

# MAINE STATE LEGISLATURE

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A STUDY BY ARCO INC.

**THE MAINE ECONOMY  
AND ITS  
REVENUE RESOURCES**

Prepared For

The Maine Legislative Research Committee

103-3 Jan '1967

The Maine Economy and Its Revenue Resources

Legislative Research Committee

Report

To

103rd Legislature

Pub. No. 103-3 January, 1967

**A R C O**

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January 1, 1967

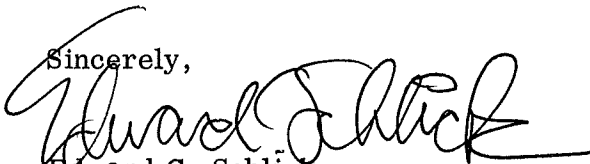
To Members of the  
Maine Legislative Research Committee:

Gentlemen:

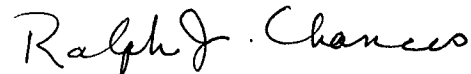
This is the complete volume of the study of the Maine Economy and Its Revenue Resources which was prepared for the Committee and for use by the 103rd Maine Legislature in accordance with the Order of the Maine Executive Council on May 18, 1966 that research be conducted "to provide a framework for discussions of the implications of a tax program."

We hope that the members of the 103rd Maine Legislature will find the contents of the study useful in their deliberations on economic and taxation measures.

Sincerely,



Edward C. Schlick  
President



Dr. Ralph J. Chances  
Project Director



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Assistance in obtaining research material was also extended to our staff by the University of Maine Library, Maine State Library, Augusta Catherine Dingman, MA, Bates College, assistant librarian, the Maine Center for Economic Research, Bowdoin College, and a number of departments of Maine state government, department heads and statisticians.

## SUMMARY

### POPULATION

This section discusses population trends and projections at the county, state, regional and national level, population changes by age groups and migration of population.

The following conclusions can be drawn:

1. With the exception of the 1930-40 decade, Maine population has grown, and continues to grow, at a rate far slower than that of New England and far slower than the national rate of growth. In the 1950-60 decade Maine population grew about half as fast as New England and one-third as fast as the nation. In 1960-65 Maine population grew 2.4% -- with the exception of Vermont, the slowest growth rate among the New England states, less than half the growth of the region and less than a third the growth of the nation.
2. Twenty-year projections anticipate that Maine will soon replace Vermont as the state with the slowest New England population growth. Maine's population is projected to increase 18% between 1960 and 1980. This is the lowest percentage of increase in New England and is well below the 40% population increase projected for New Hampshire and the 28% increase projected for Vermont.
3. Both Maine and New England are expected to follow the population trends in age levels of population. These are faster growth in the 18 - 44 age group; a sharp decline in the growth rate of the school age population; a less marked decline in the growth of the 45 - 64 age group; and little change in the growth rate for the Over - 65 age group.



4. Maine is divided into three subareas. In Subarea One it is estimated that Penobscot gained 2.5% and Aroostook lost 0.6% in population since 1961.

County level projections indicate a continued slowing of population growth in Subarea One in this decade, followed by an increase in growth again during 1970-80.

In Subarea Two it is estimated that population gains were made in Kennebec 2.8%, Androscoggin 3.3%, Cumberland 4.1% and York 4.5% since 1961.

Sagadahoc is estimated to have lost 0.4% population in 1961-65. Subarea Two is projected to make population increases above the state average in the entire 1960-80 period.

In Subarea Three it is estimated that population gains were made in 1961-65 by Oxford 1.6%, Somerset 3%, Piscataquis 11%. Losses of population were estimated to have occurred in Franklin 2%, Waldo 2.6%, Lincoln 1.1%, Knox 10.1%, Hancock 1.2% and Washington 6.4%. Projections indicate a small population growth in Subarea Three in 1960-80 but at a rate much lower than the state average.

5. Maine had a net loss of 65,881 persons due to out-migration from 1950 to 1960. In New England this was the second highest loss of persons both in numbers and in percentage of population moving out of a state. From 1960 to 1964 Maine had a net loss of 32,000 more persons due to out-migration. This continued to be the second highest loss of persons in New England both in actual numbers and in percentage of population leaving a state.

6. While improved economic conditions can lessen out-migration from Maine, the Census Bureau projects that, if present trends continue, a net of 114,000 persons will leave Maine between 1960 and 1985. If changing economic conditions cause fewer persons to leave, the Census Bureau still projects that 80,000 persons will leave Maine in 1960-85.

7. Studies show that migrating persons are characterized by youth, better than average education and above average employment status. Of the net loss of 65,881 persons who left Maine in 1950-60 slightly more than half were between 20 and 40 years of age. Projecting this ratio of loss indicates that a net of 16,960 persons in this younger working force age group moved out of Maine between 1960 and 1964.

8. As much as 25% of the moves from one state or area to another are made for other than economic reasons. The problems associated with high density population in other states will, in the future, give Maine increased opportunities to sell the "liveability" assets of its communities. This coupled with family reasons for returning to Maine and increased job opportunities, if properly utilized, could be of some effect in slowing the present out-migration.

## INCOME

The three major portions of this section on income are related to per capita income under different measurements (before taxes, after taxes and after adjustments for price increases) sources of income and distribution of income.

While there are some exceptions, it is possible to characterize Maine income as:

1. The lowest among the New England states whether measured in per capita or family income and lower than regional and national averages.
2. Generally slower to increase than the majority of New England states, the region and the nation. In per capita and family income Maine

dropped from next to last to last place in New England as Vermont exhibited a spurt of growth in 1960-65. The slower growth over the last decade is particularly evident when income is examined by sources such as wholesale and retail trade, services, construction, manufacturing, etc.

3. Drawn from sources in similar proportion to the income of the region, with the exception of the greater importance of agriculture and with greater emphasis on slower growth sources such as transportation and lesser emphasis on faster growth sources such as finance and services.

4. Weighted more heavily in distribution toward the lower end of the income scale both in family and individual income than any other New England state. Forty-one percent of Maine families have cash incomes of less than \$4,000 a year -- the highest percentage in this low income bracket in New England. The Federal individual income tax burden falls more heavily on the Maine 0 to \$5,000 incomes and less heavily on the Maine over \$10,000 incomes than on these income groups in any other New England state.

5. Concentrated most heavily in just six counties (Penobscot, Kennebec, Androscoggin, Sagadahoc, Cumberland and York) which are the only counties having family incomes above the state average.

6. Varying widely from the "richest" to the "poorest" income counties with the 42% difference in family income between Washington and Cumberland counties being the same as the spread between average Maine and Connecticut income.

7. Closely aligned in geographic distribution to the problem of out-migration both among the counties in Maine and between Maine and the other New England states. A large part of the difference in the geographic

distribution of income is the result of families leaving some Maine counties or leaving the state entirely. The same counties that show the lowest income patterns are the ones with the highest rates of out-migration, particularly in the key 20 to 40 year younger working group. The same generalization can be made in comparing Maine's lower income against that of the other New England states. It is due in large part to families leaving the state representing a loss of incomes as well as people.

#### EMPLOYMENT AND OTHER ECONOMIC INDICATORS

This section deals with employment and other economic indicators (such as retail sales) and is broadly divided into two parts: Agricultural and Non-agricultural.

The following conclusions can be drawn:

##### Agricultural

1. Maine is more dependent on Agriculture than other New England states, with the exception of Vermont. In New England Maine has the second highest number of harvested acres, second highest number of farm acres per capita, the highest number of farms, acres in farms, farm employment and cash receipts from farming.

2. The Agricultural Census shows Maine lost 25% of its farms and 16% of its total farm acres between 1959 and 1964. There is a marked trend toward larger commercial farms and a decline in the so-called "family farm". A downward trend is apparent in farm employment.

3. Taxes on farms have increased in Maine at a rate close to that of the other New England states but the tax per \$100 of full value is the highest in New England.

4. In a good potato price year Maine's cash receipts from farm marketings are divided roughly into thirds -- one-third from potatoes, one-third from poultry and one-third from dairy and all other sources.

5. Potatoes, which account for between 20% and 35% of cash farm marketings have a year-to-year price fluctuation around general farm price levels of more than 45% -- the largest variability of any major commodity. The sharp year-to-year price changes in this one commodity produce equally sharp and sudden changes in all cash economic farm indicators such as cash receipts from farm marketings and realized net farm income.

6. Averaging two four-year periods (1957-60 and 1960-64) indicates that realized net income per farm in Maine has gained less than 2% since 1957. Most New England states have experienced losses in net income per farm in the same period with Massachusetts showing the only gain. Potato prices and consequently farm income experienced a sharp rise in 1965.

7. In total realized net farm income (not per farm) Maine had an average of \$57.6 million in 1957-60 and an average of \$49.6 million in 1961-64 -- or a decline in total realized farm income of -13.9%.

#### Non-Agricultural

1. In total non-agricultural employment Maine had the second lowest percentage of increase in New England in 1955-60 and the lowest increase in 1960-65. Over the last decade Maine non-agricultural employment increased less than half as fast as the region and slower than any other New England state except Rhode Island.

2. Maine is more dependent than any other New England state on slow-growth sources of manufacturing employment (lumber, food, textiles, paper and leather)

than any other New England state. They accounted for 28.5% of Maine employment in 1965 compared with the New England average of only 9.6%.

3. Maine has a proportion of employment in non-manufacturing sources (construction, trade, transport, finance, services and government) almost identical with the other New England states. Maine has 63% so employed compared with a New England average of 63.4%.

4. The higher proportion of slower growth, lower wage industries in Maine is closely associated with Maine's lower level of income and with the high rate of out-migration since employment opportunities have not been growing as fast as the labor force.

5. The dependence on slower growth sources of employment has also conditioned projections of Maine employment and income and total economic growth. Maine manufacturing employment is projected to increase only 5.6% by 1980, less than that of any other New England state and far less than the projected manufacturing employment increases of 18.2% for New Hampshire and 25.2% for Vermont. Total Maine employment from all sources (including agriculture, forestry and fisheries) is projected to increase 22.7% by 1980 -- the smallest percentage of increase in New England and well below the 40.5% projected increase in New Hampshire and the 35.4% increase in Vermont.

#### Economic Indicators

As noted in the text there is a considerable time lag in the gathering and publication of some economic figures -- particularly those allowing comparisons between Maine and the region. The need for this comparison is evident when the competition between the New England states for population, workers,

industry and income is considered as well as the fact that, in light of this competition, a growth rate within a state is much less meaningful than a comparison of growth rates between the states.

The need for comparison is again evident when it is considered that one of the factors in the construction of the Maine Business Index published by the Center for Economic Research at Bowdoin College is sales of electric power. Figures to be published by the Federal Reserve Bank of Boston indicate that while Maine's power sales to commercial and industrial customers rose 10.6% from 1962 to 1964, Vermont's sales in the same category rose 21.5%. The same is true in other economic indicators such as contract construction awards which according to data from the Federal Reserve Bank, increased 4.8% in Maine between 1964 and 1965 but which increased 23.5% in New Hampshire and 59.1% in Vermont in the same years.

In general the economic indicators show:

1. As judged by percentages of increase from the 1958 to the 1963 Censuses of Business, Maine had the least growth of any New England state and was substantially below regional growth in retail sales, receipts from service businesses and value added by manufacture. In growth in wholesale sales Maine was slightly above Vermont but lower than the other states and the region.

2. The percentage of increase in retail sales in Maine from 1963-65 was above the other New England states and above the regional average. Farm income and construction income rose sharply above New England averages in 1964-65, although Maine income from the major sources of manufacturing, trade, services and government increased less in 1964-65 than the New England average.

3. The Maine Business Index indicates a period of marked growth in Maine between late 1964 and the present; however, only the compilation of income, employment and other economic figures which include all of New England for 1966 will show whether or not there will be any change in the long-term trends and the projections that point to the much slower growth of the Maine economy as compared with the other New England states.





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SECTION ONE - POPULATION

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## POPULATION

Population is one of the factors that gives an approximation of the economic strength of Maine. It is part of the economic base on which taxation must rest. The population and its composition by age groups and geographic distribution determine to a large extent the types and levels of government services needed and the ability of the state as a whole to support a given level of services.

## NATIONAL TRENDS

During the first half of the current decade the nation's population grew at a rate of about 2.8 million persons per year reaching an estimated total of more than 193 million persons in 1965. This was a growth rate of 8.1% for the nation over the five year period since the last complete census.<sup>1</sup> This fairly steady increase in numbers, however, actually represented a slight decrease in the rate of growth of the population. Largely as a result of a declining birth rate, the growth rate fell during the late 1950's, and a continuation of this trend is reflected in the estimates for the years from 1960 to 1965. Other factors contributing to population gain or loss on the national level had relatively little effect.<sup>2</sup>

## REGIONAL TRENDS

Regional changes in population during the 1960-65 period were generally similar to those in the 1955-60 period. With an annual rate of increase nearly twice that of the rest of the nation, the West continued to be the fastest growing section of the country. All regions showed some population gain from 1960-65 but the Northeastern and North Central States increased at a rate below the national average.<sup>2</sup>

1 - Table A-2

2 - Source 6

As a result of the differences in population growth, some states moved up in rank and others slipped to lower positions. In New England (Table One) one state moved up in rank, one held its own and the remainder slipped down a notch. New Hampshire moved up from 46th to 45th place among the 50 states from 1960 to 1965 in population rankings. Rhode Island stayed at its place as 39th in population while during the five year period Maine moved down from 36th to 37th; Vermont from 48th to 49th; Massachusetts from 9th to 10th; and Connecticut from 25th to 24th.

TABLE 1      POPULATION - NATIONAL RANKING  
OF NEW ENGLAND STATES 1940-1965

	1940	1950	1960	1965
Maine	35	35	36	37
New Hampshire	45	45	46	45
Vermont	47	47	48	49
Massachusetts	8	9	9	10
Rhode Island	36	37	39	39
Connecticut	31	28	25	24

Source: Statistical Abstract of the U. S. 1965  
Census Bureau, Current Population Reports, Series P-25, No. 317

This trend continued one of long standing as the New England Region as a whole continued to grow at a slower rate than the remainder of the nation. While the national rate of growth in the first half of the current decade was 8.1%, the rate of growth in New England was only 5.9%. Since the 1930's the growth rate in New England has been slower, being less than half the national average from 1930 to 1940 and then climbing in the following two decades to approximately two-thirds of the national average.

While the region is still growing at a rate slower than the rest of the nation, the forecasts for the decades ending in 1970 and 1980 are encouraging in one sense. They project that, while New England grew only two-thirds as fast as the rest of the nation up to 1960, it will move up to a percentage of growth close to three-fourths as fast as the nation in the 1960-70 decade. In the following decade the region will grow at a rate approximately 85% as fast as the nation as a whole.

TABLE 2 NEW ENGLAND POPULATION GROWTH 1940-1980

	(Percentage of Change)						
	1930- 1940	1940- 1950	1950- 1960	1960- 1965	1965- 1970	1970- 1975	1975- 1980
New England	3.3%	10.4%	12.8%	5.9%	6.4%	6.8%	7.5%
United States	7.3%	14.5%	18.5%	8.1%	9.4%	8.1%	8.6%

Source: Tables A-1, A-2

### MAINE POPULATION TRENDS

Maine bears somewhat the same relation to New England as the region bears to the remainder of the nation. The Maine population is increasing but not as rapidly as New England as a whole and far less than the nation as a whole.

The change in Maine's position in terms of population growth has occurred largely in the last fifteen to twenty years. In the percentage of population change in the depression years of the 1930's, the Maine population was growing at a rate of 6.2% for the decade. This made Maine, with the exception of Connecticut, which barely edged it out, the fastest growing state in New England. In the 1930-40 decade Maine grew at a rate that was almost twice that of New England as a whole and which was very close to the national average.

During the war years of the 1940's the picture changed drastically. From 1940 to 1950 Maine's population increased 7.9% or just slightly more than the rate of the previous decade. This made Maine, with the exception of Vermont, the slowest growing state in New England. Maine during this decade was growing at a rate approximately 80% of the New England average and about half of the national average.

TABLE 3

MAINE POPULATION GROWTH IN CENSUS YEARS 1940-1980

(Percentage of Change)

	1930- 1940	1940- 1950	1950- 1960	1960- 1970	1970- 1980	1940- 1980
Maine	6.2%	7.9%	6.1%	6.3%	10.8%	34.7%
New England	3.3%	10.4%	12.8%	12.7%	14.8%	61.1%
United States	7.3%	14.5%	18.5%	16.2%	17.4%	85.0%

Source: Table A-1

In the post war decade of the 1950's Maine's position in terms of relative population growth declined further. The percentage of increase in the state's population dropped back to 6.1% for the 1950-60 decade -- or slightly less than the rate of growth of the depression years. Maine remained, with the exception of Vermont, the slowest growing state in New England. Maine grew in this decade (Table 3) at a rate about half as fast as New England as a whole and about one-third as fast as the nation as a whole.

The population of Maine in 1965 was estimated by the U. S. Census Bureau at 993,000 and this figure represents a percentage of growth over the 1960 Census total of 2.4%. With the exception of Vermont, this is the lowest percentage of growth in New England. In round figures it shows that in the first half of the current decade the state population is increasing at a rate which is about 40% of the New England rate and about 30% of the national rate.

### THE NEXT FIFTEEN YEARS

What is the outlook for Maine in terms of population growth for the years to 1980? While the projections vary (see pages 40 - 45) for comparisons of projections of population) the U. S. Census Bureau projects the Maine population to increase to 1,030,000 persons in 1970; to 1,081,000 persons in 1975; and to 1,141,000 persons in 1980. This represents a net population growth of 172,000 persons for the state or an increase in population of about 17.8% in state population in the two decades from 1960 to 1980.

In terms of population growth the Census Bureau projects that there will be a gradual leveling of the bulge in growth rates between Maine and New England and the nation. In the 1950-60 decade Maine grew about half as fast as New England and a third as fast as the nation. This trend toward proportionately slower growth has continued into the 1960-65 period but is projected to improve slightly in the remaining five years of the decade when it is estimated that Maine will grow about 58% as fast as New England and about 40% as fast as the nation. Further improvement is projected for the 1970-80 decade when the projections show Maine population increasing at a rate of about 75% the New England rate and

about 65% of the national rate. The long term estimate of comparative population growth indicates that Maine's population will grow from 1960 to 1980 at a rate which is about 60% the New England average and about 50% the national average.

While there is a relative improvement indicated in Maine's proportionate rate of growth, it should be kept in mind that the state is in direct competition with other New England states in a variety of economic terms and the projections over the 1960 - 1980 period do not put the state in a strong growth position in

TABLE 4

COMPARATIVE CHANGES IN POPULATION 1960 - 1980  
NEW ENGLAND STATES

(Percentages of Change)

	1960- 1965	1965- 1970	1970- 1975	1975- 1980	1960- 1980
Maine	2.4%	3.7%	5.0%	5.6%	17.8%
New Hampshire	10.3%	7.2%	8.4%	9.0%	39.5%
Vermont	1.9%	10.6%	6.4%	6.9%	27.9%
Massachusetts	3.9%	5.6%	6.3%	7.0%	24.7%
Rhode Island	3.7%	5.5%	3.3%	4.2%	18.3%
Connecticut	11.7%	8.2%	9.2%	9.7%	44.8%
.....					
New England	5.9%	6.4%	6.8%	7.5%	29.4%
.....					
United States	8.1%	9.4%	8.1%	8.6%	36.4%

Source: Table A-2

relation to the remainder of the region. While a population increase of 17% is projected for Maine in the twenty years, the same projections indicate that the



New Hampshire population will increase 39%; Vermont 27%; Massachusetts 24%; Rhode Island 18%; and Connecticut 44%. The projections of the Census Bureau indicate that in the 1965-70 period Maine will replace Vermont as the slowest growing state in New England in terms of the percentage of population increase.

TABLE 5 POPULATION OF MAINE AND PROJECTIONS

1940 - 1980

YEAR	POPULATION	PERCENT OF CHANGE	
1940	847,226	1930-40	6.2%
1950	913,744	1940-50	7.9%
1960	969,265	1950-60	6.1%
1965	993,000	1960-65	2.4%
1970	1,030,000	1965-70	3.7%
1975	1,081,000	1970-75	5.0%
1980	1,141,000	1975-80	5.6%

CENSUS YEARS	POPULATION INCREASE	PERCENT OF CHANGE
1960-70	60,735	6.3%
1970-80	111,000	10.8%
.....		
1960-80	171,735	17.8%
.....		

Source: Tables A-1, A-2

The projected addition of 171,735 persons to the Maine population by 1980 will undoubtedly have an impact on the state business, employment, manufacturing, government services and other sections of the economy, including taxation, however, the best available projections indicate that these economic changes, insofar as they are based on population, will not be as great in Maine as they will elsewhere in the region and the nation.

#### POPULATION AGE GROUPS

The age structure of the population is of vital economic concern both in terms of demands for government services and in determining ability to maintain present taxes and to meet new ones. It is obvious that, if the population is divided broadly into four large age groups: 0-20 years; 20-40 years; 40-60 years; and 60-80 years, that the youngest age group will make the largest demands on education, the oldest age group the largest demands on health, welfare and retirement benefits and the two middle groups, being in their peak earning years, will have to carry the largest proportion of the tax burden. There are numerous other factors related to the age structure, such as the demand for workers in the 20-40 year bracket.

#### NATIONAL TRENDS

Gains in population during the period from 1960-65 were greater in some age groups than others. This was due largely to variations in birth rates in the past. The population in the age groups from 30 to 40 years decreased between 1960 and 1965 because these ages comprise the population born in the depression

years when there was a marked decline in the number of births. The population born just after World War II reached age 18 by 1965. The high birth rates since the war resulted in increases in preschool and elementary population in the 1950's and in the high school and college age population in the 1960's.<sup>1</sup>

These varying amounts of increase for different age groups have an important impact on the nation's educational and social welfare facilities and are reflected in the changing size and age of the labor force and in the demand for consumer goods.

From 1960 to 1965 the national population increased 8.1% for all age groups but there was a wide variation in the growth of specific age groups. While the age group from 5 to 9 years increased at a rate of 9.8% and the age group from 10 to 14 years increased at a rate of 13%, the age group from 15 to 24 was increasing at a rate of more than 25%. In the same five years the age group from 30 to 40 years was declining more than 6%. The age group from 55 to 65 years showed an increase of about 10%.<sup>2</sup>

## REGIONAL TRENDS

For ease of comparison, population projections were chosen with the following age groupings for Maine and New England: 5 - 17 years, 18 - 44 years, 45 - 64 years and 65 years and over. These correspond roughly with the years of education, work and retirement. To obtain comparative data on ages, population estimates for 1964 were used instead of 1965.

1 - Source 6

2 - Census Bureau Current Population Reports, Series P-25, No. 321

For the New England region the population projections for the period 1960-80 show the following trends:<sup>1</sup>

1. A sharp drop in the percentage of increase in the school age population.
2. A marked increase in the percentage of increase of the 18 - 44 year age group.
3. A decline in the percentage of increase of the 45 - 64 year age group.
4. Little change in the percentage of increase of the over 65 year group.

Between 1960 and 1964 the school age population in New England (Table 6) has risen more than 12%. It is projected that there will be a 20% increase in this age group in the region between 1960 and 1970 but that the percentage of growth will drop to 10% in the 1970 - 80 decade. This is also shown by the projection that, while the school age population increased 12% in 1960 - 64, it will increase only 7% in 1964 - 70 and only 3% in 1970 - 75.

Almost the reverse trend is shown in the 18 - 44 age group in New England (Table 9) as the children born during the War years move into their twenties and thirties. The New England population in this age bracket is projected to increase 11% in the 1960 - 70 decade but will increase 24% in the 1970 - 80 decade. This is also shown by the projection that while this age group has increased less than 1% in the 1960 - 64 period, it will grow 10% in the remaining years of the decade and will expand more than 10% in 1970 - 75.

A marked decline in the percentage of growth in the 45 - 64 age group in New England (Table 11) is indicated over the next fifteen years. An increase of 12% is projected for the 1960 - 70 decade but a decrease of 0.3% is the outlook for the 1970 - 80 decade.

1 - Tables A-3, A-4, A-5, A-6

The growth in the age group over 65 years is projected to remain at about the same level during the 1960-80 period in New England (Table 14). An increase of 11% is projected both for the 1960-70 decade and for the 1970-80 decade. This again is indicated by the steady five to six percent growth rate for the 1960-64, the 1964-70 and the 1970-75 periods.

The changes projected for New England in the two decades 1960-70 and 1970-80 are at lesser percentages but closely parallel the national changes projected by the Census Bureau in the same age groups. For the school age group the projections show an increase of 785,000 children or 32.5% in 1960-80. This compares with a national increase of 36.1% in the same age group.<sup>1</sup>

In the 18-44 age group there will be another 1,387,000 persons in New England or an increase of 38% from 1960 to 1980. This compares with a national increase of 44% in the same two decades.<sup>2</sup>

The 45-64 age group is projected to increase in New England by only 260,000 persons in 1960-80 or an increase of only 11%. This compares with a national increase of close to 20%.<sup>3</sup>

The age group over 65 years will increase by 279,000 persons in New England by 1980 or an increase of 24% compared with a 39% increase nationally.<sup>4</sup>

1 - Table A-3

2 - Table A-4

3.- Table A-5

4 - Table A-6

## MAINE AGE GROUPINGS

How will these national and regional trends in the structure of population affect Maine? In general the same trends that show up in the nation and New England will be reflected in Maine although the percentages of change will not be as high since, as was pointed out in the general outlook for population growth, the state is growing at a much slower rate than either New England or the nation.

## SCHOOL AGE

Over the 20 year period 1960-80 the school age population in Maine is projected to increase by 38,000 from the 240,000 in this age group in 1960 to a total of 278,000 in 1980 (Table 7). However, the change in the percentage of growth compared with that which has been experienced in the last ten to fifteen years will take some of the pressure off school systems to rapidly expand both facilities and staff merely to keep up with the rapid percentage jumps in the number of children entering each grade.

The school age population in Maine in 1964 was estimated (as of July 1) at 256,000. This was an increase of more than 6% in the 1960-64 period. However, the school age population for Maine in 1970 is estimated at only 262,000 which represents an increase of 6,000 or about 2.3% for the 1964-70 period.

A similar slowing down of the percentage of growth is forecast for 1970-75 period when an increase of only 4,000 is expected and for the 1975-80 period when an increase of 12,000 is expected. The percentages of increase for each five year period would be approximately 1.5% and 4.5% respectively. (Table 6)

The Maine school age population is expected to increase about 9% from the time of the 1960 census to the 1970 census. In the following 1970-80 census period this would lessen to an increase of about 6%. The projected increase for the twenty years from 1960-80 is 15.8%. While the trend in Maine is similar to the region and the nation, Table 6 shows that the percentages of change are lower than most other New England states and are about half those of the region as a whole.

TABLE 6

NEW ENGLAND POPULATION PROJECTIONS

AGES 5 - 17

(Percentages of Change)

	1960- 1964	1964- 1970	1970- 1975	1975- 1980	1960- 1970	1970- 1980
Maine	6.3%	2.3%	1.5%	4.5%	9.0%	6.1%
New Hampshire	15.3%	9.0%	6.1%	7.8%	25.5%	14.4%
Vermont	5.7%	7.7%	2.7%	6.1%	14.1%	9.0%
Massachusetts	10.8%	6.3%	3.0%	6.0%	17.8%	11.7%
Rhode Island	10.4%	7.1%	0.0%	3.5%	18.1%	3.5%
Connecticut	18.3%	10.2%	5.4%	8.6%	30.3%	14.5%
.....						
New England	12.2%	7.2%	3.4%	6.4%	20.2%	10.2%
.....						
United States	12.9%	6.9%	4.4%	8.0%	20.7%	12.8%

Source: Table A-3

It should not be assumed from the projections showing a decline in the percentage of growth of the school age population that there will be a decline in either the amount of money budgeted for education or in the percentage that education will take of both local and state budgets. The continual upgrading of Maine education to meet the needs for increasingly complex types of training; the need to continually improve the quality of education; the need to increase the numbers of those taking more advanced education; and the necessity of meeting competition from other state school systems will probably lead to both dollar increases and percentage increases in education's share of government spending in Maine.

TABLE 7

MAINE POPULATION PROJECTIONS

AGES 5 - 17

(Cumulative Totals)

	1960	1960- 1964	1964- 1970	1970- 1975	1975- 1980	1980-
Gain In Each Period	(240, 000)	16, 000	6, 000	4, 000	12, 000	(278, 000)
Cumulative Gain		16, 000	22, 000	26, 000	38, 000	

Source: Table A-3

However, the population estimates do indicate that some improvements in the quality of education may be made more easily during the next ten to fifteen years than has been the case in the past since some of the pressure of the sheer increase in numbers at the lower levels will be relieved.



## THE YOUNGER WORKING FORCE

Over the two decades from 1960-80 the population in this age group in Maine is projected to increase a total of 94,000 persons, or an increase of 29%. Total population in this age group will grow from 320,000 in 1960 to 414,000 in 1980. (Table 8). This is despite the fact that there has been a decline in the numbers of Maine persons in this age group from 1960 to 1964. The Census Bureau estimates that this key age group dropped 2,000 persons in Maine between 1960 and 1964 or a loss of 0.6%.

The population in this age group in Maine by 1970 is estimated at 345,000 persons or an increase of 27,000 over the 1964 total. This would represent a

TABLE 8

### MAINE POPULATION PROJECTIONS

#### AGES 18 - 44

(Cumulative Totals)

	1960	1960- 1964	1964- 1970	1970- 1975	1975- 1980	1980
Gain In Each Period	(320,000)	-2,000	27,000	30,000	39,000	(414,000)
Cumulative Gain			25,000	55,000	94,000	

Source: Table A-4

percentage increase of 8% in the latter half of the decade. (Table 9). Between 1970 and 1975 another 30,000 persons are expected to be added to the age group for an 8% gain and in the 1975-80 period the total is expected to jump again by 39,000 more persons for a 10% gain for the period.

It is significant to note that during the 1960-64 period Maine is one of four New England states that actually met a small loss in the size of this age group which represents both the younger working force and the most highly mobile segment of the population. While New Hampshire experienced a 7% gain and Connecticut a 6.2% gain in this age group in the four year period Maine was experiencing a 0.6% loss.

TABLE 9

NEW ENGLAND POPULATION PROJECTIONS

AGES 18 - 44

(Percentage of Change)

	1960- 1964	1964- 1970	1970- 1975	1975- 1980	1960- 1970	1970- 1980
Maine	-0.6%	8.5%	8.7%	10.4%	7.9%	20.0%
New Hampshire	7.8%	11.0%	12.8%	13.9%	12.7%	28.5%
Vermont	-0.8%	20.9%	10.7%	12.0%	19.2%	24.0%
Massachusetts	-1.7%	9.8%	10.5%	12.4%	8.0%	24.3%
Rhode Island	-2.0%	8.7%	6.2%	9.3%	6.3%	16.0%
Connecticut	6.2%	9.8%	12.7%	14.3%	16.5%	28.9%
.....						
New England	0.9%	10.0%	10.7%	12.6%	11.0%	24.7%
.....						
United States	3.8%	10.8%	11.4%	12.6%	15.0%	25.5%

Source: Table A-4

The long term outlook is that Maine will gain close to 8% in the 18 - 44 age group in the 1960-70 period and 20% in the 1970-80 period. This is a percentage of increase that is above that of Rhode Island but that trails the other New England states.

## THE OLDER WORKING FORCE

Following the national and New England trend, a decline is projected in the percentage of growth in the 45-64 year age group in Maine between 1960 and 1980. The 20 year outlook is for a gain of only 1,000 persons in this age group in the 1960-80 period or a change of only 0.7%.

This is again indicated by the estimate that the population in this age group gained only 1,000 persons from 1960-64 or an increase of only 0.9%. Projections from 1964 to 1970 place another 6,000 persons in the age group for a 3.1% increase but no change at all is projected for the five years 1970-75. In the 1975-80 period a drop of 6,000 persons in the age group is indicated for a loss of 3%.

