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GENERAL FUND REVENUES FOR  
OCTOBER... REVISED  
ESTIMATES FY...



STATE OF SOUTH CAROLINA  
BOARD OF ECONOMIC ADVISORS

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To: South Carolina Budget and Control Board

Subject: General Fund Revenues for October 1990 and Revised  
Estimates for FY 1990-91

General Fund Revenues in October increased less than one percent over revenues in October a year ago. Adjusted for the delayed effects of reporting in September 1989 from Hugo, the increase would be closer to 6%. The Individual Income Tax increased 3.3% and the Sales Tax was down 4.4% from October collections in FY 1989-90. After the Hugo adjustment, the Individual Income Tax would be closer to a 10.6% increase and the Sales Tax would turn slightly positive. The Corporation Income Tax increased 374.8% above collections in October 1989 and the All Other category decreased 9.1%. After correcting for the keying error of last year, which credited the Corporation Income Tax to the Corporate License Tax in the All Other category, the Corporate Income Tax would be trimmed to a 139.8% increase and the All Other category would show a decrease of 5.5%. Miscellaneous Sources fell 22.9% from October 1989.

For the cumulative period, July through October, revenues increased 7.8% over the same period last fiscal year. The Sales Tax rose 8.1% and the Individual Income Tax was 9.8% above the same months of FY 1989-90. The Corporation Income Tax increased

120.6% over the July-October period last year and the All Other category decreased 10.0%. After correction for the keying error, the Corporate Income Tax would drop to a 9.0% increase and the All Other category would turn positive with a 1.1% increase. Miscellaneous Sources were 14.5% below collections in the July-October period of FY 1989-90.

On the basis of collections to date and the anticipated path of the economy outlined in the Board of Economic Advisors November 1 release, revenues in the current fiscal year can be expected to be \$3,496.3 million, a net decrease of \$82.3 million from the Appropriation Act of \$3,592.6 million. The bulk of the gross decrease of \$101.2 million (56.3%) can be attributed to the failure of the Corporate Income Tax to recover as had been anticipated by the national forecasters. Another 20.3% of the gross negative difference can be accounted for by changes in the All Other category, foremost among these being a \$16 million decrease in the Insurance Tax, and in Miscellaneous, of 2.2%. Together, these account for 78.8% of the negative change. Other differences arise from the Individual Income Tax. Approximately one-half of the downward gross change in this category, or 13.4% of the total gross difference is from the failure of collections in FY 1989-90 to reach the base on which the estimate for this year was made. The effect of the situation in the Middle East has been to lower the anticipated rate of growth in the Individual Income Tax from that used in the Appropriation Act estimate for 4.2% of the gross difference. The remaining 3.6% of the gross difference is accounted for by changes in net legislative adjustments affecting the Individual Income Tax.

As noted, these estimates are based on the consensus forecast of a relatively mild recession of relatively short duration, with recovery beginning after the close of the current fiscal year. The probability of the recession being more severe is given a 20% chance, with a worst case scenario probability of 10%. An optimistic scenario based on more favorable oil price movements resulting in stronger economic growth is given a 20% probability. Contrarily, should a full blown war ensue, the consensus forecast and the contingent probabilities would no longer hold.

Board of Economic Advisors  
W.R.P.  
November 9, 1990

TABLE 1

State of South Carolina  
 Budgetary General Fund Revenue  
 Fiscal Year 1990-91  
 Dollar Amounts and Percent Changes

October 1990

	Millions of Dollars		Percent Change	
	Month of October	July through October	October FY 1990 to October FY 1991	July-Oct. FY 1990 to July-Oct. FY 1991
SALES TAX - TOTAL 1/	\$ 96.8	\$ 403.7	-4.4%	8.1%
INCOME TAX - TOTAL	149.0	583.8	7.9	14.0
INDIVIDUAL	140.8	541.8	3.3	9.8
CORPORATION	8.2	42.0	374.8	120.6
ALL OTHER	39.9	160.9	-9.1	-10.0
REGULAR SOURCES - TOTAL	285.7	1148.5	0.9	7.9
MISCELLANEOUS SOURCES - TOTAL	1.8	5.3	-22.9	-14.5
TOTAL GENERAL FUND REVENUES	287.5	1153.7	0.7	7.8

1/: Excludes the one percent for the Education Improvement Fund and two percent Accommodations Tax.

