

UNIVERSITY OF FLORIDA

Bureau of Economic and Business Research

ANALYSIS OF PERSONAL INCOME IN THE CAPE KENNEDY AREA by Ralph H. Blodgett

(~~CONFIDENTIAL~~)

Facility Form 602 with handwritten fields: Accession Number (N 66 11773), Pages (18), Category (34), and NASA CR or TMX or AD Number (CR 67971).

Prepared under NASA Research Grant N6G-507

Gainesville, Florida

May 14, 1965

GPO PRICE \$ _____

CFSTI PRICE(S) \$ _____

Hard copy (HC) 1.00

Microfiche (MF) .50

PERSONAL INCOME

Personal income in the seven-county area under study was not one of the factors originally selected for analysis. However, inasmuch as changes in personal income afford one of the best indicators of economic growth and development and the Bureau of Economic and Business Research, University of Florida, has its own series on personal income for the State of Florida and its counties dating back to 1950, it was decided to include this subject in our analysis. Personal income for the country normally runs somewhat smaller than national income. In order to estimate personal income, such items as corporate profits and inventory valuation adjustment, contributions for social insurance, and the excess of wage accruals over disbursements are deducted from national income, and government transfer payments to persons, net interest paid by the government, dividends, and business transfer payments are added.

Total Personal Income

The total personal income of the State of Florida amounted to 1.59 per cent of the total for the United States in 1950. From 1950 to 1954, total personal income increased at the rate of 11.48 per cent a year on the average in Florida, as compared with 7.32 per cent for the United States, so that Florida's personal income grew to 1.85 per cent of the national total. Florida's total personal income then increased at an average rate of 13.84 per cent a year from 1954 to 1963, as compared with 6.77 per cent for the whole country, and Florida's total became 2.58 per cent of the national total.

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The seven-county Cape Kennedy region received 10.24 per cent of Florida's total personal income in 1950 and 10.77 per cent in 1954. This meant that total personal income had increased at 13.39 per cent a year on the average, as compared with 11.48 per cent for the state, between these years. From 1954 to 1963, under the influence of the NASA program, total personal income increased at an average annual rate of 22.64 per cent in the region, as compared with 13.84 per cent in the state, and the region's share of the state total increased sharply to 14.57 per cent. From 1954 to 1963 the region accounted for 17.62 per cent of the increase which occurred in the state's total personal income.

As has happened in other connections, the gains of the region in total personal income have been most unevenly distributed among the individual counties in both periods. From 1950 to 1954, total personal income increased at the rate of 36.77 per cent a year on the average in Brevard County. Orange County had an average rate of 17.11 per cent, and the other five counties had rates of increase which were below that achieved by the state as a whole.

