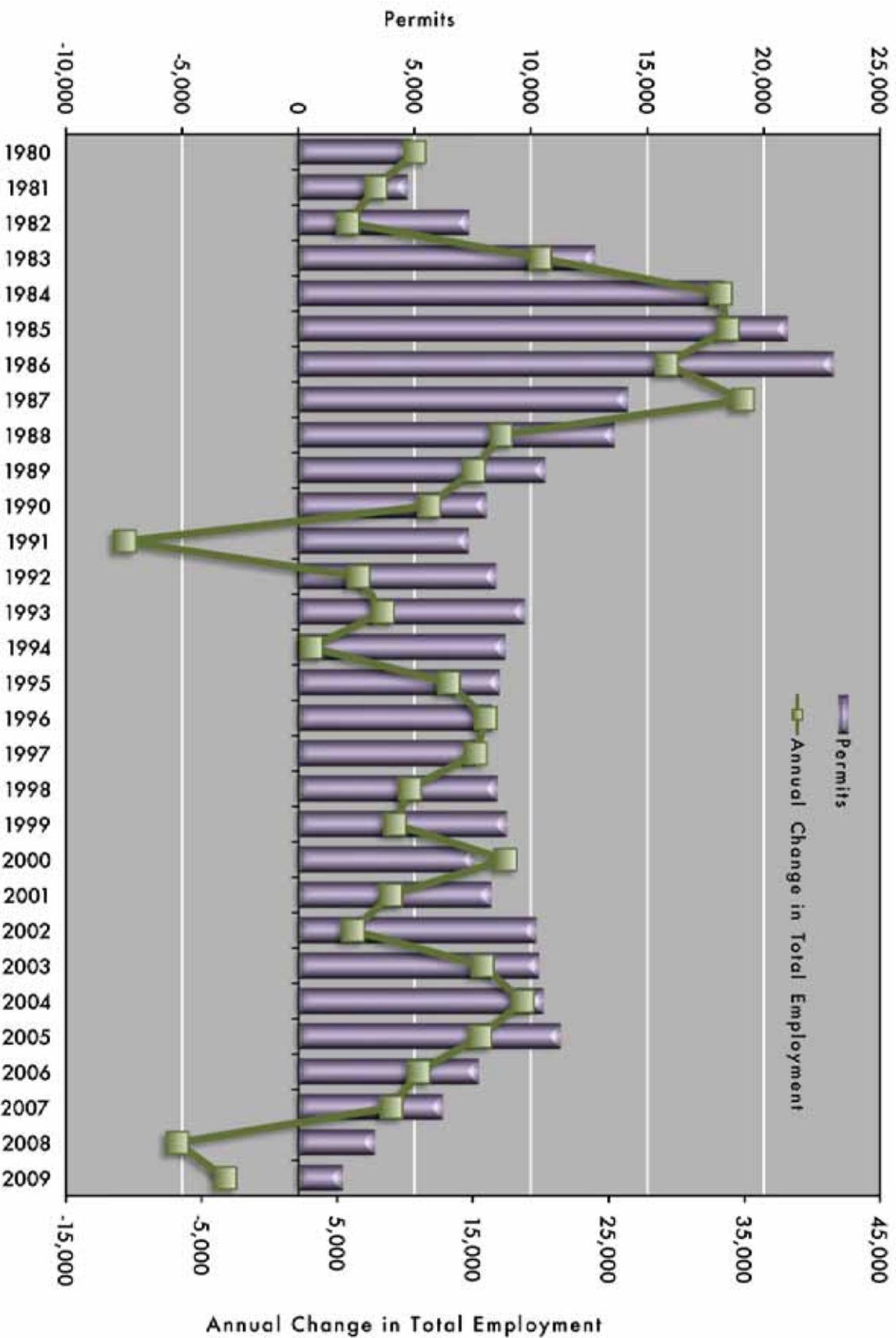
\*U.S. house prices peaked in 3Q 2005 (NAR); Hampton Roads in 3Q 2007 (REIN)

**GRAPH 15**  
**ESTIMATED INVENTORY OF TOTAL (NEW CONSTRUCTION AND EXISTING) RESIDENTIAL HOME**  
**IN HAMPTON ROADS, ACTIVE LISTINGS ON MAY 31 OF EACH YEAR**



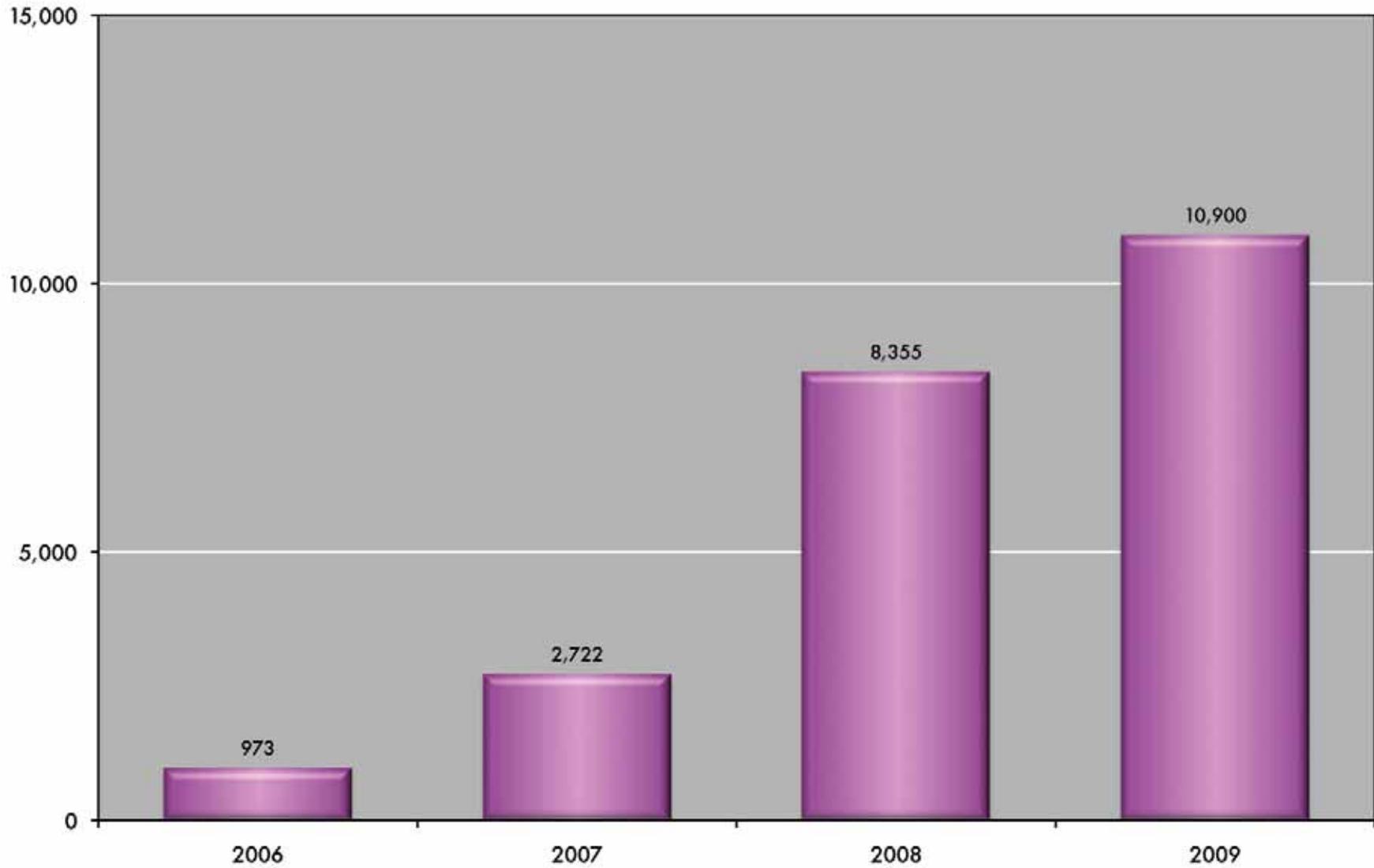
Sources: Real Estate Information Network Inc. and the Old Dominion University Economic Forecasting Project (information deemed reliable but not guaranteed)

