the regional distribution of income

The Distribution Of Household Income In Hampton Roads

F. Scott Fitzgerald: *"The very rich are different from you and me."*

Ernest Hemingway*:* *"Yes, they have more money."*

In the 2001 "State of the Region" report, we analyzed the sources of income for Hampton Roads residents and found that the region has a proportionally larger middle class than many metropolitan areas. That is, it has more equality in its income distribution than many other metropolitan areas or the country as whole. **Hampton Roads, proportionately, does not have as many millionaires, or as many very poor people, as most other metropolitan areas of the United States. This is due in particular to a paucity of business income and capital gains, but also reflects the absence of the grinding poverty that characterizes many other large metropolitan areas.**

This year, we provide much more extensive data about regional distribution of income and discuss several implications.

The Regional Distribution Of Income

In May 2002, the Bureau of the Census released economic data gathered in its 2000 Decennial Household Survey. These data present a unique opportunity to explore in much greater detail the equality (inequality) of the region's income distribution and to compare Hampton Roads to other metropolitan areas.

The most common method used to illustrate the comparative degree of income equality, or inequality, is to draw something known as a Lorenz curve. We can use the latest U.S. census to produce Lorenz curves for Hampton Roads and other metropolitan areas. Graph 1 depicts Lorenz curves for Hampton Roads, the New York City metropolitan area and the entire United States. New York City was selected for this comparison, not because it is highly comparable to Hampton Roads, but rather because it is an easily understandable reference point.

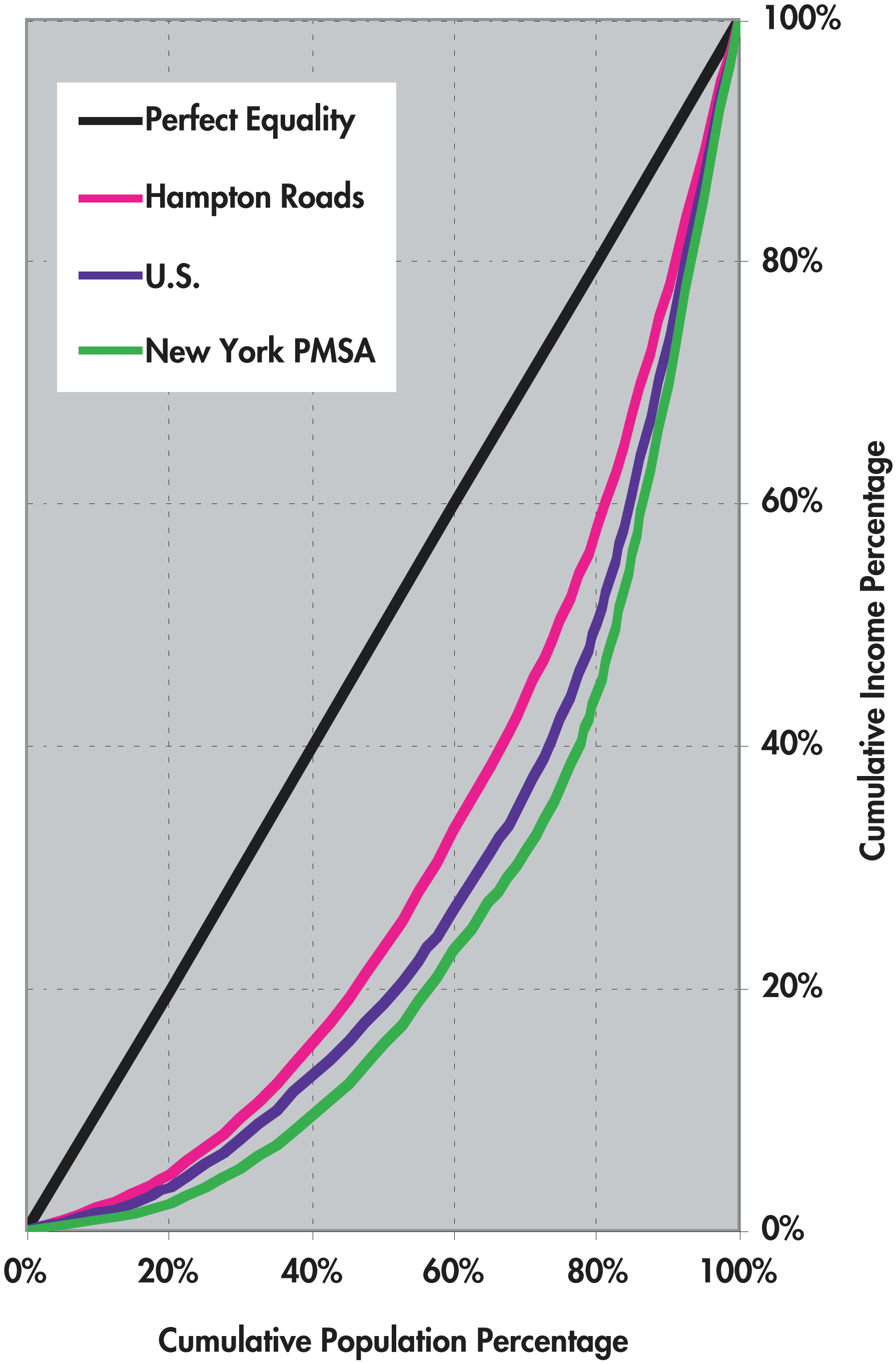
The vertical axis in Graph 1 measures the cumulative percentage of income earned by households. The horizontal axis measures the cumulative percentage of households, beginning with the household earning the lowest income. If all households earned precisely the same income, then the Lorenz curve would assume a 45-degree angle and look like the black line in Graph 1. For example, 50 percent of households would earn precisely 50 percent of the income. Seventy percent of the households would earn 70 percent of the income, and so forth.