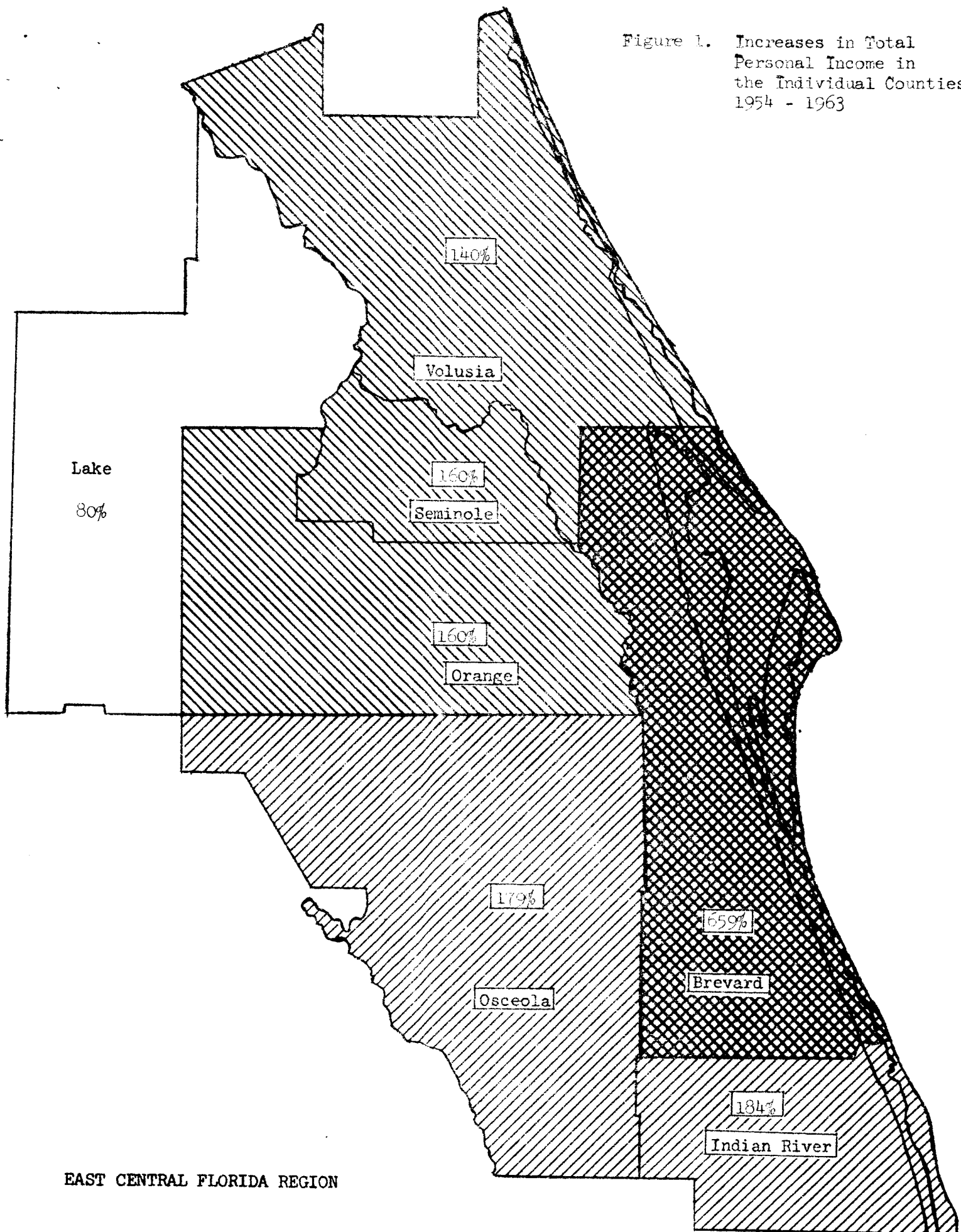
The situation was somewhat different from 1954 to 1963. The total personal income of Brevard County increased at the terrific rate of 77.23 per cent a year on the average, and its share of the regional total increased from 10.43 per cent in 1954 to 27.29 per cent in 1963. All the other counties had declining shares of the regional total. On the other hand, all counties in the region had higher average annual rates of increase in personal income from 1954

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to 1963 than from 1950 to 1954, and all counties in the region save one had average annual rates of increase which were higher than that achieved by the state as a whole. And the one county failed to join the group only because it apparently had an exceptionally bad year in 1963. Thus, although the effect of the development of the NASA program and other factors on total personal income was concentrated to a great degree in Brevard County from 1954 to 1963, it seems fair to say that a part of the effect spilled over into the other counties in the region.

In 1950, Brevard County had 7.90 per cent of the region's population but only 6.48 per cent of the region's total personal income. However, Brevard County had 27.29 per cent of the region's personal income in 1963 and 19.54 per cent of its population. Orange County also had a greater share of the region's total personal income than of its population in 1963. The other five counties had smaller shares of the region's total personal income than of its population in 1963, but all seven counties gained personal income much faster than they gained population from 1954 to 1963 and hence had rising personal incomes per capita, as we shall see later. Details concerning the relative proportions of regional totals which the individual counties had in connection with personal income and population in 1950, 1954, and 1963 are shown in Table 1. Figure 1 indicates how the total percentage increases in personal income were distributed geographically in the region from 1954 to 1963.

Figure 1. Increases in Total Personal Income in the Individual Counties, 1954 - 1963



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Table 1.-Relative Proportions of County Personal Income and Population to Regional Totals

County	1950		1954		1963	
	Personal Income (%)	Population (%)	Personal Income (%)	Population (%)	Personal Income (%)	Population (%)
Brevard	6.48	7.90	10.43	8.49	27.29	19.54
Indian River	3.95	3.97	3.58	3.62	3.35	4.03
Lake	13.47	12.14	11.45	10.74	6.77	8.17
Orange	42.75	38.40	46.90	42.03	40.08	38.46
Osceola	2.50	3.81	1.94	3.22	1.78	2.72
Seminole	8.04	8.98	6.06	8.27	5.18	8.70
Volusia	22.81	24.80	19.65	21.46	15.54	18.36
Ratio of Region to State	10.24	10.80	10.77	11.56	14.57	13.65

Before leaving the past, we should note the tendency for total retail sales to amount to a smaller proportion of total personal income as total personal income increases. In the state as a whole, total retail sales amounted to 75.56 per cent of total personal income in 1954 but only 63.77 per cent in 1963. In the region, the percentages were 80.30 in 1954 and 62.57 in 1963. A greater proportion of personal income apparently goes for services and other things as personal income increases. Our various projections, of course, reflect these relationships.