TABLE 10

### MAINE POPULATION PROJECTIONS

#### AGES 45 - 64

(Cumulative Totals)

	1960	1960- 1964	1964- 1970	1970- 1975	1975- 1980	1980
Gain In Each Period	(194,000)	1,000	6,000	0	-6,000	(195,000)
Cumulative Gain		1,000	7,000	7,000	1,000	

Source: Table A-5

In the percentage of growth in this age group, which represents the upper age brackets of the working force, Maine has a percentage increase of almost 4% for the 1960-70 period which is approximately half the percentage increase of Vermont, Massachusetts and Rhode Island; about one-third the percentage increase of New Hampshire; one-sixth the increase in Connecticut; one-third the New England increase; and one-fourth the national increase.

In the 1970-80 decade it is projected that all New England states except New Hampshire and Connecticut will see losses in the 45 - 64 year age group. Maine's loss of 3% will not be as great as Rhode Island's 7% but will be the next largest percentage loss in New England.

TABLE 11

NEW ENGLAND POPULATION PROJECTIONS

AGES 45 - 64

(Percentage of Change)

	1960- 1964	1964- 1970	1970- 1975	1975- 1980	1960- 1970	1970- 1980
Maine	0.9%	3.1%	0.0%	-3.0%	3.9%	-3.0%
New Hampshire	5.1%	7.5%	2.8%	0.0%	12.7%	2.8%
Vermont	1.5%	5.0%	1.2%	-2.3%	7.0%	-1.2%
Massachusetts	3.0%	4.9%	1.0%	-2.8%	8.1%	-1.8%
Rhode Island	3.4%	5.3%	-1.0%	-6.5%	8.9%	-7.5%
Connecticut	11.6%	11.6%	5.1%	-0.1%	24.5%	5.0%
.....						
New England	5.0%	6.6%	2.0%	-2.2%	12.0%	-0.3%
.....						
United States	6.5%	8.9%	3.7%	-0.4%	16.0%	3.3%

Source: Table A-5

In the years from 1960-80 this upper bracket working force population will remain virtually static in Maine with an overall gain of only 0.7%. A similar static situation is projected for Rhode Island and small gains of 6% each for Vermont and Massachusetts. However, New Hampshire is expected to see a 16% increase, and Connecticut a 30% increase as compared with increases of 11% in New England and 19% nationally. (Table A-5)

## SENIOR CITIZENS

The projections of increase in the 65 and over age group are of particular interest since it presents special problems in terms of medical care, health, pensions and other aspects of private and public services. It is also of concern to Maine since the state has one of the highest percentages of persons over 65 years in the entire nation -- estimated at 11.1% by the Census Bureau as of July 1, 1964. Only seven other states (Vermont, Massachusetts, Iowa, Missouri, Nebraska, Kansas and Florida) have higher percentages of persons in this age bracket. However, in the years from 1960 to 1964 the percentage increase in this age group in Maine was only 3.2% which was one of the lowest percentages of increase in the nation. In this respect Maine ranked 48th among the states. The only states with a slower increase in the percentage of persons over 65 years were Vermont and Montana.<sup>1</sup>

TABLE 12

### MAINE POPULATION DISTRIBUTION 1960 - 1980

#### BY AGES

YEARS	1960 <sup>1</sup>	1964 <sup>2</sup>	1970 <sup>3</sup>	1980 <sup>3</sup>
0- 5	11.2	11.1	10.3	11.3
5-17	24.8	25.8	25.4	24.4
18-44	33.0	32.2	33.5	36.3
45-64	20.0	19.7	19.5	17.1
65-Over	11.1	11.1	11.3	11.0

Source: 2 - Census Bureau, Current Population Reports P-25, No. 333

1 - Statistical Abstract of U. S. 1965

3 - Derived from Census Bureau, Current Population Reports, Series P-25, No. 326

1 - Source 4

The long range projections are that the 65 and over age group will increase by 18,000 persons from 1960 to 1980 in Maine. (Table 13) This 17% increase will be about equal to Vermont and Massachusetts but less than the projections of 27% increase for New Hampshire, 26% for Rhode Island, 41% for Connecticut, 24% for New England and 39% for the nation.

TABLE 13

MAINE POPULATION PROJECTIONS

AGES 65 and Over

(Cumulative Totals)

	1960	1960- 1964	1964- 1970	1970- 1975	1975- 1980	1980
Gain In Each Period	(107,000)	3,000	6,000	4,000	5,000	(125,000)
Cumulative Gain		3,000	9,000	13,000	18,000	

Source: Table A-6

In the 1960-80 decade the projection is for an 8% increase followed by an over 7% increase in the following decade. (Table 14) This percentage of increase falls close to that of Vermont and Massachusetts but is less than that of the other states in the region as well as being less than the New England increase and far less than the national increase of 18%.

In the 1970-80 decade Maine, Vermont, Massachusetts and Rhode Island will have similar percentages of increase in older persons but with Maine showing the least increase of the group. New Hampshire with an 11% increase equals the New England regional increase and Connecticut with a 20% increase far exceeds the regional increase and even the national increase of 18%.

TABLE 14

## NEW ENGLAND POPULATION PROJECTIONS

## AGES 65 and Over

(Percentage of Change)

	1960- 1964	1964- 1970	1970- 1975	1975- 1980	1960- 1970	1970- 1980
Maine	3.2%	5.5%	3.5%	4.2%	8.6%	7.8%
New Hampshire	6.1%	6.9%	5.2%	6.2%	13.3%	11.7%
Vermont	1.9%	4.4%	4.3%	4.1%	8.0%	8.5%
Massachusetts	4.6%	4.9%	3.7%	5.0%	9.7%	8.8%
Rhode Island	5.7%	8.4%	3.9%	5.6%	14.6%	9.7%
Connecticut	7.7%	8.8%	8.5%	11.4%	17.2%	20.8%
.....						
New England	5.2%	6.3%	5.7%	6.5%	11.8%	11.7%
.....						
United States	7.8%	9.6%	8.2%	9.1%	18.2%	18.0%
.....						

Source: Table A-6

In terms of distribution of ages in the population (Table 12) the aged are forecast to remain at close to 11% as will the group under five years. A slight decrease is projected in the 5 - 17 age group which will remain between 24% and 25% of the total population. The 18-44 age group is projected to increase from 33% to 36% of the total population while the 45-64 age group declines from 20% to 17%.

## POPULATION GROWTH IN MAINE COUNTIES 1960-65

The most reliable and detailed estimate of population, income and retail sales on a county and city basis is the annual summary publication of "Sales Management - Survey of Buying Power" which has been providing estimates of these three segments of the economy for more than 40 years. The Sales Management estimate of Maine population of 990,000 for December 1965 is virtually identical with the statewide estimate made by the U. S. Census Bureau. In making its estimates Sales Management takes into consideration the most recent available data from the federal government as well as information available from the individual states.

The Sales Management population estimates are a projection from the 1960 Census benchmark and are based on three factors: 1. local growth trends as established over the past decade; 2. population growth as estimated from changes in school enrollment (best guide to in- and out-migration); 3. reports from Chambers of Commerce and other responsible agencies. The figures compiled by Sales Management are not only widely used in business and by various state taxation departments but also as basic controls in such private surveys as the Life Survey of Consumer Expenditures.

Through permission from Sales Management, their county estimates of population, income distribution by household, number of households in each county, and effective buying income per household are used here for three reasons:

1. The estimates are up to date.
2. They are virtually the only reliable estimates of some economic factors that are available on a county basis since 1960.
3. The Sales Management estimates were the only source used by Dr. Sly in his 1960 Maine taxation study for county figures on income and population, since the results of the 1960 Census were not then available.



TABLE 15

## ESTIMATED POPULATION MAINE COUNTIES AND SUBAREAS 1960-65

(In 000's Except Percent)

County	Census April 1960	Sales Management Jan. 1961	Sales Management Dec. 1965	Percent of Change 1961-65
Aroostook	106.1	106.7	106.1	-0.6
Penobscot	126.3	127.6	130.8	2.5
.....				
TOTAL - SUBAREA ONE	232.4	234.3	236.9	1.1
.....				
Kennebec	89.2	89.5	92.0	2.8
Androscoggin	86.3	86.6	89.5	3.3
Sagadahoc	22.8	22.9	22.8	-0.4
Cumberland	182.8	183.5	191.1	4.1
York	99.4	99.9	104.4	4.5
.....				
TOTAL - SUBAREA TWO	480.4	482.4	499.8	3.6
.....				
Oxford	44.3	44.3	45.0	1.6
Franklin	20.1	20.0	19.6	-2.0
Somerset	39.7	39.7	40.9	3.0
Piscataquis	17.4	17.3	19.2	11.0
Waldo	22.6	22.7	22.1	-2.6
Lincoln	18.5	18.5	18.3	-1.1
Knox	28.6	28.6	25.7	-10.1
Hancock	32.3	32.3	31.9	-1.2
Washington	32.9	32.7	30.6	-6.4
.....				
TOTAL - SUBAREA THREE	256.4	256.1	253.3	-1.1
.....				
MAINE TOTALS	969.3	972.8	990.0	1.8
.....				

Source: #14 Page D 116

The Sales Management estimates are current but they do not issue projections of future population and income. Such projections through 1980 for the various subareas of Maine are discussed in the following section.

As Table 15 indicates there has been a wide variation in population growth in Maine counties between 1960 and the end of 1965. Subarea One (Aroostook and Penobscot) shows a population increase of only 1.1% compared with a 3.6% increase in Subarea Two (Kennebec, Androscoggin, Sagadahoc, Cumberland and York) and a loss of 1.1% of the population in Subarea Three (Oxford, Franklin, Somerset, Piscataquis, Waldo, Lincoln, Knox, Hancock, and Washington).

Eight Maine counties were estimated to have an actual loss of total population since 1961. They are Aroostook, Sagadahoc, Franklin, Waldo, Lincoln, Knox, Hancock and Washington counties. The percentage of loss varies from less than 1% in Aroostook and Sagadahoc to more than 5% in Washington and Knox.

It should be kept in mind that estimating the actual population of a small area is difficult and the estimated changes, particularly in the smaller counties only involve a few hundred persons in many cases; however, population trends, if not exact amounts, can be estimated with a much higher degree of accuracy. It is clear that the estimates show a relatively small gain in Subarea One, largely due to a population loss in Aroostook County; a fairly strong gain in Subarea Two, with Cumberland and York leading with a more than 4% increase in population; and a loss for Subarea Three, with the exception of gains in Oxford and Somerset and a substantial 11% gain in Piscataquis County.

## PROJECTED POPULATION GROWTH IN MAINE COUNTIES 1960-80

Projections of economic and population change at the county level are difficult to obtain. However, in 1964-65 Arthur D. Little of Cambridge, Mass., made a comprehensive study of the New England economy as a part of a planning program by the United States government for the development and conservation of water resources. The report discusses in detail the economic outlook for the region and goes into considerable detail at both the state and county level. The Arthur D. Little projections of population at the state level were not used here for three reasons: 1. They do not discuss population by age groupings. 2. They assume a higher rate of continued out-migration from Maine than the Census Bureau projections and thus tend to result in a generally lower projection of total population. 3. The report was completed in August 1965 while the Census Bureau continually issues population reports in its Current Population series and its statistics and methodology are consistent with its previous publications.

However, the Arthur D. Little projections are particularly useful in discussing the subareas of Maine and in discussing the outlook for Maine in other areas such as income, employment, job distribution and industry and business production. There has been an increasing realization by responsible state and national groups of the importance of projections in all economic fields since such projections are the basis of both present decisions and intelligent long range planning. The National Planning Association issues a series of economic projections, which are under copyright and are available only to members of the organization, and the Council of State Governments has been working for several years on a study of state and local finances with projections to 1970.

It should be kept in mind that the Arthur D. Little projections, like all projections used in this study, are not "predictions" but are the outcome of using various selected components of change and the past performance of these components in order to determine what a certain total, such as population, will be in the future. All such projections are made under a set of assumptions such as that there will be no major war or depression in the projection period. Table 21 notes the gross differences between the Census Bureau and the Arthur D. Little projections of population and this should be kept in mind when reviewing the projections for the subareas of Maine.

#### SUBAREA ONE -- AROOSTOOK AND PENOBSCOT COUNTIES

This area contains about one-fourth of the state's population or a total of 232,410 in 1960. During the 1940-50 period the area grew at a rate slightly less than that of the state as a whole but during the following 1950-60 decade the area grew at a rate more than double that of the state -- partly due to an influx of personnel at the military bases. The projection for the current decade (Table 16) is that the population will increase at a slower rate than that of the state due in part to a cutback in military installations. The long range outlook is for a population increase from 232,410 persons in 1960 to 272,200 persons in 1980 or a projected population growth of 39,790 persons. Although the projected growth rate is highly uneven -- ranging from 6.6% in 1940-50; to 13.8% in 1950-60; only 3.2% in 1960-70; and 13.5% in 1970-80 the outlook is for an overall 17.1% percentage of growth in the two decades from 1960-80.

TABLE 16

SUBAREA ONE

AROOSTOOK AND PENOBSCOT

Population Growth 1960 - 1980

	1960	1960-70	1970-80	1980
Growth in Each Period	(232, 410)	7, 390	32, 400	(272, 200)
Cumulative Totals		7, 390	39, 790	

Population Percentage of Change 1940 - 1980

	1940-50	1950-60	1960-70	1970-80	1960-80
Subarea One	6.6	13.8	3.2	13.5	17.1
Maine	7.9	6.1	5.2	10.5	11.6

Percentage of Population Urban 1950 - 1980

	1950	1960	1970	1980
Subarea One	46.1	51.1	53.4	56.6
Maine	51.7	51.3	53.4	56.6

Density - Persons Per Square Mile 1960 - 1980

	1960	1980
Subarea One	22.8	26.7
Maine	31.3	36.3

Source: Table A-7

The broadening of the Aroostook economic base to include sugar beets, the extension of Interstate Route 95 into the region, the development of the Dickey-Lincoln power project, the possibility of new stronger highway links with Canada and other economic changes could combine to create a more favorable population and economic picture for the region before 1980.

While the density of the area is below that of the state as a whole, the bulk of the population is concentrated in a relatively small portion of the land area so that the area is slightly more than half urban and its growth in this direction is projected to be almost identical with the average for the state in the years from 1960-80.

#### SUBAREA TWO - KENNEBEC, ANDROSCOGGIN, SAGADAHOC, CUMBERLAND AND YORK

This area contains nearly half the state's population or a total of 480,408 persons in 1960. During the 1940-50 period the area grew at a rate of 12% or substantially higher than the almost 8% growth of the state as a whole. In the 1950-60 decade the growth of the area dropped by half to equal the approximately 6% growth of the state as a whole. The projection (Table 17) is that the area will grow at a faster rate than the state during the current decade and at a slightly higher rate than the state during the 1970-80 period.

The long range outlook is for a population increase from 480,408 persons in 1960 to 579,400 persons in 1980 or an increase of 20.6% over the period. This is a projected growth rate of almost twice that of the state as a whole.

TABLE 17

## SUBAREA TWO

## KENNEBEC, ANDROSCOGGIN, SAGADAHOC, CUMBERLAND AND YORK

## Population Growth 1960 - 1980

	1960	1960-70	1970-80	1980
Growth in Each Period	(480,408)	38,892	60,100	(579,400)
Cumulative Totals		38,892	98,992	

## Population - Percentage of Change 1940 - 1980

	1940-50	1950-60	1960-70	1970-80	1960-80
Subarea Two	12.3	6.5	8.1	11.6	20.6
Maine	7.9	6.1	5.2	10.5	11.6

## Percentage of Population Urban 1950 - 1980

	1950	1960	1970	1980
Subarea Two	68.6	65.7	66.8	70.0
Maine	51.7	51.3	53.4	56.6

## Density - Persons Per Square Mile 1960 - 1980

	1960	1980
Subarea Two	139.0	167.7
Maine	31.3	36.3

Source: Table A-7

The population density of this area is more than four times that of Maine as a whole and the urbanization of the area is also substantially higher -- being more than 65% urban in the 1960 census as compared with 51% for the state as a whole. The urbanization of the area is also projected to increase at a much faster rate than that of the state with the projections indicating that the area will be 70% urban by 1980 as contrasted with an average of 56% for the state.

**SUBAREA THREE - OXFORD, FRANKLIN, SOMERSET, PISCATAQUIS,  
WALDO, LINCOLN, KNOX, HANCOCK, WASHINGTON**

The Maine subareas of this report were drawn up to coincide with those of the Arthur D. Little report which notes that this is the least densely populated subarea of New England having about 15 persons per square mile or less than half the state average of about 31 persons per square mile. Urbanization which was reported at 24% in the 1960 census is about half the state average and is projected (Table 18) to remain that way into 1980.

Population has grown more slowly than the rest of Maine for the last 30 years. Between 1950 and 1960 the population of the area actually declined by 1,962 persons largely due to a decrease in employment opportunities -- principally in agriculture, forestry and fisheries. The area contains about one-fourth of the Maine population or 256,447 persons in the 1960 census. Projections indicate that the area population will increase to 275,000 persons in 1980 or an increase of 7.2%.



TABLE 18

SUBAREA THREE

OXFORD, FRANKLIN, SOMERSET, PISCATAQUIS, WALDO,  
LINCOLN, KNOX, HANCOCK AND WASHINGTON

Population Growth 1960 - 1980

	1960	1960-70	1970-80	1980
Growth in Each Period	(256,447)	3,853	14,700	(275,000)
Cumulative Totals		3,853	18,553	

Population - Percentage of Change 1940 - 1980

	1940-50	1950-60	1960-70	1970-80	1960-80
Subarea Three	1.7	-0.8	1.5	5.7	7.2
Maine	7.9	6.1	5.2	10.5	11.6

Percentage of Population Urban 1950 - 1980

	1950	1960	1970	1980
Subarea Three	26.4	24.4	26.7	28.3
Maine	51.7	51.3	53.4	56.6

Density - Persons Per Square Mile 1960 - 1980

	1960	1980
Subarea Three	14.8	15.9
Maine	31.3	36.3

Source: Table A-7

If time bears out the projections it would be a continuation of the relative percentage of growth which was 1.7% from 1940-50 compared with 7.9% for the state and -0.8% in the 1950-60 period compared with 6.1% for the state.

#### INDIVIDUAL COUNTIES - THE ECONOMIC OUTLOOK

It is obvious from even a cursory analysis of the economic statistics for the various counties and subareas of Maine that there is a wide variation of distribution of employment, wealth, population, manufacturing, business and other economic factors within the state. Subarea Three in particular bears much the same relation to the remainder of Maine as Maine does to New England as a whole. Both are characterized by slower population growth, a higher rate of out-migration, a lower percentage of urbanization, a lower number of persons per square mile and lower levels of income. In the 1930-40 decade Franklin, Somerset, Knox and Washington counties showed population losses. In the 1940-50 decade Hancock and Washington lost population. In the 1950-60 decade Franklin, Somerset, Piscataquis and Washington counties lost population - the latter two at a rate of more than 6%.

Dr. Sly noted this variation within the state in his 1960 report on Maine taxation and commented ". . . . . both Maine and New England have matured to a point where their economic resources are insufficient to attract large new populations, and while populations alone are not an adequate measure of a tax base, they do become significant when related to employment and income." Pointing to Subarea Two he noted, the faster rate of growth and higher density of population and commented that ". . . . . taxwise this is significant: It is upon this Southwestern elipse that the state must depend for the principal support of statewide services --

particularly, schools, highways and welfare. . . . . it is the principal environment to which industry looks for new sites, new populations look for new homes, and the state looks for revenues to sustain its public services. For comparative purposes it is the hub of the economy . . . . ." <sup>1</sup>

While the 1960 census figures were not available at the time of Dr. Sly's report, the 1960 census, the 1960 population estimates by Sales Management, and the projections made by Arthur D. Little for the years to 1980 indicate that the relative position of the three subareas in Maine is likely to remain static. While it is not within the scope of this report to either generate projections or recommend changes in the field of economic development, it is obvious that anything that can be done to improve the economy of Subarea Three in particular would help to improve the overall economic projections for the state and increase the tax base. The state is, of course, working toward this end. The various federal programs, most of them instituted since 1960, have helped to improve the state's economy, particularly in Subareas One and Three. County and local groups have worked toward port development, county economic development plans and activities and a movement in the direction of developing improved year around recreation facilities. These efforts may combine to create a more favorable picture of future economic growth in Subareas One and Three, than is indicated by current projections. Certainly it is incumbent on the state to do everything possible to foster this type of economic development and to exert itself to find new means of advancing the growth rate of the economically weaker sections of the state.

1. - Source 8

## MIGRATION OF POPULATION

It is not possible to conclude the population section of this study without mentioning migration of the population. This is so for five reasons:

1. There has been no significant in- or out-migration for the New England region for more than 65 years except the in-migration that occurred in Connecticut during the years of World War II.

2. There were significant patterns of migration during this period and during the 1950-60 census period for the various states in New England.

3. The Census Bureau estimates that these migration patterns among the New England states have continued into the 1960-64 period.

4. Migration is the most variable component of population projections and variations in estimates of continued out-migration account to a large extent for variations in future estimates of Maine population.

5. Insofar as Maine is concerned the pattern of out-migration gains additional significance when it is detailed into losses by county and age group, education and occupation and its impact on the Maine labor force.

## THE CHALLENGE OF OUT-MIGRATION

Although the 1960 Census figures were not available at the time, to say nothing of the detailed studies of the census that have been made in recent years, the problem and the challenge of out-migration was recognized by the Armour Foundation when it made a comprehensive planning study for Maine economic growth in 1960. The report commented as follows:

"It is important to remember that the increase in population for any specific area such as New England is predicated on the area's ability to provide suitable employment opportunities to the degree anticipated in the forecast. Should the local geographic area become deficient in providing job opportunities, migration into other regions will ensue, limiting the anticipated expansion.

"In forecasts of New England's population growth by each state, it is the expectation of forecasters of the Federal Reserve Bank of Boston, that the Southern New England area will grow more rapidly than the Northern sector. More workers may be influenced to move into the Southern sector if job opportunities are not provided in the Northern areas. The chart shows the anticipated population in New England by State for the next decade.

NEW ENGLAND POPULATION 1960 - 1970  
Population in thousands

State	1960	1970	Percent increase
Maine	953	1,018	6.8
New Hampshire	592	655	10.6
Vermont	376	404	7.4
Massachusetts	5,147	5,595	8.7
Rhode Island	871	943	8.3
Connecticut	2,383	2,766	16.1

Source: Federal Reserve Bank of Boston

"This chart points out the relatively low population growth rate in Maine as compared to other States in New England. Actually, these figures reflect an anticipated migration of New Englanders from the northern to the southern part of the region. This trend in population migration need not necessarily continue in the future. The opportunity exists to actually attract a proportion of the New England population to Maine. It is a challenge that must be met aggressively by the State."<sup>1</sup>

1 - Source 10 (Note projections were made prior to availability of 1960 census.)

## MIGRATION - THE REGIONAL PICTURE

An independent study places the population gain due to migration for New England in the 1920's at only 28,000 persons or a change of 0.38%. In the following 1930-40 decade the migration change was put at a loss of 43,000 persons or a change of -0.53%. The U. S. Census Bureau places the migration for New England at a gain of 101,000 persons or a percentage rate of 1.2% for the 1940-50 decade. In the following ten years this dropped again to a gain of 23,000 persons due to migration or a rate of 0.25% for the 1950-60 period. The extremely low rate of change for the region is estimated by the Census Bureau to have continued into the 1960-64 period when the migration rate for the New England region is placed at -0.10% or a loss of 12,000 persons.

TABLE 19

	NET MIGRATION - NEW ENGLAND 1920 - 1964				
	1920-30 <sup>1</sup>	1930-40 <sup>1</sup>	1940-50 <sup>2</sup>	1950-60 <sup>2</sup>	1960-64* <sup>3</sup>
Persons	28,000	-43,000	101,000	23,000	-12,000
Percent	0.38	-0.53	1.2	0.25	-0.1

Source: 1. Everett L. Lee, Ann Ratner Miller, Carol P. Brainerd and Richard A. Easterlin, Population Redistribution and Economic Growth, 1870 - 1950

2. Census Bureau, Series P-25, No. 227

3. Census Bureau, Series P-25, No. 324

\* 1960-64 Rate in terms of mid-period population. Other rates in terms of population at start of the decade.

In making its projections to the year 2020 the Arthur D. Little report notes that: "It can be seen that net migration has become an insignificant component of regional population change since 1920, except for the 1940's when wartime requirements brought out-migration from the region to a virtual standstill and

Connecticut's immediate postwar growth contributed to substantial in-migration. Thus, our assumption of 'no migration' for the projection period, while somewhat arbitrary, has a basis in recent history and postulates for the future a balance between out-migration (predominantly from Northern New England) and in-migration (predominantly to the major metropolitan areas of Southern New England and the continued overspill of the metropolitan population into Southwestern Connecticut).<sup>1</sup>

While the net migration for the region as a whole was at a virtual standstill there were significant patterns of net migration within the region. (Table 20) Four of the New England states lost population due to migration in the 1950-60 period, while two gained. The biggest loser due to migration was Vermont with a net loss of 37,924 persons or 10.6% from 1950 to 1960. Maine lost the most actual persons from 1950 to 1960 -- a net loss of 65,881 persons. But the percentage of Maine net out-migration of 7.2% was less than that of Vermont. Massachusetts lost 2.2% of its population due to migration and 3.7% of the population migrated out of Rhode Island. The only New England states with in-migration during the period were New Hampshire which gained 2.6% in population due to migration and Connecticut which picked up 13.7% in population due to migration in the decade.

The question arises of whether or not the pattern of migration among the New England states has changed during the first half of the present decade. In overall terms the migration picture for the New England states remains about the same. New Hampshire and Connecticut are the only New England states experiencing any in-migration. The other states continue to lose population due to migration, with Maine and Vermont being the heaviest losers.

1 - Source 5

Vermont lost 14,000 persons due to migration out of the state in the 1960-64 period or a percentage loss of 3.5%. This remained the highest rate of out-migration in New England.

TABLE 20

MIGRATION IN THE NEW ENGLAND STATES 1950 - 1964

(Net Changes and Percentages of Change)

	1950 - 1960		1960 - 1964	
	Net Change	Percent <sup>1</sup>	Net Change	Percent <sup>2</sup>
Maine	-65,881	-7.2	-32,000	-3.3
New Hampshire	12,759	2.6	22,000	3.4
Vermont	-37,924	-10.6	-14,000	-3.5
Massachusetts	-93,373	-2.2	-85,000	-1.6
Rhode Island	-26,314	-3.7	-15,000	-1.7
Connecticut	234,184	13.7	112,000	4.2
.....				
New England	23,000	0.25	-12,000	-0.1
.....				

Source: 1950-60 Totals, Net Migration by Age, Sex and Color, Economic Research Service, Dept. of Agriculture, May 1965  
 1960-64 Totals, Census Bureau, Current Population Reports, Series P-25, No. 324

1 - Percentages derived from totals and based on population at the start of the decade.

2 - Percentages based on mid-period population and stated in report.



Maine lost 32,000 persons due to out-migration during the 1960-64 period or a percentage loss of 3.3%. Maine remained after Vermont the biggest loser of percentage of population due to migration in the 1960-64 period.

New Hampshire showed a remarkable spurt in in-migration of population, picking up 22,000 persons in the first four years of this decade compared with a gain of only 12,759 in the entire 1950-60 period. While most other states in New England were suffering an out-migration of population, New Hampshire noted a 3.4% in-migration.

Massachusetts lost 85,000 persons due to migration in the 1960-64 period or a percentage loss of 1.6%. The net migration loss in the entire previous decade was only 93,373 persons. Rhode Island lost 15,000 persons due to out-migration in 1960-64 or a loss of 1.7%. Connecticut was the big gainer among the New England states with an in-migration of 112,000 persons during the 1960-64 period or a 4.2% increase due to migration.

It should be kept in mind that the figures for the states and the region as a whole represent net gains or losses for the periods concerned. Since no exact data are available on where the migrants went, it is not possible to tell where the more than 97,000 people that left Maine since 1950 moved to but the fact that there has been little or no net change for the region as a whole indicates a movement largely within New England with New Hampshire and Connecticut being the only states making a net migration gain for the last fifteen years.

## MIGRATION - A COMPONENT OF POPULATION PROJECTIONS

Projections of population, and in particular the projections of population by age groups, are important not only in determining the state's future economic base but also in planning for growth of various types of government services -- particularly in the area of capital construction. The Census Bureau in the following quote from a recent publication in its series of population projections indicates the importance of migration as a factor in making population predictions and, more importantly, indicates that it is the factor most strongly influenced by changing economic conditions.

"The component of interstate migration still remains the major source of uncertainty and will very probably make the major contribution the difference between the projected and actual population growth. Furthermore, interstate migration is likely to be more important in influencing the rate of growth than fertility or mortality.

"The projections are based on the assumption that there will be no major war, severe economic depression, or other similar catastrophe. The projections are generally designed to be consistent with assumptions of continued high economic activity nationally, and for at least one of the series, of the preservation of recent differentials in economic activity among the states. The projections incorporating 'migration series I' (note: used in this report) assume the continuation of past trends and patterns of population redistribution through interstate migration. Although the specific relationship between the size of migration streams and economic conditions is not

known, it is generally believed that interstate migration movements are significantly affected by differential economic opportunities and that any drastic changes in economic advantages of one state over another will have substantial impact on the future size of migration streams and even on the direction of net migration for the affected states. Furthermore, no attempt is made to assess the possible regional impact of substantial reduction (or increase) in the level or pattern of defense spending or of such specialized regional programs as Appalachia, or any other regional development plans still forthcoming." <sup>1</sup>

The predictions of the Maine population by the Census Bureau for 1970 range from 1,015,000 to 1,042,000 based largely on the fact that one series of projections assumes that the rate of out-migration which Maine experienced in the 1955-60 period will continue into the future, while another assumes that a gradual balance of in- and out-migration will be achieved by the states over the next fifty years. The Arthur D. Little report projects the Maine population in 1970 at 1,019,400 persons and it assumes that the average rate of out-migration which prevailed for 1940-50 and 1950-60 will last until 1980 before it starts to gradually decline. Census Bureau projections for 1980 population in Maine range from 1,085,000 persons to 1,174,000 persons while Arthur D. Little projects a population of 1,126,600 persons.

As can be seen from Table 21, the projections used in this report are those of the Census Bureau 1-B based on the assumption that the pattern of migration of 1955-60 will continue into the future. This choice was based largely on the fact that there is nothing in the Census Bureau figures for the 1960-64 period to indicate a leveling off of migration among the New England states, at least during the present

1(- Source 1

TABLE 21

VARIATIONS IN POPULATION PROJECTIONS

Maine 1960 - 1985

(Totals in Thousands and Percentages of Change)

Census	1970	1975	Percent of Change 1960-75	1980	1985	Percent of Change 1960-85
1 - B	1030	1081	11.5	1141	1207	24.5
2 - B	1042	1102	13.7	1174	1255	29.5
1 - D	1015	1048	8.1	1085	1124	15.9
2 - D	1027	1068	10.2	1116	1169	20.6
Arthur D. Little	1019.4			1126.6		
Council of St. Govt.	1013					
.....						

Source: Census Bureau, Current Population Reports, Series P-25, No. 326, Feb. 1966  
 Arthur D. Little Inc., Projective Economic Studies of New England 1964-65  
 Appendix A-8, A-9, A-10 (totals were derived from individual projections  
 for the three subareas of Maine)

CENSUS BUREAU PROJECTION COMPONENTS

Series 1B	Gross migration rates of the 1955-60 period will continue throughout the projection period	Very moderate decline in fertility
Series 2B	Assumes that in about 50 years the <u>net</u> migration between states will reach zero due to equalization of economic and social differences between states	Very moderate decline in fertility
Series 1D	Same migration rate as I-B	Substantial drop in fertility
Series 2D	Same migration rate as IIB	Substantial drop in fertility

decade with which we are most directly concerned in attempting to view the Maine economy, its expenditure needs and revenue potential.