**GRAPH 16**  
**ANNUAL CHANGE IN TOTAL EMPLOYMENT AND NEW HOUSING PERMITS**  
**IN HAMPTON ROADS, 1980-2009**



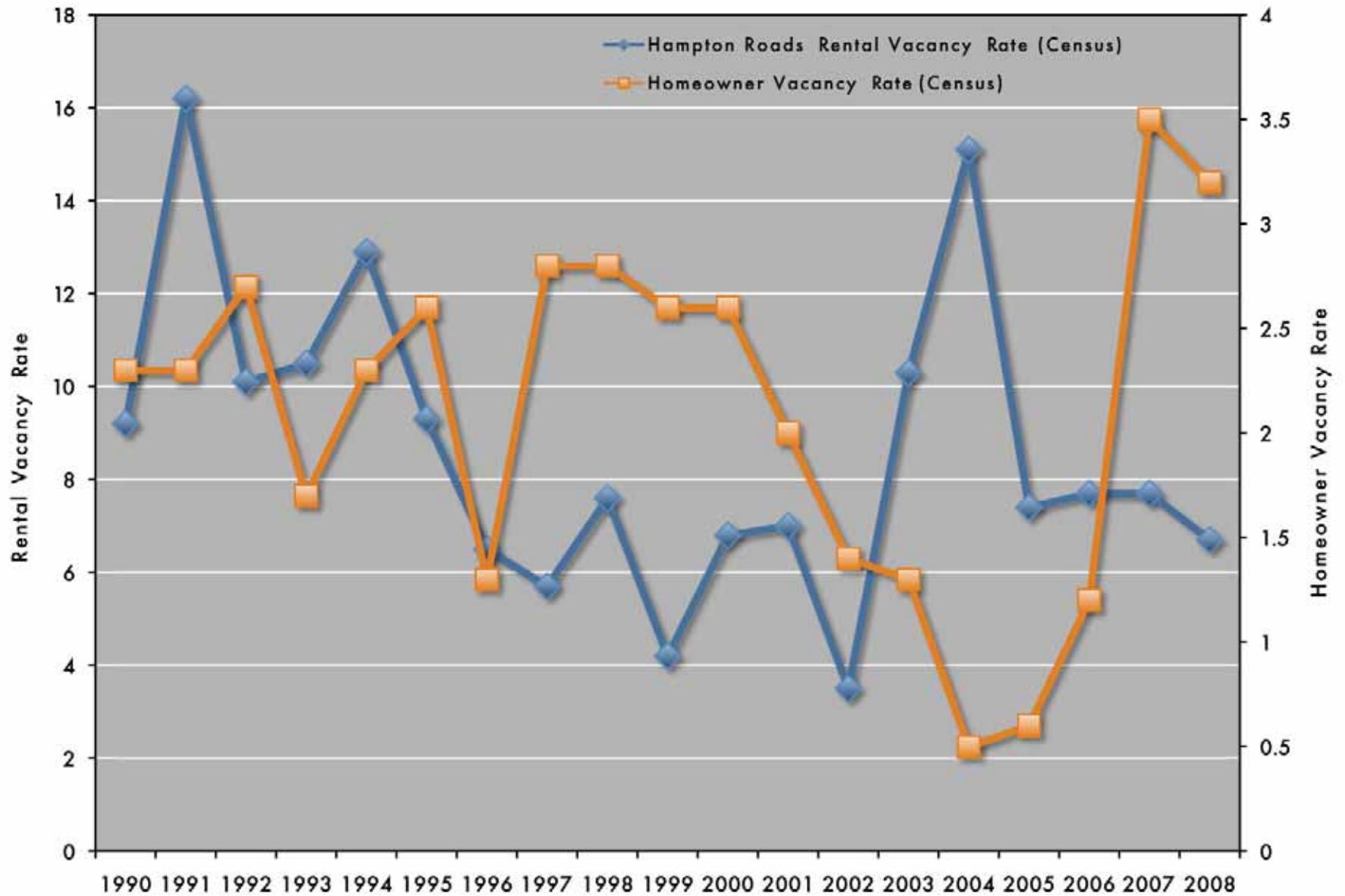
Sources: U.S. Census Bureau and the Old Dominion University Economic Forecasting Project  
 \* Actual 1991 total employment change is a negative 10,658 jobs

**GRAPH 17**  
**HAMPTON ROADS RESIDENTIAL FORECLOSURE FILINGS, 2006 TO 2009**



Sources: Realty Trac and the Old Dominion University Economic Forecasting Project