Once the growth of total personal income for the United States had been projected to future years, projections were made for the State of Florida on the basis of several methods previously described in connection with retail sales. The projections finally selected were those based upon the changing ratio of the state's total personal income to that of the United States in past years. These projections indicate total personal

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income of \$13,881,100,000 for Florida in 1965, \$18,711,700,000 in 1970, and \$24,250,900,000 in 1975.

Projections for the seven-county region were also made on the basis of several methods previously described, and the ones finally used were those based upon the changing ratio of the total personal income of the region to that of the state as a whole in past years. These projections suggest a total personal income for the region of \$2,156,400,000 in 1965, \$3,266,400,000 in 1970, and \$4,661,300,000 in 1975. Should these projections work out in practice, the region would have 15.24 per cent of the state's total personal income in 1965; 16.90 per cent in 1970; and 18.57 per cent in 1975. The latter share is somewhat greater than the 16.43 per cent of the state's population which has been projected for the region in 1975, but this projection seems reasonable inasmuch as the region's per capita income has exceeded that of the state since 1959.

The distribution of the total personal income of the region among the individual counties in future years was projected on the basis of several methods which have been described in an earlier report. The projections finally selected were those based on average annual changes in total personal incomes in the individual counties from 1954 to 1963, with the resulting figures adjusted to add to the regional totals already projected for future years. These projections were used because the sometimes preferred method of basing county projections upon the changing ratios of the totals of counties to that of the state in past years produced some very unlikely if not impossible results by 1975. The county projections, along

Figure 2.-Total Personal Incomes of Individual Counties in 1950, 1954, and 1963, and Projections for 1965, 1970, and 1975.