Secondly, the series of population projections chosen is the second highest from available and reliable sources. For instance this report makes use of a projected population of 1,030,000 for Maine in 1970 while the Arthur D. Little report projects only 1,019,400 persons and the recent series of studies on government needs by the Council of State Governments projects Maine's 1970 population at 1,013,000.

The importance of migration to the state's economic base as it stands in competition with other New England states should be obvious. Migration has been a significant factor in hampering Maine's past population growth which has been, next to Vermont, the slowest in the region. However, it is equally important to note that it is a factor which is subject to change as a result of changing economic conditions which in turn may be affected by state or local government actions.

TABLE 22

NEW ENGLAND - PROJECTIONS OF MIGRATION 1960 - 1985

Total Number of Persons

	1960 - 1975	1960 - 1985
Maine		
Census 1-B	-79,000	-114,000
Census 2-B	-63,000	-80,000
New Hampshire		
Census 1-B	49,000	77,000
Census 2-B	42,000	62,000
Vermont		
Census 1-B	-7,000	-13,000
Census 2-B	-4,000	-6,000
Massachusetts		
Census 1-B	-64,000	-51,000
Census 2-B	-25,000	31,000
Rhode Island		
Census 1-B	-33,000	-76,000
Census 2-B	-20,000	-41,000
Connecticut		
Census 1-B	282,000	445,000
Census 2-B	250,000	375,000

.....

Source: Same as Table 21. Census projections 1-B and 2-B use same migration assumptions as previous table.

The importance of bringing the out-migration from Maine to a halt can be seen from the Census Bureau projections that if out-migration continues at the 1955-60 rate, Maine will have lost a total of 79,000 persons between 1960 and 1975. Even under the more optimistic projection that net migration between

states will gradually reach zero, the Census Bureau still projects an out-migration of 63,000 persons for Maine in the 1960-75 period.

This compares (Table 22) with a projected gain in the same period of 49,000 persons due to in-migration in New Hampshire and an in-migration gain of 282,000 persons in Connecticut. Losses due to out-migration are estimated at 7,000 in Vermont, 64,000 in Massachusetts and 33,000 in Rhode Island -- all based on the assumption of continuation of the 1955-60 net migration pattern.

Under the Census Bureau's more optimistic projection Maine will have lost a total of 80,000 persons due to out-migration in the 1960-85 period and if past trends continue the total will reach 114,000 persons.

The latter figure compares with a gain of 77,000 persons for New Hampshire and 445,000 persons for Connecticut. Losses due to out-migration in the 1960-85 period are projected at 13,000 for Vermont, 51,000 for Massachusetts, and 76,000 for Rhode Island -- all based on the assumption of a continuation of the 1955-60 migration pattern.

## COUNTY AND SUBAREA PATTERNS OF MIGRATION

As has already been pointed out, there was a wide variation in percentage of growth for the 1950-60 decade between the three subareas of Maine. While Subarea One (Aroostook and Penobscot) was growing at a rate of 13.8% in the period, due largely to a spurt of growth in Penobscot County, Subarea Two (Kennebec, Androscoggin, Sagadahoc, Cumberland and York) population increased only 6.5% over the decade and Subarea Three (Oxford, Franklin, Somerset, Piscataquis, Waldo, Lincoln, Knox, Hancock and Washington) actually showed a loss of population of -0.8%.

The importance of net migration to the growth of the individual counties and their outlook for future growth cannot be overemphasized. The following quote from a comprehensive study of migration at the county level makes this clear:

"Although the 1960 census of population recorded an increase of approximately 28 million in our total population during the 1950 - 1960 decade, it also showed that in about half of the more than 3,000 counties there were population losses. Out-migration was the pervasive force in the population decline of the losing counties. The number of counties that have lost population because of an excess of deaths over births is still very small, and, where that has occurred, it is traceable to a long record of out-migration which has removed much of the population in the reproductive age group. Immigration was an important, and in many cases, the major component of change in about two-fifths of the counties which gained population. In the remaining counties net migration losses were more than offset by natural increase."<sup>1</sup>

1 - Source 3



The Arthur D. Little projections for Maine show a statewide increase in population of 5.2% by 1970 but they indicate an increase of 3.2% for Subarea One, 8.1% for Subarea Two and only 1.5% for Subarea Three. Both in the overall projections for the state and in the variations between areas migration is the most important and variable component.

To obtain a clearer picture of the impact of migration on the Maine population and economy, the 1950-60 totals and rates of migration by age groups should be examined for each county. (Tables A-8, A-9) The tables accompanying the text were compiled for ease of discussion of the three subareas with Aroostook and Penobscot being listed separately due to the wide variation in migration rates between the two counties.

In terms of total migration Subarea One lost 15,266 persons (Aroostook - 14,655 and Penobscot - 611) between 1950 and 1960 while in the same period Subarea Two lost 23,996 persons and Subarea Three 26,617 persons. This was a loss of 12.1 persons per 100 for Aroostook, 0.5 persons per 100 for Penobscot, and an average rate of loss of 4.4 persons per 100 for Subarea Two and 9.1 persons per 100 for Subarea Three. It should be noted that this study<sup>1</sup> expresses the percentage of loss in terms of the 1960 population while the Tables 19 and 20 express the percentage of loss in terms of the population at the start of the decade, thus the study by the Department of Agriculture Economic Research Service shows slightly lower rates of out-migration for Maine. For instance, the rate of out-migration for Maine in the last decade based on the 1950 population as a base is -7.2% while using the 1960 population as a base gives an out-migration rate of -6.4%. What is more significant than the actual rate of loss (or gain) for any individual county is the variation between counties and subareas and between age groups. The figures compiled by the

TABLE 23

## MIGRATION BY MAINE SUBAREAS 1950 - 1960

## Total Persons by Age Groups

Age	Subarea One		Subarea Two	Subarea Three	Maine
	Aroostook	Penobscot			
All Ages	-14,655	-611	-23,996	-26,617	-65,881
10 - 14	-2,002	-644	-2,182	-2,616	-7,444
15 - 19	-1,875	974	-955	-4,067	-5,923
20 - 24	-1,183	2,152	-4,451	-6,952	-10,434
25 - 29	-1,760	135	-6,280	-5,520	-13,425
30 - 34	-577	-1,674	-3,187	-1,410	-6,848
35 - 39	-495	-610	-1,754	-1,328	-4,187
40 - 44	-802	-75	-1,145	-1,109	-3,131
45 - 49	-843	-81	-749	-899	-2,572
50 - 54	-752	88	-405	-509	-1,578
55 - 59	-547	-41	-440	-314	-1,342
60 - 64	-388	-106	-193	-154	-841
65 - 69	-450	-228	-75	-132	-885

.....

Source: Table A-8

Department of Agriculture study put the out-migration situation in a somewhat more favorable light for Maine than would have been the case if the rates had been expressed as percentages of the 1950 population.

The rate of loss of population due to migration for Aroostook during the 1950-60 period was about twice the state average and the average rate of loss for Subarea Three was about 50% higher than the state average. At the same time Penobscot County showed virtually no population loss due to migration since it lost a net of only 611 persons between 1950 and 1960. The average rate of population loss due to out-migration for Subarea Two was also substantially less than the state average.

Not only are there wide and significant variations in rates of population migration between the subareas but between the counties as well. Table 25 shows that six Maine counties -- Aroostook, Oxford, Franklin, Somerset, Piscataquis and Washington lost more than 10% of their population in the 1950-60 decade due to out-migration. The figures for the 1950-60 period indicate a substantial migration of population not only out of the state to southern New England but also within the state, largely from Subarea Three into the southern part of the state.

#### CHARACTERISTICS OF MIGRATING PERSONS

Perhaps equally as important as realizing the total numbers and percentages of persons migrating is an attempt to answer questions concerning the age, training, employment, and education of the persons migrating.

Detailed figures are available on the ages of the migrants and they indicate that the largest rate of loss by far is at the ages under 40 years.

TABLE 24

MIGRATION BY MAINE SUBAREAS 1950 - 1960

Rate of loss or gain persons per 100

Age	Subarea One		Subarea Two	Subarea Three	Maine
	Aroostook	Penobscot			
All Ages	-12.1	-0.5	-4.4	-9.1	-6.4
10 - 14	-15.0	-5.2	-4.4	-9.0	-7.4
15 - 19	-17.3	10.5	-4.9	-16.5	-7.3
20 - 24	-12.5	26.5	-13.9	-35.4	-15.2
25 - 29	-19.3	1.6	-18.1	-28.4	-19.3
30 - 34	-7.6	-16.8	-6.9	-15.3	-10.3
35 - 39	-7.2	-7.3	-4.7	-6.9	-6.4
40 - 44	-12.6	-1.1	-3.5	-6.6	-5.1
45 - 49	-14.9	-1.2	-2.5	-5.2	-4.5
50 - 54	-14.9	1.5	-0.4	-3.6	-3.0
55 - 59	-13.2	-0.8	-1.7	-2.0	-2.8
60 - 64	-11.6	-2.2	1.0	-0.6	-2.0
65 - 69	-15.1	-5.3	0.0	-0.4	-2.4

Source: Table A-9

The net migration rates are percentages of the 1960 survivors (after inclusion of adjustments made in the net migration estimates) of the 1950 population and births during the 1950-60 decade.

Note: The rates per 100 persons for Subarea Two and Three are the average for those areas and were compiled for use in this table for purposes of general discussion of the areas. For county rates as stated in the original report see Table A-9

While in the 1950-60 period Maine lost 6.4% of its population due to out-migration, the rate of loss for the 20-24 age group was 15.2 persons per 100, for the 25-29 age group 19.3 and for the 30-34 age group 10.3.

The only significant exception to the general rule that the highest rates of loss fall in the youngest age groups is in Penobscot County which showed gains of 10.5 persons per 100 in the 15-19 age group, 26.5 in the 20-24 age group and 1.6 in the 25-29 age group. This can probably be attributed largely to the military base population during the period, since as soon as the 30-34 age group is examined Penobscot shows a rate of loss of 16.8 or the second highest rate of loss for that age group in the state.

The migration study of age groups also indicates a loss of persons in the 20-40 group in Subarea Three that is far heavier than the state average. For instance, in the key 20-24 year group the average rate of loss for the counties in Subarea Two is 13.9 persons per 100 while the average rate of loss for the counties in Subarea Three is 35.4. In round figures this meant that one person in three in the 20-24 age group was moving out of Subarea Three during the last census period -- a rate of loss considerably above that of the other areas.

The county rates of loss for the 20-24 age group indicate an even wider range of migration. Cumberland County with a loss of only 7.1 persons per 100 in this age group was the lowest of the losing counties in the state but losses due to migration in this age group ranged up to 42.8 persons per 100 for Washington County and 47.2 for Piscataquis County. This means that in some areas of the state from a third to almost a half of the younger working force moved out between 1950 and 1960, either

TABLE 25

MIGRATION BY MAINE COUNTIES  
1950 - 1960  
All Ages and Selected Age Group 20 - 29

Rates of loss or gain persons per 100

	All Ages	20 - 24	25 - 29
Maine	-6.4	-15.2	-19.3
<u>Subarea One</u>			
Aroostook	-12.1	-12.5	-19.3
Penobscot	-0.5	26.5	1.6
<u>Subarea Two</u>			
Kennebec	-5.5	-20.3	-22.0
Androscoggin	-7.5	-17.7	-24.9
Sagadahoc	-0.9	-18.2	-9.0
Cumberland	-3.5	-7.1	-16.3
York	-4.8	-16.1	-18.4
<u>Subarea Three</u>			
Oxford	-11.0	-39.2	-31.4
Franklin	-13.6	-24.8	-34.0
Somerset	-10.4	-34.7	-27.3
Piscataquis	-15.2	-47.2	-39.1
Waldo	-5.1	-36.3	-20.1
Lincoln	-3.3	-36.7	-21.3
Knox	-4.2	-29.8	-18.9
Hancock	-6.7	-27.5	-30.5
Washington	-12.8	-42.8	-32.9

to another area of Maine or to another state. Since this is the age group which supplies much of the working force, the drain on the economy of these areas and their ability to provide tax revenue is obvious.

The breakdowns of the migrating population by age show that of the 65,881 persons that migrated from Maine in 1950-60 a total of 23,859 or 36% were between the ages of 20 and 30 years. A total of 34,894 or 53% were between the ages of 20 and 40 years. (Table A-8) While no data by age and county are available for the 1960-64 period, it is logical to assume that the estimated 32,000 persons that left Maine during this period are distributed on the basis of age and geography approximately the same as the migrants of the 1950-60 period. If so, this would mean a loss of 16,960 persons in the first four years of this decade from the 20 - 40 year age group. Table 8 bears out this estimate, showing a decline of total population in approximately the same age group in 1960-64.

The problem is further compounded by the fact that not only is the tendency to migrate highest in the younger age groups but also it is substantially higher in all age groups for those with more education. A thorough 1959 study of earlier census periods pointed out that "... by far the highest rates of migration are those for groups with some college training, and the lowest rates are for those with no more than grade school education." <sup>1</sup>

This was further indicated by a study made in 1964 for the U. S. Department of Commerce which showed that of those persons under 35 years with a college degree about 45% had moved within five years as compared with 23% of those with a grade school education or less. The study commented that, "The fact that migration selects young people with good educations is not a new

1 - Source 9

finding of this research, but it is here confirmed again. This fact has important economic consequences. It implies that there is an export of social capital from the poor areas to the rest of the country in the form of money invested in the education of people who leave. The export of trained personnel from relatively poor sections to relatively rich sections of the country is an economic anomaly. Should not the country at large pay a substantial share of the basic cost of the education of these people? This question was less urgent say, fifty years ago, when the average level of education in the country was lower, but it becomes important as the investment in education rises."

The study further indicates that, "The most mobile occupational groups are professional and technical workers and managerial employees. Self-employed people seem to be the least mobile; blue collar workers and farmers also tend to have low rates of mobility."<sup>1</sup>

Available studies point out that a majority of the persons migrating can be characterized by youth, better than average education and above average employment status.

The impact of out-migration of a fairly sizeable portion of the younger and better trained working force has been felt in Maine, particularly during the last year, as a generally expanding economy has offered the state increased opportunities for economic development. Several meetings of industry and state officials have pointed up details of the labor shortage and offered a variety of possible actions to improve the situation. It is not within the scope of this report to go into further detail on this aspect of the ties between population and the state's economic base other than to point

1 - Source 11



out that an alteration of the existing economic projections and population projections for Maine will require successful efforts to either halt or substantially slow down the existing patterns of out-migration that have been characteristic of the Maine subareas and the state itself for more than 20 years.

One avenue of approach is indicated by the study for the U. S. Department of Commerce which comments, "The right movements must take place into the areas as well as out of the areas. What is required is a general improvement in the efficiency of the adjustment mechanism, which in turn requires that people be informed about economic opportunities at a distance. At present people who move may obtain job information from friends or relatives, but as often as not it is general information about the job situation rather than specific knowledge about the jobs people eventually take. The only other form of acquiring useful information prior to a move, used successfully by as many as one mover in ten, is a special trip to the new location. There is a need for general strengthening of the institutional arrangements for provision of information about jobs at a distance, especially the public employment agencies." <sup>1</sup>

One interesting aspect of this study which could have considerable future value to Maine in halting the trend of out-migration is the fact that one move out of four is explained on non-economic grounds. About 20% of the reasons stated for moving involved the positive qualities of the community into which the family moved and about 22% (some mentioned more than one reason for moving) involved family reasons. However, there is no question that economic reasons are most important - being mentioned by 73% of those who moved.

1 - Source 11

The report comments, "For six moves out of ten, economic and occupational reasons are the only ones mentioned. It would have been surprising if economic and occupational reasons had not been dominant. It is, perhaps, more remarkable that one move out of four is explained on non-economic grounds." <sup>1</sup>

As the population from Boston south continues to expand bringing with it the various problems associated with a high density, Maine's opportunity to sell the "liveability" assets of its communities will increase. This coupled with family reasons for returning to Maine and an increase in economic and job opportunities, if properly utilized, could be of some effect in slowing the present out-migration.

This was recognized by Bogue who stated, "The existence of these non-economic factors does not disprove the theory that much migration is motivated by desire to take advantage of economic opportunities, and that in many areas the lack of sufficient opportunities at home stimulates out-migration. It does show, however, that economic opportunity is only one of several factors in migration, and that for some members of the population it may be of secondary importance." <sup>2</sup>

With the census being taken every ten years and with detailed analysis of the statistics not being made available until several years after the census, it is evident that Maine needs more detailed and more frequently compiled information on the related problems of population, migration and the labor force than is now available. It needs both reliable statistical information and information on the reasons for the existing patterns and changes in the patterns. Such information could be the basis for more effective action. This was recognized by the Gannett Newspapers business reporter Frank Sleeper who stated recently, "A really scientific study of it (the Maine labor shortage) should be made to find out just where it exists, or doesn't,

1 - Source 11

2 - Source 9

and how intense it is. Methods must be found to get labor from outside into areas where there is a shortage. If Maine is to change its character as a state from which many young people migrate each year, it must bring back some of the people who have left. This labor situation may be one of the most important long-range problems that Maine faces." <sup>1</sup>

In closing the section on population and migration brief mention should be made of the fact that the county migration totals and rates (Tables A-8, A-9) show that (with the exception of Penobscot County) virtually the only net in-migration occurring in Maine counties is in the upper age brackets. Lincoln, Waldo and Knox counties for instance show net gains in the older population brackets (which lowers the out-migration rate totals for all ages) but they still experienced substantial losses in the younger labor force age brackets. Lincoln county for example showed a gain of 16.2 persons per 100 in the 65 - 69 year group while experiencing a loss of 36.7 persons per 100 in the 20 - 24 year group.

1 - Portland Press Herald, Dec. 14, 1965, Editorial Page "Shortage of Workers May Slow State's Progress".

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## SECTION TWO - INCOME

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SECTION TWO - INCOME

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## INCOME - AN ECONOMIC MEASURE

Income is generally regarded as a measure of economic activity and economic resources. Personal income remains the real tax base of the state regardless of the subject used for levying taxes. From the standpoint of taxation, income is important as to amount, source, stability and distribution. This section examines the various ways in which income is measured, Maine's patterns of growth under each standard of measurement, the sources of income in Maine, distribution of income among families and individuals and projections of future income. It should also be noted that there is a strong connection between population changes, which were examined in the previous section, and income. The Regional Economics Division Staff of the Department of Commerce stated recently, "Population change exercises a strong influence on income growth. Indeed, much of the geographic redistribution of income is a result of net interstate domestic migration."<sup>1</sup>

## MEASURES AND COMPARISONS OF INCOME

Throughout this section as well as throughout most of this study, comparisons are made between Maine, the other New England states and the New England region. The need for this is obvious in dealing with population and out-migration problems. It should be equally obvious that interstate competition for both population and the working force makes it necessary to measure Maine's income relative to income in other states -- particularly the nearby states in the region.

1 - Source 4, pg. 22

Two chief types of income are discussed. Gross Personal Income is the current income received by individuals, by unincorporated business, and by non-profit institutions (including pension, trust and welfare funds) from all sources. It includes transfers from government and business such as social security benefits and military pensions but excludes transfers among persons. Although most of the income is in monetary form there are other inclusions such as estimated net rental value to owner-occupants of their homes and the value of food consumed on farms. Disposable Personal Income is equal to personal income less taxes on individuals (including income, property and other taxes not deductible as business expense) and other general government revenues such as fines and penalties received from individuals.

Changing patterns of personal income are mentioned in brief for the last twenty years and in more detail for the last five to ten years.

In general the gross personal income and the disposable personal income rise steadily from year to year so that additional measures of income are needed to make the totals meaningful. The most common measure used here is to examine the percentage of change from year to year and compare it with the percentages of change in the other New England states for the same year (or period of years). In addition to comparing percentages of change, the state totals are expressed as a percentage of the New England total so that their relation to the region can be clearly seen and as a percentage of the Maine total so that their specific relation to Maine is evident.

The most common yardstick used to further examine income is to divide either the gross or the disposable personal income by the number of persons in

the state to obtain per capita income. This is also dealt with in terms of percentages of change from year to year and in terms of the relationship (index) between each state and the New England figure or Maine figure if they are each set at 100.

The final and less common measurement of income is in terms of constant dollars (usually 1954 dollars) which can be applied to any of the gross, disposable or per capita series of income. These figures take into consideration the purchasing power of the dollar. Changes in prices over time due to inflation are accounted for by using constant or "real" dollar values. The figures in current dollars for each year are adjusted by consumer price indexes constructed for each state. The need for this type of measurement is particularly evident in looking at the World War II period when income in Maine jumped more than 100% but rapid rises in prices tended to keep pace with income so that the actual increase in purchasing power was closer to 30%.

#### DEFINITION OF PERSONAL INCOME

This study uses the standard source for personal income figures, the Survey of Current Business published monthly by the U. S. Department of Commerce, Office of Business Economics. However, in 1965 the Office of Business Economics completed a comprehensive revision of national income and product accounts for the United States and in April 1966 began introducing the changes into its annual state series on personal income. The revisions available at the time of this writing cover the years 1948 - 1965 for gross personal income and per capita personal income only. Use is made of these figures in the first part of this section in order to bring Maine income figures

up to date through 1965. The revisions are not used in the remainder of this section since they are not yet available for disposable and real disposable income. The unrevised figures on personal income are also the basis for the tables in sections of this study which discuss taxation. This was done since the tables relating taxes and income are derived from sources published before the revised income figures were available. However, as is pointed out below the absolute difference between the revised and unrevised figures is not large and for purposes of comparison between states over a period of years the difference is probably negligible.

The chief differences between the new series of personal income figures and the previous ones lie in the shifting of earnings of such institutions as savings banks, credit unions and life insurance companies from personal income to corporate profits; in removing federal payments to nonprofit organizations for research and development from personal income; and revising other definitions of what constitutes "personal income". On balance the changes in definition of "personal income" reduced national personal income by \$3.4 billion in 1964. Use has also been made of more recent and accurate statistical information including adjustments in shifting income from state-of-work to state-of-residence affecting some 33 states.

"The impact of the revision may be gauged in two ways: their effect on the relative level of income at a point in time and their effect in altering previously calculated trends in income . . . . . both effects were moderate."<sup>1</sup>

1 - Source 3, pg. 13

TABLE 26

EXTENT OF PERSONAL INCOME REVISIONS FOR NEW ENGLAND

	Percent U. S. Distribution Total Personal Income 1964		Percent Per Capita Income is of U. S. 1964		Percent Change in Share of Total Personal Income 1948 - 1964	
	Revised	Unrevised	Revised	Unrevised	Revised	Unrevised
Maine	.42	.43	81	83	-19	-18
New Hampshire	.33	.32	95	93	3	....
Vermont	.17	.18	83	83	-14	-12
Massachusetts	3.10	3.22	112	116	-8	-11
Rhode Island	.47	.47	103	98	-17	-18
Connecticut	1.83	1.85	126	128	11	9
.....						
New England	6.32	6.47	110	112	-5	-4
.....						

Source 3, pg. 12

It will be noticed from Table 26 that the revisions lowered New England's share of the national income in 1964 from 6.47% to 6.32%; lowered its per capita income as a percent of the nation from 112% to 110%; and altered its percentage of change in share of total personal income since 1948 from -4% to -5%.

For the states in New England the revisions improved the relative standings of only New Hampshire and Rhode Island. Maine's share of national personal income dropped from .43% to .42% and its income per capita as a percent of U. S. from 83% to 81% as a result of the revised figures. The percentage of change in Maine's share of the national income 1948 - 1964 went from -18% to -19%.

The revised figures note that when the total personal income of the New England states is measured against the national total only two states in the region have experienced a gain in their shares (New Hampshire and Connecticut) with the remaining states experiencing a decline in their share of national personal income. (The losses or gains represent the share of national income in 1964 expressed as a percentage of the share of national income in 1948). Maine during the 1948-64 period experienced the biggest change in New England in its share of national income -- a loss of 19%.

#### PER CAPITA INCOME

Using the revised figures, since they provide the most recent information, it is evident that Maine now has the lowest per capita personal income in New England. (Table 27) While Maine income moved from \$1,549 per capita in 1955 to \$1,842 per capita in 1960 and an estimated \$2,245 per capita in 1965, a more rapid growth in personal income in Vermont during the decade enabled that state to move slightly ahead of Maine in 1960 and to increase its gain over Maine substantially by 1965. From 1955 to 1960 Maine personal income per capita was second lowest in New England and substantially below the regional and national figures. This situation continued to prevail in the 1960-65 period with the exception that Vermont's income moved ahead of Maine.

Personal income per capita in Maine rose \$293 in 1955-60 and this increase was surpassed by a gain of \$403 in 1960-65. (Table 28) In the first period Maine's dollar gain was the lowest in New England with the exception of Rhode Island where the 1955-60 increase was \$241. In the second half of the decade the dollar gain was below that of the other states in the region. Over the 1955-65



TABLE 27

## PER CAPITA PERSONAL INCOME

New England States 1955-65

(Figures in Dollars)

	<u>1955</u>	<u>1960</u>	<u>1961</u>	<u>1962</u>	<u>1963</u>	<u>1964</u>	<u>1965</u>
Maine	1549	1842	1827	1901	1952	2093	2245
New Hampshire	1765	2151	2213	2309	2351	2447	2570
Vermont	1481	1848	1880	1980	2012	2135	2340
Massachusetts	2028	2457	2542	2656	2735	2874	3023
Rhode Island	1972	2213	2280	2422	2496	2641	2817
Connecticut	2412	2804	2889	3036	3104	3232	3390
.....							
New England	2032	2424	2495	2616	2688	2824	2979
.....							
United States	1876	2215	2264	2368	2451	2574	2724

Source: Table B-1

decade the dollar gain in personal income was surpassed by the other New England states -- ranging from \$109 more in New Hampshire to \$282 more in Connecticut.

However, in terms of percent of increase in per capita income (Table 28) Maine appeared much better over the ten year period. Maine's 1955-60 increase of 18.9% was above that of both Rhode Island and Connecticut and close to the New England average. In the 1960-65 period personal income per capita increased 21.9% in Maine -- a rate higher than both New Hampshire and Connecticut and within one percent of the New England average. For the ten year period Maine

TABLE 28

## PER CAPITA PERSONAL INCOME

New England States 1955-65

(Gain in Dollars and Percent of Change)

	1955-60		1960-65		1955-65	
	Dollars	Percent	Dollars	Percent	Dollars	Percent
Maine	293	18.9	403	21.9	696	44.9
New Hampshire	386	21.9	419	19.5	805	45.6
Vermont	367	24.8	492	26.6	859	58.0
Massachusetts	429	21.2	566	23.0	995	49.1
Rhode Island	241	12.2	604	27.3	845	42.8
Connecticut	392	16.3	586	20.9	978	40.5
.....						
New England	392	19.3	555	22.9	947	46.6
.....						
United States	339	18.1	509	23.0	848	45.2
.....						

Source: Table B-1

registered an increase of 44.9% in personal income per capita -- higher than Rhode Island and Connecticut and within two percent of the regional average. It should be pointed out, however, that, beginning with a much smaller base figure in 1955 a 10% increase in Maine income from 1955-65 equals \$154 while a 10% increase in Connecticut income equals \$241.

It is obvious that for Maine to close or lessen the dollar gap that exists between its personal income and that of the other states in the region would require a percentage increase substantially above that of the other states. For this reason it is interesting to examine the totals and percentages of change in Vermont

TABLE 29

PER CAPITA PERSONAL INCOME

New England States 1955-65

(Figures in Dollars)

	Variation in Spread New England = 0			Variation in Spread Maine = 0		
	1955	1960	1965	1955	1960	1965
Maine	-483	-582	-734	0	0	0
New Hampshire	-267	-273	-409	216	309	325
Vermont	-551	-576	-639	-68	6	95
Massachusetts	-4	33	44	479	615	778
Rhode Island	-60	-211	-161	423	371	572
Connecticut	380	380	411	863	962	1145
.....						
New England	0	0	0	483	582	734
.....						
United States	-156	-209	-255	327	373	479
.....						

Source: Table B-2

over the ten-year period, since Vermont until 1960 was lower than Maine in per capita personal income. Vermont's dollar gain in personal income per capita in 1955-65 was \$859. With the exception of Massachusetts and Connecticut this was the highest dollar gain in New England in the period. It was a remarkable 58% increase -- more than 10% above the regional average and some 13% above the percentage of increase in Maine.

Of as much, if not more, concern to persons considering moving from one state to another is the actual dollar difference in income which can be expected

between the area in which he lives and the area into which he is considering moving. In the individual's case this is expressed directly in terms of wages for a specific job but between states it is a matter of the actual dollar spread in income. In reviewing these figures it should be kept in mind that the base figures, of which they are a part, are constantly rising so that, due to an overall increase in income, a variation of \$500 today may be a lesser percentage of variation than one of \$400 a few years ago. Connecticut per capita personal income moved from \$380 above the New England average in 1955 to \$411 above it in 1965; however, because the increase in the base figure Connecticut's income expressed as a percentage of the New England income declined from 118% in 1955 to 113% in 1965. Still to take note of the fact that Vermont per capita personal income was \$68 below Maine in 1955 and was \$95 above Maine in 1965 is one valuable way of viewing the income picture.

Taking the New England per capita personal income as zero, the totals indicate that Maine per capita personal income was \$483 below the regional figure in 1955 and was \$734 below the regional figure in 1965. (Table 29) Only two states in New England -- Massachusetts and Connecticut -- have been at or above the regional figure over the decade.

Also of concern to Maine is the variation in dollar spread between its income and the per capita income of the other New England states. Table 29 shows that in 1955 per capita personal income in the other New England states ranged from \$68 below the Maine level in Vermont to \$863 above the Maine level in Connecticut. Income for the region was \$483 above the Maine level and national per capita income was \$327 above the Maine level. By 1960 all New England states were above the Maine per capita income ranging from

TABLE 30

PER CAPITA PERSONAL INCOME

New England States 1955-65

	Index-Percentage of New England			Index-Percentage of Maine		
	New England = 100			Maine = 100		
	1955	1960	1965	1955	1960	1965
Maine	76.2	76.0	75.4	100	100	100
New Hampshire	86.9	88.7	86.3	113.9	116.8	114.5
Vermont	72.9	76.2	78.6	95.6	100.3	104.2
Massachusetts	99.8	101.4	101.5	130.9	133.4	134.7
Rhode Island	97.0	91.3	94.6	127.3	120.1	125.5
Connecticut	118.7	115.7	113.8	155.7	152.2	151.0
.....						
New England	100	100	100	131.2	131.6	132.7
.....						
United States	92.3	91.2	91.4	121.1	120.2	121.3
.....						

Source: Table B-2

\$6 in Vermont to \$962 in Connecticut. The same was true in 1965 ranging from Vermont which was \$95 above the Maine level of income to Connecticut which was \$1,145 above Maine.

Table 30 presents two indices of per capita personal income. The first expresses the income of the individual states and nation as a percentage of New England. The second expresses the income of the states, region and nation as a percentage of Maine income.

The New England index indicates that Maine's per capita income is about three-fourths that of the regional average and has remained in this position for the last ten years declining slightly from 76% of the regional average to 75% of the regional total over the decade. Rhode Island per capita personal income has declined from 97% of the regional average to 94% over the period while Connecticut has experienced a decline of about 5%. New Hampshire has stayed at about 86% of the regional average while Massachusetts has moved up slightly from 99% to 101%. Vermont showed a substantial gain in the ten-year period moving up from 72% to 78% of the regional average.

The second index indicates that in 1955 per capita personal income was 13% above the Maine level in New Hampshire, 30% higher in Massachusetts, 27% higher in Rhode Island and 55% higher in Connecticut. The New England average was 31% higher and the national personal income per capita 21% higher. Only in Vermont was the income level about 5% lower than in Maine.