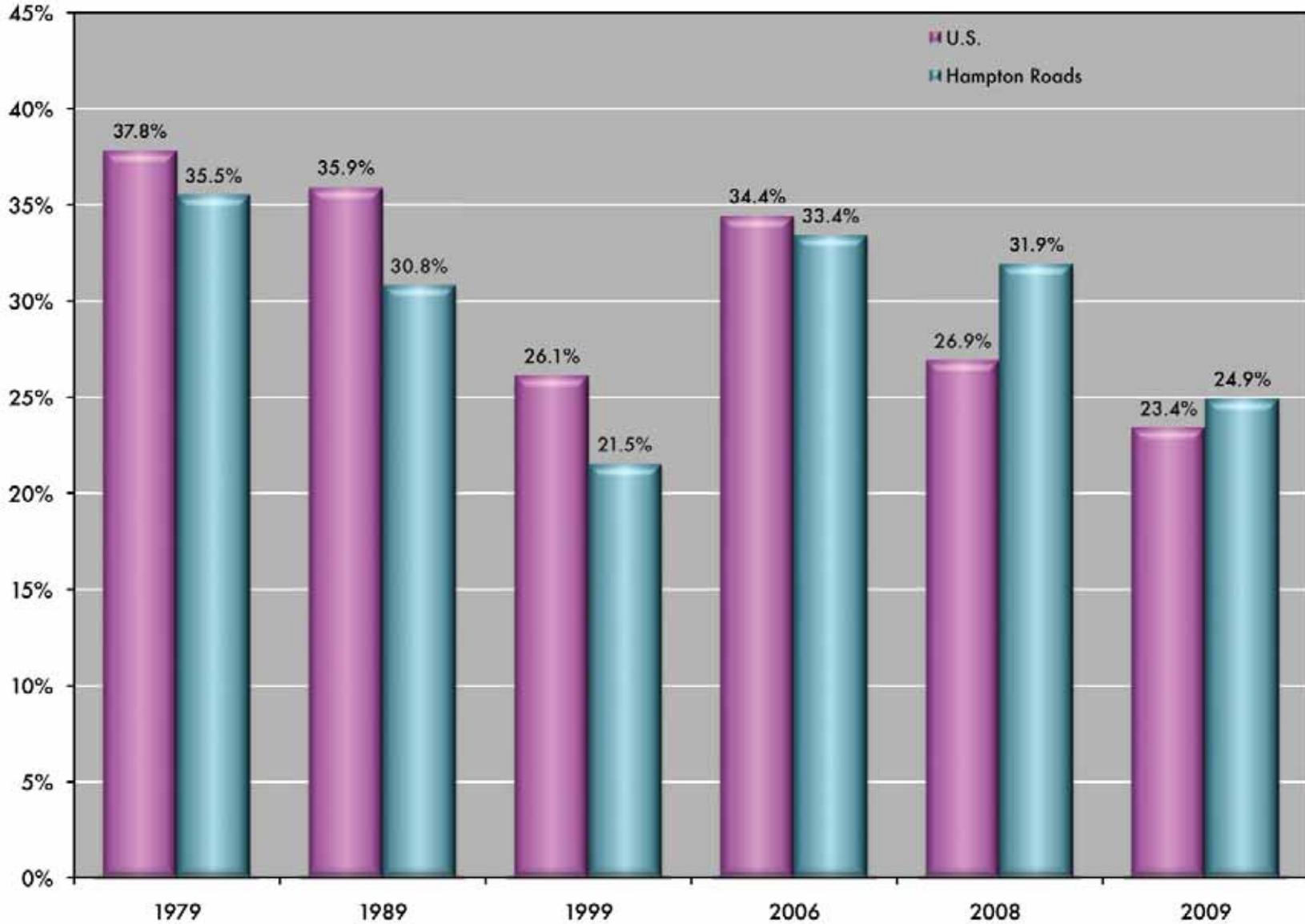
**GRAPH 18**  
**RENTAL AND HOMEOWNER VACANCY RATES, HAMPTON ROADS, 1990-2008**



Source: U.S. Census Bureau

**GRAPH 19**

**HOUSING AFFORDABILITY: MONTHLY PAYMENT FOR A MEDIAN PRICE RESALE HOUSE AS A PERCENTAGE OF MEDIAN HOUSEHOLD MONTHLY INCOME IN HAMPTON ROADS AND THE U.S., 1979 TO 2009**



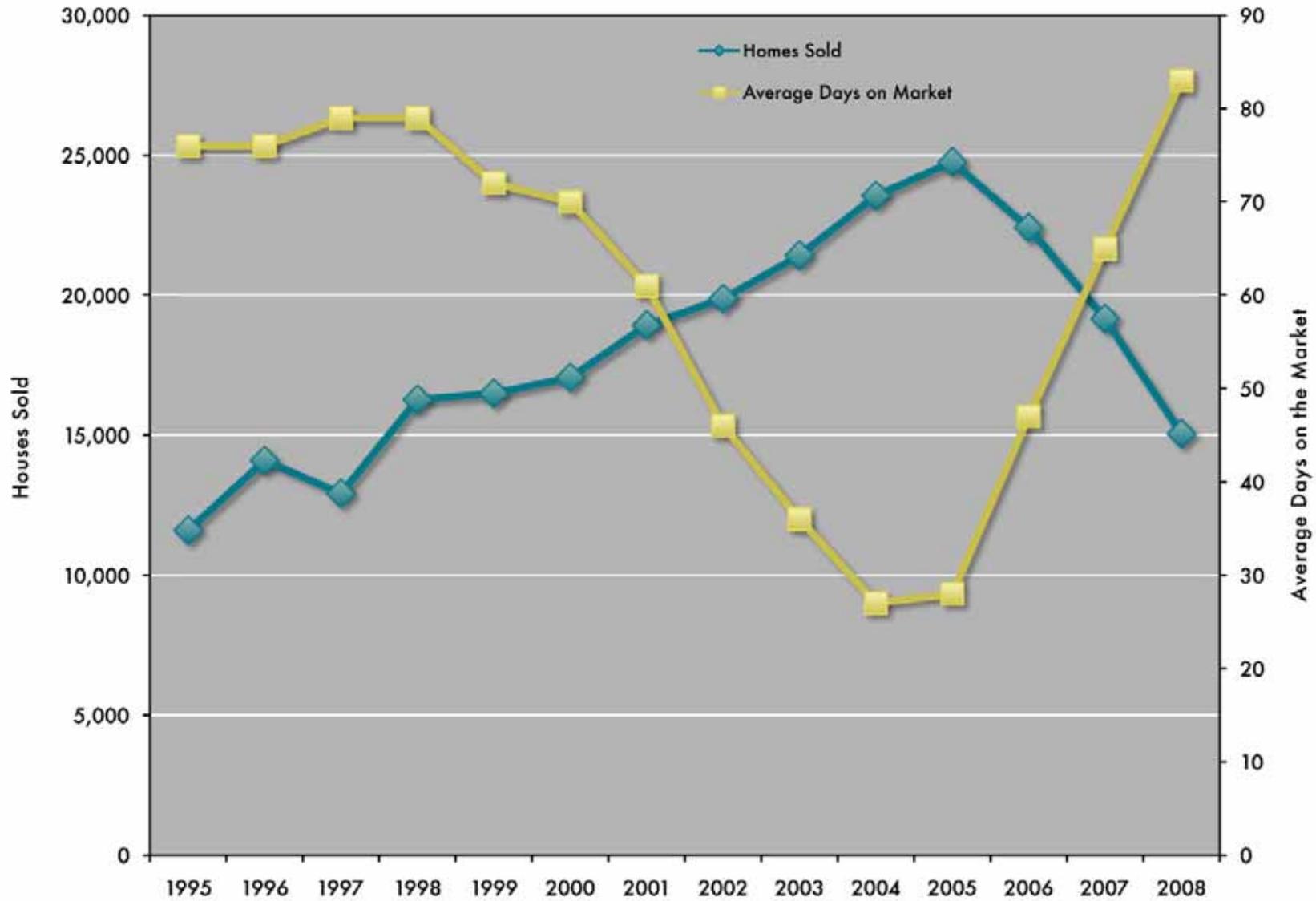
Source: Old Dominion University Economic Forecasting Project