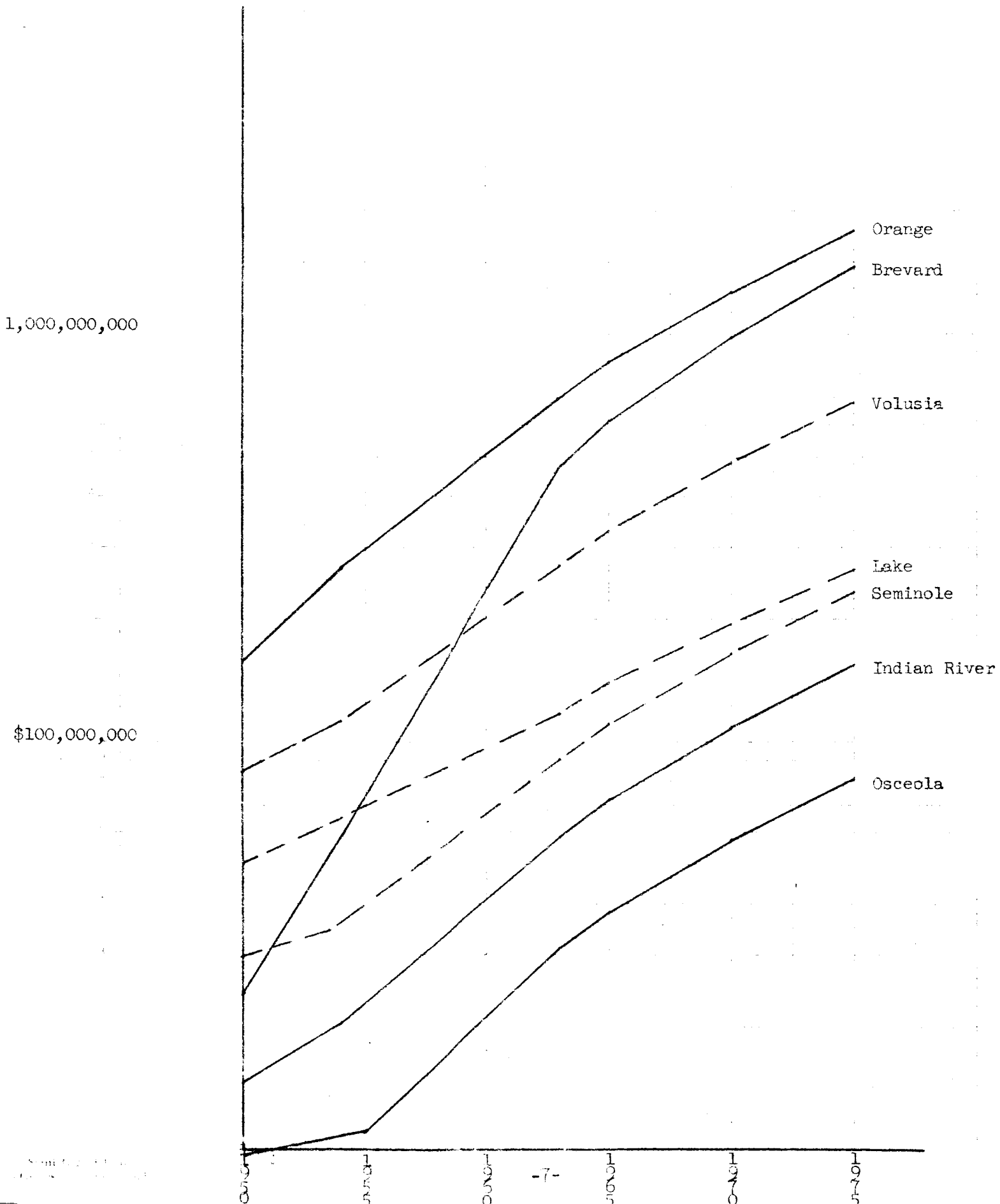
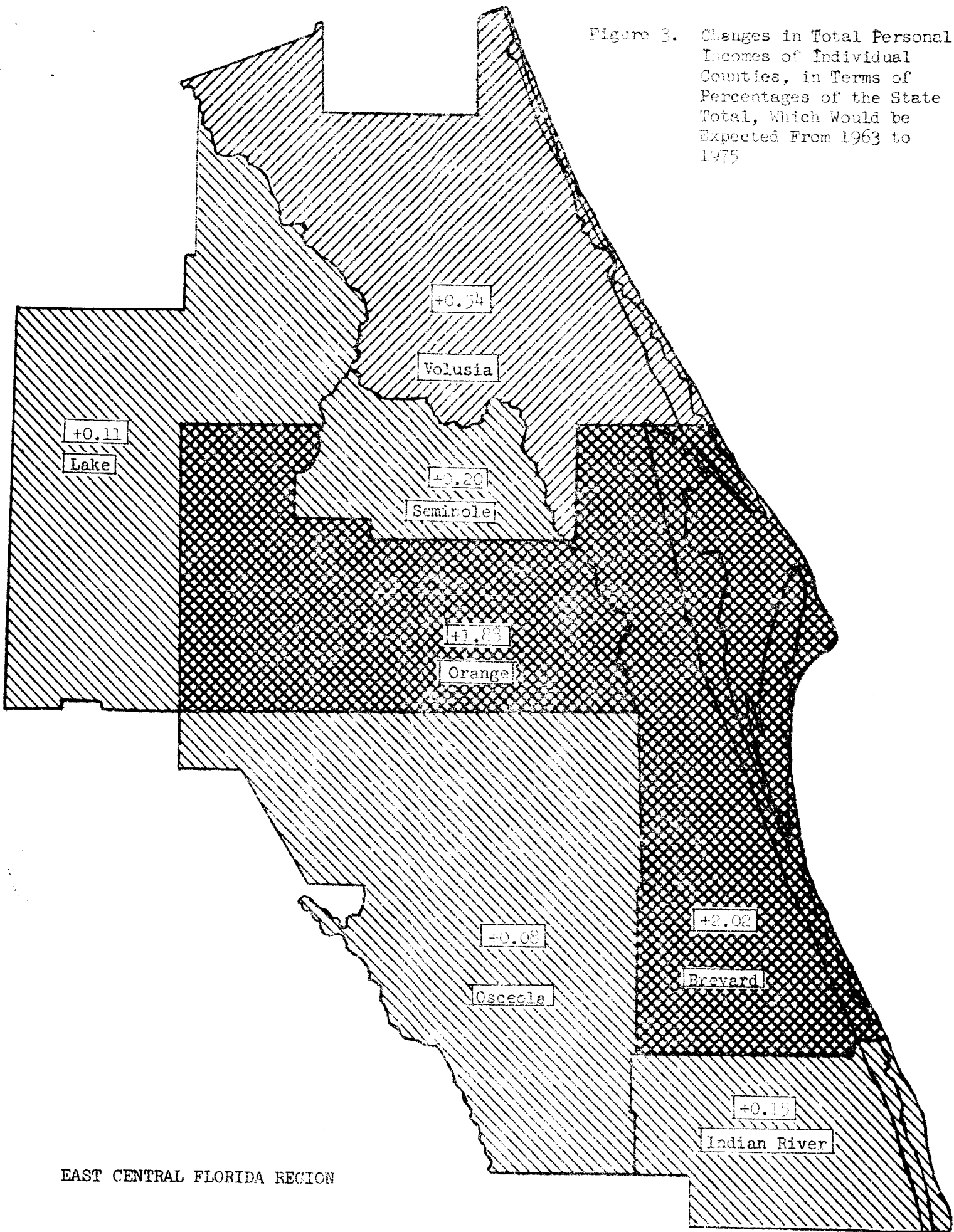