Board of Economic Advisors  
 11/9//90

MONTHLY  
GENERAL FUND REVENUE COMPARATIVE SUMMARY  
FISCAL YEARS 1990-91 AND 1989-90  
(DOLLARS)

TABLE 2

REGULAR SOURCES	OCTOBER FY 1990-91	OCTOBER FY 1989-90	DOLLAR CHANGE	(%) PERCENT CHANGE
RETAIL SALES TAX (TOTAL) 1/	96,848,076	101,254,363	(4,406,287)	(4.4)
RETAIL SALES	96,015,736	100,459,211	(4,443,475)	(4.4)
EXCISE TAX, CASUAL SALES	832,340	795,152	37,188	4.7
INCOME TAX (TOTAL)	148,996,376	138,041,014	10,955,362	7.9
INDIVIDUAL	140,761,945	136,306,836	4,455,109	3.3
CORPORATION	8,234,431	1,734,178	6,500,253	374.8
<b>TOTAL, INCOME &amp; SALES TAX</b>	<b>245,844,452</b>	<b>239,295,377</b>	<b>6,549,075</b>	<b>2.7</b>
<b>ALL OTHER REVENUE</b>				
ADMISSIONS TAX	932,520	1,070,629	(138,109)	(12.9)
AIRCRAFT TAX	0	0	0	0.0
ALCOHOLIC LIQUOR TAX	4,066,029	4,949,620	(883,591)	(17.9)
BANK TAX	51,655	51,880	(225)	(0.4)
BEER AND WINE TAX	5,404,673	5,323,478	81,195	1.5
BUSINESS LICENSE TAX	2,800,251	2,687,845	112,406	4.2
COIN-OPERATED DEVICE TAX	259,656	200,353	59,303	29.6
COMMERCL. NUCLEAR WASTE TAX	1,239,719	1,641,141	(401,422)	(24.5)
CONTRACTORS LICENSE TAX	18,411	39,767	(21,356)	(53.7)
CORPORATION LICENSE TAX	1,423,961	3,315,737	(1,891,776)	(57.1)
DEPARTMENT OF AGRICULTURE	484,832	518,969	(34,137)	(6.6)
DEPARTMENTAL REVENUE	3,454,084	2,351,063	1,103,021	46.9
DOCUMENTARY TAX	854,470	799,219	55,251	6.9
EARNED ON INVESTMENTS *	3,362,990	7,264,720	(3,901,730)	(53.7)
ELECTRIC POWER TAX	1,677,593	1,456,815	220,778	15.2
ESTATE TAX	5,236,376	2,577,389	2,658,987	103.2
FERTILIZER INSPECTION TAX	7,032	6,256	776	12.4
GASOLINE TAX-COUNTIES	1,414,146	1,398,598	15,548	1.1
GIFT TAX	53,783	2,649	51,134	1,930.3
INSURANCE TAX	1,967,876	1,247,611	720,265	57.7
MOTOR TRANSPORT FEES	699,784	679,532	20,252	3.0
PRIVATE CAR LINES TAX	0	0	0	0.0
PUBLIC SERVICE ASSESSMENT	1,629,301	3,395,742	(1,766,441)	(52.0)
PUBLIC SERVICE AUTHORITY	0	0	0	0.0
RADIOACTIVE WASTE SURCHARGE	912,160	734,067	178,093	24.3
RETAILERS LICENSE TAX	92,342	76,101	16,241	21.3
SAVINGS AND LOAN ASSOC. TAX	54,124	155	53,969	**
SOFT DRINKS TAX	1,775,901	2,115,667	(339,766)	(16.1)
WORKERS COMP. INSURANCE TAX	28,790	5,075	23,715	467.3
<b>TOTAL, ALL OTHER REVENUE</b>	<b>39,902,459</b>	<b>43,910,078</b>	<b>(4,007,619)</b>	<b>(9.1)</b>
<b>TOTAL, REGULAR SOURCES</b>	<b>285,746,911</b>	<b>283,205,455</b>	<b>2,541,456</b>	<b>0.9</b>
<b>MISCELLANEOUS SOURCES</b>				
CIRCUIT/FAMILY COURT FINES	307,714	197,071	110,643	56.1
DEBT SERVICE TRANSFERS	0	0	0	0.0
HOUSING AUTHORITY REIMB.	0	0	0	0.0
INDIRECT COST RECOVERIES	792,479	1,161,637	(369,158)	(31.8)
MENTAL HEALTH FEES	0	0	0	0.0
NONRECURRING REVENUE	0	0	0	0.0
PAROLE & PROBATION FEES	307,354	426,733	(119,379)	(28.0)
UNCLAIMED PROPERTY FUND	348,662	472,600	(123,938)	(26.2)
WASTE TREATMENT LOAN REPAY.	0	19,600	(19,600)	0.0
<b>TOTAL, MISCELLANEOUS SOURCES</b>	<b>1,756,209</b>	<b>2,277,641</b>	<b>(521,432)</b>	<b>(22.9)</b>
<b>TOTAL, GENERAL FUND REVENUE</b>	<b>287,503,120</b>	<b>285,483,096</b>	<b>2,020,024</b>	<b>0.7</b>