The farther away from the black line the Lorenz curve for a particular metropolitan area or nation is, the more *unequal* the distribution of income among its households. Alternatively, the closer to the black line a region's Lorenz curve, the relatively more *equal* the distribution of income among its households.

Hampton Roads is represented by the magenta curve in Graph 1, while New York City is represented by the green curve and the entire United States by the violet curve. **One can see that New York City has the most unequal distribution of income, followed by the U.S., and then by Hampton Roads. Putting this the opposite way, Hampton Roads has a more equal distribution of income than that of the nation, which in turn has a more equal distribution of income than New York City.**

Graph 1

LORENZ CURVE FOR HAMPTON ROADS, NEW YORK PMSA AND U.S. 2000 HOUSEHOLD INCOME DISTRIBUTION



Source: Old Dominion University Economic Forecasting Project

Let's see why. In Graph 1, one can see that the *lowest* income-earning 60 percent of Hampton Roads households receive about 33 percent of the region's income, while the lowest 60 percent of the households in the United States and New York City earn only 26.6 and 23.1 percent, respectively.

Let's go to the other end of the income distribution. **The *highest* income-earning 20 percent of Hampton Roads households receive 41.9 percent of household income in the region. However, the same groups in the U.S. and New York City receive 49.7 and 55.5 percent of the income, respectively. This means that Hampton Roads has proportionately fewer poor people, but also proportionately fewer rich people, than either the nation as a whole or New York City.**

Is Hampton Roads' income distribution changing over time? There is a statistic known as the Gini coefficient that one can compute to answer this question. In brief, the Gini coefficient reduces the Lorenz curve to a single number by measuring the area inside the Lorenz curve as a proportion of the total area available in the triangle in Graph 1. If a Gini coefficient decreases as time passes, then the distribution of household income has become more equal. On the other hand, if it rises, then the distribution of income has become less equal.

Analysis of U.S. Census household income data for 1990 and 2000 indicate that the Gini index for Hampton Roads fell slightly between 1990 and 2000. **This means the region's income distribution became more equal over the 1990 to 2000 period. For example, the proportion of household income claimed by the top 20 percent of Hampton Roads households declined from 42.8 percent in 1990 to 41.9 percent in 2000.**

In general, the Gini coefficients for the rest of the nation did not fall between 1990 and 2000 because the distribution of income became more unequal in many metropolitan areas. In the entire United States, over the same time period, the Gini index *increased* slightly, indicating that the nation's distribution of income became less equal over the period. This reflects the fact that the top 20 percent of household income-earners' share of income rose from 47 percent in 1990 to 49.7 percent in 2000.

Why is income becoming more equally distributed in Hampton Roads, but the opposite is occurring in the rest of the country? There are several reasons. **First, relative to the rest of the United States, Hampton Roads did not benefit as much from the stock market boom of the 1990s.** As pointed out in last year's "State of the Region" report, Hampton Roads residents traditionally have earned fewer capital gains than citizens in other regions. **Also, this region generates less business income than the typical metropolitan area in the U.S. and this implies Hampton Roads did not have many truly booming businesses in the 1990s.** One small confirmation of this is the typical absence of any Hampton Roads firm from the list of the 100 fastest-growing firms in the country.