At the end of the decade last year per capita personal income in New Hampshire was 14% higher than in Maine, 4% higher in Vermont, 34% higher in Massachusetts, 25% higher in Rhode Island, 51% higher in Connecticut, 32% higher regionally and 21% higher nationally.

The various tables indicate that in terms of per capita personal income over the last decade that Maine, has experienced a substantial growth in terms of current dollars of 44% from 1955 to 1965. This percent of change is close to the average of that of the region as a whole but it has not been sufficiently high (as in the case of Vermont) to alter Maine's position within the region. On the contrary the rapid growth of income in Vermont, exceeding the regional average

by more than 10%, has put Maine in Vermont's place as having the lowest per capita personal income in New England. Over the decade there has been an increase in the percentage spread between Maine and New Hampshire, Vermont and Massachusetts and a lessening of the percentage spread between Maine and Rhode Island and Connecticut. There has been little change in the percentage relationship between Maine and regional and national income with regional income remaining 31% to 32% higher than Maine and national income remaining 21% higher.

In terms of actual amounts of current dollars there has been a steady increase in the spread between Maine per capita personal income and the income of the other states, the region and the nation, with last year's differences ranging from \$95 higher in Vermont to \$1,145 higher in Connecticut and \$734 higher for the region.

#### DISPOSABLE INCOME

Disposable income, as mentioned earlier, represents personal income after removal of tax and non-tax payments to government. Studies of personal income before and after tax payments are subtracted indicate that there is little difference in the relative positions of the states created by removing tax payments from personal income.

"The acceptance of personal income received by the residents of the states as an index of their relative capacities to devote funds to public and private purposes neglects the income withdrawn from the states by federal taxes. The federal tax structure, uniformly applied to the diverse income structures in the states, results in different federal tax withdrawals,

suggesting that the personal income figures should be corrected for the differential impact of these Federal taxes, and, as a minimum, for federal individual income tax withdrawals.

"A fairly extensive study of federal tax withdrawals from personal income made in 1954 details the conceptual and measurement problems involved in adjusting for these withdrawals. This study, as well as the work done by the Office of Business Economics on developing estimates of personal taxes by states, points to the conclusions that the relative position of the states is affected very little by an adjustment for federal tax withdrawals."<sup>1</sup>

A portion of table (Table 31) taken from this study by the Advisory Commission on Intergovernmental Relations gives the relative position of the New England states measured by personal income minus federal personal direct taxes and non-tax payments and as measured by disposable income (i.e. personal income less federal, state and local taxes). Both of these series are shown along with total personal income before any tax deductions.

The same conclusion is indicated in a recent article in the Survey of Current Business by the Regional Economics Division Staff.

"A comparison of changes in the distribution of personal income and disposable income among the states reveals the relatively minor alterations that personal tax and non-tax payments have made in the geographic distribution of personal income.

"Most of the minor differences in geographic distribution that exist between personal income and disposable income appear to be due to the progressive nature of the tax system. Generally, states with above-average income

1 - Source 6, pg. 15



TABLE 31

THE EFFECT OF FEDERAL PAYMENTS AND ALL TAX  
PAYMENTS ON TOTAL PERSONAL INCOME

New England States 1959

(Per Capita as Percent of U. S. Average)

	Total Personal Income	Personal Income Less Federal Tax and Non- Tax Payments	Personal Income Less Federal, State and Local Tax Payments
Maine	83	85	85
New Hampshire	92	92	93
Vermont	83	85	84
Massachusetts	113	113	112
Rhode Island	100	100	100
Connecticut	129	127	127
.....			
New England	111	110	110
.....			
United States	100	100	100
.....			

Source: 6, pg. 19

levels have smaller shares of income after taxes than before taxes. Conversely, low-income states receive larger shares of disposable income than personal income. In 1963, this generalization held true for 29 of the 32 states whose share of personal income differed from that of disposable income by as much as 1%.<sup>1</sup>

The article further notes that in 1948 in 41 states the shares of personal income and disposable income differed by less than three percent. From 1948 to 1963 there was little change in the effect of personal taxes on state

1 - Source 4, pgs. 17-20

TABLE 32

DISTRIBUTION OF STATES BY EFFECTIVE  
PERSONAL TAX RATES 1929, 1948, 1963

(Effective Tax Rate in Percent)

Number of States in Each Bracket in ----

TAX RATE	1929	1948	1963
0- 1	.....		
1- 2	12	.....	
2- 3	28	.....	
3- 4	7	.....	
4- 5	0	.....	
5- 6	1	2	.....
6- 7	0	3	.....
7- 8	1	8	.....
8- 9	.....	10	.....
9-10	.....	9	3
10-11	.....	10	3
11-12	.....	3	10
12-13	.....	2	14
13-14	.....	1	14
14-15	.....		2
15-16	.....		2
16-17	.....		
17-18	.....	1	1

Source: 4, pg. 19

Effective tax rate equals total personal tax and non-tax payments as  
a percent of personal income

distribution of income; however, this does not imply that taxes are distributed among the states in the same proportion as personal income.

"In 1929, there was comparatively little difference among states in effective tax rates. (Table 32) Except for Delaware and New York, personal taxes ranged from 1.6% to 3.6% of personal income. By 1948, the range went from 5.1% to 13.9%. In 1963, the range was somewhat reduced, mainly because of increases in effective tax rates in states at the lower end of the scale. As indicated in the tabulation, effective tax rates in 1963 ranged from 9% in Mississippi and about 9.5% in the two Dakotas to nearly 16% in New York and 18% in Delaware.

TABLE 33

EFFECTIVE PERSONAL TAX RATES FOR SELECTED YEARS 1929-1963

	New England States				
	(Effective Tax Rates in Percent)				
	1929	1948	1955	1960	1963
Maine	2.5	7.4	8.2	10.3	11.5
New Hampshire	2.2	8.2	10.6	12.8	12.8
Vermont	2.2	7.9	9.7	11.7	12.8
Massachusetts	3.6	11.6	12.4	13.8	13.8
Rhode Island	3.2	11.2	11.5	12.4	12.7
Connecticut	2.6	10.5	12.7	14.0	14.0

Source: 4 - Rates derived - effective tax rate equals total personal tax and non-tax payments as a percent of personal income

"The fact that the distributions of personal income and disposable income are quite similar, while those of personal income and personal taxes differ

TABLE 34

## PER CAPITA INCOME AND PER CAPITA DISPOSABLE INCOME

New England States 1955-63

(Comparison of Percentage of Change 1955-60 1960-63)

	1955 - 60		1960 - 63		1955 - 63	
	Per Capita	Disposable Per Capita	Per Capita	Disposable Per Capita	Per Capita	Disposable Per Capita
Maine	18.7	16.0	7.0	5.5	26.9	22.4
New Hampshire	21.4	18.4	8.3	8.3	31.5	28.2
Vermont	23.2	20.4	8.5	8.0	33.6	30.1
Massachusetts	20.4	18.4	11.9	11.9	34.8	32.6
Rhode Island	11.2	10.1	10.7	10.3	23.2	21.4
Connecticut	14.7	12.9	9.6	9.5	25.6	23.7
.....						
New England	18.4	16.5	10.7	10.5	31.2	28.7
.....						
United States	18.8	17.0	10.4	9.8	31.2	28.5
.....						

Source: Tables - B-3, B-5

significantly, is a reflection of the comparatively small weight of taxes compared with total income. With personal taxes currently absorbing about 13.5% of personal income, only one-eighth of the relative difference between the tax and income distribution is transmitted to the disposable income measure by the deduction of taxes from income." <sup>1</sup>

Comparison of Tables 32 and 33 indicates that Maine in 1929, with an effective personal tax rate of 2.5%, fell in the same group as the bulk of the

1 - Source 4, pgs. 19-20

other states. In 1948 with an effective rate of 7.4% Maine was in the lower third of the spread of states in terms of effective tax rates and in 1963 Maine remained in the lower third with a rate of 11.5%. Similar comparisons can be drawn for the other New England states. Generally the "wealthier" states such as Massachusetts and Connecticut have higher effective personal tax rates. In 1963 for instance the effective rates of 13.8% in Massachusetts and 14% in Connecticut made them the highest in New England. However, the difference between Maine, the lowest with 11.5%, and Connecticut, the highest with 14%, was only 2.5%.

TABLE 35

VARIATION IN PERCENTAGE OF CHANGE BETWEEN  
PER CAPITA INCOME AND DISPOSABLE PER CAPITA INCOME

	New England States 1955-63		
	Per Capita	Disposable	Net Change
Maine	-4.3	-6.3	-2.0
New Hampshire	0.3	-0.5	-0.8
Vermont	2.4	1.4	-1.0
Massachusetts	3.6	3.9	0.3
Rhode Island	-8.0	-7.3	0.7
Connecticut	-5.6	-5.0	0.6

Source: 4, derived

Figures represent the percent that each state is higher or lower than the New England percentage of change in per capita and per capita disposable income for 1955-63. (Table 34)

As noted earlier for purposes of comparison of various aspects of income and taxes it is necessary to use the unrevised series of figures on

personal income. A comparison of the percentages of change in per capita income and per capita disposable income (Table 34) indicates that removing taxes from personal income has relatively little impact on either the percentage of change in income growth or on the relative standing of the New England states. The impact of taxes does reduce by a few percent the differences between Maine income and income in the wealthier states such as Massachusetts and Connecticut.

Table 34 indicates that disposable personal income in Maine grew at a rate slightly slower than per capita income from 1955-63 but since this was true for all the New England states, it did not alter Maine's relation to the region. Maine's personal income, whether measured before or after taxes, grew more slowly than the regional increase in 1955-63 and increased less than that of any other state in the region except Rhode Island. Personal income per capita increased in the 1955-63 period at a rate of 4.3% slower than the average rate for New England. Removing taxes from personal income per capita has an adverse effect for Maine since disposable income per capita in Maine increased 6.3% slower than the increase for New England during the period.

Comparing the variation in percentage of increase 1955-63 for the New England states against the rate for the region as a whole (Table 35) shows that three states -- Maine, New Hampshire and Vermont -- have net relative losses in the disposable per capita income column; Maine by 2%, New Hampshire by 0.8% and Vermont by 1%. Three states -- Massachusetts, Rhode Island and Connecticut -- have net relative gains in the disposable income column; Massachusetts by 0.3%, Rhode Island by 0.7% and Connecticut by 0.6%. It is evident that differences in net percentages of increase between per capita income

TABLE 36

PER CAPITA INCOME AND PER CAPITA DISPOSABLE INCOME

New England States 1955-63

(Comparison of Index Maine = 100)

	1955		1960		1963	
	Per Capita	Disposable Per Capita	Per Capita	Disposable Per Capita	Per Capita	Disposable Per Capita
Maine	100	100	100	100	100	100
New Hampshire	108.7	105.9	111.2	108.1	112.7	110.9
Vermont	97.0	95.4	100.7	99.1	102.2	101.4
Massachusetts	132.4	126.3	134.3	129.0	140.6	136.8
Rhode Island	124.4	120.0	116.6	113.9	120.8	119.0
Connecticut	158.0	150.3	152.7	146.3	156.4	151.9
.....						
New England	131.8	126.4	131.6	127.0	136.2	132.9
.....						
United States	118.5	114.2	118.6	115.2	122.5	119.9
.....						

Source: Tables B-4, B-6

and per capita disposable income in 1955-63 when related to the regional increase amount to more than 1% only in Vermont and Maine -- with Maine having the largest variation of a 2% slower net relative increase in disposable per capita income than in per capita income before taxes.

Table 36 for the Maine index of per capita income shows the percent by which the income in other New England states exceeds that of Maine, as measured both in terms of per capita income and disposable per capita income. It indicates that, while in 1963 per capita income in Connecticut was 56.4%

TABLE 37

PER CAPITA INCOME AND PER CAPITA DISPOSABLE INCOME

( New England States 1955-63)

(Comparison of Index New England = 100)

	1955		1960		1963	
	Per Capita	Disposable Per Capita	Per Capita	Disposable Per Capita	Per Capita	Disposable Per Capita
Maine	75.9	79.1	76.0	78.8	73.4	75.2
New Hampshire	82.5	83.8	84.5	85.2	82.7	83.4
Vermont	73.6	75.5	76.5	78.1	75.0	76.3
Massachusetts	100.4	99.9	102.1	101.6	103.2	102.9
Rhode Island	94.4	94.9	88.7	89.7	88.7	89.5
Connecticut	119.9	118.9	116.1	115.3	114.8	114.2
.....						
New England	100	100	100	100	100	100
.....						
United States	89.9	90.3	90.2	90.7	89.9	90.2
.....						

Source: Tables B-4, B-6

higher than in Maine, when taxes were removed from income that the per capita disposable income in Connecticut was only 51.9% higher than in Maine. In effect taxes had lowered the variation between Connecticut per capita income and Maine per capita income by 4.5%. Table 36 shows the effect of taxes in bringing personal income closer to Maine income. Personal income per capita was 12.7% higher in New Hampshire than in Maine in 1963 but disposable income per capita was only 10.9% higher -- indicating that taxes brought New Hampshire income 1.8% closer to that of Maine. The most substantial net relative differences in



TABLE 38

NET VARIATION IN INDICES BETWEEN PER CAPITA  
AND DISPOSABLE PER CAPITA INCOME

New England States 1963

	1 (Maine = 100)	2 (New England = 100)
Maine	.....	1.8
New Hampshire	-1.8	0.7
Vermont	-0.8	1.3
Massachusetts	-3.8	-0.3
Rhode Island	-1.8	0.8
Connecticut	-4.5	-0.6
.....		
New England	-3.3	....
.....		
United States	-2.6	0.3
.....		

Source: Tables B-4, B-6, Derived

Column One shows the net affect of disposable income (or taxes) on the Maine index by giving the percent by which disposable per capita personal income is closer to Maine income than is per capita income.

Column Two shows the affect of taxes on the New England index by giving the percent by which disposable income raises or lowers the relationship to regional income.

income before and after taxes were in Massachusetts where its income was brought 3.8% closer to Maine and in Connecticut where its income was brought 4.5% closer to Maine by Taxation.

Table 37 for the New England index of per capita income indicates that while Maine's per capita personal income in 1963 was 73.4% of the regional

average, disposable per capita personal income was 75.2% of the regional average. The effect of deducting taxes from New England income in this instance was to bring Maine up 1.8% closer to the income of the region. Column Two of Table 38 shows the effect of taxation in 1963 in bringing personal income per capita closer to the regional average. Only two states -- Massachusetts and Connecticut -- had per capita incomes above the regional average. Taxation had the effect of lowering Massachusetts personal income per capita from 103.2% to 102.9% of the regional average or a net change of -0.3%. Connecticut per capita income was 114.8% of the regional average while disposable income was 114.2% or a net change of -0.6%. In only two states -- Vermont and Maine -- did the effect of taxes increase their relative percentage of regional personal income more than one percent, Maine by 1.8% and Vermont by 1.3%.

This comparison of personal income per capita and disposable income per capita for the New England states indicates that there is not a large variation in effective tax rates on personal income among the states. It also bears out the foregoing general conclusions made for the nation as a whole that states with above average income levels have slightly smaller shares of income after taxes. It shows that while taxes in New England absorb about 13% of personal income only a small portion of the relative difference between tax and income distribution is transmitted to the measure of disposable income.

Thus one can conclude that in New England, as elsewhere in the nation, total personal tax payments make relatively minor changes in geographic distribution of income.

## CONSTANT DOLLAR INCOME

A final viewpoint on per capita income is given by adjusting the income figures to allow for increases in prices. The measure of constant dollar disposable income per capita takes into account the three factors of variations in population between areas, variations in taxes and variations in the purchasing power of the dollar due to price increases. While its use in tables measuring tax effort and other relationships between taxes and income is not as common as per capita income, the need to keep in mind the fact that income is only as valuable as the goods it will purchase is made evident by the fact that from 1955-63 per capita income in Maine went up 26.9%; per capita disposable income went up 22.4%; but "real" per capita disposable income went up only 7.6%. (Table 41).

Table 39 shows that the patterns of income growth in current dollars differ substantially from patterns of income growth in terms of constant dollars. In terms of current dollars, per capita income in Maine during the depression declined at an average annual rate of 1.3% but, because prices fell even faster, real income rose at a rate of 0.7% annually. The reverse was true during the World War II period when income per capita in Maine in current dollars rose at an average annual rate of 10.6% but, because prices rose rapidly, the rate of increase in real income averaged only 2.8% annually. Between 1948 and 1963 price inflation was less severe and income both in current dollars and in real dollars increased although the average annual rate of increase for per capita disposable income in current dollars was 3% and the average annual increase in constant dollars was only 1.4%.

TABLE 39

AVERAGE ANNUAL RATES OF GROWTH OF CURRENT AND  
CONSTANT (1954) DOLLAR DISPOSABLE INCOME PER CAPITA

New England States 1929 - 1963

	<u>Current Dollars Per Capita</u>			<u>Constant Dollars Per Capita</u>		
	1929-40	1940-48	1948-63	1929-40	1940-48	1948-63
Maine	-1.3	10.6	3.0	0.7	2.8	1.4
New Hampshire	-1.7	9.6	3.5	-0.3	1.8	2.0
Vermont	-2.1	10.4	3.5	-0.1	2.5	1.8
Massachusetts	-1.4	7.4	4.0	0.2	0.3	2.5
Rhode Island	-1.5	8.2	3.0	-0.2	1.1	1.5
Connecticut	-1.2	7.4	3.7	0.1	0.2	2.1
.....						
New England	-1.4	8.0	3.8	0.2	0.7	2.2
.....						
United States	-1.6	10.5	3.4	0.4	2.6	1.8
.....						

Source: 4, pg. 26

In 1963 Maine had the lowest per capita real disposable income in New England and, not considering Alaska and Hawaii, ranked 36th in the nation. In 1946 Maine ranked 28th; in 1950 it ranked 36th; in 1955 it ranked 30th; in 1960 it ranked 32nd; and since 1961 it has ranked 36th.

For the 1948-63 period Maine has the lowest average annual rate of growth in real income in New England (Table 39) being slightly under Rhode Island and substantially under the other New England states. This can be contrasted with the war years when Maine's average annual rate of growth in real income per capita was the highest in New England and higher than both the regional and

TABLE 40

CHANGE IN PER CAPITA REAL DISPOSABLE PERSONAL INCOME

New England States 1955 - 1963

(Figures in Percent)

	1955-60	1960-63	1955-63
Maine	5.8	1.8	7.6
New Hampshire	8.0	4.4	12.8
Vermont	9.3	4.3	14.0
Massachusetts	8.1	8.2	16.9
Rhode Island	-1.3	5.4	4.0
Connecticut	2.1	5.5	7.7
.....			
New England	5.8	6.6	12.8
.....			
United States	6.8	6.6	13.8
.....			

Source: Table B-7

Figures are percentages of change in disposable income per capita when adjusted for price increase to 1954 dollars

national figures. The same was true in the depression period when the average annual rate of growth in real income in Maine was the highest in New England and higher than the regional and national figures.

A comparison (Table 40) of the percentage of increase in real disposable income per capita for the 1955-63 period indicates that real income in Maine increased more than Rhode Island and Connecticut in the 1955-60 period (Rhode Island had a decline in real income in this period). Maine's 5.8% increase in the period was equal to the regional increase and only 1% below the national

percentage of increase. In the 1960-63 period the picture reversed itself with real income in Maine increasing only 1.8% -- a percentage of increase less than half of that for New Hampshire, Vermont, Rhode Island and Connecticut; less than a fourth of the Massachusetts percentage of increase; and less than one third the percentage of increase for the region and nation. For the entire 1955-63 period Maine's percentage of increase in real income was higher than Rhode Island, slightly under Connecticut and substantially below the percentage of

TABLE 41

COMPARISON OF CHANGE BETWEEN PER CAPITA, PER CAPITA DISPOSABLE AND REAL PER CAPITA DISPOSABLE INCOME

New England States 1955 - 1963

	Dollar Change			Percent of Change		
	1*	2*	3*	1*	2*	3*
Maine	424	324	110	26.9	22.4	7.6
New Hampshire	540	432	195	31.5	28.2	12.8
Vermont	514	415	193	33.6	30.1	14.0
Massachusetts	726	595	308	34.8	32.6	16.9
Rhode Island	454	372	69	23.2	21.4	4.0
Connecticut	638	515	167	25.6	23.7	7.7
.....						
New England	647	525	233	31.2	28.7	12.8
.....						
United States	582	471	227	31.2	28.5	13.8
.....						

Source: Tables B-3, B-5, B-7

\* Columns 1 are based on per capita personal income (unrevised series)  
 Columns 2 are based on disposable (after taxes) personal income per capita  
 Columns 3 are based on disposable personal income per capita in "real" 1954 dollars (adjustment for price increase).

increase for the remainder of the New England states, the region and the nation.

The relative ranking of percentages of increase of income among the New England states remains similar whether it is per capita, disposable (after taxes) per capita, or real (price adjusted) disposable income that is being considered. Table 41 shows that Maine's increase in per capita income from 1955-63 was 26.9% -- a higher percentage of increase than Rhode Island and Connecticut but lower than the remainder of the states, the region and the nation. Maine's increase in per capita disposable income from 1955-63 was 22.4% -- higher than Rhode Island but less than the rest of the states, the region and the nation. Maine's percentage of increase in real disposable income per capita from 1955-63 was 7.6% -- higher than Rhode Island but less than the rest of the states, the region and the nation.

However, the adjustment for purchasing power does have considerable impact on the variations between percentages of increase in 1955-63. In considering only disposable income per capita Maine's increase of 22.4% was more than two-thirds of Vermont's increase of 30.1%. But when real disposable income per capita is considered Maine's increase of 7.6% is just slightly more than half the percentage of increase in Vermont. A similar variation in reverse is noticeable between Maine and Rhode Island. Maine's increase in disposable income per capita of 22.4% is just slightly more than the Rhode Island increase of 21.4%. But Maine's increase in real disposable income per capita of 7.6% is almost twice the 4% increase in Rhode Island.

TABLE 42

COMPARISON OF MAINE AND NEW ENGLAND INDICES BETWEEN  
PER CAPITA, PER CAPITA DISPOSABLE AND PER CAPITA  
REAL DISPOSABLE INCOME 1963

	Maine Index Maine = 100			New England Index New England = 100		
	1*	2*	3*	1*	2*	3*
Maine	100	100	100	73.4	75.2	75.5
New Hampshire	112.7	110.9	111.0	82.7	83.4	83.8
Vermont	102.2	101.4	101.2	75.0	76.3	76.4
Massachusetts	140.6	136.8	137.1	103.2	102.9	103.5
Rhode Island	120.8	119.0	115.1	88.7	89.5	86.9
Connecticut	156.4	151.9	150.5	114.8	114.2	113.7
New England	136.2	132.9	132.4	100	100	100
United States	122.5	119.9	120.6	89.9	90.2	91.1

Source: Tables B-4, B-6, B-8

\* Columns 1 are based on per capita personal income (unrevised series)  
Columns 2 are based on disposable (after taxes) personal income per capita  
Columns 3 are based on disposable personal income per capita in "real"  
1954 dollars (adjustment for price increases)

Table 42 draws comparisons between the various ways of measuring income and their effect on the Maine and New England indices. In 1963 per capita income in Connecticut was 56.4% higher than in Maine; disposable income per capita was 51.9% higher; and real disposable income per capita was 50.5% higher. A similar reduction is noticeable in all the New England states except New Hampshire



where real disposable income is slightly higher above the Maine level than disposable income.

While the variation is not large, a similar comparison of the New England index indicates that Maine's index is slightly higher in disposable than in per capita income and again slightly higher in real disposable. Similar differences are noticeable in New Hampshire and Vermont. The variations of the indices of the states caused by the various ways of measuring income is generally less than 5% in the Maine index and less than 2% in the New England index.

#### PROJECTIONS OF PERSONAL INCOME

Since the components of personal income and personal income per capita are much more subject to change than the components of population, the federal government does not issue projections of income as it does the detailed projections of population. Among the most recent and reliable income projections are those of the Arthur D. Little study of the New England economy. The close tie between employment and industrial development can be seen by the method of income projection used by the Arthur D. Little report.

"The basic method used for projecting personal income in our study consists of a two-part procedure. In the first part, involving income projections for 1970 and 1980, each state's percent share of projected New England employment in the non-primary resource industries (i. e., total state employment minus employment in the agricultural, forestry, fisheries and mining sectors) was used as an 'indicator' in determining the state's percent

share of New England's projected total personal income. The 'indicator' for each state, so defined, was subsequently modified in two basic ways in order to determine more accurately the state's percent share of New England's projected personal income total.

"First, the 'indicator' was weighted by the 1959 - 1963 average hourly manufacturing wage-rate in that state in order to account for the wage rate differentials between the six states.

"Secondly, it was adjusted for minor discrepancy between each state's percent share of total New England personal income in 1960, and the state's percent share of total New England non-resource employment in 1960 . . . . ."<sup>1</sup>

TABLE 43

PROJECTIONS OF PERSONAL INCOME PER CAPITA

New England States 1960-80

(Totals Other Than Percent in 1954 Dollars)

	Per Capita Totals			Percent of Change		
	1960	1970	1980	1960-70	1970-80	1960-80
Maine	1641	2158	2663	31.5	23.4	62.3
New Hampshire	1824	2283	2815	25.2	23.3	54.3
Vermont	1647	2071	2749	25.7	32.7	66.9
Massachusetts	2199	2770	3367	26.0	21.6	53.1
Rhode Island	1907	2474	2947	29.7	19.1	54.5
Connecticut	2502	3126	3770	24.9	20.6	50.7
.....						
New England	2150	2728	3324	26.9	21.8	54.6
.....						

Source: Table B-9

1 - Source 7, Appendix G

The chief factors in projecting income up to 1980 in this study are total state employment (less employment in agriculture, forestry, fisheries and mining), the average hourly manufacturing wage rate and variations between shares of regional employment and shares of regional income in 1960.

The projections put income growth for Maine in a somewhat more favorable light than the experience of the last ten years. As the previous examination of the various measures of income over the period since 1955 has shown, the percentages of increase in Maine personal income per capita have not equalled the regional average and in some periods and in some measures of income change the Maine percentage of increase has fallen considerably below the regional average. The projections (Table 43) indicate that Maine per capita personal income as measured in 1954 dollars will increase 31.5% in 1960-70 and 23.4% in 1970-80. The increase from 1960-80 would be 62.3%. With the exception of a projected increase of 66.9% in Vermont income, the projected percentage of increase in Maine income would be the highest in New England. The percentage of increase projected for Maine is also above the regional figure in both the 1960-70 and the 1970-80 decades.

If the projections are carried out in fact, by 1980 Maine would still have the lowest per capita personal income in New England but the advantage of the other states would have declined somewhat. (Table 44) Connecticut -- some 52% higher in income per capita in 1960 -- would be 41% higher than Maine in 1980. New Hampshire income which is running 11% ahead of Maine would be only 5% ahead by 1970. Regional income which is running about 31% ahead of Maine would only be 24% ahead by 1980.

TABLE 44

## PROJECTIONS OF PERSONAL INCOME PER CAPITA

Maine and New England Indices 1960-80

(Percents are Based on Totals Stated in 1954 Dollars)

	Maine Index Maine = 100			New England Index New England = 100		
	1960	1970	1980	1960	1970	1980
Maine	100	100	100	76.3	79.1	80.1
New Hampshire	111.2	105.8	105.7	84.8	83.7	84.7
Vermont	100.4	96.0	103.2	76.6	75.9	82.7
Massachusetts	134.0	128.4	126.4	102.3	101.5	101.3
Rhode Island	116.2	114.7	110.7	88.7	90.7	88.7
Connecticut	152.5	144.9	141.6	116.4	114.6	113.4
.....						
New England	131.0	126.4	124.8	100	100	100
.....						

Source: Table B-10

The New England index (Table 44) presents the same picture in different terms showing that Maine's per capita income in 1960 was 76% of the regional figure with projected increases to 79% in 1970 and 80% in 1980. An even greater increase is projected for Vermont, little change in New Hampshire and Rhode Island and a slight decline in Massachusetts and Connecticut.

While the projections are more favorable for Maine than experience since 1955, it should be kept in mind that they do not indicate a long range change in the ranking of the New England states in terms of personal income per capita. They also indicate that the substantial income differential which now exists between Maine and the states in southern New England will continue beyond 1980.

## SOURCES OF INCOME

Breakdowns of the sources of income are generally available in three forms:

1. A broad industrial breakdown which shows only the income from farm, government and private non-farm. Since more than 70% of Maine's personal income in 1964 was in the private non-farm category, this type of breakdown is not sufficiently detailed and gives only a general comparison between the three broad sources of income.

2. Sources of personal income by type shows the amounts coming from wages and salaries, proprietors income, property income and transfer payments (disbursements to individuals not in return for current productive services, such as old-age benefits, unemployment benefits and direct relief). Some of these broad headings, particularly wages and salaries, are broken down into various sub-headings showing wages from such sources as manufacturing and various types of services. This breakdown is of primary value in an analysis of wages as opposed to other types of income such as proprietors income or property income.

3. The breakdown of sources of income used in this study is industrial sources of civilian income received by persons for participation in current production.

Except for disbursements to military personnel (not included), this civilian income measure covers the combined total of wages and salaries, other labor income, and proprietor's income. Unlike other types of personal income such as property income (dividends, interest and net rental income) and transfer payments (old-age benefits, etc.), these three types of income

flows can be characterized largely as earnings by individuals, both employees and self-employed for their efforts in current production. With these three types of income flows in 1964 making up 72% of Maine personal income, 80% of New England personal income and 78% of national personal income, it was felt that this type of breakdown would provide the most meaningful comparisons for Maine and New England. In commenting on the use of this type of income breakdown the Office of Business Economics of the U. S. Department of Commerce noted that "civilian income" data ". . . . afford a comprehensive and meaningful picture of the industrial structures of the state and regional economies."<sup>1</sup>

In analyzing the personal income data two approaches were used. The period under consideration is basically 1955 through 1964. (At the time of this writing the approximate percentages of increase for 1964-65 in each of the major components of industrial income were available but not the total amounts. The increases for 1964-65 are discussed in each section but are not included in the overall increase for the last decade. Tables in each sub-section (manufacturing, trade, services, government, etc.) show the distribution of income within each state and the percentage of change in each type of income for 1955-57, 1957-61, 1961-64 and the entire 1955-64 period.

#### SOURCES OF CURRENT PRODUCTION INCOME

There are ten sources of "civilian income" to be discussed. These are farms, mining, contract construction, manufacturing, wholesale-retail trade, finance-insurance-real estate, transportation, communications and public utilities, services, and government (state, federal and local). An additional

1 - Source 8, pg. 4

TABLE 45

## DISTRIBUTION OF CURRENT PRODUCTION INCOME BY SOURCES

New England, United States and Maine 1964

	<u>New England</u>		<u>United States</u>		<u>Maine</u>	
	Percent	Rank	Percent	Rank	Percent	Rank
Manufacturing	36.2	1	29.3	1	32.3	1
Trade	17.9	2	19.1	2	18.2	2
Services	15.0	3	13.7	3	11.4	4
Government	11.6	4	13.5	4	14.0	3
.....						
Subtotal	80.7		77.1		75.9	
.....						
Construction	6.1	5	6.5	5	6.1	5
Finance, etc.	5.7	6	5.2	6	3.8	8
Transportation, etc.	3.0	7	4.6	7	4.1	7
Communication, etc.	2.8	8	2.8	9	2.9	9
Farms	1.1	9	3.8	8	5.9	6
Other	0.5	10	0.3	11	1.3	10
Mining	0.1	11	1.1	10	0.1	11
.....						
Subtotal	19.3		24.3		24.2	
.....						