1/: Excludes (1%) Education Improvement Act and (2%) Accommodations Taxes.

\*: Month-to-month variations in Investment Earnings can occur as a result of maturity differentials.

\*\*: Greater than +/- 9,999.

Source: S. C. Board of Economic Advisors/11/9/90

CUMULATIVE  
GENERAL FUND REVENUE COMPARATIVE SUMMARY  
FISCAL YEARS 1990-91 AND 1989-90  
(DOLLARS)

TABLE 3

REGULAR SOURCES	JULY-OCTOBER FY 1990-91	JULY-OCTOBER FY 1989-90	DOLLAR CHANGE	(%) PERCENT CHANGE
SALES TAX (TOTAL) 1/	403,711,361	373,297,243	30,414,118	8.1
RETAIL SALES TAX	401,575,182	371,319,880	30,255,302	8.1
EXCISE, CASUAL SALES	2,136,179	1,977,363	158,816	8.0
INCOME TAX (TOTAL)	583,845,009	512,349,573	71,495,436	14.0
INDIVIDUAL	541,803,321	493,294,156	48,509,165	9.8
CORPORATION	42,041,688	19,055,417	22,986,271	120.6
<b>TOTAL, INCOME &amp; SALES</b>	<b>987,556,370</b>	<b>885,646,816</b>	<b>101,909,554</b>	<b>11.5</b>
<b>ALL OTHER REVENUE</b>				
ADMISSIONS TAX	4,662,044	4,224,437	437,607	10.4
AIRCRAFT TAX	0	0	0	0.0
ALCOHOLIC LIQUOR TAX	12,219,670	11,140,281	1,079,389	9.7
BANK TAX	1,637,288	2,587,352	(950,064)	(36.7)
BEER AND WINE TAX	19,762,887	18,741,361	1,021,526	5.5
BUSINESS LICENSE TAX	10,287,117	9,184,022	1,103,095	12.0
COIN-OPERATED DEVICES	849,950	406,993	442,957	108.8
COMMRL NUCLEAR WASTE	2,355,372	3,209,939	(854,567)	(26.6)
CONTRACTORS LIC. TAX	71,595	100,948	(29,353)	(29.1)
CORPORATION LIC. TAX	4,130,182	23,939,450	(19,809,268)	(82.7)
DEPT. OF AGRICULTURE	2,113,282	2,056,620	56,662	2.8
DEPARTMENTAL REVENUE	14,183,119	11,481,737	2,701,382	23.5
DOCUMENTARY TAX	3,728,611	3,744,982	(16,371)	(0.4)
EARNED ON INVESTMENTS *	16,595,858	23,834,781	(7,238,923)	(30.4)
ELECTRIC POWER TAX	6,451,067	5,919,332	531,735	9.0
ESTATE TAX	13,720,420	10,407,147	3,313,273	31.8
FERTILIZER INSPEC. TAX	51,283	53,456	(2,173)	(4.1)
GASOLINE TAX-COUNTIES	6,254,567	6,065,431	189,136	3.1
GIFT TAX	381,673	176,315	205,358	116.5
INSURANCE TAX	20,146,598	21,405,205	(1,258,607)	(5.9)
MOTOR TRANSPORT FEES	2,254,156	2,186,232	67,924	3.1
PRIVATE CAR LINES TAX	0	0	0	0.0
PUBLIC SERVICE ASSESS.	4,157,778	3,786,707	371,071	9.8
PUBLIC SERV. AUTHORITY	1,534	2,151	(617)	(28.7)
RADIOACTIVE WST. SURCH.	2,743,972	2,077,874	666,098	32.1
RETAILERS LICENSE TAX	342,426	285,657	56,769	19.9
SAVINGS & LOAN TAX	221,883	33,465	188,418	563.0
SOFT DRINKS TAX	8,364,752	8,208,181	156,571	1.9
WORKERS CMP. INSURANCE	3,220,051	3,463,270	(243,219)	(7.0)
<b>TOTAL, ALL OTHER REV.</b>	<b>160,909,135</b>	<b>178,723,326</b>	<b>(17,814,191)</b>	<b>(10.0)</b>
<b>TOTAL, REGULAR SOURCES</b>	<b>1,148,465,505</b>	<b>1,064,370,142</b>	<b>84,095,363</b>	<b>7.9</b>
<b>MISCELLANEOUS SOURCES</b>				
CIRCT/FAMILY COURT FN	1,232,336	838,239	394,097	47.0
DEBT SERV. TRANSFERS	63,428	55,414	8,014	14.5
HOUSING AUTHRTY. REIMB.	0	0	0	0.0
INDIRECT COST RECOVERY.	2,257,023	3,391,988	(1,134,965)	(33.5)
MENTAL HEALTH FEES	0	0	0	0.0
NONRECURRING REVENUE	0	0	0	0.0
PAROLE/PROBATION FEES	1,141,007	989,162	151,845	15.4
UNCLAIMED PROPRTY FND.	471,471	765,691	(294,220)	(38.4)
WASTE TREATMENT REPAY.	87,624	101,101	(13,477)	(13.3)
<b>TOTAL, MISC. SOURCES</b>	<b>5,252,889</b>	<b>6,141,595</b>	<b>(888,706)</b>	<b>(14.5)</b>
<b>TOTAL, GENERAL FUND REV.</b>	<b>1,153,718,394</b>	<b>1,070,511,737</b>	<b>83,206,657</b>	<b>7.8</b>