A second reason why income tends to be distributed more equally in Hampton Roads than elsewhere is that its regional economy continues to be highly dependent upon federal government expenditures for defense and for research at installations such as NASA and the Jefferson Laboratory. These activities simply do not generate the dynamic boom and bust scenarios that have come to be associated with Silicon Valley and dot.com entrepreneurial initiatives. Consequently, the region did not produce multiple thousands of business millionaires during the 1990s as was true in Seattle, Silicon Valley, Austin and Boston. Hampton Roads has its wealthy business leaders and entrepreneurs, but proportionally far fewer than one sees even in metropolitan areas such as Charlotte or Richmond.

How Large Is Hampton Roads' "Middle Class" Compared To That Of The Nation?

Graph 2 provides a vivid picture of the differences in the income distributions of Hampton Roads, New York City and the United States. One can see in Graph 2 that Hampton Roads' income distribution is far more heavily concentrated in the middle range of household incomes than that of the nation or New York City. The U.S., and especially New York City, have income distributions with much larger concentrations of households at both the high and low ends of the scale.

The middle-class orientation of Hampton Roads is further demonstrated in Table 1, which breaks down the distribution of income in three categories. Almost two-thirds of Hampton Roads households fall into this definition of the middle class. Of additional note is the fact that Hampton Roads' middle class has a higher concentration in the upper part of the middle-income range than either New York or the nation: 10.4 percent of Hampton Roads households, 10.1 percent of U.S. households and 9.6 percent of New York households are in the $75,000 to $100,000 income category. That is, Hampton Roads' middle class is proportionately larger and contains more individuals in its upper reaches.

Table1

THE PROPORTION OF HOUSEHOLD INCOME WITHIN EACH INCOME CATEGORY (2000)

	Hampton Roads	U.S.	New York
Lower Class (less than $25,000)	25.9%	32.7%	32.7%
Middle Class ($25,000-$99,000)	64.2%	58.6%	51.3%
Upper Class ($100,000 or more)	10.0%	12.3%	16.0%

Source: Old Dominion University Economic Forecasting Project

It is at the upper end of the income scale, which indicates household incomes of more than $100,000 per year, that Hampton Roads clearly begins to lag behind both the nation and the largest metropolitan areas. In fact, the deficit with respect to other regions becomes progressively greater as household income moves higher and higher. To some, this might not make any difference. However, as pointed out in last year's "State of the Region" report, it has negative ramifications for the region's economic and political clout. Whether or not we agree, income and wealth usually confer power and influence.