**GRAPH 20**  
**ESTIMATED EXCESS SUPPLY/EXCESS DEMAND OF HOUSES IN THE HAMPTON ROADS**  
**SINGLE-FAMILY HOUSING MARKET (RIGHT SCALE) RELATIVE TO THE ANNUAL**  
**CHANGE IN REAL HOUSE PRICES (LEFT SCALE)**



Source: Old Dominion University Economic Forecasting Project

**GRAPH 21**  
**HAMPTON ROADS EXISTING RESIDENTIAL HOMES SOLD AND AVERAGE NUMBER**  
**OF DAYS ON THE MARKET (1995-2008)**



Sources: Real Estate Information Network Inc. and the Old Dominion University Economic Forecasting Project  
 (Days on market calculated from the date listed to the date under contract for existing homes sold.)

# The Economic Stimulus Plan

In February 2009, Congress passed the American Recovery and Reinvestment Act of 2009, or “Economic Stimulus Plan” (ESP), with a budget of \$787 billion. The plan consists of a combination of tax cuts and additional spending financed by the federal government. The plan could have a positive and significant effect on our regional economy in 2009, if people spend rather than save their tax cuts and if the monies scheduled for Virginia and Hampton Roads actually are spent. Neither of these conditions should be taken as a given. Recent “one-time-only” tax cuts have hardly registered a blip on the screen of household consumption. Perhaps households will view these tax cuts as “permanent” and behave differently. By mid-summer 2009, only about 10 percent of all ESP monies actually had been expended nationally. The upshot is that the economic impact of the ESP may be smaller than anticipated and will only begin to be felt in the latter months of 2009 and in 2010.

Spending from the ESP will reach Hampton Roads from multiple sources, including direct Virginia allocations to the region’s local governments, increased Commonwealth spending that affects the region (for example, increased unemployment compensation eligibility and road repair), federal tax reductions, federal spending and subsidies, and increased demand for goods produced in Hampton Roads and sold outside of the region.

**Virginia’s allocation from the ESP is \$7.19 billion, to be spent over the period from 2009 to 2011. Taking into account money allocated back to Virginia’s “rainy day” fund, based on a per capita estimate, Hampton Roads might receive about \$1.4 billion in tax and spending benefits between now and 2011. Bear in mind, however, that at this stage in the allocation process, there is no precise way to know the final tally of Virginia ESP funds that eventually will be spent in Hampton Roads.**

Even so, we can gain a sense of spending that might be targeted here. By mid-summer 2009, the Commonwealth had committed \$318.8 million of ESP funds to Hampton Roads governmental units. The data in Table 3 reflect the reality that

our current allocation is heavily concentrated upon spending for education: \$275 million, or 86 percent of ESP funds, is targeted for education. It is likely that there will be more funds directly allocated to Hampton Roads as spending plans submitted by localities wend their way through the approval process.

**TABLE 3**

**ECONOMIC STIMULUS FUNDS (AMERICAN RECOVERY AND RE-INVESTMENT ACT) ALLOCATED DIRECTLY TO HAMPTON ROADS AS OF JUNE 2009**

Purpose	Allocation (Millions)
Education	
K-12	\$166.2
Higher Education	\$50
Special Education	\$58.8
Highways and Budgets	\$34
Other	\$9.8
<b>Total</b>	<b>\$318.8</b>

Source: Commonwealth of Virginia

How will these dollars affect economic life in Hampton Roads? That is, what impact upon employment and GRP (gross regional product) will these expenditures have? There is some economic controversy attached to the administration’s ESP score card in this regard. Using the administration’s methodology (Christina Romer and Jared Bernstein, “The Job Impact of the American Recovery and Reinvestment Plan,” Obama Administration Transition Papers, Jan. 11, 2009), the Old Dominion University Economic Forecasting Project has developed ESP job and GRP estimates for Hampton Roads. Table 4 reveals these estimates, which predict that 8,537 jobs will be “saved” or created in 2009, and that \$314 million will be added to the GRP. Comparable predictions for 2010 are 20,131 jobs and \$988.5 million added to the GRP.

**TABLE 4**

**ESTIMATED JOBS “SAVED” OR CREATED IN HAMPTON ROADS BY THE AMERICAN RECOVERY AND REINVESTMENT ACT AS OF THE FOURTH QUARTER OF EACH YEAR, AND ESTIMATED ADDITION TO GRP**

<b>Year</b>	<b>Estimated Jobs Saved or Created as of the 4th Qtr</b>	<b>Estimated Output Added to the GRP (Millions of \$)</b>
2009	8,537	\$314.4
2010	20,131	\$988.5

Source: Old Dominion University Economic Forecasting Project

Graph 22 estimates how the predicted “saved” or created jobs will be distributed across major segments of the regional economy by the end of 2010. Construction jobs (presumably reflecting building and road construction) will increase the most. Curiously, even though the lion’s share of expenditures thus far has focused on education, the combined category of education and health services ranks only seventh among segments in terms of the predicted jobs impact.