Figure 3. Changes in Total Personal Incomes of Individual Counties, in Terms of Percentages of the State Total, Which Would be Expected From 1963 to 1975



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with those for the region and the state, are shown in Table 2 in relation to the data for 1963. Figure 2 shows the county total personal incomes in 1950, 1954, and 1963 in relation to the projections for future years, and Figure 3 shows, on a geographical basis, the changes in the total personal incomes of counties, in terms of percentages of the state total, which would be expected from 1963 to 1975 on the basis of our projections.

Table 2.-Total Personal Incomes of Individual Counties, the Seven-County Region, and the State of Florida in 1963, and Projections for 1965, 1970, and 1975.

County	1963 (000)	1965 (000)	1970 (000)	1975 (000)
Brevard	\$ 474,528	\$ 611,730	\$ 984,250	\$ 1,454,450
Indian River	58,179	71,850	108,040	153,500
Lake	117,764	139,650	195,560	265,250
Orange	696,835	854,940	1,271,720	1,794,630
Osceola	31,006	38,240	57,400	81,450
Seminole	90,110	110,570	164,490	232,150
Volusia	270,144	329,420	484,940	679,870
Region	\$ 1,738,566	\$ 2,156,400	\$ 3,266,400	\$ 4,661,300
State	11,933,200	13,881,100	18,711,700	24,250,900

Per Capita Personal Income

Personal income, or at any rate such part of it as is not taken by government, is received and used in the last analysis by individuals and families and not by counties, regions, and states. Figures for total personal income do not tell us much about the income status of the people of a geographical area until the figures are related to the total number of people who share the total income. That is, personal income per capita is a more generally useful indicator of economic growth and development than total personal income.

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Somewhat like other Southern states, Florida has not fared too well relative to the country as a whole in the matter of personal income per capita. In 1950, Florida had a personal income of \$1,314 per capita, which was only 87.25 per cent of the national figure of \$1,506. By 1954 the state had reached the level enjoyed by the nation in 1950 (\$1,506) but the nation had gone on to \$1,771, which put the state at only 85.04 per cent of the national level.

From 1954 to 1963, personal income per capita in Florida increased at a rate of 4.80 per cent a year on the average, as compared with 4.23 per cent for the country as a whole and the state advanced to 88.18 per cent of the national level. Personal income per capita was at \$2,157 per capita for the state and \$2,446 for the country as a whole. Florida still had a long way to go in order to catch up with the nation.

The seven-county region under study has made a better showing than the State of Florida in recent years. The region had a personal income per capita of only \$1,245 in 1950, which was 94.75 per cent of the state figure and 82.67 per cent of the national figure. The region advanced to \$1,430 per capita in 1954, but this was only 80.75 per cent of the national figure and 94.95 per cent of the state figure.

The situation changed rapidly after 1954. From that year to 1963 the region advanced from a personal income per capita of \$1,430 to one of \$2,303. This was an increase from 94.95 per cent to 106.77 per cent of the state figure and from 80.75 to 94.15 per cent of the national figure. As a matter of fact, the region passed the state in personal income per capita as early as 1959. During the nine years in question, personal income per

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capita increased at the rate of 6.78 per cent a year on the average as compared with 4.80 per cent for the state and 4.23 per cent for the country as a whole.

Within the region, the largest absolute increases in personal income per capita occurred in Brevard and Orange Counties between 1954 and 1963. Brevard County was next to bottom in the region in 1950 with a personal income per capita of only \$1,019. In 1954, its \$1,255 brought it up only to fifth place in the region. Then things began to move. By 1963 its personal income per capita of \$3,217 was the highest in the region, far above the state figure, and also far above the level for the country as a whole.

The county had come from 77.6 per cent of the state level in 1950 and 83.3 per cent in 1954 to 149.14 per cent in 1963. Relative to the region the advance was from 81.85 per cent in 1950 and 94.76 per cent in 1954 to 139.69 per cent in 1963. Finally, the county had progressed from 67.66 per cent of the national level in 1950 and 70.86 per cent in 1954 to 131.52 per cent in 1963. With its personal income per capita increasing at the fabulous rate of 17.37 per cent a year on the average from 1954 to 1963, Brevard County rose from thirty-seventh to third place among Florida counties in this period.