Source: Table B-14

TABLE 46

PERCENTAGES OF INCREASE IN  
SOURCES OF CURRENT PRODUCTION INCOME

New England, United States and Maine 1955-64

	<u>New England</u>		<u>United States</u>		<u>Maine</u>	
	Percent	Rank	Percent	Rank	Percent	Rank
Services	97.3	1	91.4	2	72.1	3
Government	87.9	2	101.4	1	91.3	1
Finance, etc.	82.8	3	91.0	3	81.8	2
Construction	56.7	4	60.1	6	17.3	9
Communication, etc.	49.3	5	60.5	5	48.4	5
Trade	48.9	6	49.4	7	29.5	7
Manufacturing	39.8	7	47.1	8	37.0	6
Other	39.3	8	69.5	4	53.8	4
Transportation, etc.	28.4	9	32.0	9	23.1	8
Mining	22.2	10	7.4	10	0.0	10
Farms	-23.3	11	3.2	11	-10.7	11
.....						
ALL SOURCES	54.3		57.4		39.7	
.....						

Source: Table B-18

category of "other" is made up largely of agricultural services, forestry and fisheries.

Table 45 makes it clear that in terms of importance as sources of income and as measures of economic strength manufacturing, trade, services and government rank as the "big four" in the region, the nation and in Maine.



These four sources in 1964 accounted for 80.7% of the New England current production income, 77.1% of the national income and 75.9% of the Maine income. It is obvious that manufacturing is the most important single source of income, particularly in New England where in 1964 it accounted for 36.2% of current production income (29.3% nationally and 32.3% in Maine). The remaining sources of civilian income such as construction, agriculture, etc. accounted for only 19.3% of regional production income in 1964 as contrasted with just over 24% for the nation and for Maine.

There are some differences between New England and the nation in importance of sources of income but only in the case of manufacturing and agriculture does the difference amount to more than 2%. There are also differences between Maine and New England with manufacturing, services, government and agriculture all showing differences of more than 2%.

The differences in distribution should be kept in mind when considering differing percentages of change in income since a large percentage of change may involve only a relatively small amount of money. New England, (Table 46) exceeded the nation in 1955-64 only in its percentage of increase in income from services and mining although, in terms of income from all sources, the region was only three percent below the national percentage increase of 57.4%. Except for income from government, agriculture and "other" sources, Maine production income for 1955-64 trailed both the region and the nation in all categories. The most noticeable differences were in slower growth in trade, construction and services.

#### TOTAL INCOME FROM PARTICIPATION IN CURRENT PRODUCTION

In addition to the sources of income and their growth, it is worthwhile to

TABLE 47

## TOTAL INCOME FROM PARTICIPATION IN CURRENT PRODUCTION

New England States 1955-64

(Percentages of Change)

	1955-57	1957-61	1961-64	1955-64
Maine	7.6	13.6	14.3	39.7
New Hampshire	10.9	21.5	16.3	56.7
Vermont	10.5	17.4	15.3	49.6
Massachusetts	13.4	18.6	14.7	54.4
Rhode Island	6.1	15.7	16.1	42.6
Connecticut	18.2	14.0	19.6	61.2
.....				
New England	13.6	16.8	16.3	54.3
.....				
United States	14.5	16.2	18.3	57.4
.....				

Source: Tables B-15, B-16, B-17, B-18

review briefly Maine's position in the region in terms of total income from current production sources since they represent 72% of all personal income and since they represent participation in current production as separate from payments such as dividends, interest, rents, and various benefit payments.

During the years from 1955 to 1964 United States personal income from these industrial sources (Table 47) increased from \$245 billion to \$386 billion while New England income went up from \$15 billion to \$24 billion. Maine income from the same sources increased from \$1,124,000,000 to \$1,570,000,000.

As the accompanying table shows this was a national increase of 57.4%; a regional increase of 54.3%; and an increase in Maine of 39.7%. For the

ten year period the Maine increase was the lowest of the New England states. Connecticut had the highest percentage of increase followed by New Hampshire, Massachusetts, Vermont, Rhode Island and Maine in that order. While the time periods shown are not comparable in the years they span, they do show an improvement in Maine's standing in relation to the regional average. During the 1955-57 period Maine's percentage of increase in income from industrial sources was slightly better than that of Rhode Island but still lagged 6% behind the regional figure. In the 1957-61 period Maine's percentage of increase in income was 3.2% behind the regional figure and for the 1961-64 period it was 2% behind the region.

#### FARMS

Several things should be kept in mind in viewing the changes in personal income from farms. First, it is subject to frequent and intense fluctuations. It was \$92 million in Maine in 1964 compared with only \$64 million in 1961. Preliminary figures from the Office of Business Economics indicate a gain of 33% in Maine farm income between 1964 and 1965 alone. (The actual totals for 1965 as noted previously were not available at the time of this writing). Secondly, farm income represents a very small portion of total personal income in all the New England states except Maine and Vermont and an average of only 1.1% for the region.

Percentages of change available (Table 54) for 1964-65 indicate a sharp upturn in farm income with Maine registering a gain of 33%; and New Hampshire a gain of 34%. Lesser gains of 3% in Vermont, 16% in Massachusetts, 26% in

TABLE 48

DISTRIBUTION OF FARM INCOME WITHIN STATES

New England States 1955-64

(Percentage of Personal Current Production Income from Farms)

	1955	1957	1961	1964
Maine	9.2	6.0	4.7	5.9
New Hampshire	3.8	3.0	1.7	0.9
Vermont	10.9	9.5	8.4	6.0
Massachusetts	1.0	0.8	0.5	0.5
Rhode Island	0.9	0.7	0.6	0.4
Connecticut	1.8	1.4	0.9	0.8
.....				
New England	2.2	1.7	1.2	1.1
.....				
United States	5.9	5.2	4.9	3.8
.....				

Source: B-11, B-12, B-13, B-14

Rhode Island and 18% in Connecticut were also noted. Maine, New Hampshire and Rhode Island were the only states to register gains above the New England average of 22% increase although every state, except Vermont, registered gains above the national average increase of 15% in personal income from farms. The improvements in Maine, New Hampshire and Rhode Island were due to gains in income from potatoes, dairy and poultry products.<sup>1</sup>

While the 1964-65 regional increase in income was 22% from agriculture, the gains fail to restore personal income from agriculture to the level of 1955. The accompanying tables on both the distribution of farm income (Table 48) and

1-Source 3, pgs. 7-8

the percentages of change in farm income (Table 49) over 1955-64 appear to indicate a declining importance in farming as a source of personal income in New England. This is more evident when the farm income tables are compared with the table showing that total income from all aspects of current production has risen more than 50% in the region since 1955. (Table 47).

While it is difficult to compare one crop year against another, the personal income from farms in Maine in 1955 was \$103 million and in 1964 it was \$92 million -- a decline of 10.7%. This apparent long-term decline was more than erased by the sharp 33% increase in farm income in 1964-65. But it still does not bring Maine farm income up to the average gain of more than 50% in income from all types of production registered over the period since 1955.

The 1964 Census of Agriculture, which will be discussed in more detail in section three, indicates that there has been a decline of 25% in the number of farms in Maine from 1959-64 and a drop of 16% in acres in farms. At the same time there has been an increase in the average size of the farms in Maine and an increase in the commercial farms -- principally the larger farms with sales above \$20,000 a year. The value of all farm products sold has increased substantially from 1959-64 and the average value of farm products sold per farm has more than doubled. However, it should be kept in mind that the value of products sold and income are not the same.

In addition it should be mentioned that Maine is the only state in New England receiving more than half of one percent of personal current production income from forestry and fisheries which are the principal sources classified under "other" income sources. In 1964 Maine received 1.3% of income largely

TABLE 49

## PERCENTAGE OF CHANGE IN PERSONAL INCOME FROM FARMS

	New England States 1955-64			
	1955-57	1957-61	1961-64	1955-64
Maine	-30.1	-11.1	43.8	-10.7
New Hampshire	-10.7	-32.0	-41.2	-35.7
Vermont	-4.1	4.3	-18.4	-18.4
Massachusetts	-6.5	-23.6	10.9	-19.5
Rhode Island	-10.0	-11.1	-25.0	-40.0
Connecticut	-8.6	-29.9	9.6	-29.6
.....				
New England	-14.1	-18.1	9.0	-23.3
.....				
United States	0.9	9.3	-6.5	3.2
.....				

Source: Tables B-15, B-16, B-17, B-18

from these sources compared with 0.3% in New Hampshire; 0.3% in Vermont; 0.4% in Massachusetts; 0.4% in Rhode Island and 0.5% in Connecticut.

Part of the effect of the relative prominence of agriculture, forestry and fisheries in the Maine personal income picture can be seen if it is noted that the median money income of employed civilians in the United States increased from \$3,797 in 1955 to \$5,431 in 1963 or an increase of 43%. During the same period the median money income of men employed in agriculture, forestry and fisheries increased from \$1,253 to \$1,907 or an increase of 52%. However, the national median income of men employed in agriculture, forestry and

fisheries remains 65% lower than the median for men employed in such industries as mining, construction, manufacturing, transportation and trade.<sup>1</sup>

## MINING

Tables 50 and 51 show the relative insignificance of mining as a source of personal income both in Maine and the entire region. Personal income from mining was \$2 million in Maine in 1955. (Note: Available totals are rounded to the nearest million by the Department of Commerce). It stayed at this figure from 1955 through 1964. Personal income from mining for the entire region in 1955 totaled \$27 million (Maine \$2 million; New Hampshire \$1 million; Vermont \$5 million; Massachusetts \$13 million; Rhode Island \$1 million; and Connecticut \$5 million). By 1964 personal income from mining in New England totaled only \$33 million (Maine \$2 million; New Hampshire \$1 million; Vermont \$6 million; Massachusetts \$15 million; Rhode Island \$2 million; and Connecticut \$7 million).

In 1964 income from mining accounted for only one-tenth of one percent of current production income in all the New England states except Vermont where it accounted for only 0.9%. The smallness of the base means that relatively large percentages of increase involve small amounts of money. For instance, the increase of 100% in Rhode Island 1961-64 was an increase from \$1 million to \$2 million in income from mining.

1 - Source 9, pg. 347

TABLE 50

## DISTRIBUTION OF MINING INCOME WITHIN STATES

New England States 1955-64

(Percentage of Personal Current Production Income from Mining)

	1955	1957	1961	1964
Maine	0.2	0.1	0.1	0.1
New Hampshire	0.1	0.1	0.1	0.1
Vermont	1.1	1.2	1.3	0.9
Massachusetts	0.2	0.2	0.1	0.1
Rhode Island	0.1	0.1	0.1	0.1
Connecticut	0.1	0.1	0.1	0.1
.....				
New England	0.2	0.2	0.1	0.1
.....				
United States	1.7	1.7	1.3	1.1
.....				

Source: Same as Table 48

While it is a very small segment of the Maine economy, the value of mineral production has increased steadily in recent years -- rising from more than \$14 million in 1963 to more than \$17 million in 1964.

Recent developments in mining in Maine began to make their impact felt on mining income in 1965 as Maine personal income from mining rose (Table 54) by 20% -- the sharpest rise in New England and far above the regional average of a 6% increase and the national average 4% increase. Percentages of increase in 1964-65 in personal income from mining in New England were: Maine 20%; New Hampshire -2%; Vermont 9%; Massachusetts 5%; Rhode Island 11%; and Connecticut 4%.



TABLE 51

PERCENTAGE OF CHANGE IN PERSONAL INCOME FROM MINING<sup>1</sup>

	New England States 1955-64			
	1955-57	1957-61	1961-64	1955-64
Maine	0.0	0.0	0.0	0.0
New Hampshire	0.0	0.0	0.0	0.0
Vermont	20.0	0.0	0.0	20.0
Massachusetts	23.1	-12.5	7.1	15.4
Rhode Island	0.0	0.0	100.0	100.0
Connecticut	40.0	0.0	0.0	40.0
.....				
New England	22.2	-6.1	6.5	22.2
.....				
United States	17.9	-13.7	5.6	7.4
.....				

Source: Same as Table 49

1 - Percentages are based on Department of Commerce figures rounded to the nearest million dollars.

CONTRACT CONSTRUCTION

The economic importance of construction both as a barometer of economic activity and as a direct and indirect influence on production in a wide variety of industries is widely recognized.

In the 1964-65 period (Table 54) Maine registered a 25% increase in income from contract construction -- the largest percentage of gain in New England and far above the regional average increase of 6% and the national

increase of 7%. The second strongest gain in income from construction was registered in Vermont where contract construction went up 16%. Percentages of increase in contract construction income in 1964-65 for the New England states were: Maine 25%; New Hampshire 9%; Vermont 16%; Massachusetts 3%; Rhode Island 6%; and Connecticut 4%.

In importance to the Maine economy, in terms of personal income from current production, construction ranks along with agriculture. The percentage of production income from contract construction in Maine has been between 6% and 7% over the last ten years. The importance of construction in the Maine economy is similar to that of the other states and the region as a whole. (Table 52)

TABLE 52

DISTRIBUTION OF CONTRACT CONSTRUCTION  
INCOME WITHIN STATES

New England States 1955-64

(Percentage of Personal Current Production Income from Construction)

	1955	1957	1961	1964
Maine	7.2	6.9	6.6	6.1
New Hampshire	7.1	6.4	6.2	5.8
Vermont	4.0	5.7	6.2	6.4
Massachusetts	5.7	5.8	5.3	5.9
Rhode Island	5.4	5.6	5.7	6.6
Connecticut	6.4	7.7	6.1	6.4
.....				
New England	6.0	6.4	5.7	6.1
.....				
United States	6.4	6.8	6.5	6.5
.....				

Source: Same as Table 48

With the exception of 1955 in Vermont, construction in the years examined has accounted for between 5% and 7% of the current production income in all the states in the region and for New England as a whole. This distribution has remained fairly steady in the region as a whole over the 1955-64 period, since 6% of the region's production income was due to construction in 1955 and 6.1% due to construction in 1964.

However, the importance of construction as an income source in 1955-64 declined in two states -- Maine and New Hampshire. This is a reflection of the fact that while income from construction in New England as a whole increased 56.7% in the 1955-64 period -- or a percentage of increase slightly above the region's increase in total current production income -- income from construction increased only 17.3% in Maine and only 28.3% in New Hampshire. (Table 53) Both states were far below the regional average increase in income from construction.

In Maine personal income from contract construction increased from \$81 million in 1955 to \$84 million in 1957; \$90 million in 1961; and \$95 million in 1964. This 17.3% percentage of increase was less than one-third of the percentage of increase registered in the region over the decade. During the 1957-61 recession period Maine's percentage of increase in income from construction was above the regional average, but both in the 1955-57 period and in the 1961-64 period it was far below the region in growth in this segment of the economy.

TABLE 53

PERCENTAGES OF CHANGE IN PERSONAL INCOME FROM  
CONTRACT CONSTRUCTION

New England States 1955-64

	1955-57	1957-61	1961-64	1955-64
Maine	3.7	7.1	5.6	17.3
New Hampshire	0.0	17.0	9.7	28.3
Vermont	55.6	28.6	19.4	138.9
Massachusetts	16.5	7.5	27.3	59.4
Rhode Island	9.4	18.6	32.5	71.9
Connecticut	41.2	-9.2	25.3	60.6
.....				
New England	22.2	3.2	24.2	56.7
.....				
United States	21.3	11.0	18.9	60.1
.....				

Source: Same as Table 49

Mention should be made of Vermont's unusual increase of 138.9% in personal income from contract construction in 1955-64. This is well over twice the regional average increase and twice the national average increase. While the actual dollar amounts are the smallest in New England, income from contract construction in Vermont increased from \$18 million in 1955 to \$43 million in 1964. Rhode Island was the only other state having a percentage of increase markedly above that of the region.

TABLE 54

PERCENTAGES OF CHANGE IN FARM, MINING AND  
CONTRACT CONSTRUCTION INCOME

New England States 1964-65

	Farm Income	Mining	Contract Construction
Maine	33	20	25
New Hampshire	34	-2	9
Vermont	3	9	16
Massachusetts	16	5	3
Rhode Island	26	11	6
Connecticut	18	4	4
.....			
New England	22	6	6
.....			
United States	15	4	7
.....			

Source: 3, pg. 9

In distribution of Maine income from current production farms, mining and construction represent between 10% and 15% of the total. Table 54 shows that the trend of the last year is markedly different than the trends for 1955-64 which show a decline in farm income, little change in mining income and an increase in construction income far below regional and national averages. In 1964-65 Maine showed up well in all three areas with percentages of increases substantially above those of the region and the nation.

FINANCE INSURANCE AND REAL ESTATE

Personal income from Finance, Insurance and Real Estate has increased rapidly over the last ten years and continued its growth into 1965.

This segment of the Maine economy represents 3.8% of the current production income in Maine in 1964 which is the lowest distribution for this segment in New England. (Table 55) In Massachusetts income from these sources represented 5.9% of production income in 1964 and the figure for Rhode Island and Connecticut was more than 6%. Maine derives a lower percentage of income from this source than either New Hampshire or Vermont. The regional average in distribution of income showed 5.7% coming from these sources in 1964.

TABLE 55

DISTRIBUTION OF FINANCE, INSURANCE AND REAL ESTATE INCOME WITHIN STATES

	New England States 1955-64			
	1955	1957	1961	1964
Maine	2.9	3.6	3.9	3.8
New Hampshire	3.5	4.4	4.4	4.6
Vermont	3.3	3.8	4.1	4.5
Massachusetts	5.2	5.5	5.9	5.9
Rhode Island	4.5	5.0	5.3	6.4
Connecticut	5.2	5.7	6.5	6.3
.....				
New England	4.8	5.3	5.8	5.7
.....				
United States	4.3	4.7	5.3	5.2
.....				

Source: Same as Table 48

This represents one of the most rapidly growing segments of the economy with regional income from these sources increasing 82.8% in 1955-64. (Table 56). This was substantially above the 54% average increase for all sources of income registered during the period. Maine's increase of 81.8% in income from these sources from 1955 to 1964 is just slightly below the regional average and is higher than the percentage of increase in Massachusetts and Rhode Island but lower than the remainder of the New England states.

TABLE 56

PERCENTAGES OF CHANGE IN INCOME FROM FINANCE,  
INSURANCE AND REAL ESTATE

New England States 1955-64

	1955-57	1957-61	1961-64	1955-64
Maine	30.3	23.3	13.2	81.8
New Hampshire	38.5	22.2	22.7	107.7
Vermont	26.7	26.3	25.0	100
Massachusetts	20.1	27.8	15.2	76.7
Rhode Island	17.0	22.6	15.8	66.0
Connecticut	29.4	28.8	16.1	93.5
.....				
New England	23.9	27.3	15.9	82.8
.....				
United States	25.2	30.0	17.5	91.3
.....				

Source: Same as Table 49

The growth of income from finance, insurance and real estate continued in 1964-65 with Maine showing a 6% increase (Table 61) along with the other New England states, except New Hampshire where the increase was 7% and

Connecticut where it was 4%. The regional increase was 5% and the national 7% in 1964-65.

With the exception of services and government, income from these sources increased more in 1955-64 than any other segment of industrial production. This was true in the nation and New England; however, in Maine income in this segment increased more than service income but not as much as government income.

In terms of dollar increase, income from finance, insurance and real estate in Maine has gone up from \$33 million in 1955 to \$60 million in 1964. In New England the increase was from \$757 million in 1955 to \$1,384 million in 1964.

#### TRANSPORTATION

Income from transportation which includes railroads, bus lines, water transport, services allied to transportation, pipelines, air transport, highway passenger transport and highway freight and warehousing represents a much slower than average growing portion of the economy when measured in terms of personal income received for participation in current production.

This part of the economy represented 4.1% of the Maine production income in 1964 -- the highest percentage of distribution of any New England state and above the regional average of 3%. The declining share of income attributable to this source is evident in the national figures, the New England figures and in those for all the New England states except Rhode Island. (Table 57). In Maine, transportation accounted for 4.6% of production income in 1955 and 4.1% in 1964.

In terms of percentage of increase over the 1955-64 period, income from these sources grew more slowly than that of any other segment except farming and mining. Transportation income increased only 28.4% in New England in



TABLE 57

DISTRIBUTION OF TRANSPORTATION INCOME WITHIN STATES

	New England States 1955-64			
	1955	1957	1961	1964
Maine	4.6	4.9	4.4	4.1
New Hampshire	3.5	3.4	2.8	2.7
Vermont	5.4	5.3	4.5	3.9
Massachusetts	3.8	3.7	3.2	3.1
Rhode Island	3.2	3.3	3.0	3.2
Connecticut	2.8	2.7	2.5	2.4
.....				
New England	3.6	3.5	3.1	3.0
.....				
United States	5.5	5.4	4.8	4.6
.....				

Source: Same as Table 48

the 1955-64 period. (Table 58) This was slightly under the national average but well below the 54% increase registered for total income from all industrial sources. It was even further below the 97% gain in service income and 87% gain in government income.

In Maine income from transportation sources went up 23.1% in 1955-64 -- a gain substantially higher than Vermont's 8% increase and above the 19% increase in New Hampshire -- but below the percentages of increase noted in the three southern New England states. Agriculture, mining and contract construction were the three sources of income with lower percentages of increase than transportation in 1955-64 in Maine.

TABLE 58

## PERCENTAGES OF CHANGE IN INCOME FROM TRANSPORTATION

	New England States 1955-64			
	1955-57	1957-61	1961-64	1955-64
Maine	13.5	1.7	6.7	23.1
New Hampshire	7.7	0.0	10.7	19.2
Vermont	8.3	0.0	0.0	8.3
Massachusetts	10.3	5.0	10.1	27.6
Rhode Island	7.9	7.3	20.5	39.5
Connecticut	11.1	5.7	14.9	34.9
.....				
New England	10.4	4.6	11.2	28.4
.....				
United States	11.8	4.1	13.4	32.0
.....				

Source: Same as Table 49

In terms of dollars income from transportation sources in Maine rose from \$52 million in 1955 to \$64 million in 1964. This compared with a New England increase from \$556 million in 1955 to \$714 million in 1964.

## COMMUNICATIONS AND PUBLIC UTILITIES

Income in this section of the economy includes two communications groups (telephone and telegraph and related services; and radio broadcasting and television) and two public utility groups (utilities - Electric and gas; and local utilities and public services). Income from this section of the economy ranges between two and three percent of total production income throughout New England.

Income in the region from these sources in the 1955-64 period increased slightly less than the average for all sources of industrial production income.

TABLE 59

DISTRIBUTION OF INCOME FROM  
COMMUNICATIONS AND PUBLIC UTILITIES

	New England States 1955-64			
	1955	1957	1961	1964
Maine	2.8	2.9	3.1	2.9
New Hampshire	3.1	3.0	3.0	2.8
Vermont	2.7	2.6	2.9	2.8
Massachusetts	3.2	3.1	2.9	3.0
Rhode Island	3.1	3.0	3.0	3.0
Connecticut	2.5	2.5	2.7	2.6
.....				
New England	2.9	2.9	2.9	2.8
.....				
United States	2.7	2.8	2.9	2.8
.....				

Source: Same as Table 48

Communications and public utilities income in 1964 represented 2.9% of the Maine total production income or just slightly above the regional distribution average of 2.8%. The variation in economic importance of this portion of the economy in terms of income distribution was only four-tenths of a percent among the New England states (Connecticut 2.6% to Massachusetts and Rhode Island at 3%). As Table 59 on distribution of income shows there has been no significant change in distribution of income from these sources in

TABLE 60

PERCENTAGES OF CHANGE IN INCOME  
FROM COMMUNICATIONS AND PUBLIC UTILITIES

	New England States 1955-64			
	1955-57	1957-61	1961-64	1955-64
Maine	12.9	20.0	9.5	48.4
New Hampshire	8.7	20.0	10.0	43.5
Vermont	8.3	30.8	11.8	58.3
Massachusetts	9.0	12.7	16.9	43.7
Rhode Island	2.7	15.8	13.6	35.1
Connecticut	20.0	21.2	15.0	67.3
.....				
New England	11.4	16.5	15.2	49.3
.....				
United States	16.2	19.1	16.0	60.5
.....				

Source: Same as Table 49

either the region or the individual states.

In terms of increase in 1955-64, income from these sources in New England went up 49.3%, or slightly less than the 54.3% increase in the region for the average of all production income. The regional increase (Table 60) did not equal the 60.5% increase in income noted nationally in 1955-64 in communications and public utilities. The Maine increase of 48.4% was above that of Rhode Island, New Hampshire and Massachusetts but substantially under the 58.3% increase in Vermont and the 67.3% increase in Connecticut.

TABLE 61

PERCENTAGES OF INCREASE IN INCOME FROM  
FINANCE, INSURANCE, REAL ESTATE, TRANSPORTATION,  
COMMUNICATIONS AND PUBLIC UTILITIES

New England States 1964-65

	Finance, Insurance and Real Estate	Transportation Communications and Public Utilities
Maine	6	4
New Hampshire	7	6
Vermont	6	5
Massachusetts	6	8
Rhode Island	6	6
Connecticut	4	6
.....		
New England	5	7
.....		
United States	7	6
.....		

Source: 3, pg. 9

In terms of dollar income these sources accounted for \$31 million in 1955 and \$46 million in 1964. In the region the totals were \$458 million in 1955 and \$684 million in 1964.

Due to the relative smallness of the amounts of income from these sources they were grouped together with transportation in the most recent figures on percentages of increase in income from the Department of Commerce. The figures indicate (Table 61) that in the combined area of transportation,

communications and public utilities, Maine trailed the region and the nation in its percentage of income increase in 1964-65 from these sources. Maine's increase was 4% compared with 7% for New England and 6% nationally. The percentages of increase in income from these sources in New England in 1964-65 are: Maine 4%; New Hampshire 6%; Vermont 5%; Massachusetts 8%; Rhode Island 6%; and Connecticut 6%.

### MANUFACTURING

The importance of manufacturing to the economy is obvious. For the country as a whole, earnings of persons engaged in manufacturing provided a major impetus to a 22% gain in personal income in 1960-64. Industrial payrolls were a major factor in the increase of personal income in every region in this period and, in some sections of the country accounted for as much as one-third of the increase. In all the New England states except Connecticut, losses in textiles and electronics slowed down economic growth between 1960 and 1964.<sup>1</sup>

Between 1964 and 1965 earnings of individuals employed in manufacturing rose \$9.5 billion. In general the increase was distributed among the states in proportions similar to 1964 earnings but there were some notable exceptions including Vermont where personal income from manufacturing rose 18% in just one year. This was the highest increase in manufacturing income in the nation (Alaska also had 18%) and was well above both the 10% regional and 8% national percentages of increase. Maine and Massachusetts trailed (Table 70) among the New England states with increases of 7%. Increases in manufacturing income for 1964-65 for New England were: Maine 7%; New Hampshire 9%; Vermont 18%; Massachusetts 7%; Rhode Island 10%; and Connecticut 8%.<sup>2</sup>

1 - Source 4, pg. 14

2 - Source 3, pgs. 7-9

TABLE 62

## DISTRIBUTION OF MANUFACTURING INCOME WITHIN STATES

	New England States 1955-64			
	1955	1957	1961	1964
Maine	32.9	33.8	32.4	32.3
New Hampshire	39.2	39.5	38.2	37.0
Vermont	30.6	30.3	27.5	27.3
Massachusetts	37.6	37.3	35.5	33.2
Rhode Island	41.9	40.6	37.7	36.2
Connecticut	46.3	45.0	43.2	42.6
.....				
New England	39.9	39.5	37.6	36.2
.....				
United States	31.3	31.0	29.0	29.3
.....				

Source: Same as Table 48

Manufacturing income (Table 62) accounted for about one-third of all current production income in 1964 in all the New England states except Vermont where the percentage of distribution was 27.3%. Manufacturing income played the largest role in Connecticut where it accounted for 42.6% of personal income from production in 1964. Manufacturing was a less important segment of the economy in Maine, where it accounted for 32.3% of income, than in the region as a whole, where it produced 36.2% of the income, but Maine's distribution of income from this source was higher than the national average of 29.3%.

There has been a noticeable decline in the relative importance of manufacturing income over the last ten years in the nation, the region and every New England state, except that the change has been least marked in Maine.

TABLE 63

PERCENTAGES OF CHANGE IN PERSONAL INCOME  
FROM MANUFACTURING

	New England States 1955-64			
	1955-57	1957-61	1961-64	1955-64
Maine	10.5	8.8	13.9	37.0
New Hampshire	11.7	17.5	12.6	47.8
Vermont	9.5	6.7	14.4	33.6
Massachusetts	12.5	12.9	7.3	36.3
Rhode Island	2.8	7.5	11.4	23.1
Connecticut	15.0	9.5	17.8	48.4
.....				
New England	12.4	11.2	11.9	39.8
.....				
United States	13.3	8.6	19.6	47.1
.....				

Source: Same as Table 49

While manufacturing income as a percent of total production income dropped only 0.6% in Maine from 1955-64, it was dropping several percent in all the other New England states, the region and the nation due to faster growth of such segments of the economy as services, government, finance and construction.

The "weight" of manufacturing income which accounts in the region for more than twice as much income as the next highest source makes it clear that even relatively small percentage increases are significant. Table 63 shows that Maine lagged behind the regional percentage of increase in manufacturing income



in the 1955-57 period and again in the 1957-61 period. However, the 13.9% increase in manufacturing income registered in 1961-64 was above the regional average. Over the 1955-64 period Maine's manufacturing income increased 37%. This was more than 10% below the increases registered in New Hampshire and Connecticut but was above the other states of the region and was just slightly below the regional increase of 39.8%. However, it should be pointed out that the region as a whole did not equal the national increase in manufacturing income of 47.1% in 1955-64.

In terms of dollars manufacturing income in Maine rose from \$370 million in 1955 to \$507 million in 1964. This compared with the regional increase from \$6,234 million to \$8,714 million in the same years.

#### WHOLESALE AND RETAIL TRADE

Next to manufacturing, wholesale and retail trade is the most important source of personal income in the nation, the region and in Maine. In 1964 this segment of the economy (Table 64) accounted for 18.2% of personal income in Maine, 17.9% of personal income in the region and 19.1% of national personal income. The distribution of income from trade was similar in all the New England states, varying less than 3%. The importance of trade as an income source has dropped slightly nationally and in the region but the change from 1955 to 1964 has been 1% or less. The same pattern is exhibited in all the New England states except Connecticut.

The percentage of increase in income from wholesale and retail trade in 1964-65 was lowest in Maine and Connecticut (Table 70) which both showed 4% increases for the year. The percentage of increase in the nation was 6% and

TABLE 64

DISTRIBUTION OF WHOLESALE, RETAIL TRADE  
INCOME WITHIN STATES

	New England States 1955-64			
	1955	1957	1961	1964
Maine	19.6	20.1	18.9	18.2
New Hampshire	17.4	17.1	16.4	17.1
Vermont	19.4	18.8	18.6	19.1
Massachusetts	19.6	18.8	18.5	18.6
Rhode Island	19.0	18.9	18.3	18.3
Connecticut	16.4	16.2	16.4	16.5
.....				
New England	18.5	18.1	17.8	17.9
.....				
United States	20.1	19.5	19.2	19.1
.....				

Source: Same as Table 48

regionally 5%. Percentages of increase in wholesale and retail trade income for 1964-65 in New England were: Maine 4%; New Hampshire 6%; Vermont, Massachusetts and Rhode Island all 5%; and Connecticut 4%.

In the 1955-57 period Maine's 10.5% increase in income from trade was the second highest in New England and close to the regional average. (Table 65) But in 1957-61 and again in 1961-64 the percentage of increase in Maine was the lowest in New England and well below the regional and national increases.

Over the 1955-64 period Maine's increase of 29.5% in income from this source was the lowest in New England and well below the regional increase of 48.9%.