There are several problems with the Romer-Bernstein methodology that stand behind these projections. First and foremost, the notion of a “saved” job ultimately is impossible to know or to measure. It is based upon a counterfactual examination of what would have happened except for ESP tax cuts and spending. An econometrician can generate a mathematical answer in such a situation. But, that answer will rely upon critical assumptions such as how much of their tax cuts households actually will spend and how quickly monies allocated for particular tasks such as construction will be spent. Recall the flaccid effect upon consumer spending of stimulus checks sent to American taxpayers in the past few years. Households chose to save these monies rather than spend them, and this confounded the forecasts of some. Pursuing this illustration, in 2009

and 2010, rising savings rates (review Graph 13) could stifle expenditures and wreak havoc on the optimistic Romer-Bernstein projections.

A second problem is that the models of Romer-Bernstein predicted that the national unemployment rate would top out at 8 percent if the ESP were passed. It did pass in February 2009, but in mid-summer 2009, the rate of unemployment already was 9.1 percent and at this writing appears headed for the 10 percent neighborhood. This suggests either that the duo’s models are inaccurate, or that they are politically driven.

Those criticisms understood, we should offer some charitable words about the work of Romer-Bernstein. The current economic recession is the most complicated contraction since the Great Depression of the 1930s. This recession is complicated by the implosion of major financial institutions, massive uncertainty associated with new asset packages that few actually understand, and an anguishing housing crisis brought on by the failure or malfeasance of multiple institutions and trainloads of unwise behavior by both businesses and individuals. It is not easy to model such circumstances and to make projections that could be invalidated in a minute by the actions of uncontrollable factors such as the weather, the decisions of the mullahs of Iran, or the missile shots of the “Dear Leader” of North Korea. **A well-known aphorism among economic forecasters is that those who rely upon the crystal ball sooner or later are destined to eat glass. So also is it here. This is an unpredictable time and individuals such as Romer-Bernstein face huge obstacles as they attempt to model what is going on in the American economy. However, these uncertain circumstances also warn us that perhaps we should take the already outdated Romer-Bernstein projections *cum grano salis*.**

# The Regional Banking Industry

Since the failure of Lehman Brothers in September 2008, news about the banking industry and the viability of banks has been prominently featured in the media. In April 2009, the Federal Reserve Bank completed a well-publicized “stress test” of the 19 largest banking organizations located in the United States. The objective of this test was similar to that of the Bank Holiday of 1933: restore confidence in the banking system by demonstrating that the examined banks are healthy. If the stress test demonstrated that banks were sufficiently capitalized, and consequently their prospects for survival likely under the most adverse economic circumstances, then confidence in the banking system would be restored.

Many of these 19 institutions take deposits in Hampton Roads, including SunTrust, Bank of America, Wachovia (now Wells Fargo) and BB&T. All of these banks were recipients of U.S. Treasury Troubled Asset Relief Program (TARP) money and as a result are better capitalized than they would have been without this program. The stress test provided much readily available information about the financial status and potential viability of these banks. However, what about other banks that take deposits in Hampton Roads? What about our local and regional banks? Are they well capitalized? Can they withstand a severe economic downturn?

## BASEL 1 REQUIREMENTS AND THE FED’S STRESS TEST

Two useful statistics that provide us information about the soundness of a bank are the relative size of its Tier 1 risk capital and its non-performing loans as a percentage of its total assets. Let’s examine each of these measures in greater detail.

The Tier 1 risk-based capital ratio measures a bank’s ability to maintain its solvency, both today and in the future. It represents a bank’s immediate ability to satisfy its depositors if they wish to withdraw funds and/or to survive and prosper if those it has lent money to cannot pay that money back. What is the appropriate Tier 1 risk-based capital ratio for a bank? A set of banking agreements known as the Basel Accords (1988 and subsequent years) established internationally recognized comparative standards and benchmarks for bank performance. The Basel 1 standard requires that banks hold capital equal to at least 4 percent of their risk-weighted assets for “minimum adequacy” to protect those banks against future credit and lending risks.<sup>1</sup> Nevertheless, in its spring 2009 bank stress test, the Federal Reserve set an even higher standard – 6 percent Tier 1 capital – that banks needed to meet.

Table 5 reports Tier 1 risk-based capital ratio data for 10 local and regional banks (but none of the 19 nationally oriented banks already subjected to a stress test by the Federal Reserve). RBC Centura, though a Canadian bank with an international presence, was included among the 10 local and regional banks because it was not given a stress test by the Fed. We also have supplied data on each bank’s non-performing assets as a percentage of its total assets. Non-performing refers to a loan at least 30 days in arrears.

**As of first-quarter 2009, all 10 of the banks we tested clearly exceeded both the Basel 1 and the Fed’s Tier 1 risk-based capital standards.** There is, however, considerable variation among the banks with respect to the percentages of their non-performing loans. Nevertheless, even if these banks were able to recover only 30 cents on the dollar of their non-performing loans and were forced to write those loans off their books today, all of them would pass the Federal Reserve’s more stringent capital standard as of the first quarter of 2009.

1. The asset weights (to reflect risk) are: 0 percent for cash, central bank and government debt and any OECD government debt; 0 percent, 10 percent, 20 percent or 50 percent for public-sector debt; 20 percent for development bank debt, OECD bank debt, OECD securities firm debt, non-OECD bank debt (under one-year maturity) and non-OECD public-sector debt, cash in collection; 50 percent for residential mortgages; and 100 percent for private-sector debt, non-OECD bank debt (maturity over a year), real estate, plant and equipment, and capital instruments issued at other banks. A bank must maintain capital equal to at least 4 percent of its risk-weighted assets. For example, if a bank has risk-weighted assets of \$100 million, it must maintain capital of at least \$4 million.

**TABLE 5**

**FIRST QUARTER 2009 BANK RISK-BASED EQUITY CAPITAL AND NON-PERFORMING LOANS FOR REGIONAL BANKS IN HAMPTON ROADS**

	<b>Tier 1 Risk-Based Capital Ratio (Regulatory)</b>	<b>Non-Performing Loans* as a % of Assets</b>
Monarch Bank	10.69%	1.29%
Towne Bank	12.15%	0.34%
Old Point National	11.62%	1.41%
RBC Centura**	9.63%	3.32%
Heritage Bank	12.12%	0.01%
Fulton Bank	8.70%	1.36%
Bank of the Commonwealth	11.63%	5.69%
Bank of Hampton Roads	13.26%	1.61%
Farmers Bank	13.01%	1.85%
Virginia Company Bank	9.06%	0.91%

Sources: Federal Financial Institution Examination Council; the Federal Reserve Board; FRY-9C reports; and the Old Dominion University Economic Forecasting Project  
 \*Loans past due more than 90 days and still accruing plus all non-accruing loans, leases and other assets.  
 \*\* RBC Centura is not a Hampton Roads-based bank. However, it has numerous branches throughout the region. It was not one of the 19 banks the Federal Reserve publicly subjected to stress tests.