1/: Excludes (1%) Education Improvement Act and (2%) Accommodations Taxes.

\*: Month-to-month variations in Investment Earnings can occur as the result of maturity differentials.

\*\*: Greater than +/- 9,999.

Source: S. C. Board of Economic Advisors/11/9/90

ECONOMIC CONDITIONS DIGEST  
October 1990

Latest signals for the U.S. economy were mixed but mostly negative. The exceptions were the unanticipated strength in GNP and in Personal Income. Total seasonally adjusted nonagricultural employment in the United States decreased by 68,000 persons in October, bringing total employment to 110,493,000. Most of the October decrease was due to a loss of 61,000 persons in the manufacturing sector and 80,000 persons in construction. The seasonally adjusted unemployment rate for October remained unchanged from September at 5.7%.

The Index of Leading Economic Indicators fell -0.8% in September after declining 1.2% in August. The Index of Coincident Indicators was down -0.4% in September, following changes of -0.1% in August and -0.2% in July.

Housing starts fell to 1.135 million at an annual rate in September from 1.142 million in August. Building permits were also down to 1.01 million annually in September following a level of 1.05 million in August. New home sales fell to a seasonally adjusted rate of 503,000 in September from a revised 535,000 in August.

Personal income was up 0.4% in September for an annual rate of 5.0%. The Consumer Price Index (CPI) increased 0.8% in September, sparked by the largest monthly rise in energy costs on record of 5.6%, following a 0.9% rise in August. The Producer Price Index for all commodities increased 1.6% in September and 1.9% in August. Real GNP increased 0.4% at an annual rate in the second quarter of 1990, and at an annual rate of 1.8% in the third quarter despite steep oil prices and weak consumer confidence.

The South Carolina economy continues to follow trends in the national economy with some variation. Among leading indicators in South Carolina, new business incorporations fell to 5,004 at an annual rate in September from 6,648 in August. Seasonally adjusted residential construction fell in August to 1,682 units from 1,833 in July. The seasonally adjusted unemployment rate in the State inched up to 5.2% in September from 5.1% in August.