Orange County started from a more favorable position in 1950, for its \$1,386 of personal income per capita was above the state level and gave it first place in the region. It was still above the state level and first in the region with \$1,517 in 1954. Then came a large increase to \$2,400 in

Personal Income

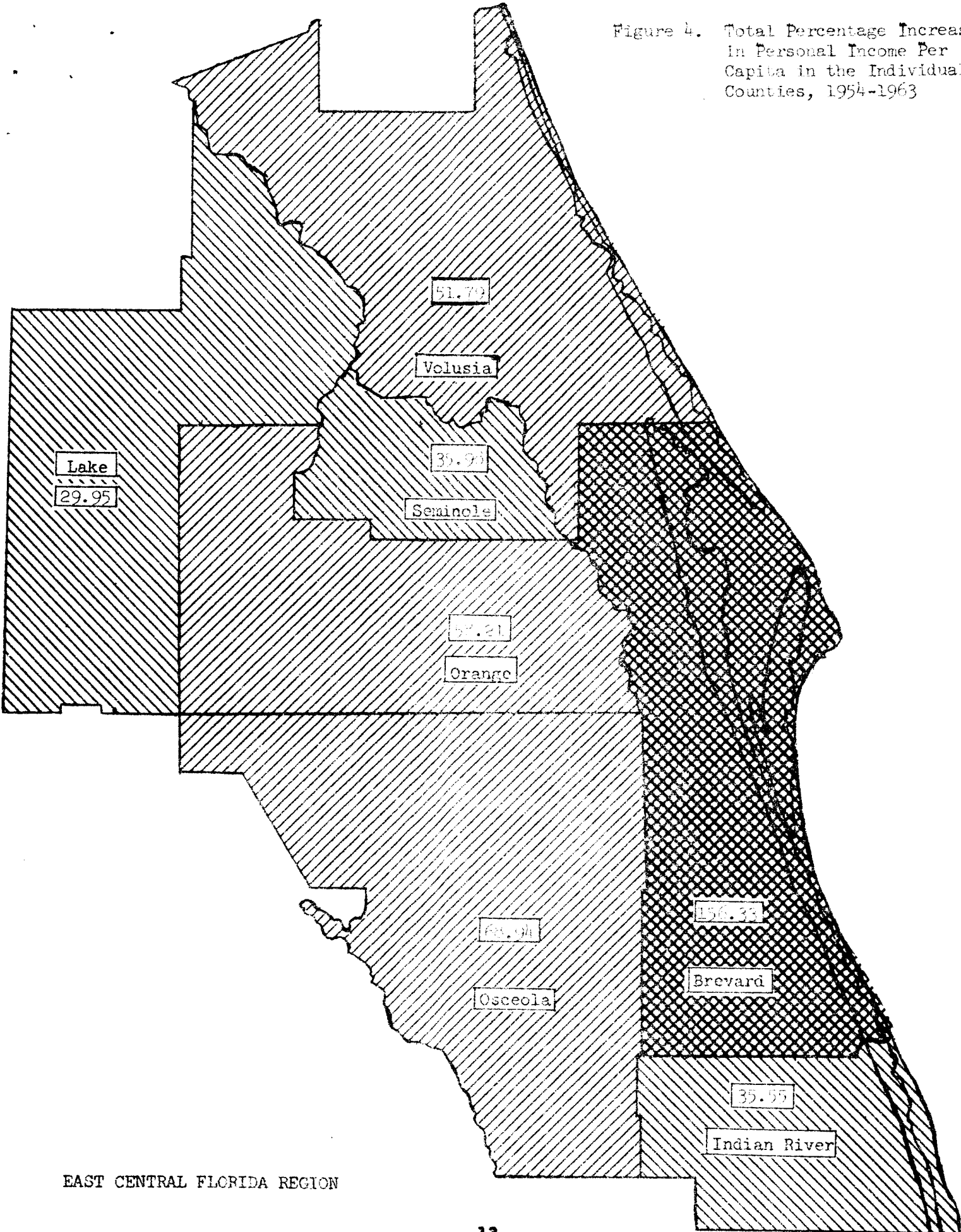
1963. This figure, while a poor second in the region and somewhat below the level for the country as a whole, was well above the levels for the state as a whole and the region. Orange County was eleventh among Florida counties in 1950 and ninth in 1963.