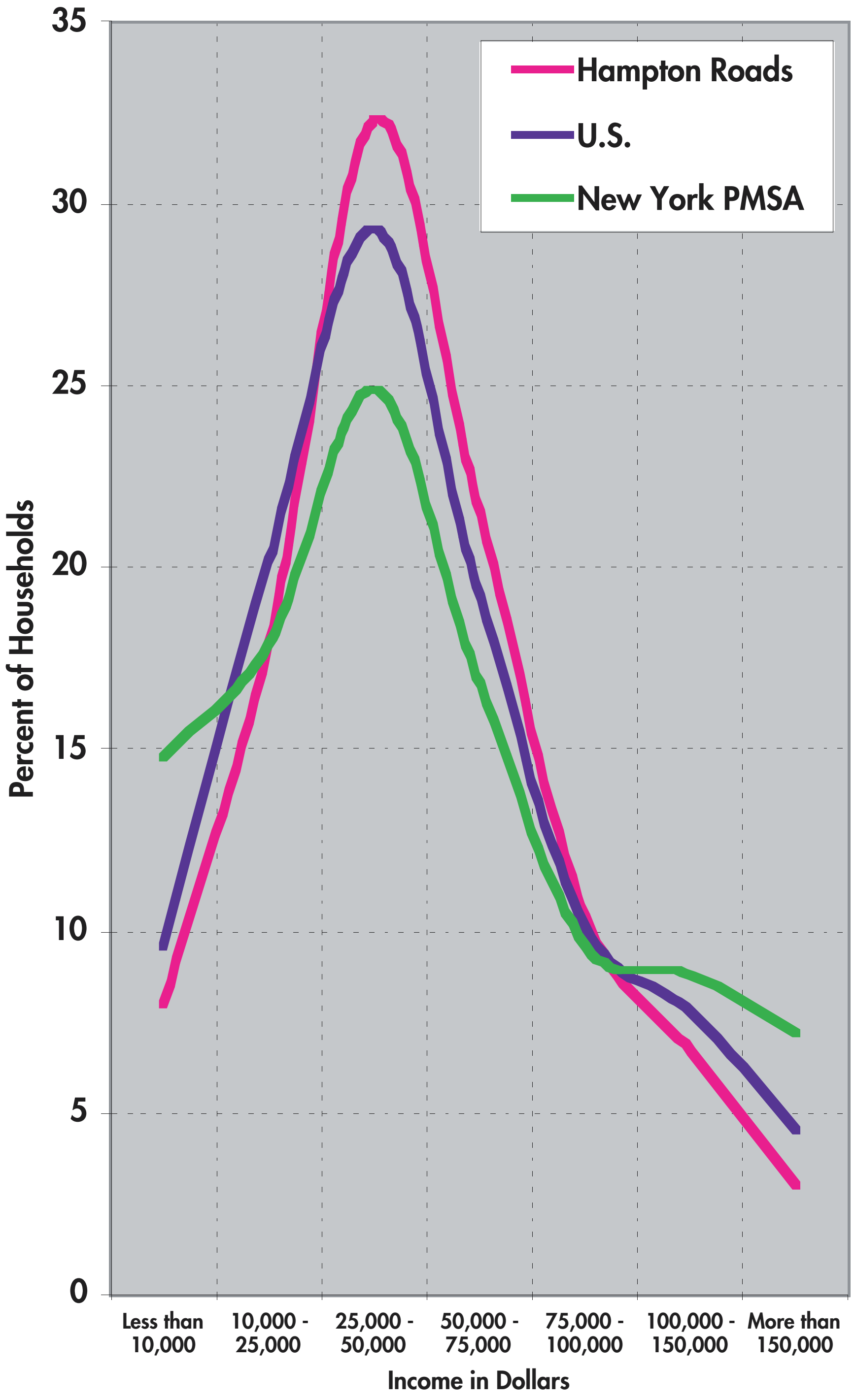
Compared to other regions within the Commonwealth (particularly Northern Virginia and Richmond), Hampton Roads does not rank as high on the scale of power as it usually is measured, and this has influenced political appointments, legislation, appropriations in the public sector and business locations in the private sector.

Thus far, we have talked about the distribution of income primarily in terms of averages ("means"). And, the mean income of households frequently is used to measure how well-off a particular metropolitan area happens to be. Mean values (averages) provide a very general impression of well-being, but often do not provide enough context to allow us to make accurate comparisons of one region to another. Mean income numbers don't necessarily tell us how well most people in the region are doing. Why? Because a mean is the average of all numbers, and one very large or very small number can distort the value of that average. As one wit once observed, "If you put one of your hands on an ice cube and the other on a hot plate, your mean temperature may be 72 degrees, but it won't tell you anything useful." Similarly, in computing the average wealth of a group of 10 people, one could include Bill Gates (the wealthiest man in the world) and end up with a mean exceeding $100 million. This would be an accurate measure of the mean, but wouldn't tell us much.

Table 2 provides some insight into this problem. The much heavier concentration of incomes at the upper end of the scale for both the United States and New York City causes their mean incomes to exceed, and in the case of New York dramatically exceed, that of Hampton Roads. Hampton Roads generates only 75 percent of the mean household income of New York City and it would almost appear that this region has Third World country status when compared with Gotham City.

But, is it true that *most* New York or U.S. households are better off than most Hampton Roads households? Not necessarily. Income is distributed much more equally in Hampton Roads than in New York City and, as we have seen before, New York City's poverty rate is much higher than that of Hampton Roads. Therefore, some might say that proportionately more individuals are doing well, or at least doing OK, in Hampton Roads than either in New York City or the country as a whole.