Among coincident indicators in the State, new car registrations equaled 121,128 annually in August, down from a level of 126,624 in July. Seasonally adjusted retail sales deflated by the CPI rose to \$2,986.4 million in July following a total of \$2,848.9 million in June. Nonresidential construction permits adjusted for seasonal factors and measured in square feet equaled 1,340,000 in August compared to 1,453,000 in July.

Seasonally adjusted total nonagricultural employment in South Carolina increased to 1,554,100 persons in September from 1,552,100 persons in August. Employment gains in nonmanufacturing sectors such as construction and government offset a loss of 2,200 jobs in manufacturing. The majority of the loss occurred in durable goods production. The net result was an increase of 2,000 jobs overall compared to a loss in the national economy for the corresponding month.

Board of Economic Advisors  
November 9, 1990



SELECTED SOUTH CAROLINA ECONOMIC INDICATORS

	1988	1989	89:II	89:III	89:IV	90:I	90:II	90:III	May.	Jun.	Jul.	Aug.	Sept.	Oct.
Personal Income (Mil. \$, S.A.A.R.)	44,717	47,881	48,343	45,636	49,687	51,328	51,947							
NonAg. Employment (000 S.A.)	1,448	1,505	1,494	1,513	1,522	1,542	1,543	1,552	1,543.9	1,547.4	1,548.3	1,552.4	1,554.1	
Avg. Weekly Earnings, Manufacturing	341.13	351.46	353.90	355.83	359.20	357.28	356.00	362.59	355.59	359.31	359.16	363.04	365.57	
Unemployment Rate (S.A.)	4.6	4.6	4.5	5.1	5.0	4.3	4.3	5.2	4.3	4.4	5.4	5.1	5.2	
New Car Registrations (A.R.)	135,536	116,120	131,204	122,412	96,224	115,196	123,552	NA	129,804	122,664	126,624	121,128	NA	
New Business Incorporations (A.R.)	6,239	6,863	7,832	6,368	6,544	7,556	6,924	6,048	7,224	6,708	6,492	6,648	5,004	6,456

SOUTH CAROLINA - ANNUAL RATES OF CHANGE (%)

Personal Income (Mil. \$, S.A.A.R.)	8.1	7.1	4.1	(20.6)	40.5	13.9	4.9							
NonAg. Employment (000 S.A.)	4.0	4.0	1.6	5.2	2.4	5.4	0.3	2.2	4.7	2.8	0.7	3.2	1.3	
Avg. Weekly Earnings, Manufacturing	1.0	3.0	4.1	2.2	3.8	(2.1)	(1.4)	7.6	8.8	13.3	(0.5)	13.8	8.7	
New Car Registrations (A.R.)	3.3	(14.3)	66.5	(24.2)	(61.8)	105.4	32.3	NA	208.0	(49.3)	46.4	(41.3)	NA	
New Business Incorporations (A.R.)	(0.8)	10.0	85.8	(56.3)	11.5	77.7	(29.5)	(41.8)	92.6	(58.9)	(32.5)	33.0	(96.7)	****

SELECTED U.S. ECONOMIC INDICATORS

Gross National Product (Bil. \$, S.A.A.R.)	4,873.7	5,200.8	5,174.0	5,238.6	5,289.3	5,375.4	5,443.3	5,514.4						
Gross National Product (Bil. 82\$, S.A.A.R.)	4,016.9	4,117.7	4,112.2	4,129.7	4,133.2	4,150.6	4,155.1	4,173.6						
Personal Income (Bil. \$, S.A.A.R.)	4,070.8	4,384.3	4,347.2	4,385.3	4,452.9	4,562.8	4,622.2	4,677.7	4,621.4	4,640.7	4,663.2	4,673.0	4,696.8	
NonAg. Employment (000 S.A.)	105,536	108,413	108,162	108,662	109,203	109,911	110,541	110,653	110,617	110,829	110,740	110,657	110,561	110,493
Unemployment Rate (S.A.)	5.5	5.3	5.3	5.2	5.3	5.2	5.3	5.6	5.3	5.2	5.5	5.6	5.7	5.7
Consumer Price Index	118.3	124.0	123.7	124.7	125.9	128.0	129.3	131.6	129.2	129.9	130.4	131.6	132.7	

SELECTED U.S. ECONOMIC INDICATORS - ANNUAL RATES OF CHANGE (%)