On the basis of percentage increases in per capita personal income, Orange County had to yield second place to Osceola County in the period from 1954 to 1963. Personal income per capita increased by 156.33 per cent in Brevard County, by 68.94 per cent in Osceola County, and by 58.21 per cent in Orange County. The total percentage increases in all the counties in the region are shown on a geographical basis in Figure 4.

In 1963, all counties in the region except Brevard and Orange had personal incomes per capita which were below both the level for the region and that for the state as a whole. From 1954 to 1963, in spite of large increases in personal income per capita, Volusia County fell from twenty-third to twenty-fourth place among Florida counties, Indian River from nineteenth to twenty-fifth, Osceola from thirty-ninth to forty-fifth, Lake from twelfth to twenty-sixth, and Seminole all the way from twenty-fifth to fifty-fourth.

Disparities between the "haves" and "have-nots" in the region increased sharply between 1954 and 1963. The lowest county in 1950 had a personal income per capita which was \$567 below that of the highest county, whereas in 1963 the difference from low to high was \$1,845 and the personal income per capita of the lowest county was only about 43 per cent of that of the highest county.

Figure 4. Total Percentage Increase in Personal Income Per Capita in the Individual Counties, 1954-1963



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Once personal income per capita had been projected for the United States as a whole, projections for the State of Florida, the seven-county region, and the individual counties in the region were all made by one method. This method involved dividing our projections of total personal income for 1965, 1970, and 1975 by our projections of population for the same years. Projections were also made on the basis of several other methods in order to furnish a check on our answers, but it would be pointless actually to present in this report any projections of personal income per capita which differed from those obtained by relating our projections of population to those for total personal income.

Our projections for the State of Florida indicate that the personal income per capita of the state should rise from \$2,157 in 1963 to \$2,359 in 1965, \$2,761 in 1970, and \$3,178 in 1975. If these projections worked out in practice, Florida's personal income per capita would advance from 88.18 per cent of the national level in 1963 to 89.90 per cent in 1965, 92.09 per cent in 1970, and 94.29 per cent in 1975. Florida's total personal income and total population are both increasing rapidly, and the combination should keep Florida's personal income per capita from catching up very quickly with that for the country as a whole.

The projections for the seven-county region suggest that the region will have a personal income per capita which increases from \$2,303 in 1963 to \$2,534 in 1965, \$3,126 in 1970, and \$3,738 in 1975. If these projections were realized in the years to come, the personal income per capita of the region would move up from 94.15 per cent of the national level in 1963 to 104.27 per cent in 1970 and 110.89 per cent in 1975-- thus exceeding the national level for the first time before 1970. At

Personal Income

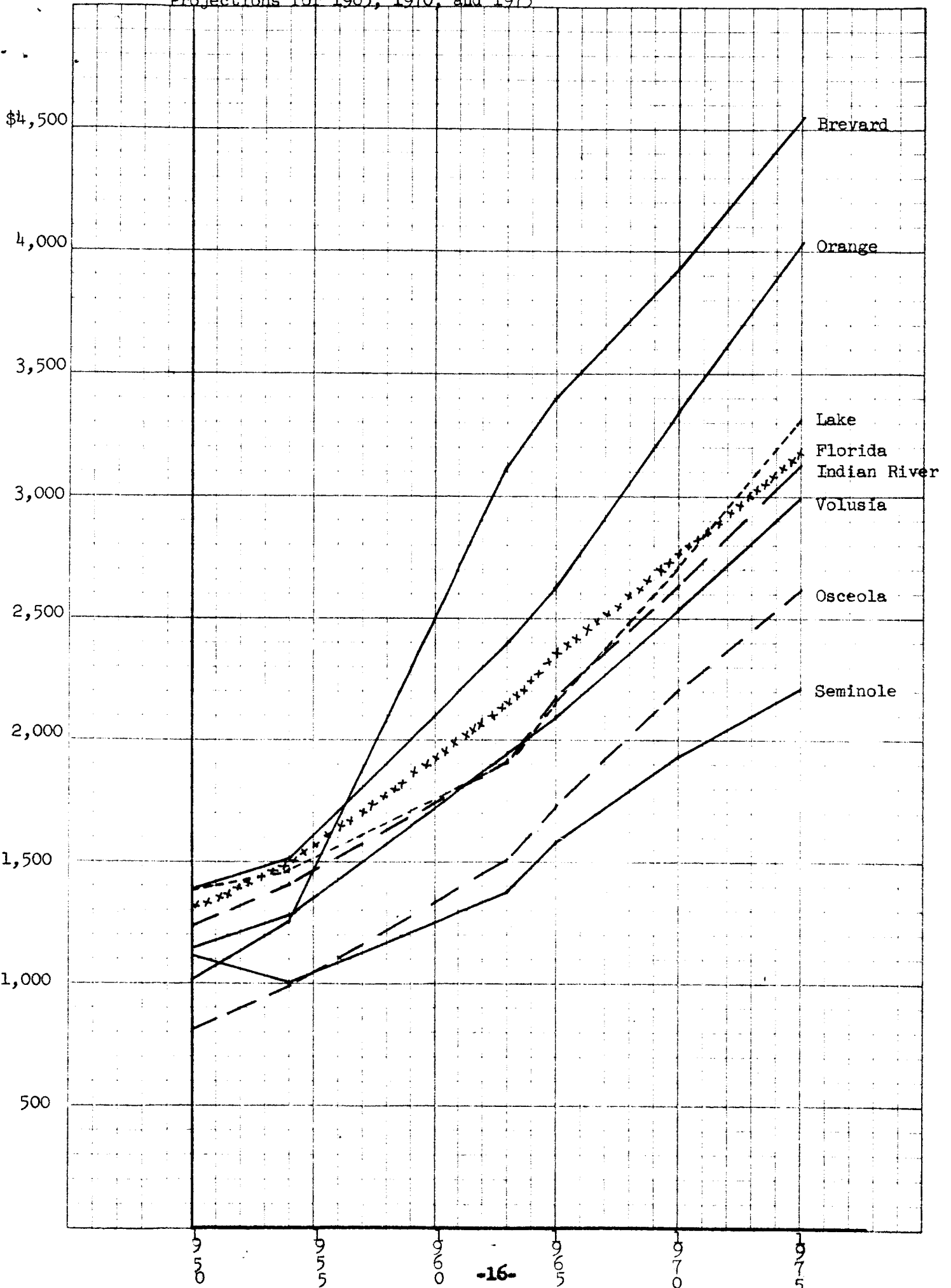
the same time, the regional personal income per capita would rise from 106.77 per cent of the state level in 1963 to 113.22 per cent in 1970 and 117.62 per cent in 1975.