With the exception of services, the ten year growth rate of Maine personal income

TABLE 65

PERCENTAGES OF CHANGE IN INCOME  
FROM WHOLESALE, RETAIL TRADE

	New England States 1955-64			
	1955-57	1957-61	1961-64	1955-64
Maine	10.5	7.0	9.6	29.5
New Hampshire	9.3	16.3	21.3	54.3
Vermont	6.9	16.1	18.5	47.1
Massachusetts	9.1	16.4	15.3	46.4
Rhode Island	5.8	11.9	16.3	37.7
Connecticut	17.1	15.2	20.6	62.7
.....				
New England	10.9	15.0	16.7	48.9
.....				
United States	11.2	14.3	17.6	49.4

Source: Same as Table 49

is poorest in this major segment of the economy when consideration is limited to the "big four" (manufacturing, trade, services and government) and compared against the gains made in the New England region during the same period. Unlike some other portions of the economy such as agriculture and construction, there is nothing in the percentages of increase in 1964-65 to indicate an upturn.

In dollars, wholesale and retail trade personal income rose from \$220 million in 1955 to \$285 million in 1964. This compared with a regional increase from \$2,890 million in 1955 to \$4,303 million in 1964.

## SERVICES

Personal income from services is derived from five major sources -- hotels and lodging places; personal services and private households; business and repair services; amusement and recreation; and professional social and related services (doctors, lawyers, engineering and other professional services). Income from services makes up a substantial source of total production income, ranking after manufacturing and trade in the nation and the New England region. It also represents the fastest growing segment of the economy nationally when measured by income and the second fastest growing (after government) segment in New England.

Table 66 shows that services accounted for 13.7% of national production income in 1964 compared with 15% of New England income and 11.4% of Maine income. The importance of services as a source of income is lowest in Maine of all the New England states and Maine has been in this relative position over the last ten years or more. The importance of services as an income source has increased in all the New England states and the region but less markedly so in Maine than in most of the other states.

In 1964-65 there was little difference in the percentages of increase in income from services among the New England states (Table 70) with the exception of Vermont which registered an 8% increase -- higher than the regional and national percentages of increase which were both 6%. The percentages of increase in service income for the New England states in 1964-65 were: Maine 6%; New Hampshire 5%; Vermont 8%; Massachusetts 6%; Rhode Island 6%; and Connecticut 5%.

TABLE 66

DISTRIBUTION OF SERVICE INCOME WITHIN STATES

	New England States 1955-64			
	1955	1957	1961	1964
Maine	9.3	9.8	11.2	11.4
New Hampshire	11.3	11.8	14.0	15.0
Vermont	12.7	12.3	14.1	16.6
Massachusetts	12.6	13.6	15.7	16.7
Rhode Island	10.5	10.9	12.3	12.6
Connecticut	11.2	11.5	13.0	13.3
.....				
New England	11.7	12.4	14.3	15.0
.....				
United States	11.2	11.9	13.2	13.7
.....				

Source: Same as Table 48

Over the 1955-64 decade, the percentage of increase in personal income from services has been markedly less in Maine than in the New England region. (Table 67). In each of the three periods being considered Maine's percentage of increase in service income has been below the regional average and for both the 1957-61 and the 1961-64 periods it has been the lowest percentage of gain in any of the New England states. The result for the entire 1955-64 period is that Maine's increase in service income of 72.1% is just slightly higher than Rhode Island's 71.5% increase but is more than 25% below the increase in service income in the region. It is even further below the more than 100% increases in service income registered in New Hampshire, Vermont and Massachusetts over the period.

TABLE 67

## PERCENTAGES OF CHANGE IN INCOME FROM SERVICES

	New England States 1955-64			
	1955-57	1957-61	1961-64	1955-64
Maine	14.4	29.4	11.6	72.1
New Hampshire	15.5	44.3	24.3	107.1
Vermont	10.9	34.4	35.4	101.8
Massachusetts	22.1	37.7	22.0	104.9
Rhode Island	10.6	30.1	19.2	71.5
Connecticut	21.2	29.0	22.7	91.7
.....				
New England	20.0	34.6	22.2	97.3
.....				
United States	21.1	29.3	22.2	91.4
.....				

Source: Same as Table 49

While this segment of the economy has been the fastest growing in the nation and second fastest growing in New England, it has been third in growth as a source of personal income in Maine. It has lagged farther behind in income growth than any of the four major income sources (manufacturing, trade, services and government). Percentages of increase in 1964-65 do not indicate any immediate change in the pattern of the last few years.

In dollars, income from services in Maine was \$104 million in 1955 and rose to \$179 million in 1964. During the same period service income in New England rose from \$1,832 million to \$3,614 million.

## INCOME FROM GOVERNMENT

Government income as discussed here does not include the earnings of military personnel but does include all payments to civilian employees. The importance of the size of the government payroll (federal, state and local) to the overall picture of personal income is indicated by the fact that this source ranks fourth nationally and in New England and third in Maine as a source of income, even without consideration of military earnings. It also constitutes the fastest growing source of income in Maine and nationally and the second fastest growing source of income in New England.

In 1964 government accounted for 14% of production income in Maine. This was the second highest figure among the New England states (Table 68) and only slightly under the 14.1% that Rhode Island realizes from government sources of income. Government as an income source ranked higher in Maine than it did in the region where it accounted for 11.6% of income and nationally where it accounted for 13.5% of income. Government as an income source has ranked higher in Maine than in the region over the last ten years. Substantial increases in the percentage of income coming from government have been noted in each of the New England states with the change being most marked in Maine where government accounted for 10.2% of income in 1955 and 14% of income in 1964 -- a shift in the percentage of income from government of 3.8%.

While Maine was under the regional increase (Table 69) in income from government in both the 1955-57 and the 1961-64 periods, it was substantially above the regional percentage of increase in 1957-61 so that for the longer period between 1955 and 1964 Maine registered a 91.3% increase in government

TABLE 68

DISTRIBUTION OF PERSONAL INCOME \*  
FROM GOVERNMENT WITHIN STATES

	New England States 1955-64			
	1955	1957	1961	1964
Maine	10.2	10.6	13.6	14.0
New Hampshire	10.6	10.8	12.9	13.8
Vermont	9.8	10.1	12.4	12.2
Massachusetts	10.7	10.7	11.9	12.5
Rhode Island	11.0	11.4	13.6	14.1
Connecticut	6.8	6.7	8.2	8.6
.....				
New England	9.5	9.5	11.1	11.6
.....				
United States	10.5	10.7	12.7	13.5
.....				

Source: Same as Table 48

(\*Includes Civilian personal income only. Earnings of military personnel are not included)

as a source of personal income -- or a percentage of increase somewhat above the regional increase of 87.9%. After Connecticut and New Hampshire, Maine ranked as third highest in New England in 1955-64 in increase in personal income from government.

While Maine has been slightly below the regional percentage of increase in income from manufacturing and substantially below the regional increase in services and trade, it is above the regional percentage of increase in percentage of growth in income from government. This is the only one of the "big four"



TABLE 69

PERCENTAGES OF CHANGE IN PERSONAL  
INCOME FROM GOVERNMENT \*

	New England States 1955-64			
	1955-57	1957-61	1961-64	1955-64
Maine	11.3	46.1	17.6	91.3
New Hampshire	12.7	44.9	24.0	102.5
Vermont	13.6	44.0	13.9	86.4
Massachusetts	13.2	31.6	21.2	80.6
Rhode Island	10.1	38.0	20.9	83.7
Connecticut	16.7	39.7	25.6	104.7
.....				
New England	13.5	36.0	21.7	87.9
.....				
United States	17.1	37.2	25.4	101.4
.....				

Source: Same as Table 49

\*(Does not include earnings of Military personnel. Includes civilian personal income only.)

(manufacturing, trade, services and government) in which the percentage of increase in Maine exceeds that of the region, however, in none of these four major sources is the percentage of increase in Maine income within 10% of the national increase over the 1955-64 period.

In dollars, personal income from government (not including earnings of military personnel) rose in Maine from \$115 million in 1955 to \$220 million in 1964. In New England the increase was from \$1,491 million in 1955 to \$2,801 million in 1964.

TABLE 70

## PERCENTAGE OF INCREASE IN INCOME FROM MAJOR SOURCES

## New England States 1964-65

	Manufacturing	Wholesale-Retail Trade	Services	Government *
Maine	7	4	6	4
New Hampshire	9	6	5	3
Vermont	18	5	8	8
Massachusetts	7	5	6	4
Rhode Island	10	5	6	7
Connecticut	8	4	5	7
.....				
New England	8	5	6	5
.....				
United States	8	6	6	7
.....				

Source: 3, pg. 9

\*(Does include earnings of military personnel.)

At the time of writing the percentage of increase in income from government for the 1964-65 period, less earnings of military personnel, was not available. However, the figures available (Table 70) indicate that total government income disbursements (including military personnel) rose 4% in Maine. This was below the regional increase of 5%, the national increase of 7% and the substantial increase of 8% in Vermont. Percentages of increase in income from government in New England in 1964-65 were: Maine 4%; New Hampshire 3%; Vermont 8%; Massachusetts 4%; Rhode Island and Connecticut both 7%.

## DISTRIBUTION OF INCOME

Distribution of income is important in economic terms since it gives an estimate of how many individuals and families have sub-standard levels of living and how many may be classed as earning adequate or abundant livelihoods. If studied on a geographic basis it enables the spotting of areas within a state or region that are substantially below average income levels. Lastly, distribution of income is an important factor in determining tax policy.

## FAMILY OR HOUSEHOLD INCOME

The reasons for using income estimates from Sales Management - Survey of Buying Power were explained on page 22. This source expresses income figures as "Net Effective Buying Income" which represents the same income that the government refers to as "disposable income" -- personal income by individuals (wages, salaries, profits and property income) less all tax payments to federal, state and local government. Since disposable income does include non-cash items such as food and fuel produced and consumed by farmers, "imputed rentals of owner-occupied homes" (income credit given to owners for being able to rent their homes if they so desired), trust and welfare fund income, etc., a series was developed starting in 1959 giving the measure of cash income available to households after taxes. Disposable income is used for all household totals and percentages except the series giving the percentage of households in each cash income group (0 - \$2,500, etc.) which is stated in terms of cash income. A comparison of the Sales Management income estimates with county totals compiled in the 1960 census indicated that the

estimates for 80% of the counties in the nation were either in exact agreement or differed by one-tenth percent. Only 3% of the counties differed by as much as 1%.

In a comprehensive study of the U. S. population made in 1959, Donald J. Bogue commented --

"Money income is a sensitive measure of economic well-being in today's technologically advanced nations. In such societies it is roughly synonymous with 'livelihood', because very few families or individuals are able to maintain economic self-sufficiency and because barter exchange has almost disappeared. Statistics concerning money income are an excellent measure of the level-of-living among the population, the only exception being found in the rural-farm population -- and even here a study of income distribution can provide much insight." <sup>1</sup>

Bogue goes on to point out that when the distribution of income is examined for individuals only there is a characteristic "income curve" which indicates that a large portion of the population receive very modest incomes and a small proportion of the population receive very large incomes. He notes that some of the factors in producing this distribution are differences in ability, health, skill, etc.; difference in the "market value" of various occupations; labor turnover, part-time, part-year employment; and the "power structure" of society which enables more organized groups such as corporations and labor unions to successfully obtain a larger share of wealth than individual workers or small businesses. However, studying income distribution in terms of families produces a different picture since family income is not concentrated at the lower end of

1 - Source 15, pg. 646

the scale but takes the shape of a long distribution with a hump in the middle indicating that the bulk of the families are in the middle income range.

"This difference between individual and family income distributions makes it evident that a large percentage of the individuals who receive exceptionally small incomes are members of families, and are partially dependent upon others for their livelihood. Hence, if one wishes to gain a realistic picture of the livelihood level of the population, the income distributions for families and unrelated individuals will yield more information than will the income distributions for all persons as individuals."<sup>1</sup>

Bogue further comments that too often in reading a discussion of income distribution the reader notes what proportion of families fall in each income bracket without stopping to consider what significance the income figures have in terms of the level of comfort and decency at which they permit these families to live. "Income statistics should tell us how large a part of the population is not receiving enough income to support itself at a level considered adequate for the maintenance of health and welfare."<sup>2</sup> This study further sets up an income table with the help of level-of-living studies by the Department of Labor indicating that 0 - \$1,000 family income is living in a state of "destitution" and \$1,000 to \$2,500 family income is "meager". Substantial changes in prices and income since this study was made in 1959 indicate that a family income of \$2,500 or less in 1965 is generally accepted as constituting a family which is living in poverty or close to the borderline of poverty.

1 - Source 15, pg. 651

2 - Source 15, pg. 655

While the tables in this study are not set up on this subjective but meaningful manner, it should be kept in mind that Table 72 which shows that families in Maine in all counties average more than \$5,000 a year in disposable income does not cover the viewpoint of Table 78 which shows that 18.3% of Maine families receive a cash income of less than \$2,500 a year and that in some counties the proportion of families receiving a total cash income inadequate or barely adequate for the maintenance of family health and welfare is well over 20%.

Table 71 indicates that disposable income (personal income less taxes) for the average Maine family has risen from \$4,851 in 1955 to \$6,996 in 1965. This represents a percentage of increase of 22.8% in 1955-60 and 17.5% in 1960-65, or a total percentage of increase for the entire decade of 44.2%. Maine's percentage of increase in disposable income per household has been slightly higher than Connecticut and substantially higher than Rhode Island but below that of the other states in the region.

In reviewing the percentages of increase in family after-tax income Table 73 showing the dollar and percentage spread of the incomes should be kept in mind since Maine, next to Vermont, had the lowest disposable income per household in New England in 1955 and thus started out the decade with a lower base on which to register gains.

As was the case in discussing the various types of per capita income, the changing picture in Vermont should be noted since Vermont's disposable income per household increased 62.% in the last ten years -- the highest percentage of increase of any of the New England states, more than 18% higher than Maine and more than 27% higher than Rhode Island.

TABLE 71

## DISPOSABLE INCOME PER HOUSEHOLD

New England States 1955-65

(Totals in Dollars except Percents)

	1955	1960	1965	Percent of Change 1955-60	Percent of Change 1960-65	Percent of Change 1955-65
Maine	4851	5956	6996	22.8	17.5	44.2
New Hampshire	5025	6264	7524	24.7	20.1	49.7
Vermont	4571	5969	7427	45.7	24.4	62.5
Massachusetts	5941	7511	9105	26.4	21.2	53.3
Rhode Island	5786	6676	7832	15.4	17.3	35.4
Connecticut	7035	8308	9989	18.1	20.2	42.0

Source: Table B-19

Table 72 supplies the same disposable income per household figures for the Maine subareas and individual counties. It indicates some unusual gains in the ten years as well as indicating which of the counties, despite above state-average gains, are still below the state average household income.

Household disposable income dropped off sharply in Aroostook during the 1960-65 period so that for the ten years the gain registered was less than half the state average. Penobscot County, the other county in Subarea One registered a slightly above state average gain in family after-tax income during the decade.

In Subarea Two all of the five counties except Androscoggin had above average gains in family disposable income. Androscoggin was slightly behind the state average in 1955-60 and substantially behind in the 1960-65 period with

TABLE 72

## DISPOSABLE INCOME PER HOUSEHOLD

## Maine Counties 1955-65

	1955	1960	1965	Percent of Change 1955-60	Percent of Change 1960-65	Percent of Change 1955-65
MAINE	4851	5956	6996	22.8	17.5	44.2
SUBAREA ONE						
Aroostook	5166	6135	6188	18.8	0.9	19.8
Penobscot	4981	6202	7389	24.5	19.1	48.3
SUBAREA TWO						
Kennebec	5076	6262	7401	23.4	18.2	45.8
Androscoggin	5359	6356	7031	18.6	10.6	31.2
Sagadahoc	4031	6230	7305	54.6	17.3	81.2
Cumberland	5248	6257	8023	19.2	28.2	52.9
York	4972	6195	7208	24.6	16.4	45.0
SUBAREA THREE						
Oxford	4738	5800	6915	22.4	19.2	45.9
Franklin	4814	5950	6201	23.6	4.2	28.8
Somerset	4250	5268	6270	24.0	19.0	47.5
Piscataquis	4192	5268	5845	25.7	11.0	39.4
Waldo	3596	4613	5421	28.3	17.5	50.8
Lincoln	3850	4931	5813	28.1	17.9	51.0
Knox	4126	5348	6368	29.6	19.1	54.3
Hancock	4364	5164	5923	18.3	14.7	35.7
Washington	3589	4612	5069	28.5	9.9	41.2



an increase in family income of only 10.6% against the state average of 17.5%. For the ten-year period the income gain registered in Androscoggin was 13% below the state average. The other notable exception in Subarea Two was Sagadahoc County which showed a remarkable gain of 81.2% in disposable family income over the 1955-65 period. While the average family income in Sagadahoc was low in 1955, the high percentage of increase served to raise family income enough to enable Sagadahoc to rank as the fourth highest in the state in 1965.

With the exception of Franklin, Piscataquis and Hancock counties, the counties in Subarea Three made percentages of increase in family income close to or above the state average. However, average family income in this area remained in 1965 the lowest in the state.

In comparing the two halves of the decade the table indicates that every county except Cumberland followed the state pattern and registered lower percentage gains in 1960-65 than had been made in 1955-60. For eight of the counties (Aroostook, Sagadahoc, Franklin, Piscataquis, Waldo, Lincoln, Knox and Washington) the difference in 1960-65 was lower by more than 10%.

To gain a clearer picture of family income, the following tables show the dollar and percentage difference between disposable family income in Maine and the other New England states and between Maine and the various counties.

In 1955 Vermont family income (Table 73) after taxes was \$280 less than in Maine. Families in the other states had higher disposable incomes ranging from \$174 higher in New Hampshire to \$2,184 higher in Connecticut. In 1965 Maine family income after taxes was the lowest in New England with Vermont families receiving \$431 more disposable income, New Hampshire \$528,

TABLE 73

## DISPOSABLE INCOME PER HOUSEHOLD

New England States 1955-65

(Dollar Spread in Dollars - Maine = 0; Index in Percent - Maine = 100)

	Dollar Spread			Index		
	1955	1960	1965	1955	1960	1965
Maine	0	0	0	100	100	100
New Hampshire	174	308	528	103.6	105.2	107.5
Vermont	-280	13	431	94.2	100.2	106.2
Massachusetts	1090	1555	2109	122.5	126.1	130.1
Rhode Island	935	720	836	119.3	112.1	111.9
Connecticut	2184	2352	2993	145.0	139.5	142.8

Source: Table B-19

more, Rhode Island \$836 more, Massachusetts \$2,109 more, and Connecticut \$2,993 more.

Translated into percentages by setting up an index with Maine as 100%, these differences indicated that disposable family income in New England in 1965 ranged from 6.2% higher in Vermont to 42.8% higher in Connecticut. The index also indicates that New Hampshire, Vermont and Massachusetts have gradually increased their percentage over the Maine family income in the last decade while the percentage of difference between Maine and Rhode Island and Connecticut has decreased slightly.

Table 74 makes clear the economic differences between the three subareas of Maine. With the exception of Sagadahoc County in 1955 and Aroostook County in 1965, the generalization can be made that over the decade (as measured by the sample years) the average family in every county in Subarea Three had less

TABLE 74

## DISPOSABLE INCOME PER HOUSEHOLD

Maine Counties 1955-65

(Dollar Spread in Dollars - Maine = 0; Index in Percent - Maine = 100)

	Dollar Spread			Index		
	1955	1960	1965	1955	1960	1965
MAINE	0	0	0	100	100	100
SUBAREA ONE						
Aroostook	315	179	-808	106.5	103.0	88.5
Penobscot	130	246	393	102.7	104.1	105.6
SUBAREA TWO						
Kennebec	225	306	405	104.6	105.1	105.8
Androscoggin	508	400	35	110.5	106.7	100.5
Sagadahoc	-820	274	309	83.1	104.6	104.4
Cumberland	397	301	1027	108.2	105.1	114.7
York	121	239	212	102.5	104.0	103.0
SUBAREA THREE						
Oxford	-113	-156	-81	97.7	97.4	98.8
Franklin	-37	-6	-795	99.2	99.9	88.6
Somerset	-601	-688	-726	87.6	88.4	89.6
Piscataquis	-659	-688	-1151	86.4	88.4	83.5
Waldo	-1255	-1343	-1575	74.1	77.5	77.5
Lincoln	-1001	-1025	-1183	79.4	82.8	83.1
Knox	-725	-608	-628	85.1	89.8	91.0
Hancock	-487	-792	-1073	90.0	86.7	84.7
Washington	-1262	-1344	-1927	74.0	77.4	72.5

after-tax income at its disposal than did the average family in every county in Subarea One and Subarea Two. There is also a remarkable spread between the lowest and highest counties. The average disposable family income in Cumberland County in 1965 was \$1,027 above the state average while the average disposable family income in Washington County in 1965 was \$1,927 below the state average. This spread of \$2,954 or 42% is as great as the spread between the average for all Maine families and the average for all Connecticut families.

The difficulty of using percentage of increase over a period as a measure of a county's standing is clear when Table 72 is compared with Table 74. While many of the counties in Subarea Three came close to or exceeded the average percentage of increase in family disposable income during the 1955-65 period, the fact that they entered the decade with considerably lower incomes per family meant that in all the counties the average family income was still below the state average in dollars (Table 74) in 1965. And for all except Oxford and Knox it was further below in dollars.

Perhaps the fairest measure of change is the index in Table 74 setting the state average family income as 100% and expressing the family after-tax incomes as percentages of the state average. Family incomes in Penobscot, Kennebec, Sagadahoc, and York became an even higher percent above the state average from 1955 to 1960. Income in Aroostook, Androscoggin and Cumberland remained above the state average but was a lesser percent above in 1960 than it had been in 1955. In Subarea Three all incomes remained below the state average but Franklin, Somerset, Piscataquis, Waldo, Lincoln, Knox and Washington picked up in percentage points so that they were not so far below the state average.

In the period from 1960 through 1965 Penobscot, Kennebec and Cumberland

remained above the state average and picked up percentage points. Androscoggin, Sagadahoc and York remained above the state average but lost percentage points. A considerable change in 1960-65 was noted in Aroostook County which dropped 14.5 percentage points and was the only county in Subarea One and Two to fall below the state average. All the counties in Subarea Three remained below the state average in 1965 but Oxford, Somerset, Lincoln and Knox registered gains on the index and moved up closer to the state average. Waldo county showed no change and Franklin, Piscataquis, Hancock and Washington moved further down on the index below the state average.

In general the family disposable income picture for the three Maine sub-areas remained the same over the 1955-65 decade with counties in Subarea One and Two exceeding the state average and counties in Subarea Three falling below it on the index. The two most notable exceptions were Aroostook County which dropped 18 points on the index in ten years and was the only county in Subarea One and Two to move below the state average and Sagadahoc County which was the only county in the same two subareas to start the decade below the state average and move above it by 1965. The following counties registered gains or losses of more than five points on the index over the ten years: Aroostook -18; Androscoggin -10; Sagadahoc +21.3; Cumberland +6.5; Franklin -10.6; Knox +5.9; Hancock -5.3.

The index provides a good measure of the geographic distribution of family income. Cumberland County is the only county to be more than 10 points above the state average. Counties within a ten point range above or below the state average are Penobscot, Kennebec, Androscoggin, Sagadahoc, York, Oxford, and Hancock. The balance of the counties are between 10% and 20% below the state average except for Waldo and Washington which are more than 20% below.

## HOUSEHOLDS BY CASH INCOME GROUPS

The previous section deals with the geographic distribution of disposable household income in New England and within Maine in terms of percentages of increase, dollar spread and an index, or percentage comparison with the Maine average. This section deals with cash income of households after taxes. Unlike disposable income measurements it does not include food and fuel consumed by farmers, imputed rentals of owner occupied homes, and other non-cash items. The figures estimate the percentage of households falling in each income group in 1965. However, as Table 77 indicates the percentage figures alone do not give a full indication of the problem of income distribution. Cumberland County for instance has the lowest (14%) percentage of households in the income group from 0 to \$2,500 in the state. But because of the large concentration of population in the county it has 8,022 families with incomes of less than \$2,500 -- far more low income families in actual numbers than any other county in Maine.

The importance of distribution of income in the taxation picture is indicated by two previous taxation studies. In a 1964 study of the feasibility of an income tax in Maine, J. Preston Stanley, Jr. concluded that "... the state income tax can be a productive and equitable revenue source for Maine."<sup>1</sup> However, he also noted, "... for an income tax to have a high yield in Maine, the basic burden would have to be placed on the \$2,000 to \$8,000 income bracket."<sup>2</sup> Writing on the same subject in 1960 Dr. John F. Sly in his study of taxation in Maine noted that about 81% of total income in 1958 fell in income brackets below \$10,000 and that the highest ratio of income fell in the \$4,000 to \$7,000 class and commented, "... this is indicative of what a personal income tax would mean to Maine.

1. - Source 16, pg. 51

2 - Source 16, pg. 40

It would rest heavily on the lower incomes; and in order to raise sufficient revenue, would require a flat rate as in Massachusetts or high rates and low exemptions as in Vermont." <sup>1</sup>

Maine had 18.3% of its households (Table 75) in the lowest under \$2,500 income group in 1965. Both Vermont and Rhode Island had higher percentages of low income families while New Hampshire, Massachusetts and Connecticut had lower percentages. The percentages of distribution in this group which represents inadequate, close to poverty income vary 8.6% from 11.1% in Connecticut to 19.7% in Vermont.

The second widest variation of any of the income groups is noticeable in the \$2,500 to \$4,000 income class which might be described as a meager family income. The percentages of distribution vary 11.7% among the New England states ranging from 11.1% in Connecticut to a high of 22.8% in Maine. The percentage of Maine families falling into this cash income group is substantially higher than in any of the other New England states.

The smallest variation of any of the income groups is exhibited by the \$4,000 to \$7,000 cash income range which might be described as an adequate or above adequate family income. The percentages of distribution in New England vary only 2.9% in this group from a low of 30.7% in Maine to a high of 34.2% in Rhode Island.

The variation is not large either in the income group from \$7,000 to \$10,000 which might be described as comfortable family income. The percentages of distribution in New England vary only 5.4% from a low of 12.5% in Rhode Island to a high of 17.9% in Connecticut. Maine has a higher percentage of families

1 - Source 17, pg. 41

TABLE 75

## HOUSEHOLDS BY CASH INCOME GROUPS

New England States 1965

(Percent)

	0- \$2,500	\$2,500 - \$4,000	\$4,000 - \$7,000	\$7,000 - \$10,000	\$10,000 - Over
Maine	18.3	22.8	30.7	15.1	13.1
New Hampshire	16.6	17.9	33.6	16.4	15.5
Vermont	19.7	16.1	32.4	16.1	15.7
Massachusetts	13.4	12.2	32.6	16.4	25.4
Rhode Island	18.6	16.0	34.2	12.5	18.7
Connecticut	11.1	11.1	32.0	17.9	27.9

Source: Table B-19

in this cash income group than Rhode Island but a lower percentage than the remainder of the New England states.

The largest variation among the income groups is exhibited by the \$10,000 and over income class which might be described as affluent to rich. The percentages of distribution in New England vary 14.8% from a low of 13.1% in Maine to a high of 27.9% in Connecticut. Maine is relatively close to New Hampshire, Vermont and Rhode Island in the percentage of families falling in this highest income class but is well below both Massachusetts and Connecticut.

Table 76 gives the cumulative percentages of families in each cash income group. It indicates that 41% of the Maine families fall in income classes under \$4,000 -- the highest percentage in New England and more than 5% higher than the next highest state (Vermont with 35.8%).



TABLE 76

## HOUSEHOLDS BY CASH INCOME GROUPS

New England States 1965

(Cumulative Percents)

	0-\$2,500	0-\$4,000	0-\$7,000	0-\$10,000
Maine	18.3	41.1	71.8	86.9
New Hampshire	16.6	34.5	68.1	84.5
Vermont	19.7	35.8	68.2	84.3
Massachusetts	13.4	25.6	58.2	74.6
Rhode Island	18.6	34.6	68.8	81.3
Connecticut	11.1	22.2	54.2	72.1

Source: Table B-19

Table 76 also indicates that for each of the income groups Maine is weighted more heavily toward the lower income classes than the other states in New England with 71.8% of the families having cash incomes under \$7,000 and 86.9% having cash incomes under \$10,000.

As mentioned previously, the percentages of distribution do not fully illustrate the problem of income distribution in terms of actual families and their geographic location. Table 77 shows the number of families in each sub-area and county receiving sub-standard incomes under \$2,500 and the number receiving incomes over \$10,000.

Subarea One is heavily weighted in the direction of sub-standard incomes due largely to the inclusion of Aroostook County, since Penobscot County has about as many families in both the highest and lowest income brackets.

TABLE 77

NUMBER OF HOUSEHOLDS IN HIGHEST AND  
LOWEST INCOME GROUPS

Maine Counties 1965

	Total Households	0-\$2,500	Over \$10,000
MAINE	287,100	52,539	37,610
SUBAREA ONE	61,800	12,133	7,654
Aroostook	26,000	6,370	2,392
Penobscot	35,800	5,763	5,262
SUBAREA TWO	149,000	23,007	22,556
Kennebec	26,300	4,313	3,787
Androscoggin	27,400	4,247	3,562
Sagadahoc	6,900	1,076	1,035
Cumberland	57,300	8,022	9,912
York	31,100	5,349	4,260
SUBAREA THREE	76,300	17,384	7,352
Oxford	13,000	2,314	1,781
Franklin	5,600	1,215	509
Somerset	12,000	2,388	1,260
Piscataquis	5,700	1,214	507
Waldo	6,500	1,677	488
Lincoln	5,800	1,386	545
Knox	8,100	1,814	737
Hancock	10,100	2,403	898
Washington	9,500	2,973	627

Source: 14 Derived from percentages and total households. County totals do not add to exact state total due to rounding.

Subarea Two is about evenly weighted with as many high-income as low-income families although the individual counties vary somewhat with Cumberland being the only county with more families in the high- than in the low-income class.

Subarea Three is very heavily weighted in the direction of low-income families having 17,384 families with incomes under \$2,500 as opposed to only 7,352 families with incomes over \$10,000. The individual counties in Subarea Three all tend to follow the same pattern as the subarea as a whole.

In terms of percentages the concentration of high-income families in Subarea Two is obvious. What might not be expected from the percentage figures alone is that 23,007 of the state's lowest income families or nearly 44% of the state's total are concentrated in the five more prosperous counties of Subarea Two.

Table 78 indicates the percentage of Maine households in each county in the various cash income groups. The percentage of families in the lowest income group (0-\$2,500) varies from a low of 14% in Cumberland County to a high of 31% in Washington County. Translated into terms such as Bogue suggests in his The Population of the United States this would indicate that three out of ten families in Washington County and two out of ten families in most of Subarea Three have family incomes insufficient to maintain reasonable standards of health and welfare. The variation in income distribution of 17.3% between Cumberland and Washington Counties is the highest of any of the income classes.

In the \$2,500 to \$4,000 income class the variation is only 5.8% ranging from 20.6% of the families in this income class in Cumberland County to 26.4% in this class in Waldo and Washington Counties. This is the smallest variation of any of the income groups.

TABLE 78

## PERCENT OF HOUSEHOLDS IN CASH INCOME GROUPS

Maine Counties 1965

(Percent)

	0 \$2,500	\$2,500- \$4,000	\$4,000- \$7,000	\$7,000- \$10,000	\$10,000- Over
MAINE	18.3	22.8	30.7	15.1	13.1
SUBAREA ONE					
Aroostook	24.5	25.4	28.3	12.2	9.6
Penobscot	16.1	22.1	31.1	16.0	14.7
SUBAREA TWO					
Kennebec	16.4	22.1	31.1	16.0	14.4
Androscoggin	15.5	22.6	32.9	16.0	13.0
Sagadahoc	15.6	21.2	31.8	16.4	15.0
Cumberland	14.0	20.6	31.2	16.9	17.3
York	17.2	21.9	31.1	16.1	13.7
SUBAREA THREE					
Oxford	17.8	21.8	30.9	15.8	13.7
Franklin	21.7	25.2	30.9	13.1	9.1
Somerset	19.9	23.9	31.1	14.6	10.5
Piscataquis	21.3	26.2	31.1	12.5	8.9
Waldo	25.8	26.4	29.7	11.2	6.9
Lincoln	23.9	25.9	28.9	11.9	9.4
Knox	22.4	25.0	30.4	13.1	9.1
Hancock	23.8	25.7	29.4	12.2	8.9
Washington	31.3	26.4	25.8	9.9	6.6

The variation in the \$4,000 to \$7,000 income class is 7.1% ranging from 32.9% in Androscoggin County to 25.8% in Washington County. The variation in the \$7,000 to \$10,000 class is 7% ranging from 9.9% in Washington County to 16.9% in Cumberland. Variation in the \$10,000 and Over income class is 10.7% ranging from 6.6% in Washington County to 17.3% in Cumberland County.