Gross National Product (Bil. \$, S.A.A.R.)	7.9	6.7	5.8	5.1	3.9	6.7	5.1	5.3						
Gross National Product (Bil. 82\$, S.A.A.R.)	4.5	2.5	0.5	1.7	0.3	1.7	0.4	1.8						
Personal Income (Bil. \$, S.A.A.R.)	8.1	7.7	5.7	3.6	6.3	10.2	5.3	4.9	4.5	5.1	6.0	2.6	6.3	
NonAg. Employment (000 S.A.)	3.3	2.7	2.0	1.9	2.0	2.6	2.3	0.4	4.9	2.3	(1.0)	(0.9)	(1.0)	(0.7)
Consumer Price Index	4.1	4.8	6.7	3.3	3.9	6.8	4.2	7.1	2.8	6.7	4.7	11.6	10.5	

Board of Economic Advisors

11/9/90

\*\*\*\* = Greater than 500%

TABLE I  
GENERAL FUND REVENUES  
FORECAST FISCAL YEARS 1990-91 AND 1991-92  
(In Millions of Dollars)

	ACTUAL FY 1989-90	BEA 11/9/90 REVISED ESTIMATE FY 1990-91	BEA 11/1/90 ESTIMATE FY 1991-92
TOTAL GENERAL FUND (1)	3294.8	3510.3	3654.0
Total Regular Sources (1)	3252.8	3464.7	3607.5
Sales Tax (1)	1155.8	1224.2	1283.5
Individual Income Tax	1380.2	1491.0	1587.0
Corporation Income Tax	140.9	150.0	145.0
All Other	575.9	599.5	592.0
Miscellaneous Sources	42.0	45.6	46.5
Education Improvement Fund	301.362	306.050 *	320.875 *
Interest on Education Improvement Fund	2.110	1.900	1.900
TOTAL	303.472	307.950	322.775
		<u>RATES OF CHANGE**</u>	
TOTAL GENERAL FUND		6.5 %	4.1 %
Total Regular Sources		6.5	4.1
Sales Tax		5.9	4.8
Individual Income Tax		8.0	6.4
Corporation Income Tax		6.5	-3.3
All Other		4.1	-1.2
Miscellaneous Sources		8.7	2.0
Education Improvement Fund		1.6	4.8
Interest on Education Improvement Fund		-10.0	0.0
TOTAL		1.5	4.8

(1) Net of Education Improvement Fund.

\* One-fifth of total sales tax.

\*\* Percent change based on unrounded figures.

TABLE II

STATE OF SOUTH CAROLINA  
 TOTAL BUDGETARY GENERAL FUND  
 QUARTERLY ESTIMATES  
 Fiscal Years 1990-91 and 1991-92  
 (In Millions of Dollars)

	FY 1990-91 -----	FY 1991-92 -----
FIRST QUARTER	866.2 *	917.2
SECOND QUARTER	1747.5	1838.0
THIRD QUARTER	2569.2	2685.7
FOURTH QUARTER	3510.3	3654.0

PERCENT OF TOTAL REVENUES  
 COLLECTION BY QUARTER

	FY 1990-91 -----	FY 1991-92 -----
FIRST QUARTER	24.7	25.1
SECOND QUARTER	25.1	25.2
THIRD QUARTER	23.4	23.2
FOURTH QUARTER	26.8	26.5

\*: Actual.

Board of Economic Advisors  
 November 9, 1990

REVENUE FORECASTING PROCEDURES  
BOARD OF ECONOMIC ADVISORS  
FISCAL YEAR 1991

The procedures and methodology of the Board of Economic Advisors in the preparation of the first official revenue forecast for Fiscal Year 1991-92 involved three major stages: 1) providing the economic background and setting at the national and State levels for the revenue forecasts; 2) interpreting recent and historical revenue relationships; and 3) interacting with officials of other states with responsibility for revenue forecasting.

The Board members consulted as in the past with business and financial experts and professional economists for economic intelligence gathering. This included a meeting held on October 26, 1990 in Columbia with the National Advisory Council to the Board of Economic Advisors. Present at the meeting were: J. Alfred Broadus, Jr., Ph.D., Senior Vice President and Director of Research, Federal Reserve Bank of Richmond; James A. Morris, Ph.D., Distinguished Professor of Economics Emeritus, University of South Carolina; Ronald P. Wilder, Ph.D., Chairman, Department of Economics, University of South Carolina; David A. Wyss, Ph.D., Senior Vice President and Research Director, Data Resources, Inc.; and Bruce Yandle, Jr., Ph.D., Alumni Professor of Economics, Clemson University.