WHAT IF? SCENARIOS

The 10 Hampton Roads banks in Table 5 pass the Fed’s 6 percent risk capital benchmark. Even so, what if the recession worsens and unemployment in Hampton Roads climbs to 8 percent or 9 percent in 2010 from its current level of 6.5 percent (April 2009)? Such an economic scenario would place strains on our banks and likely would cause more delinquencies and defaults in the loan portfolios of the region’s banks. This “what if” is the motive behind stress testing banks. Let’s consider some of these possibilities.

Based on the Federal Reserve’s stress test methodology (“The Supervisory Capital Assessment Program: Design and Implementation,” Board of Governors, Federal Reserve Bank, April 24, 2009), the State of the Region report has designed and conducted a more demanding stress test of banks with home offices in Hampton Roads for the period covering 2009 and 2010. The home office banks included in the test sample are Bank of Hampton Roads, Bank of the Commonwealth, Towne Bank, Heritage Bank, Monarch Bank, Old Point Bank, Virginia Company Bank and Farmers Bank. RBC Centura (with its U.S. home office in North Carolina) and Fulton Bank (with its home office in Pennsylvania) were not included in this stress test sample because they carry large loan portfolios outside of Hampton Roads.

Table 6 presents an alternative economic scenario for Hampton Roads that is much less attractive than the scenario posed by the Federal Reserve in its stress test. For example, if the unemployment rate in 2010 is 10.3 percent rather than 8.8 percent, then how will this affect our local and regional banks? The different scenarios create different loan loss rates, which negatively affect a bank’s Tier 1 risk-equity capital. A range of projected loan loss rates was set by the Fed for the baseline and more adverse scenarios.

By the fourth quarter of 2010, the stress test results for Hampton Roads, displayed in Graph 23, found cumulative loan losses of \$376 million for all eight of the banks in the sample when the simulation was conducted under the conditions of the baseline economic scenario described above and in Table 6. The loan losses in this scenario are heavily concentrated in commercial real estate loans. CRE loans account for two-thirds of the projected total losses in the baseline scenario.

**TABLE 6****BANK STRESS TESTS: BASELINE AND MORE ADVERSE ECONOMIC SCENARIOS**

Real GDP	2009	2010
Average Baseline	-2.0%	2.1%
More Adverse	-3.3	0.5
<b>Civilian Unemployment Rate</b>		
Average Baseline	8.4%	8.8%
More Adverse	8.9	10.3
<b>House Prices</b>		
Baseline	-14%	-4%
More Adverse	-22	-7

Source: "The Supervisory Capital Assessment Program: Design and Implementation," Board of Governors, Federal Reserve Bank, April 24, 2009

When simulating the more adverse scenario, cumulative loan losses through the fourth quarter of 2010 rise to \$666 million, a 77 percent increase over the projected baseline losses. As with the baseline losses, the more adverse scenario losses are heavily concentrated in CREs and again accounted for nearly two-thirds of the projected total.

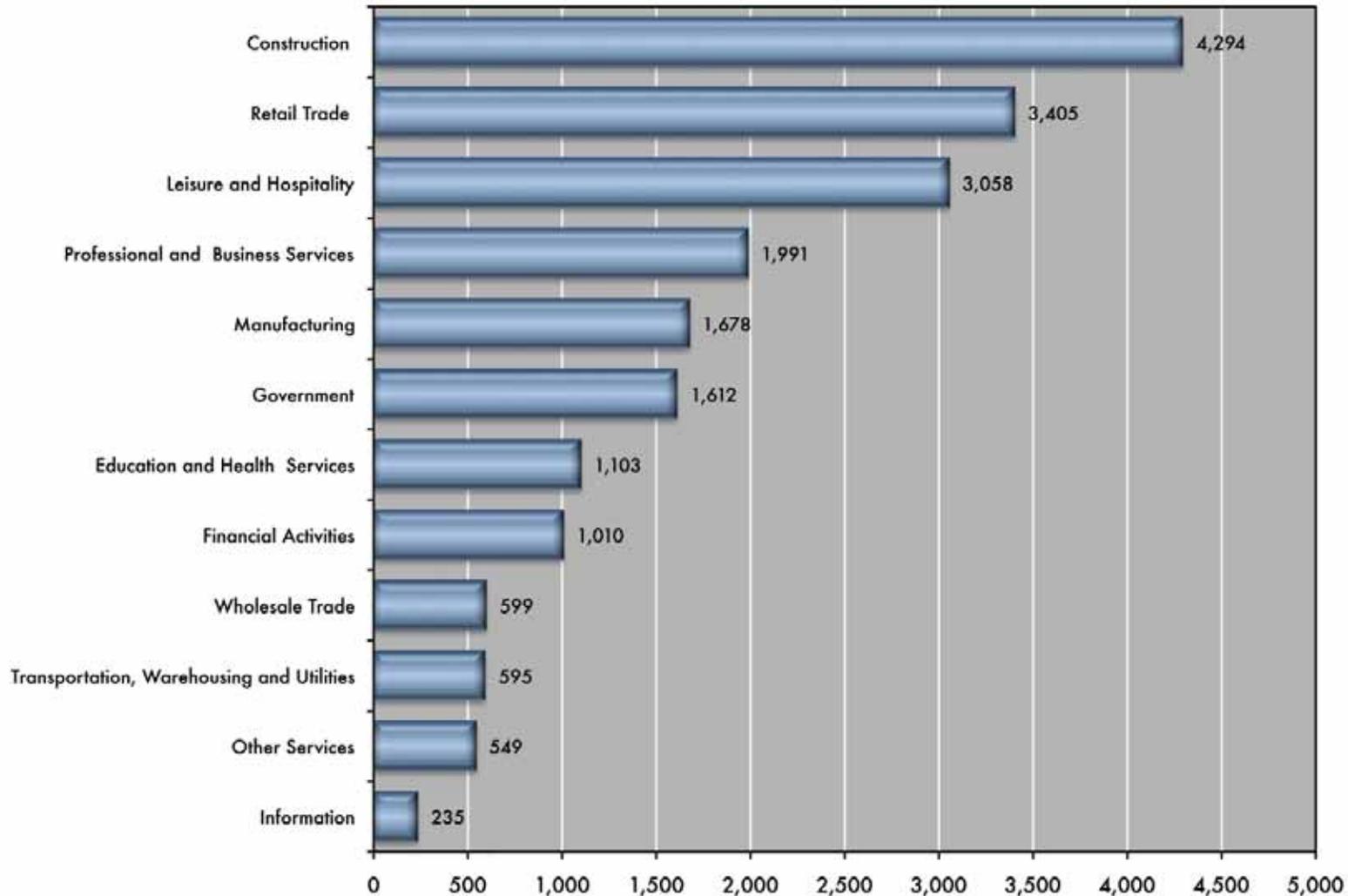
Tier 1 risk-based capital ratio stress test results are presented in Graph 24. Each ratio represents an average of all eight banks in the sample. For example, based on Federal Financial Institution Examination Council (FFIEC) data, in the fourth quarter of 2008 the average actual Tier 1 capital ratio for the eight banks was 11.9 percent. By the first quarter of 2009 the ratio had increased to 12 percent, double the Federal Reserve's stress test standard.