#### INDIVIDUAL INCOME DISTRIBUTION

Figures on individual income as reported by the Internal Revenue Service from income tax returns will be discussed in more detail in the taxation section of this study. The tables in this section give a breakdown by broad income groups of under \$5,000; \$5,000 to \$10,000; and over \$10,000 for the New England states. It should be noted that returns include some joint returns and do not represent the number of persons filing. Adjusted Gross income includes gross income from all sources subject to tax (net salaries and wages, dividends, interest, net business, farm, partnership profit, etc.) less necessary business expenses and other related deductible expenses. Income tax after credits is the income tax liability excluding the self-employment tax. It was after the deduction for income tax credits but prior to the year-end adjustments for tax withheld from wages and payments on declaration which determined the overpayment or tax due status.<sup>1</sup>

Table 79 indicates that 64.8% of the returns filed in Maine in 1963 (the latest year for which figures are available) reported incomes of under \$5,000. These taxpayers received 33.6% of the total adjusted gross income reported and they incurred 19.9% of the total individual federal income tax liability.

1 - Source 11, pgs. 16-25

TABLE 79

## DISTRIBUTION OF INDIVIDUAL INCOME TAX RETURNS UNDER \$5,000

New England States 1963

(Percent)

	Total Returns	Adjusted Gross Income	Tax After Credits
Maine	64.8	33.6	19.9
New Hampshire	57.0	26.7	17.1
Vermont	62.4	31.7	19.5
Massachusetts	52.2	22.2	15.2
Rhode Island	54.4	25.2	16.4
Connecticut	43.1	15.8	10.0

Source: 11

Maine had the highest percentage of returns in this low income class of any New England state. Taxpayers in this class also received a higher percentage of total adjusted gross income than in any other New England state and carried a higher percentage of the individual federal income tax burden than in any other New England state, although the percentages of tax liability were very close in Maine and Vermont.

Table 80 shows that 29.3% of the Maine income tax returns reported incomes between \$5,000 and \$10,000. Taxpayers in this income group received 44.8% of the state's total adjusted gross income and incurred 42.7% of the total federal income tax liability. Maine had the lowest percentage of returns in this middle income class of any New England state. Taxpayers in this class received

TABLE 80

## DISTRIBUTION OF INDIVIDUAL INCOME TAX RETURNS \$5,000 - \$10,000

New England States 1963

(Percent)

	Total Returns	Adjusted Gross Income	Tax After Credits
Maine	29.3	44.8	42.7
New Hampshire	34.4	46.6	42.2
Vermont	30.6	43.2	40.4
Massachusetts	36.0	44.0	36.8
Rhode Island	36.7	46.8	39.9
Connecticut	39.8	42.2	33.8

Source: 11

about the same percentage of adjusted gross income as in other New England states. (Low Connecticut 42.2%; high Rhode Island 46.8%; Maine 44.8%).

However, Maine taxpayers in this middle income class carried a higher percentage of the federal income tax burden than in any other New England state, although the percentages of tax liability were very close for Maine and New Hampshire.

Table 81 indicates that only 5.9% of the returns filed in Maine in 1963 reported incomes over \$10,000. These taxpayers received 21% of the total adjusted gross income and they incurred 37.3% of the total individual federal income tax liability in the state. Maine had the lowest percentage of returns in this upper income class of any state in New England. Taxpayers in this income

TABLE 81

## DISTRIBUTION OF INDIVIDUAL INCOME TAX RETURNS \$10,000 - Over

New England States 1963

(Percent)

	Total Returns	Adjusted Gross Income	Tax After Credits
Maine	5.9	21.6	37.3
New Hampshire	8.6	26.7	40.7
Vermont	7.1	25.0	40.1
Massachusetts	11.7	33.8	48.1
Rhode Island	8.9	27.9	43.7
Connecticut	17.1	42.0	56.2

Source: 11

class also received a lower percentage of total adjusted gross income than in any other New England state and carried a lower percentage of the individual federal income tax burden than in any other New England state.





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SECTION THREE

EMPLOYMENT AND OTHER ECONOMIC INDICATORS

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## COMPARISON OF SOURCE MATERIAL

This section on Employment and Other Economic Indicators discusses, to the extent that it is possible in this report, the changes in employment in Maine and the various subareas and counties over the last decade. The section is arranged in two main parts, the first dealing with agriculture and the second with non-agricultural employment and economic indicators.

Standard sources are used throughout the section including those published by the U. S. Department of Labor and the U. S. Department of Commerce, Bureau of Census. However, since the data is gathered by different agencies and serves different purposes, it is not always comparable. The following is a brief explanation of the sources of the material and the limits of comparability.

1. The material on agriculture is drawn from the 1959 Census of Agriculture and the 1964 Census of Agriculture (preliminary reports on the latter became available in the last few months). The differences in estimating the agricultural labor force are noted in the text.

2. In the section on non-agricultural employment, data on employment in the various categories (contract construction, trade, manufacturing, etc.) is drawn from Employment and Earnings Statistics for States and Areas 1939-64 which was published by the U. S. Department of Labor in June 1965. The totals for 1965 are unpublished material prepared for a supplement to the New England Almanac and supplied through the courtesy of the Federal Reserve Bank of Boston. They were originated within the various New England states. The Department of Labor notes that the industry employment series for states is adjusted each year to more recent benchmarks and is not comparable to data

published earlier. The series used here is adjusted to 1964 benchmarks and represents the best figures available at the time of writing. It also should be noted that the figures supplied by the Department of Labor for the years given represent annual average employment and are not directly comparable to county figures which represent the number of employees in a specific pay period.

3. The material for non-agricultural employment at the county level within Maine is drawn from County Business Patterns for 1956, 1959 and 1964, published by the Census Bureau with the assistance of the Social Security Administration. These are reports on the employees, payrolls and reporting units for the first quarter of each year based on the reports of non-farm employers who deduct Social Security payments. As noted above it gives a count of the employees on payrolls as of mid-March and is not directly comparable with the Bureau of Labor Statistics averages of employment for the entire year. The most noticeable differences are in areas affected by seasonal employment such as contract construction where the Bureau of Labor Statistics puts the average employment in Maine at 13,000 in 1964 but the actual number of employees on mid-March taxable payrolls in Maine in the field of contract construction was 8,923. County Business Patterns is used as a source of data because the Bureau of Labor Statistics does not provide yearly estimates on a county basis. Both the "Employment and Earnings" series by the Bureau of Labor Statistics and County Business Patterns by the Census Bureau were used by Dr. Sly in his 1960 report on Maine taxation.

4. Additional economic indicators are drawn largely from the 1963 Census of Business which became available in 1965.

## AGRICULTURE

As was pointed out in the section on income, farm income is subject to frequent and intense fluctuations (particularly in the case of Maine which receives a large share of its farm income from potatoes -- one of the most unstable sources of farm income in terms of price). It was also noted that while farm income in Maine accounts for between 5% and 10% of total production income, there appears to be a long-range decline in the relative economic importance of farming both in Maine and in New England. There is no question that agriculture is one of the slowest growth industries whether measured by income or employment and that Maine is more dependent on agriculture than most New England states or the region as a whole.

Table 82 indicates that the number of farms in Maine has declined 25.8% in 1959-64 between agricultural censuses. This is slightly less than the drop in the percentage of farms for the region, which lost 26.2% of its farms in the 1959-64 period. Acres in farms is another indicator of farming activity, although it should be kept in mind that a large proportion of these acres in Maine are in woodland. In 1959 for instance of the 3,082,000 acres in farms in Maine 1,715,000 were in woodland and only 717,000 were used for crops.<sup>1</sup> Table 86 indicates that the decline in harvested acres in Maine is less than half the decline in total acres in farms. In terms of total acres Maine lost 16% of its farm land in 1959-64 -- almost exactly the average for the region as a whole.

1 - Source 4

TABLE 82

## NUMBER OF FARMS AND ACRES IN FARMS

New England States 1959 - 1964

	Number of Farms			Acres in Farms (000's)		
	1959	1964	Percent of Change 1959-64	1959	1964	Percent of Change 1959-64
Maine	17360	12875	-25.8	3082.0	2590.0	-16.0
New Hampshire	6542	4648	-29.0	1124.0	903.2	-19.6
Vermont	12099	9247	-23.6	2945.0	2524.4	-14.3
Massachusetts	11179	8019	-28.3	1142.0	901.8	-21.0
Rhode Island	1395	1115	-20.1	138.0	105.1	-23.8
Connecticut	8292	6068	-26.8	884.0	721.3	-18.4
.....						
New England	56867	41972	-26.2	9316.0	7745.8	-16.9
.....						

Source: 1 and 2

Table 83 examines the loss of farms and total farm acres by subareas and counties. It is particularly noticeable that only Knox County registered a gain both in the number of farms and in the number of acres in farms in 1959-64. The changes in the number of farms ranged from the small gain of 1.8% in Knox County to a loss of 37.4% of the farms in Franklin County. Counties which lost more than 30% of their farms were York, Franklin, Somerset, Lincoln, Hancock and Washington. Counties which lost less than 20% of their farms were Sagadahoc, Piscataquis and Waldo. In the balance of the counties (except Knox) the loss in



TABLE 83

## NUMBER OF FARMS AND ACRES IN FARMS

Maine Subareas and Counties 1959 - 1964

	Number of Farms		Percent of Change 1959-64	Acres in Farms (000's)		Percent of Change 1959-64
	1959	1964		1959	1964	
Aroostook	3057	2292	-25.0	662.8	574.6	-13.3
Penobscot	1552	1173	-24.4	336.1	263.5	-21.6
.....						
SUBAREA ONE	4609	3465	-24.8	998.9	838.1	-16.1
.....						
Kennebec	1828	1405	-23.1	249.4	225.0	-9.8
Androscoggin	888	627	-29.4	130.6	105.9	-18.9
Sagadahoc	297	253	-14.8	43.5	37.1	-14.7
Cumberland	1200	879	-26.7	144.9	116.1	-19.9
York	1283	877	-31.6	166.9	133.0	-20.3
.....						
SUBAREA TWO	5496	4041	-26.5	735.3	617.1	-16.1
.....						
Oxford	983	716	-27.2	194.0	184.3	-5.0
Franklin	720	451	-37.4	162.7	121.7	-25.2
Somerset	1215	822	-32.3	258.7	193.4	-25.2
Piscataquis	339	302	-10.9	86.9	79.9	-8.1
Waldo	1136	942	-17.1	191.2	162.0	-15.3
Lincoln	661	416	-37.1	85.9	55.9	-34.9
Knox	657	669	1.8	71.2	84.0	18.0
Hancock	697	460	-34.0	125.9	92.7	-26.4
Washington	847	591	-30.2	171.3	160.9	-6.1
.....						
SUBAREA THREE	7255	5369	-26.0	1347.8	1134.8	-15.8
.....						
MAINE	17360	12875	-25.8	3082.0	2590.0	-16.0
.....						

Source: 1 and 2

1959-64 was fairly close to the state average. Each of the subareas showed about the same percentage of loss in number of farms.

The percentage of change in farm acres ranged from a gain of 18% in Knox County (the only gain) to a loss of 34.8% in Lincoln County. Counties which lost more than 20% of their farm acreage were Penobscot, York, Franklin, Somerset, Lincoln and Hancock. Counties which lost less than 10% of their farm acreage were Kennebec, Oxford, Piscataquis, and Washington. The balance of the counties (except Knox) were close to the state average. The loss of farm acreage was almost identical with the state average in each of the three subareas.

The trend toward the larger commercial farms and the loss of the smaller "family farm" is broadly indicated by the figures on the average farm size which has increased in Maine from 178 acres to 201 acres in 1959-64. Table 84 shows that, with the exception of Vermont, the average farm in Maine is larger than in any other New England state. The average farm size has increased between censuses in every New England state except Rhode Island.

The relative importance of farming in Maine as compared to the other New England states is indicated by Tables 84 and 86 which show that in terms of total farm land Maine has about 2.61 acres per capita -- which is the second highest in New England, after Vermont, and is much higher than the regional average. Roughly the same proportions are evident in terms of harvested acres. With the exception of Rhode Island, Maine had the lowest percentage of loss in harvested acres in 1959-64.

TABLE 84

## AVERAGE FARM SIZE AND FARM ACRES PER CAPITA

New England States 1959 - 1964

	Average Farm Size (Acres)		Population 1965 (000's)	Acres Per Capita
	1959	1964		
Maine	178	201	993	2.61
New Hampshire	172	194	669	1.35
Vermont	243	273	397	6.36
Massachusetts	102	113	5349	0.17
Rhode Island	99	94	891	0.12
Connecticut	107	119	2833	0.25
New England	164	184	11132	0.70

Source: 1 and 2

The importance of farming in the subareas and counties is indicated by Table 85 which shows the value of farm products sold, the percent that these products are of the state total value of farm products and the acres per capita in 1964-65.

The price fluctuations of potatoes are evident in the figure for Aroostook County which shows an increase of 124% in the value of farm products sold between 1959 and 1964. This also has an impact in generally raising the value of farm products sold for the entire state. For most other counties the increase in value of farm products sold (which is obtained in the census and is not

TABLE 85

## VALUE OF FARM PRODUCTS SOLD

Maine Subareas and Counties 1959-64

	Percent of Change 1959-64	Percent of State Total 1964	Acres Per Capita 1964-65
Aroostook	124.0	48.1	5.42
Penobscot	19.9	6.4	2.01
.....	.....	.....	.....
SUBAREA ONE	103.3	54.5	3.54
.....	.....	.....	.....
Kennebec	18.0	8.1	2.45
Androscoggin	11.6	3.8	1.18
Sagadahoc	22.4	1.1	1.63
Cumberland	6.4	4.4	0.61
York	10.8	3.6	1.27
.....	.....	.....	.....
SUBAREA TWO	13.2	21.0	1.23
.....	.....	.....	.....
Oxford	-5.1	2.7	4.10
Franklin	1.9	1.4	6.21
Somerset	18.8	4.5	4.73
Piscataquis	40.3	1.3	4.16
Waldo	17.4	6.9	7.33
Lincoln	-2.4	1.6	3.05
Knox	33.9	3.3	3.27
Hancock	-9.8	1.3	2.91
Washington	24.6	1.6	5.26
.....	.....	.....	.....
SUBAREA THREE	13.7	24.6	4.48
.....	.....	.....	.....
MAINE	49.4	100%	2.61
.....	.....	.....	.....

Source: 1 and 2

comparable with cash receipts from farm marketings or with realized net income per farm) runs from 10% to 20%. Notable exceptions are Knox County with a 33.9% increase and Piscataquis County with a 40.3% increase, and the decreases in value noted in Hancock, Lincoln and Oxford counties.

It is obvious that Aroostook County is more heavily dependent economically on agriculture than the remainder of the state since in a year of good potato prices the value of its farm product is 48.1% of the state total and the acres per capita is among the highest in the state. The value of farm products sold is fairly evenly balanced between Subarea Two and Subarea Three; however, the much heavier emphasis on agriculture as part of the economy is evident from the higher number of acres per capita in Subarea Three.

While differences in crop years and prices are reflected in other indicators of agriculture, there is no doubt that it is declining as a source of employment both in New England and in the individual states. Much of the farm employment is seasonal. The Maine Employment Security Commission estimates that agricultural employment in Maine rose from 12,800 in January of 1965 or 3.6% of the total labor force to 36,100 in September of 1965 or 9.4% of the total labor force.<sup>1</sup> However, when the average peak farm employment of 1958-62 is compared with the totals for 1964, it is evident that there has been a decline of 13.9% in farm employment in Maine compared with a drop of 18.9% in the region. The decline in Maine has been less marked than in the other states, however, the relatively small numbers of workers involved and the highly seasonal character of the employment should be kept in mind.

1 - Source 6

TABLE 86

## FARM EMPLOYMENT AND HARVESTED ACRES

New England States 1959 - 1964

	Total Employment (000's)			Harvested Acres (59 Crops in 000's)		
	Average 1958-62	1964	Percent of Change	Average 1958-62	1964	Percent of Change
Maine	36	31	-13.9	698	649	-7.0
New Hampshire	12	10	-16.7	210	173	-17.6
Vermont	28	23	-17.9	798	734	-8.0
Massachusetts	37	27	-27.0	276	250	-9.4
Rhode Island	4	3	-25.0	33	32	-3.0
Connecticut	26	22	-15.4	239	220	-7.9
.....						
New England	143	116	-18.9	2254	2058	-8.7
.....						

Source: 4

Maine in 1963 (the latest year for which figures were available) had the highest effective farm taxes in New England (Table 87). While the tax per acre of \$2.28 was higher than Vermont it was the second lowest in New England and substantially lower than the \$6 and \$7 taxes per acre for the states in southern New England. However, when the value of the farms being taxed was taken into consideration, farm taxes in Maine were the highest in New England. Maine's tax of \$2.37 per \$100 of full value was slightly above the tax in New Hampshire and Massachusetts but was substantially above the tax in Vermont, Rhode Island and Connecticut.

TABLE 87

## FARM TAXES PER ACRE AND PER \$100 FULL VALUE

New England States 1962 - 1963

	Taxes Per Acre (Dollars)		Index (1957-59 = 100)		Taxes Per \$100 Full Value (Dollars)	
	1962	1963	1962	1963	1962	1963
Maine	2.14	2.28	123	131	2.34	2.37
New Hampshire	2.39	2.50	126	131	2.14	2.22
Vermont	1.54	1.63	115	122	1.82	1.91
Massachusetts	7.07	7.43	135	142	2.12	2.19
Rhode Island	6.16	6.54	118	125	1.52	1.60
Connecticut	6.56	6.99	131	139	1.40	1.48

Source: 4

The index of farm taxes indicates that farm taxes in Maine have been rising at about the same rate as in the other New England states. From the 1957-59 average, farm taxes rose 31% by 1963. This is more of an increase than was registered in Vermont and Rhode Island and equal to the New Hampshire increase but lower than increases in Massachusetts and Connecticut.

A study of cash receipts from farm marketings makes it clear that not only is Maine more dependent on agriculture but also that agriculture income as a whole for the state strongly reflects increases in potato prices.

TABLE 88

## SOURCES OF AGRICULTURAL INCOME

New England States 1964

(Based on Cash Receipts from Farm Marketings)

	Cash Receipts (000's Dollars)	Percent Dairy	Percent Poultry	Percent Potatoes	Percent Other
Maine	229.8	19.8	35.2	33.0	12.0
New Hampshire	51.7	44.4	30.7	1.4	23.5
Vermont	125.8	82.6	4.6	0.7	12.1
Massachusetts	163.3	34.0	19.3	2.4	44.3
Rhode Island	20.6	35.6	19.4	15.3	29.7
Connecticut	149.5	31.0	27.0	2.7	39.3
.....					
New England	740.6	38.0	24.1	12.0	25.9
.....					

Source: U. S. Department of Agriculture, Agricultural Marketing Service  
(Courtesy of Federal Reserve Bank of Boston)

In 1964 Maine received \$229 million in cash receipts from farm marketings -- by far the highest amount of any of the New England states. The other round totals were: New Hampshire \$51 million; Vermont \$125 million; Massachusetts \$163 million, Rhode Island \$20 million and Connecticut \$149 million. Maine's cash receipts from farm marketings was roughly divided into thirds -- one-third from potatoes, one-third from poultry and one-third from dairy and all other sources. The extreme variations in potato prices are familiar and are illustrated by the fact that Maine cash receipts from potatoes in 1962 were \$40 million dollars as against \$75 million in 1964 -- an increase of about 88%.



Potatoes in 1962 accounted for 21% of Maine cash receipts from farm marketings but they accounted for 33% of Maine cash receipts in 1964. It is clear the important role that this single crop plays in Maine agriculture.

A comprehensive study of the U. S. Potato industry made in 1962 pointed to the extreme price fluctuations, the reasons for them and some possible solutions. The study noted: "Like other commodities, price changes in potatoes are of two general types. There are the wide swings in prices of potatoes associated with changes in the general farm price level, and usually occurring over periods of several years. During such wide swings, potato prices move in the same general direction as prices of all farm products. These wide swings generally coincide with similar swings in the general level of economic activity.

"Wide swings in prices constitute only part of the problem. In addition to these general swings, potato prices from year to year fluctuate violently about the price level of all farm products. Only during the price support period, 1943-50, were the price fluctuations appreciably dampened.

"In the period 1920-60 the year-to-year variation in prices received by farmers for potatoes around the general farm price level averaged about 46%. Excluding the years 1943-50, the fluctuations averaged more than 50%. Price fluctuations in 1943-50, a period of government price supports, averaged only 19%. But year-to-year fluctuations in 1951-60 averaged 47%. Except for dry onions, variability in prices of potatoes during the past decade has been much greater than that for perhaps any other major commodity. This sharp variability in potato prices in the last ten years is about twice that for apples and oranges and compares with an average price variability of less than 10% for most major

field crops, 16% for hogs, 14% for eggs and 11% for beef cattle.

"Since quantities of potatoes produced and marketed from year to year do not change greatly, the sharp changes in price and income from year to year result in great uncertainty on the part of producers and in inefficient allocation of resources."<sup>1</sup>

One result of the importance of potatoes to Maine agriculture and the extreme variations in prices is to make an analysis of the farm income situation difficult. As was indicated in the section on income, Maine experienced a 33% increase in personal income from farming in just one year from 1964 to 1965. Similar sharp increases are evident in a study of realized net income per farm since this increased from \$2,194 in 1959 to \$4,008 in 1960, then dropped down again to about \$2,300 in 1961, 1962 and 1963 before climbing back up sharply to \$4,409 in 1964. These sharp changes in net income per farm are largely the result of potato price fluctuations which can easily distort the farm income picture. For this reason Table 90 uses an average of realized net income per farm for the years 1957-60 and 1961-64 since both periods include one unusually high income year (1960 and 1964 respectively). Table 91 is constructed on the same basis to minimize the influence of potato price variations on the analysis of Maine realized net farm income.

The U. S. Department of Agriculture makes the following comment on realized net farm income as a means of measuring farm prosperity. "Realized net farm income as referred to in this report represents the net value of farm output sold or used by farm operators and their families. This is the most

1 - Source 7, pgs. 30-32

TABLE 89

## PRICE INDEX AND PER CAPITA INCOME

United States (1910 - 1914 = 100)

	1959	1964
<u>Prices Paid by Farmers</u>		
Commodities for Use in Production	266	270
Commodities for Use in Family Maintenance	288	300
All commodities including Interest, Tax and Wage Rates	298	313
<u>Per Capita Personal Income</u>		
Persons on Farms - All Sources	\$1,144	\$1,516
Persons Not on Farms	\$2,274	\$2,631

Source: 4

representative measure of farm income actually realized in a calendar year by farm operators, and is the primary measure of changes in their income position."<sup>1</sup>

As will be seen from Table 91 realized net farm income takes into consideration cash receipts from farm marketings, government payments, value of home consumption, rental value of farm dwellings and farm production expenses.

Table 89 showing increases in the farm price index makes clear the importance of considering rising prices paid by farmers as a factor in evaluating the farm income situation.

1 - Source 5, pg. 2

TABLE 90

## REALIZED NET INCOME PER FARM

New England States 1957 - 1964

	Average 1957-60 (Dollars)	Average 1961-64 (Dollars)	Percent of Change 1961-64
Maine	2838	2887	1.7
New Hampshire	1705	1027	-39.8
Vermont	2906	2833	-2.5
Massachusetts	2923	3425	17.2
Rhode Island	2811	1868	-33.5
Connecticut	4290	4242	-1.1

Source: 5 . . .

When the average of the two four-year periods 1957-60 and 1960-64 are compared, in terms of realized net income per farm, it is evident that only in Massachusetts has there been any significant gain in farm income.

Maine's average realized net income per farm for the 1960-64 period of \$2,887 is only 1.7% higher than the average of \$2,838 for the previous four-year period. There were small declines in Vermont and Connecticut and decreases of more than 30% in New Hampshire and Rhode Island. These relatively small gains, or in some cases substantial decreases, are further spotlighted by the fact that they occurred in a period when most economic indicators such as per capita income and personal income from participation in current production were moving sharply upward.

TABLE 91

## ANALYSIS OF MAINE REALIZED NET FARM INCOME 1957-64

(Millions of Dollars)

	Average 1957-60	Average 1961-64	Percent of Change
Cash Receipts from Farm Marketings	199.5	200.0	0.3
Government Payments	2.2	2.8	27.3
Value of Home Consumption	9.0	5.8	-35.6
Gross Rental - Farm Dwellings	9.3	10.6	14.0
<b>TOTAL REALIZED <u>GROSS</u> FARM INCOME</b>	<b>220.0</b>	<b>219.1</b>	<b>-0.4</b>
Farm Production Expense	162.3	169.6	4.5
<b>REALIZED NET FARM INCOME</b>	<b>57.6</b>	<b>49.6</b>	<b>-13.9</b>

Source: 5

A further analysis of Maine realized net farm income (Table 91) indicates that when cash receipts from farm marketings are averaged for the two four-year periods, that there has been virtually no increase in cash receipts from farm marketings between 1957-60 and 1961-64. Government payments did increase but the amount of money involved in Maine is small. The value of home consumption of farm produce declined and the value of rental of farm dwellings increased but the result of these various factors balancing off against each other was that realized gross farm income declined. Increased farm production expenses from 1957-60 to 1961-64 meant that while Maine had an average realized net farm income of \$57.6 million in 1957-60 the average total for 1961-64 was only \$49.6 million -- or a decline of 13.9%.

## NON-AGRICULTURAL

With the exception of Massachusetts there has been an increase in non-agricultural employment in the New England States in the second half of the 1955-65 decade. Table 92 indicates that employment in New England picked up 6.8% in the 1960-65 period as compared with an increase of only 4.5% in the previous five years. This was the general pattern in most of the states with Maine showing a gain of 3.7% in 1960-65 as compared with an increase of less than 1% in the previous five years.

However, as measured in terms of employment, the Maine economy responded more slowly to the improved economic picture of the 1960-65 period since non-agricultural employment in Maine during the period increased from 277,500 in 1960 to 287,700 in 1965 -- an increase of 3.7% and the lowest gain of any of the New England states. Gains in Massachusetts and Rhode Island during the five years were slightly higher than in Maine but gains in New Hampshire, Vermont and Connecticut in non-agricultural employment ranged from two to three times higher. Vermont and Connecticut registered particularly strong gains picking up more than 10% in employment during the five years.

Over the entire 1955-65 period, Maine showed an employment gain slightly stronger than that of Rhode Island due to the latter state's actual drop in the number of persons employed between 1955-60. However, the increase of 4.6% in employment in Maine over the ten years was well below the gains of the other New England states and the region. Percentages of increase in New Hampshire, Vermont and Connecticut were more than three times higher than in Maine while the gain in Massachusetts and the region was more than twice the Maine level.

TABLE 92

## NON-AGRICULTURAL EMPLOYMENT

New England States 1955 - 1965

(In Thousands of Persons)

	1955	1960	1965	Percent of Change 1955-60	Percent of Change 1960-65	Percent of Change 1955-65
Maine	275.1	277.5	287.7	0.9	3.7	4.6
New Hampshire	183.5	197.6	216.7	7.7	9.7	18.1
Vermont	102.1	107.0	118.4	4.8	10.7	16.0
Massachusetts	1818.4	1916.7	2008.6	5.4	4.8	10.5
Rhode Island	295.0	291.7	307.0	-1.1	5.2	4.1
Connecticut	874.8	916.8	1020.0	4.8	11.3	16.6
.....						
New England	3548.9	3707.3	3958.5	4.5	6.8	11.5
.....						

Source: 8 and 12

Maine's dependence on relatively slow growth industries is indicated by Table 93 which shows the number of persons employed in major manufacturing sources of employment and in non-manufacturing sources of employment.

Lumber and wood manufacturing and textile manufacturing have declined considerable as sources of Maine employment over the 1955-65 decade. The lumber and wood products industries dropped from 19,900 employees in 1955 to 14,400 employees in 1965. The same trend was evident in textiles which employed 17,800 persons in Maine in 1955 and only 12,100 persons in 1965. Little substantial change was noted in employment in the food and paper

TABLE 93

## MAJOR SOURCES OF NON-AGRICULTURAL EMPLOYMENT

Maine 1955 - 1965

	Employment (Thousands of Persons)			Percent of Total Non - Agricultural		
	1955	1960	1965	1955	1960	1965
MAJOR MANUFACTURING						
Lumber-Wood	19.9	16.9	14.4	7.2	6.1	5.0
Food	10.6	11.4	10.7	3.9	4.1	3.7
Textiles	17.8	14.0	12.1	6.5	5.0	4.2
Paper	18.3	18.1	17.3	6.7	6.5	6.0
Leather	21.3	24.1	27.5	7.7	8.7	9.6
.....						
NON-MANUFACTURING						
Contract Construction	13.5	13.6	13.3	4.9	4.9	4.6
Transportation	21.0	18.1	16.3	7.6	6.5	5.7
Trade	54.1	53.9	55.0	19.7	19.4	19.1
Finance	7.8	9.0	9.9	2.8	3.2	3.4
Services <sup>1</sup>	28.5	30.2	33.3	10.4	10.9	11.6
Government	41.9	48.2	53.5	15.2	17.4	18.6
.....						
TOTAL MAJOR SOURCES	254.7	257.5	263.3	92.6	92.8	91.5
.....						
ALL OTHER SOURCES <sup>2</sup>	20.4	20.0	24.4	7.4	7.2	8.5
.....						
TOTAL NON-AGRICULTURAL	275.1	277.5	287.7	100	100	100
.....						

Source: 8 and 12

1 - Includes Mining

2 - Consists entirely of manufacturing sources



industries with the food manufacturing industries employing almost exactly the same number of persons from 1955-65 and with paper industries employing 1,000 persons less. Leather and leather products was the only major source of Maine manufacturing employment to show a significant increase in the decade as employment rose from 21,300 in 1955 to 27,500 in 1965. This was also reflected in the percentage of total non-agricultural employment assigned to leather products which increased from 7.7% of the Maine working force to 9.6% -- the only distribution increase noted among the five major sources of non-agricultural employment.

In the non-manufacturing sources of employment, the same general trends are noticeable as were evident from the figures on personal income. There was little change in construction employment which remained at about 13,000 persons over the decade. Transportation and public utilities declined as a source of employment from 21,000 persons to 16,300 persons. Wholesale and retail trade increased slightly in employment and a gain of more than 2,000 persons was made in finance, insurance and real estate.

The strongest gains in Maine in non-agricultural employment in 1955-65 were made in services which increased from 28,500 persons to 33,300 persons in ten years and in government employment which increased from 41,900 to 53,500 persons.

As Table 93 indicates the five major manufacturing sources of employment and the non-manufacturing sources account for more than 90% of Maine employment over the last ten years. The balance of non-agricultural employment is all in manufacturing and involves such other products as fabricated metal products, machinery, plastics, instruments, printing, and chemicals, which account for less than 10% of the Maine total.

TABLE 94

COMPARISON OF MAJOR SOURCES OF  
NON-AGRICULTURAL EMPLOYMENT

New England States 1965  
(In Percent)

	Maine Major Manu- facturing Sources. Lumber, Food, Textiles, Paper, Leather	Major Non-Manu- facturing. Construction, Trade, Transportation, Finance, Services, Government	All Other <sup>1</sup> Sources	Total
Maine	28.5	63.0	8.5	100
New Hampshire	20.6	59.1	20.3	100
Vermont	8.9	67.5	23.6	100
Massachusetts	8.5	67.0	24.5	100
Rhode Island	10.9	61.9	27.2	100
Connecticut	4.1	57.2	38.7	100
.....				
New England	9.7	63.4	26.9	100
.....				