The resources of the national forecasting groups by which the SCOPE model and other forecasts are driven, Data Resources, Inc., Evans Economics, Inc., and WEFA, Inc., were available weekly and monthly to Board members and staff. Materials from a variety of sources--international, national and State publications--were also made available to Board members and staff. In addition, there was Board interaction by the Executive Director with numerous outstanding national economists at the 32nd Annual Meeting of the National Association of Business Economists held September 23-27, 1990 in Washington, D.C. and BEA staff representation at the 45th Annual FTA Conference on Revenue Estimating and Tax Research held September 30-October 3, 1990 in San Francisco, California.

## BRIEF OVERVIEW OF THE SCOPE MODEL

The SCOPE (South Carolina Operations Planning and Evaluation) Model was initiated in 1972 in the Office of Chief Economist (originally in the Governor's office). It was designed and operated as a policy and forecasting tool for top level executive, legislative and management decision making. SCOPE is an econometric model designed to reflect the South Carolina economy and to forecast the performance of major economic variables in the State, particularly tax revenues, employment and income. The model is based on a framework of economic activity in the State relative to national economic activity with approximately 85 exogenous national variables provided by leading national forecasting services such as Data Resources, Inc., the WEFA Group, and Evans Economics, Inc.

The SCOPE core economic model consists of 51 equations, of which 37 are stochastic\* and 14 are identities. SCOPE attempts to reflect the diversity of the South Carolina economy by including 19 industrial sectors of manufacturing and nonmanufacturing employment, and a series of equations for wages, personal income and unemployment.

### Durable Manufacturing Employment

The durable manufacturing employment block consists of ten stochastic equations for the major industries in the State as reported by the South Carolina Employment Security Commission. The employment equations for each separate industry are expressed as a function of a national consumption expenditure index appropriate for that particular industry, a national industrial production index corresponding to that industry and the national level of employment in that industry. The durable employment forecasts include the following industries: Lumber and Wood Products, Stone, Clay and Glass, Primary and Fabricated Metal Products, Electrical and Nonelectrical Machinery and Other Durables which includes Furniture and Fixtures, Transportation, Instruments and Related Products.

### Nondurable Manufacturing Employment

The nondurable manufacturing employment block consists of seven stochastic equations for the major nondurable industries in the State. Like the durable block, the employment equation for each industry is expressed as a function of a national consumption index appropriate for that particular industry, a national industrial production index for that particular industry and the national level of employment in that industry. Employment forecasts are available for each of the following nondurable industries: Food and Kindred Products, Textile Mill Products, Apparel, Paper, Printing and Publishing, Chemicals and Other Nondurables, such as Rubber and Miscellaneous Plastics Products.

\* Stochastic is defined as a type of modeling for time series analysis explaining future probability from historical experience.

## Nonmanufacturing Employment

The nonmanufacturing employment block is disaggregated into eight stochastic equations: Mining, Construction, Transportation and Public Utilities, Services, Trade, Finance-Insurance-Real Estate, State and Local Government and Federal Government. Employment growth in these industries is specified as functions of State population, national employment in these industries and national consumption indices.

## Personal Income

The personal income block is composed of 12 equations, one equation for the unemployment rate, one equation to adjust for nonresidents, and ten additional equations for each of the ten major components of personal income as published by the Bureau of Economic Analysis, Department of Commerce. These equations are specified as functions of their respective national and State income and employment variables. In addition, equations are estimated for wage and salary disbursements for all major industries and are specified as functions of national wage trends and State employment levels.