For the baseline case, which projects loan losses through the fourth quarter of 2010, despite loan losses of \$376 million, Hampton Roads-based banks as a group did well with respect to the average bank's Tier 1 risk-based capital ratio. The average for the sample of the eight banks, 8.9 percent, was well above that of the Federal Reserve's standard of 6 percent. Only one of the eight banks fell below the standard, and it would require only a modest infusion of equity capital, estimated at \$1.2 million, to bring it up to the Fed's standard.

Loan losses of \$666 million through the fourth quarter of 2010, generated by the economic conditions of the more adverse scenario, yield much different results. The Tier 1 capital ratio of the average bank in the sample group falls from the baseline scenario to 5.3 percent, well above the "minimum adequacy" requirement of Basel I but below that of the Federal Reserve's standard. Furthermore, six of the eight banks fall below the Federal Reserve standard in the more adverse scenario. To get these banks back above the standard would require an estimated capital infusion of \$21.57 million.

## GRAPH 22

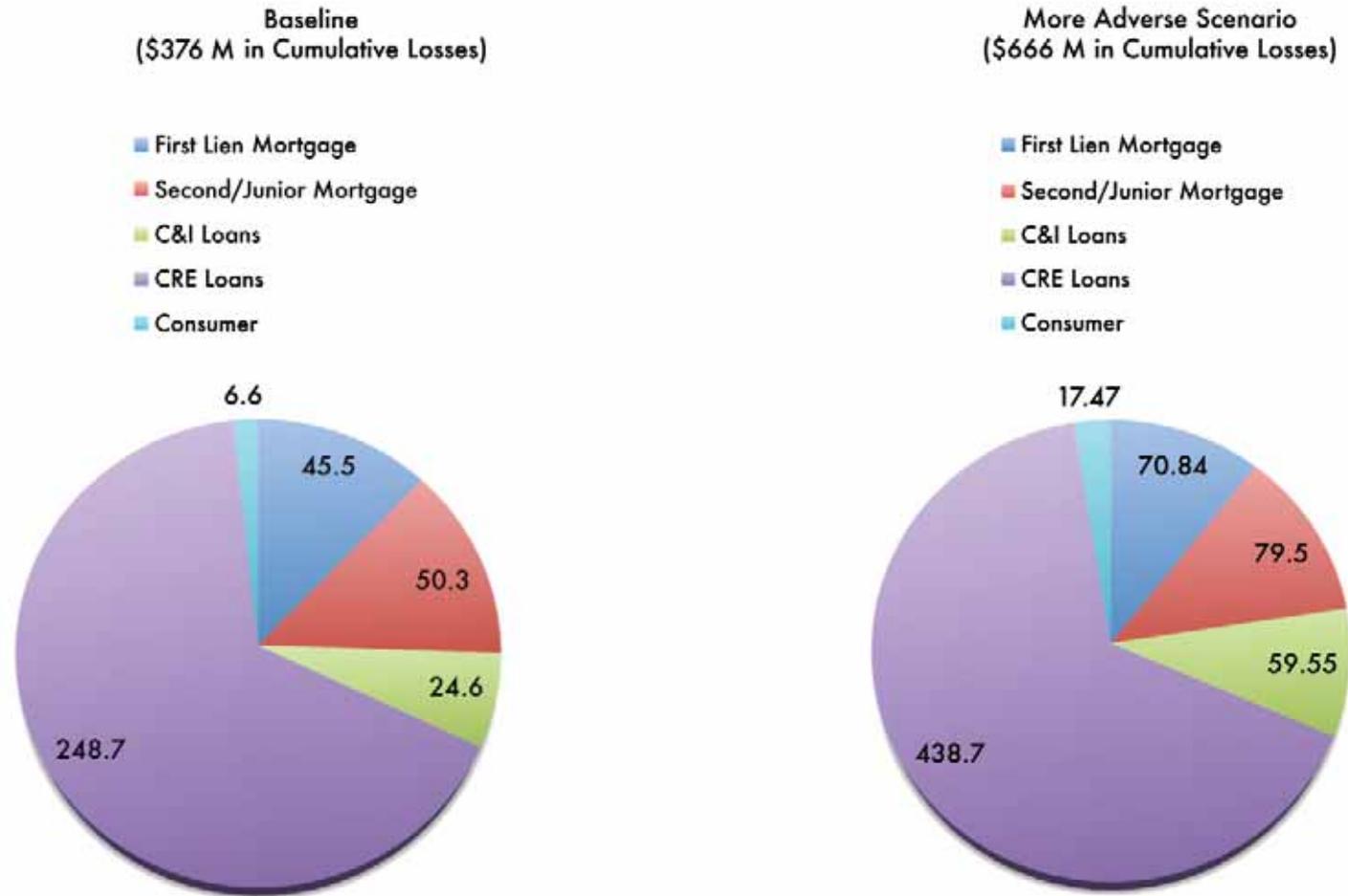
### ESTIMATED EMPLOYMENT IMPACT BY INDUSTRY WITHIN HAMPTON ROADS OF THE AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009 (ECONOMIC STIMULUS) THROUGH THE 4<sup>TH</sup> QUARTER OF 2010



Source: Old Dominion University Economic Forecasting Project  
(Estimates are based on the methodology presented by Christina Romer and Jared Bernstein in "The Job Impact of the American Recovery and Reinvestment Plan," Obama Administration Transition Papers, Jan. 11, 2009.)