Projections for the individual counties in the region for 1965, 1970, and 1975 are shown in Table 3, along with the personal incomes per capita which they had in 1963. The data on personal incomes per capita in 1950, 1954, and 1963 are plotted along with the projections in Figure 5. It will be noted that the projections for Brevard and Orange Counties call for these counties to have personal incomes per capita which will be far above the level for the state and considerably above the level for the whole country. In spite of considerable increases in personal incomes per capita, four of the other five counties will continue to languish at levels below that projected for the state as a whole and all five below the levels projected for the United States. These things may not happen, but they are what must be projected on the basis of the available evidence.

Table 3.--Personal Income Per Capita of Individual Counties, the Seven-County Region, and the State of Florida in 1963, and Projections for 1965, 1970, and 1975

County	1963	1965	1970	1975
Brevard	\$3,217	\$3,399	\$3,937	\$4,545
Indian River	1,914	2,177	2,635	3,133
Lake	1,909	2,182	2,716	3,316
Orange	2,400	2,631	3,347	4,126
Osceola	1,512	1,738	2,208	2,627
Seminole	1,372	1,580	1,935	2,211
Volusia	1,946	2,098	2,539	2,995
Region	\$2,303	\$2,534	\$3,126	\$3,738
State	2,157	2,359	2,761	3,178

Figure 5.-Personal Income per Capita in the Counties in 1950, 1954 and 1963, and Projections for 1965, 1970, and 1975



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Summary

In the years since 1954, unlike earlier years, the seven-county region under study has had an average annual rate of increase in total personal income which has exceeded by far the rate achieved by the state as a whole. While Brevard County has had the most remarkable rate of increase, it is still true that six of the seven counties have had average annual rates of increase in total personal income from 1954 to 1963 which have exceeded their rates of increase in earlier years and have been greater than the rate for the state as a whole. On this basis alone, it would appear that the stimulating effects of the NASA program and other developments have been pervasive in the region.

However, when population was brought into the picture and personal income was considered on a per capita basis, the situation appeared somewhat different. After the period of rapid growth from 1954 to 1963, Brevard County was found to have a personal income per capita which far exceeded the level of the state as a whole and that of the United States. Orange County's level of personal income per capita was well above that of the state as a whole but below that for the United States. All the other five counties continued to have personal incomes per capita which were below those of the state and the United States. Thus, the stimulating effects of the NASA program, while very helpful, have sufficed to bring only one county above state and national levels of personal income per capita and one other county above the state level and near to the national level. In the absence of some revolutionary change not presently foreseen, it seems likely that this situation will continue, except that Orange County is projected to rise above the national level in the near future.