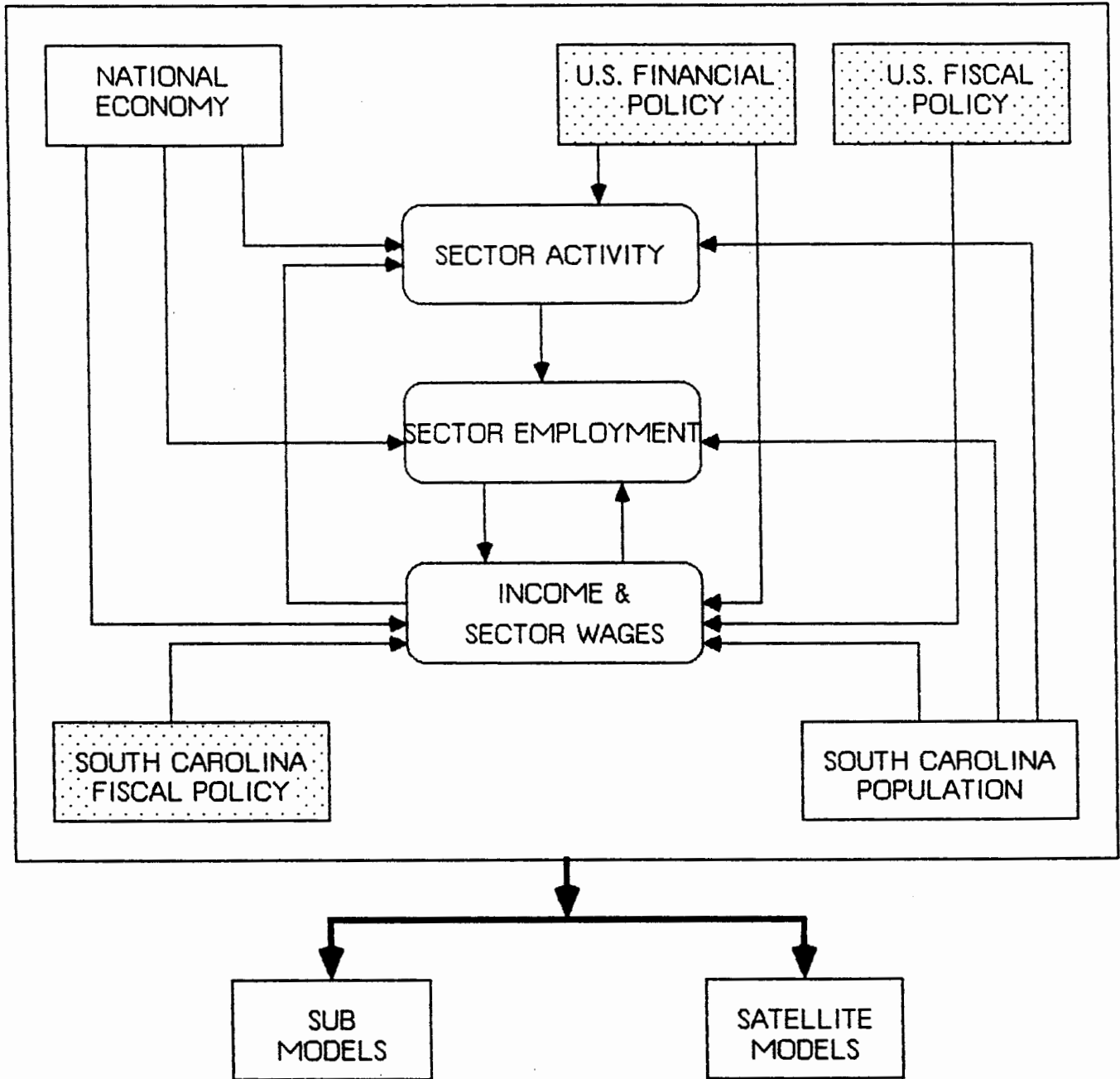
## Revenues

The revenue section of the model is being structured to emphasize four major stochastic Regular Revenue Sources equations: 1) South Carolina corporate income tax, 2) South Carolina individual income taxes, 3) South Carolina retail sales tax, and 4) all other taxes. These equations are individually specified as functions of aggregate employment and income with their respective coefficients and constants. In addition, there are two stochastic equations for taxable sales and refunds.

The core economic model is completed and operative. The equations are currently being respecified to account for major revisions in historical data from the U.S. Department of Commerce. Reformulation and respecification of the revenue model is in progress.

# SCOPE MODEL

SOUTH CAROLINA OPERATIONS, PLANNING & EVALUATION MODEL



- Exogenous Variables
- Exogenous Policy Variables
- Endogenous Variables