**GRAPH 23**

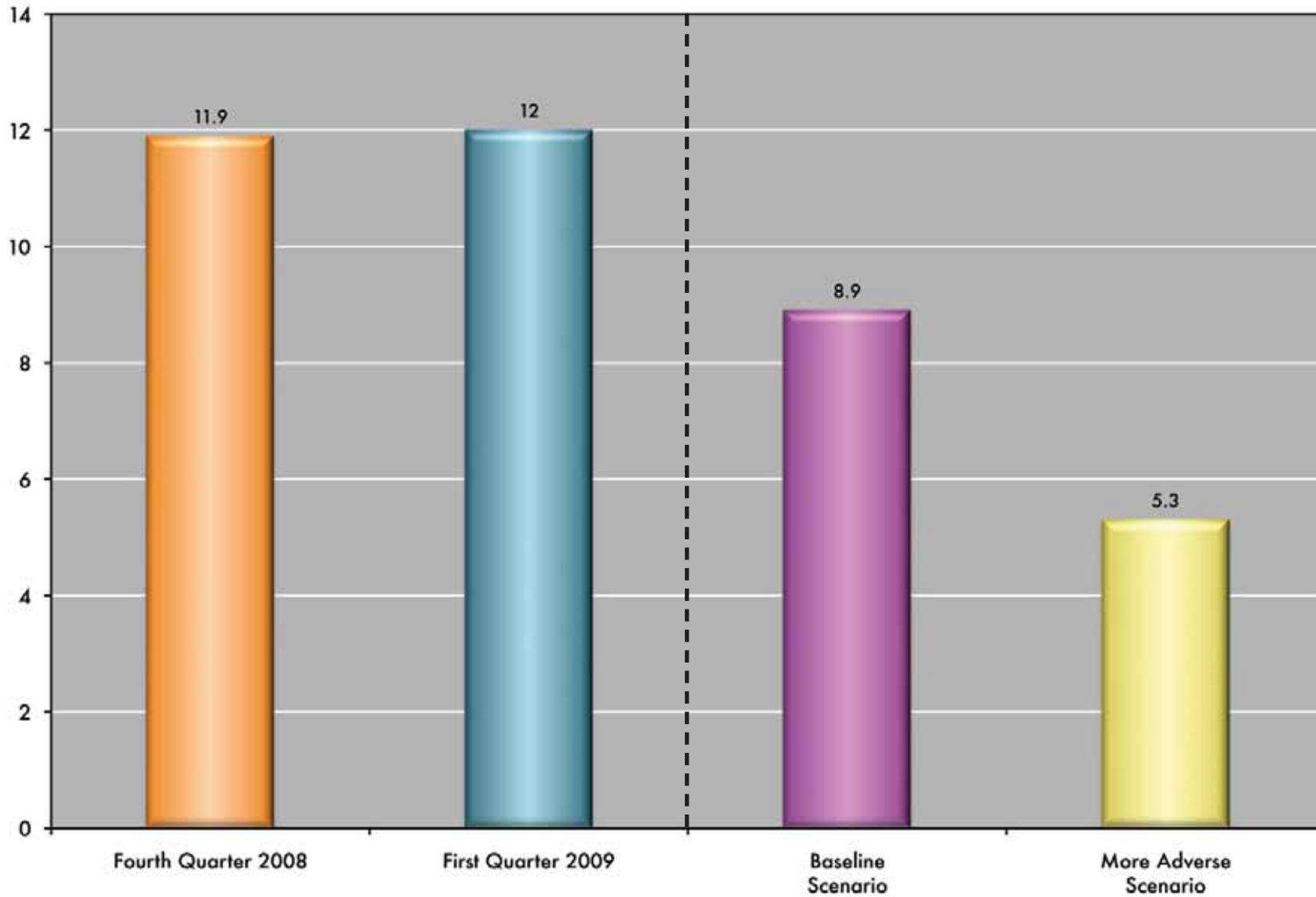
**STRESS TEST RESULTS: HAMPTON ROADS' REGIONAL BANKS ESTIMATED CUMULATIVE LOAN LOSSES  
BY ECONOMIC SCENARIO AND TYPE OF LOAN THROUGH 4<sup>TH</sup> QUARTER 2010  
(MILLIONS OF DOLLARS)**



Source: Old Dominion University Economic Forecasting Project

**GRAPH 24**

**STRESS TEST RESULTS: ESTIMATED AVERAGE TIER 1 RISK-BASED CAPITAL RATIO FOR HAMPTON ROADS' REGIONAL BANKS UNDER VARIOUS SCENARIOS THROUGH 4<sup>TH</sup> QUARTER 2010**



Source: Old Dominion University Economic Forecasting Project

## Providing Some Context

These are historic times, economically speaking. Unprecedented events, particularly in financial markets, have whizzed by our eyes in a blur since the middle of 2008. Like a “100-year” hurricane that we expect to see only once per century, the financial havoc of 2008 and 2009 was thought by most experts to be highly unlikely (at least, until it actually occurred!). Indeed, sophisticated quantitative risk evaluation models suggested that events such as the collapse of Lehman Brothers and AIG, while not unthinkable, were certainly highly improbable.

The problem was these models ingested faulty data that generated rose-colored predictions. Economic modelers, in fact, virtually all of the professionals in the financial system, did not sufficiently understand many of the new financial vehicles that had been developed. Some of these contained assets combinations (“tranches”) that disguised the presence of risky subprime mortgages and other potentially perilous asset blends. Hence, they relied upon data and risk estimates that were erroneous and subsequently underpriced those risks. Underpriced risks encouraged individuals, firms and the government to expose themselves to hazards that ordinarily they would eschew.

We have seen the results of these miscalculations, both nationally and in Hampton Roads. However, for us, there have been two important differences. First, regional economic conditions continue to lag national events. An important reason for this is that Hampton Roads contains fewer of the technology-intensive and manufacturing-heavy industries that usually lead national economic declines and expansions. Second, Department of Defense expenditures, which now account for more than 40 percent of our regional economy, have increased over the past year in Hampton Roads and therefore have diminished the impact of the national recession on us. Consequently, while unemployment rates have risen and housing prices have declined, these changes have been much more modest than those nationally.

Hampton Roads will recover economically when the country as a whole recovers. In the last analysis, our economic fate is largely dependent upon events and decisions that take place elsewhere. Because our residential housing markets are highly sensitive to overall economic conditions and regional employment numbers, we should not expect significant recovery in housing markets within Hampton Roads until we begin to see national economic recovery. Even then, the very high number of unsold houses that currently clogs our markets will cause that recovery to be gradual.