Graph 2
HOUSEHOLD INCOME DISTRIBUTION (2000)



Sources: Bureau of the Census and Old Dominion University Economic Forecasting Project

Table 2
MEAN AND MEDIAN HOUSEHOLD INCOMES, 2000

	Hampton Roads	U.S.	New York
Mean Income	$50,149	$55,378	$67,876
Median Income	$42,742	$41,433	$41,053

Source: Bureau of the Census

There is another measure of the "central tendency" of the household income distribution that can help us see this. This measure is median income. The median value of any distribution precisely divides it in half, so that 50 percent of the items are below the median value and 50 percent are above the median value. **As can be seen in Table 2, the median household income in Hampton Roads actually exceeds that in New York City. Taking this view, one can easily argue that the typical citizen of Hampton Roads appears to be better off than the typical citizen of New York City or, for that matter, the typical American. Cost-of-living differences certainly would underline this judgment relative to New York City.**

So, which households really are better off in terms of income, those in New York City or Hampton Roads? It would be correct to say that proportionally more households are better off in Hampton Roads than in New York City; cost-of-living differences between the two areas accentuate this conclusion. High incomes in New York City are concentrated among a relatively few households. The same general judgment holds if we compare Hampton Roads to the U.S.

Is There An "Ideal" Distribution Of Income?

If income is more equally distributed in Hampton Roads than elsewhere, is this good or bad? We cannot answer that question precisely, but can point out some of the relevant considerations that might lead citizens to conclusions about what they believe is the best distribution of income.

Many people believe that a more equal distribution of income is good, because such a distribution satisfies their notions of fairness. Such a value system has guided the Scandinavian countries for an extended period of time. The primary vehicle for achieving a more equal distribution of income is a progressive income tax. One of the major arguments in favor of such a tax is the notion that a higher-income person sacrifices less when he/she is taxed a certain amount of money than does a lower-income person who is taxed the same amount. Of course, there is no objective way to measure the amount of sacrifice any of us experiences when we are taxed, but most citizens do appear to believe that to some extent the rich sacrifice less when taxed. In addition, many people believe that income tax systems with steeply graduated rates (a progressive tax) reduce the probability that large concentrations of economic power will emerge. They believe the large power blocs bode no good for the political system and ultimately produce societal resentment and instability. In the limit, they believe gross income inequalities can lead to revolution, and point to a variety of historical scenarios in support of this hypothesis.

Against this, if taxes are designed to produce an equal distribution of income, then it seems likely that this will discourage some people to work longer or harder, to innovate or to invest their resources. Thus, society is denied productive enterprises, which benefit not only the individuals who work the additional hours or undertake the entrepreneurial ventures, but also society at large. Microsoft, they point out, now has more than 50,000 generally well-compensated employees (about 25,000 in the state of Washington alone) and it is in society's best interest to encourage the development of more Microsoft-like businesses.

The demise of the Soviet Union carries with it many lessons, but one is that economic incentives (and disincentives) make a difference. The laggard economic performance of centrally managed socialist economies over the final quarter of the 20th century suggests that they often misjudged the need to provide incentives to workers and investors. For that matter, the laggard economic performance of the Hampton Roads region over the past decade suggests to some that the region is "not entrepreneur friendly" and not sufficiently accepting of the economic disparities that appear to accompany rapid economic growth.

During the 20th century, the real income of the average American citizen increased eight-fold. This is a magnificent achievement, never before duplicated. Did this dynamic achievement require inequality in the distribution of income? Almost certainly, yet it is not clear precisely how much inequality is needed to stimulate entrepreneurial juices and work habits.

Most citizens conclude that it should be possible for one individual to earn more than another by dint of his/her hard work, invention and risk-taking. But, most citizens also are much less tolerant of income inequalities that result from inheritance or luck. And, a large number of people appear to believe that the distribution of income should not become too unequal, though it is not clear exactly what this means.

The bottom line is we cannot say whether we are better or worse off in Hampton Roads because our household income distribution is more equal than that in the rest of the country, and particularly more equal than that of New York City. Because Hampton Roads' economy did not grow as fast as the economies of other metropolitan areas for a number of years, this has meant that the region has not been able to boast about the emergence of a Microsoft-like firm, or even to trumpet a particularly dynamic sector of the economy such as aerospace biotechnology, or computer software.

Can Hampton Roads change this situation, if that is the desire? Absolutely. But, it would require a change in attitude, perhaps even culture. And, it would almost surely require significant additional investments in education and training at all levels, research and development activities at area research universities, and the transportation infrastructure. It is not clear that the civic will to do these things exists in the region. Like it or not, Hampton Roads seems to have reached a state of relative comfort (or at least, tolerable discomfort) with respect to its economic status and future.


STATES OF AMERICA
SERIES 1999
WASHINGTON, D.C.