Source: 8 and 12 (Note: Totals may not add to exactly 100% due to rounding.)

1 - Consists entirely of manufacturing sources other than the five major sources of manufacturing employment in Maine.

The major difference between the Maine economy and that of the other New England states is indicated by Table 94 which shows the role played in the region and the other states by the principal sources of Maine employment. It is evident that the non-manufacturing sources of employment such as trade and government play the same role as employers in Maine as they do in the New England states as a whole since these sources account for 63% of Maine employment and 63% of the region's employment. The percentage of employment due to these sources varies only slightly among the states from 57% in Connecticut to 67% in Vermont and Massachusetts.

However, in the manufacturing segment of employment the picture is entirely different. The five major sources of manufacturing employment in Maine account for 28.5% of all non-agricultural employment in the state. In New England as a whole they account for only 9.7% of employment. Only New Hampshire with 20.6% of its employment coming from these sources is close to Maine. The much stronger position elsewhere of manufacturing industries such as plastics, printing, chemicals, and particularly fabricated products such as electrical machinery is indicated by the "all other" column in Table 94 which shows that while Maine drew only 8.5% of its non-agricultural employment from these sources in 1965, they accounted for 26.9% of New England employment. Employment in these industries, which can be generally characterized as the faster growth industries, accounted for between 20% and 30% of non-agricultural employment in all the other New England states except Connecticut where these industries employed a high 38% of the non-agricultural workers.

The relatively low level of income in Maine as compared with the region and the slowness of growth in income was pointed out in Section Two. The connection between income and industrial structure is made clear by several studies including Harvey S. Perloff in a study of area development in the U. S. economy: "The level of income within an area is closely associated with its industrial structure -- whether, that is, low-wage or high-wage industries predominate. Thus, average per capita income tends to vary inversely with the relative importance of agriculture within a state and also with the relative importance of resource-processing industries (those for which the products of

of agriculture and mining are important) since both these sectors are on the low-income-paying side. Incomes are positively associated with the relative importance of employment in the fabricating industries (whose material inputs are largely intermediate products) and these industries are important in the Manufacturing Belt states and in the Far West areas with the highest incomes."<sup>1</sup>

The above quote was printed in the Arthur D. Little report on New England which further states: "Much of the migration of population from Maine to other areas of the country appears to stem from the fact that employment opportunities in the state are growing at a slower pace than the labor force. This is a reflection of the fact that nearly one-quarter of employment is concentrated in industries such as Agriculture, Textiles, Leather and Lumber where increases in the volume of employment have been either minimal or absent.

"These factors also condition the future growth prospects for the Maine economy. Thus, the rate of growth of employment in Maine over the next 60 years is projected to be lower than that of New England. Nevertheless, the decrease in the proportion of some of the traditional slow-growth components in the industry structure, together with the growing importance of the service sector as a source of employment opportunities, will help to shape a sounder foundation for the long-range employment prospects in Maine. Output as measured in value-added terms is projected to rise fastest in Maine's Electrical Machinery and Chemical industries. This will occur largely as a result of rising levels of productivity in these

1 - Harvey S. Perloff with Vera W. Dodds, How a Region Grows, Supplementary Paper No. 17, Committee for Economic Development, March 1963.

industries and the influx of new firms into the state. Other industries for which significant production gains are forecast are non-electrical machinery and paper products."<sup>1</sup>

#### PROJECTIONS OF EMPLOYMENT

This section indicates Maine's pattern of slower employment growth than the New England region or the individual states over the last ten years. The Arthur D. Little report on the New England economy projects this slower growth into the future. Table 95 indicates that Maine's employment in manufacturing is projected to increase only 5.6% by 1980 -- by far the slowest rate of growth in the region and substantially below that of all other states with the exception of Rhode Island where a slow increase of 6.5% in manufacturing employment is also predicted.

In comparison with the other northern New England states, the Arthur D. Little report projects Maine manufacturing employment to grow at a rate about one-third as fast as New Hampshire and about one-fifth as fast as Vermont.

In the service industries (including construction, transportation, trade, finance, services and government) the Arthur D. Little report pegs Maine's employment growth at 34.5% -- the lowest in the region and substantially below the 58.5% increase projected for New Hampshire and the 46.6% increase projected for Vermont.

1 - Source 14, pg. 8

TABLE 95

## PROJECTIONS OF EMPLOYMENT GROWTH

(New England States Percentage of Change 1960-80)

	Manufacturing	Service <sup>1</sup> Industries	All <sup>2</sup> Employment
Maine	5.6	34.5	22.7
New Hampshire	18.2	58.5	40.5
Vermont	25.2	46.6	35.4
Massachusetts	16.5	43.3	33.1
Rhode Island	6.5	38.4	25.2
Connecticut	16.5	55.0	38.3

Source: 14

1 - Includes construction, transportation, trade, finance, services, government and non-classified but not mining.

2 - Includes agriculture, forestry and fisheries.

In all employment (including agriculture, forestry and fisheries as well as the non-agricultural sources of employment) Maine's percentage of employment increase is projected to be 22.7% -- the lowest increase in the region and roughly half the 40.5% increase projected for New Hampshire and two-thirds the 35.4% increase projected for Vermont.

## COMPARISON OF NORTHERN NEW ENGLAND EMPLOYMENT

In many ways the economy of Maine is more similar to the states of northern New England than to Massachusetts, Rhode Island and Connecticut, Table 96 abstracts the percentages of increase in employment over the last

TABLE 96

COMPARISON OF NORTHERN NEW ENGLAND STATES IN  
INCREASES IN NON-AGRICULTURAL EMPLOYMENT

(Percentage of Increase 1955-65)

	Maine	New Hampshire	Vermont
Manufacturing	-1.8	6.7	3.8
Wholesale - Retail Trade	1.7	25.2	22.1
Services	16.8	51.3	51.4
Government	27.7	35.2	21.3
Construction	-1.5	-2.9	40.9
Transportation - Public Utilities	-22.4	-11.2	-14.6
Finance, Insurance, Real Estate	26.9	50.0	30.3
ALL NON-AGRICULTURAL EMPLOYMENT	4.6	18.1	16.0

Source: 8 and 12

decade in all sources of non-agricultural employment. It indicates that Maine has trailed substantially behind the other two states of northern New England in employment gains, particularly in the area of the "big four" of manufacturing, trade, services and government. The only exception to this is in the area of government where the gain of 27.7% in employment in Maine over the decade, exceeds the gain of Vermont but does not equal the 35.2% increase in government employment in New Hampshire.

Maine lost slightly in manufacturing employment over the decade while both New Hampshire and Vermont gained. Sharp differences are noticeable in trade and in services where Maine's employment gain is particularly far below

the gains noted in both New Hampshire and Vermont. The same slower growth rate or higher rate of loss of workers is exhibited in the other sources of non-agricultural employment. The result is that Maine's rate of employment growth for all non-agricultural sources of employment is only 4.6% over the 1955-65 decade compared with 18.1% in New Hampshire and 16% in Vermont. The same slower growth in employment is shown in both halves of the decade. In 1955-60 Maine picked up only 0.9% in non-agricultural employment compared with 7.7% in New Hampshire and 4.8% in Vermont. In 1960-65 Maine picked up only 3.7% in non-agricultural employment compared with 9.7% in New Hampshire and 10.7% in Vermont. (Table 92)

#### MINING

As mentioned in the section on income, mining is a small segment of the economy both in Maine and New England. Employment figures from the Bureau of Labor Statistics group mining with services in Maine, Massachusetts, and Rhode Island and with contract construction in Connecticut since the employment levels are not high enough to publish them separately. The 1964 Minerals year-book places employment (men working daily) in the mineral industries in Maine in 1964 at 1,407 -- an increase from the 1,198 men working the previous year. While the increase in mineral production is noted since it reached a new high of \$17 million dollars in 1964, this total is small compared with the more than \$1,600 million in the value of the manufactured products in Maine.



## CONTRACT CONSTRUCTION

While contract construction accounts for a relatively small part of total production income (about 6%, see page 95) and for only 4% to 5% of employment in Maine and New England, it has an important impact on other industries and is a significant barometer of economic activity since changes in population and industry require construction activity -- residential, non-residential and in the area of public works and utilities.

In a recent study of the impact of construction on other industries, Norman Frumkin writing in the Survey of Current Business noted the impact of construction activity and pointed out that some industries such as heating, plumbing and structural metal products; stone and clay products; stone and clay mining and quarrying; and lumber and wood products, owe more than half of their total output to construction, either directly or indirectly. Even industries such as business services and paper and allied products owe more than 10% of their total output to construction uses.

In addition construction activity gives an indication of a variety of economic activity. As was noted in Section Two, personal income from construction increased 25% in Maine from 1964 to 1965. This followed almost a decade of very slow income growth at less than a third of the regional percentage of increase. While the accompanying tables in this section emphasize the long-range picture, they do include 1965. The value of contract construction awards in Maine increased from \$144 million in 1964 to \$151 million in 1965 -- or an

TABLE 97

## CONTRACT CONSTRUCTION EMPLOYMENT

New England States 1955 - 1965

(In Thousands of Employees Except Percents)

	1955	1960	1965	Percent of Change 1955-60	Percent of Change 1960-65	Percent of Change 1955-65
Maine	13.5	13.6	13.3	0.7	-2.2	-1.5
New Hampshire	10.2	9.8	9.9	-3.9	1.0	-2.9
Vermont	4.4	6.0	6.2	36.4	3.3	40.9
Massachusetts	77.4	78.2	88.5	1.0	13.2	14.3
Rhode Island	12.8	11.9	14.2	-7.0	19.3	10.9
Connecticut <sup>1</sup>	44.9	44.6	46.7	-0.7	4.7	4.0
.....						
New England	163.2	164.1	178.9	0.6	9.0	9.6
.....						

Source: 8 and 12

1 - Includes Mining

increase of only 4.7%. The increase included residential construction awards, up 11%, non-residential, down 7.3%, and non-building (public works, engineering, etc.), up 16.4%. A different pattern is exhibited in Vermont where construction contract awards, as compiled by the F. W. Dodge Corporation, increased from \$66 million in 1964 to \$106 million in 1965 -- or an increase of 59% in one year. The increase included residential contract awards up 36%, non-residential up 69%; and non-building construction up 66%.

The employment picture in contract construction, based on preliminary estimates, remained little changed in Maine. (Table 97) Employment of 13.3 million persons in contract construction in Maine was slightly lower than the level of employment in both 1955 and 1960, indicating a ten-year decline of 1.5%. New Hampshire noted a similar slight decline of 2.9%. A substantial increase of 40.9% was noted in Vermont but even there the increase in contract awards had evidently not yet had an impact on hirings since the increase in employment during the most recent 1960-65 period was only 3.3%. Moderate increases in contract construction employment were noted over the decade in the southern New England states. Regionally from 1955 to 1965 there was a 9.6% increase in contract construction employment. Maine, New Hampshire and Connecticut were the only states to fail to keep pace with the regional change.

In percentage of change in total contract construction awards Maine has trailed both the other New England states and the region as a whole. In the 1959-62 period total contract construction awards in Maine dropped 11.3%. Similar losses were also noted in New Hampshire, Vermont, and Rhode Island (Table 98) contrasted with gains in Massachusetts and Connecticut. In the 1962-65 period Maine picked up 28.1% in total contract construction awards -- a percentage of increase lower than that of the other states except for Massachusetts, which showed a slight decrease following a period of heavy spending in the public works sector.

TABLE 98

## CONSTRUCTION CONTRACT AWARDS

New England States 1959 - 1965

(In Millions of Dollars Except Percents)

	Totals			Percent of Change		
	1959	1962	1965	1959-62	1962-65	1959-65
Maine	133.0	118.0	151.2	-11.3	28.1	13.7
New Hampshire	124.8	105.3	149.7	-15.6	42.2	20.0
Vermont	79.2	69.8	106.1	-11.9	52.0	34.0
Massachusetts	796.0	1111.5	1093.3	39.6	-1.6	37.3
Rhode Island	147.9	132.1	192.4	-10.7	45.6	30.1
Connecticut	522.4	600.6	798.9	15.0	33.0	52.9
.....						
New England	1833.3	2137.4	2491.6	16.6	16.6	35.9
.....						
United States	36268.5	41303.5	49272.2	13.9	19.3	35.9
.....						

Source: F. W. Dodge Corporation  
(Courtesy of Federal Reserve Bank of Boston)

Over the entire 1959-65 period Maine gained 13.7% in contract construction contrasted with a percentage of increase of 35.9% for New England. Increases in other states ranged from 20% in New Hampshire to 52.9% in Connecticut.

Table 99 shows the importance of residential construction in the 1959-65 period. Despite the gains in the last year Vermont failed to match the level of residential construction in 1959 and showed a long term decline of 5.9%. The same was true in Maine and New Hampshire with Maine showing a decline of 17.9% --

TABLE 99

## RESIDENTIAL CONTRACT CONSTRUCTION AWARDS

New England States 1959 - 1965

(Millions of Dollars Except Percents)

	Total Awards		Percent of All Awards in 1965	Percent of Change 1959-65
	1959	1965		
Maine	58.2	47.8	31.6	-17.9
New Hampshire	52.6	47.0	31.4	-10.6
Vermont	27.1	25.5	24.0	-5.9
Massachusetts	321.9	475.9	43.5	47.8
Rhode Island	53.0	89.5	46.5	68.9
Connecticut	288.0	394.5	49.4	37.0
.....				
New England	800.7	1080.3	43.4	34.9
.....				
United States	17149.7	21247.5	43.1	23.9
.....				

Source: F. W. Dodge Corporation  
(Courtesy of Federal Reserve Bank of Boston)

the heaviest in New England. While the three northern New England states noted drops in residential construction over 1959-65, substantial gains of more than 35% were noted in all three southern New England states. The regional average increase for 1959-65 in residential contract construction awards was 34.9%.

In contrast to the residential construction picture Maine showed a substantial gain of 80.5% in non-residential construction over 1959-65. This was

TABLE 100

NON-RESIDENTIAL CONTRACT CONSTRUCTION AWARDS

New England States 1959 - 1965

(In Millions of Dollars Except Percents)

	<u>Total Awards</u>		Percent of All Awards in 1965	Percent of Change 1959-65
	1959	1965		
Maine	31.3	56.5	37.4	80.5
New Hampshire	34.0	68.9	46.0	102.6
Vermont	15.2	38.6	36.4	153.9
Massachusetts	278.6	436.2	39.9	56.6
Rhode Island	84.6	58.5	30.4	69.1
Connecticut	187.0	270.1	33.8	44.4
.....				
New England	630.7	928.8	37.7	47.3
.....				
United States	11386.6	17219.2	34.9	51.2
.....				

Source: F. W. Dodge Corporation  
(Courtesy of Federal Reserve Bank of Boston)

not as high as the 102.6% registered in New Hampshire or the unusual 153.9% registered in Vermont but it was above the percentages of increase of the three southern New England states, and above the regional average increase of 47.3% in non-residential construction.

There is considerable variation in yearly contract construction awards in the non-building or public works sector, but a comparison of the 1959 and 1965 levels indicated a small gain of 7.8% in Maine compared with a regional gain of 20.1%. Rhode Island in 1965 had a total of \$44.4 million in contract awards in this area for an exceptional increase of 326% above the 1959 level.

TABLE 101

NON-BUILDING CONTRACT CONSTRUCTION AWARDS  
(Engineering, Public Works, Utilities, etc.)

New England States 1959 - 1965

(In Millions of Dollars Except Percents)

	Total Awards		Percent of All Awards in 1965	Percent of Change 1959-65
	1959	1965		
Maine	43.5	46.9	31.0	7.8
New Hampshire	38.2	33.7	22.5	-11.8
Vermont	36.9	41.9	39.5	13.6
Massachusetts	195.5	181.3	16.6	-7.3
Rhode Island	10.4	44.4	23.1	326.9
Connecticut	77.4	134.3	16.8	73.5
.....				
New England	401.9	482.5	19.4	20.1
.....				
United States	7732.3	10805.4	21.9	39.7
.....				

Source: F. W. Dodge Corporation

(Courtesy of Federal Reserve Bank of Boston)

While comparisons of selected years may tend to distort the picture somewhat, it is apparent that both in terms of employment and in actual construction, the level of activity in Maine has not increased at a rate close to that of the region, with the exception of non-residential construction which has shown an increase above that of the region. This is also indicated by the fact that percentages of increase in personal income from contract construction lagged considerably behind the region and all of the individual New England states.

TABLE 102

CONTRACT CONSTRUCTION EMPLOYMENT<sup>1</sup>

Maine Subareas and Counties 1956-64

(In Persons Except Percent)

	1956	1959	1964	Percent of Change 1956-64
MAINE	9062	8546	8923	-7.1
.....				
Aroostook	591	490	449	-24.0
Penobscot	955	1258	947	-0.8
.....				
SUBAREA ONE	1546	1748	1396	-9.7
.....				
Kennebec	761	760	866	13.8
Androscoggin	933	788	979	4.9
Sagadahoc	474	133	182	-61.6
Cumberland	2967	2309	2793	-5.9
York	622	568	694	11.6
.....				
SUBAREA TWO	5757	4558	5514	-4.2
.....				
Oxford	121	123	162	33.9
Franklin	93	108	126	35.5
Somerset	397	405	348	-12.3
Piscataquis	D	D	D	X
Waldo	205	60	132	-35.6
Lincoln	134	146	161	20.1
Knox	222	224	227	2.3
Hancock	450	402	425	-5.6
Washington	169	179	235	39.1
.....				
SUBAREA THREE	1791	1647	1816	1.4
.....				

Source: 10

D - Data withheld to avoid disclosure of individual firm.

1 - Employment stated as of mid-March pay period.

(Note: Totals do not add to state total due to some employees being classified as "statewide".)



## COUNTY PATTERNS IN CONTRACT CONSTRUCTION

The lack of statewide growth in construction employment is reflected in the figures from County Business Patterns on mid-March pay periods (Table 102) which shows that construction employment dropped 7.1% in Maine during the 1956-64 period. As mentioned previously, average employment in construction is estimated at about 13,000 when seasonal variations are taken into consideration. The mid-March figure can be considered as representing largely year around construction employment.

The percentage gains or losses in many of the counties are not significant to the state as a whole due to the small number of workers involved. The heaviest percentage decline was noted in Subarea One but by far the largest number of workers involved are in Subarea Two where employment in the construction trades dropped 4.2% over the ten years. A small gain was noted in Subarea Three.

It should be noted that while the percentage figures reflect declines in construction employment between 1956 and 1964, that in every county except Aroostook, Penobscot and Somerset there were increases in construction employment between 1959 and 1964.

## FINANCE, INSURANCE AND REAL ESTATE

The rapid growth in personal income from Finance, Insurance and Real Estate was noted in Section Two. Income from these sources picked up more than 80% in the 1955-64 period. This trend of rapid growth is also reflected in the employment figures (Table 103) which indicate that 9,900 persons were employed in this segment of the economy in 1965 as compared

TABLE 103

## FINANCE, INSURANCE AND REAL ESTATE EMPLOYMENT

New England States 1955 - 1965

(In Thousands of Persons Except Percents)

	1955	1960	1965	Percent of Change 1955-60	Percent of Change 1960-65	Percent of Change 1955-65
Maine	7.8	9.0	9.9	15.4	10.0	26.9
New Hampshire	5.6	7.2	8.4	28.6	16.7	50.0
Vermont	3.3	3.9	4.3	18.2	10.3	30.3
Massachusetts	88.4	99.5	106.5	12.6	7.0	20.5
Rhode Island	12.3	12.6	13.8	2.4	9.5	12.2
Connecticut	45.1	53.0	58.5	17.5	10.4	29.7
.....						
New England	162.5	185.2	201.3	14.0	8.7	23.9
.....						

Source: 8 and 12

with only 7,800 persons in 1956. This gain of 26.9% for Maine in employment in finance was above the regional gain and was also higher than the employment gains registered in Rhode Island and Massachusetts; however, it was below gains made in Connecticut and Vermont and substantially below the 50% increase in Finance, Insurance and Real Estate employment in New Hampshire.

The growth in all the New England states except Rhode Island in employment in this group was more rapid in the first half of the decade than in the latter half. Maine exceeded regional growth in employment in this group in both halves of the 1955-65 period.

TABLE 104

FINANCE, INSURANCE AND REAL ESTATE EMPLOYMENT<sup>1</sup>

Maine Subareas and Counties 1956 - 1964

(In Persons Except Percents)

	1956	1959	1964	Percent of Change 1956-64
MAINE	7587	8408	9584	26.3
.....				
Aroostook	411	463	581	41.4
Penobscot	924	1079	1112	20.3
.....				
SUBAREA ONE	1335	1560	1693	26.8
.....				
Kennebec	625	698	851	36.2
Androscoggin	733	792	834	13.8
Sagadahoc	94	113	100	6.4
Cumberland	3263	3536	4308	32.0
York	442	557	502	13.6
.....				
SUBAREA TWO	5157	5696	6595	27.9
.....				
Oxford	139	201	224	61.2
Franklin	84	87	79	-6.0
Somerset	104	115	148	42.3
Piscataquis	57	43	65	14.0
Waldo	50	61	67	34.0
Lincoln	85	85	94	10.6
Knox	147	185	163	10.9
Hancock	150	190	236	57.3
Washington	125	135	78	-37.6
.....				
SUBAREA THREE	941	1102	1154	22.6
.....				

Source: 10

1 - Employment stated as of mid-March pay period.

(Note: Totals may not add to state total due to some employees being classified as "statewide".)

## COUNTY PATTERNS IN FINANCE, INSURANCE AND REAL ESTATE

The county figures (Table 104) reflect mid-March employment, however, unlike construction which is seasonal, they account for almost all of the average total for the year, as estimated by the Bureau of Labor Statistics. While the period of time covered is slightly different, a 26% gain is noted in Maine both in average yearly employment and in mid-March employment.

The number of persons involved in many of the individual counties is not large with Cumberland and Penobscot indicating their positions as business centers and being the only counties with more than 1,000 employees in this classification. Gains were fairly evenly distributed among the subareas with each of the three picking up more than a 20% increase in employment over the 1956-64 period. The increase was particularly marked in Cumberland County which increased employment in this category more than 1,000 workers or 32%.

## TRANSPORTATION, COMMUNICATIONS AND PUBLIC UTILITIES

As noted in Section Two income from Transportation, Communications and Public Utilities increased over the last decade at a rate only about half as fast as average income from all other sources of production. This is also indicated by employment figures which show (Table 105) that while Maine had 21,000 persons working in these fields in 1955, they accounted last year for the employment of only 16,300 persons. A decrease was noted in all of the New England states except Connecticut, however, Maine's decline of 22.4% was the heaviest of any of the states and was a loss more than twice the regional average.

TABLE 105

TRANSPORTATION, COMMUNICATIONS AND  
PUBLIC UTILITIES EMPLOYMENT

New England States 1955 - 1965

(In Thousands of Persons Except Percents)

	1955	1960	1965	Percent of Change 1955-60	Percent of Change 1960-65	Percent of Change 1955-65
Maine	21.0	18.1	16.3	-13.8	-9.9	-22.4
New Hampshire	10.7	9.7	9.5	-9.3	-2.1	-11.2
Vermont	8.2	7.5	7.0	-8.5	-6.7	-14.6
Massachusetts	119.3	105.9	101.4	-11.2	-4.2	-15.0
Rhode Island	15.8	14.6	14.8	-7.6	1.4	-6.3
Connecticut	43.3	44.5	46.2	2.5	3.8	6.5
.....						
New England	218.4	200.3	195.3	-8.3	-2.5	-10.6
.....						

Source: 8 and 12

Losses in workers in this segment of the economy were noted by most New England states in both halves of the 1956-64 period but were more pronounced in the first half of the period.

COUNTY PATTERNS IN TRANSPORTATION, COMMUNICATIONS  
AND PUBLIC UTILITIES

Workers on mid-March payrolls accounted for about 75% of the workers in Maine in these fields. The decline in covered payroll employment (Table 105) as measured during the first quarter of each year was much less marked than the decline in average yearly employment. The employment count in

TABLE 106

TRANSPORTATION, COMMUNICATIONS AND <sup>1</sup>  
PUBLIC UTILITIES EMPLOYMENT

Maine Subareas and Counties 1956-64

(In Persons Except Percent)

	1956	1959	1964	Percent of Change 1956-64
MAINE	12586	12198	12223	-2.9
.....				
Aroostook	763	938	1012	32.6
Penobscot	1832	1819	1545	-15.7
.....				
SUBAREA ONE	2595	2757	2557	-1.5
.....				
Kennebec	1335	861	1466	9.8
Androscoggin	860	904	980	14.0
Sagadahoc	170	184	200	17.6
Cumberland	4513	4386	4174	-7.5
York	595	610	697	17.1
.....				
SUBAREA TWO	7473	6945	7517	0.6
.....				
Oxford	446	431	328	-26.5
Franklin	120	157	121	0.8
Somerset	313	286	272	-13.1
Piscataquis	185	163	132	-28.6
Waldo	269	346	202	-24.9
Lincoln	227	72	161	-29.1
Knox	404	321	343	-15.1
Hancock	301	242	306	1.7
Washington	211	417	168	-20.4
.....				
SUBAREA THREE	2476	2435	2033	-17.9
.....				

Source: 10

1 - Employment stated as of mid-March pay period

(Note: Totals may not add to state total due to some employees being classified as "statewide".)

mid-March remained virtually static over the 1956-64 period although some counties such as Aroostook made significant gains. There was little change in employment totals in either Subarea One or Subarea Two but Subarea Three experienced a drop of 17.9% in employment in transportation, communications and public utilities.

#### ECONOMIC INDICATORS - "THE BIG FOUR"

This section concludes with a discussion of the four major sources of employment -- manufacturing, trade, services and government. Just as these four sources account for about 75% of personal production income in Maine they also accounted for more than 86% of non-agricultural employment in 1965. Manufacturing alone accounts for 37% of Maine non-agricultural employment.

There has been a sharp upturn in the economy in the last few years but it is difficult to obtain reliable regional figures that reflect this due to the time lag in compiling and issuing the figures. This is illustrated by Table 107 which shows that retail sales in Maine lagged behind the region and were lower in percentage of gain than any other New England state in the 1958-63 period. However, the estimates available from Sales Management - Survey of Buying Power indicate that Maine's gain in retail sales in the 1963-65 period was higher than that of the region and was also higher than that of any of the other states. The gains were not sufficient to bring Maine's longer term gain up to the regional level but they do indicate a marked improvement. The same type of problem is illustrated by Table 108 which shows that Aroostook County which registered almost no gain in retail sales in 1958-63 experienced a sharp upturn of 37.2% in 1963-65, by far the sharpest increase in retail sales for the period

TABLE 107

CENSUS OF BUSINESS ECONOMIC INDICATORS

New England States 1958 - 1963

(Change in Percent)

	Retail Sales 1958-63	Retail Sales 1963-65	Wholesale Sales 1958-63	Service Receipts 1958-63	Value Added by Manufacturing 1958-63
Maine	15.0	16.5	15.6	16.9	24.0
New Hampshire	25.3	13.2	27.5	36.3	33.3
Vermont	20.7	13.8	14.5	48.7	31.2
Massachusetts	19.1	11.9	19.8	37.2	24.0
Rhode Island	21.2	15.6	19.3	34.6	25.6
Connecticut	26.6	13.0	33.8	39.0	40.4
.....					
New England	21.5	13.0	22.2	36.2	29.8
.....					

Source: 1963 Census of Business except for Retail Sales 1963-65 based on 1965 estimates by Sales Management - Survey of Buying Power. Percentages derived.

of any county in the state. Since the Census of Business is taken only every five years many of the gains now being made will not be registered in the census figures until 1968, however, they should be reflected in the 1966 County Business Patterns which will be available during 1967.

While the available retail sales estimates for 1963-65 indicate an improvement for Maine, there is no question that the indicators issued by the 1963 Census of Business show that Maine lagged behind the region and the individual states in business growth in the 1958-63 period between censuses. This was true of growth



TABLE 108

## CENSUS OF BUSINESS ECONOMIC INDICATORS

## Maine Subareas and Counties

(Change in Percent)

	Retail Sales 1958-63	Retail Sales 1963-65	Wholesale Sales 1958-63	Service Receipts 1958-63	Value Added by Manufacturing 1958-63
MAINE	15.0	16.5	15.6	16.9	24.0
.....					
Aroostook	0.2	37.2	-9.0	-8.2	25.3
Penobscot	21.7	17.7	8.4	11.3	37.6
.....					
SUBAREA ONE	12.5	25.1	0.8	3.3	34.5
.....					
Kennebec	18.9	14.2	37.6	9.7	28.5
Androscoggin	17.7	11.4	55.6	32.0	8.6
Sagadahoc	9.2	16.4	53.8	-45.7	10.2
Cumberland	12.6	16.3	18.0	36.8	23.3
York	23.3	11.6	23.2	11.9	27.5
.....					
SUBAREA TWO	16.4	14.2	24.5	23.4	20.5
.....					
Oxford	16.2	10.8	25.8	8.0	31.9
Franklin	31.5	19.5	10.0	0.0	36.2
Somerset	29.7	8.8	-5.4	6.5	31.6
Piscataquis	5.6	11.2	24.1	7.1	12.0
Waldo	0.0	18.0	-9.7	11.1	13.0
Lincoln	20.8	13.8	87.8	22.2	4.4
Knox	16.0	11.3	-22.0	20.6	7.6
Hancock	6.3	23.4	-4.3	13.0	48.5
Washington	0.0	10.4	47.6	14.3	6.7
.....					
SUBAREA THREE	14.1	13.7	4.0	11.4	24.5
.....					

Source: 1963 Census of Business except for Retail Sales 1963-65 based on 1965 estimates by Sales Management - Survey of Buying Power. Percentages derived.

in retail sales, wholesale sales, service receipts and value added by manufacture. Maine's increase of 15% in retail sales was below the percentage of increase recorded in every other New England state and was substantially below the 25.3% increase in New Hampshire and the 26.6% increase in Connecticut.

Maine slightly exceeded Vermont in its 15.6% increase in wholesale sales in 1958-63 but was behind the other states, particularly New Hampshire and Connecticut which registered strong gains over 25%.

Perhaps the most noticeable area of difference in the Census of Business was service receipts. They were up 16.9% in Maine but this was less than half the gain registered in the region and in every other New England state.

Maine's position in percentage of increase in value added by manufacture was better than in the other areas. The 24% increase in Maine was equal to the percentage of increase in Massachusetts and close to the increase in Rhode Island but substantially below the 30% to 40% increases registered in New Hampshire, Vermont and Connecticut.

On the county level it should be remembered that the about 53% of the retail sales, 65% of the wholesale sales, 62% of the service receipts and 54% of the value added by manufacture are in the five counties of Subarea Two. This means that relatively small dollar changes can create large changes in percentages, particularly in the counties in Subarea Three.

However, the broad conclusion can be drawn that in all the economic indicators for 1958-63, except value added by manufacturing, the growth in Subarea One and Subarea Three has been slower than the growth in Subarea Two. (Table 198)

## MANUFACTURING

Several of the New England states have noted declines in manufacturing employment during the 1955-65 decade. The decline was particularly marked in Rhode Island (Table 109) which dropped more than 11% of its manufacturing workers. Maine's decline in manufacturing employment was only 1.8% as contrasted to Rhode Island and to a loss of 5.7% of the manufacturing workers in Massachusetts. But the losses of these three states were in marked contrast to New Hampshire which picked up 6.7% in manufacturing employment while Vermont gained 3.8% and Connecticut 3%. As was pointed out in the income figures the strong gain in Vermont during the last few years should be noted.

TABLE 109

### MANUFACTURING EMPLOYMENT

New England States 1955 - 1965

(In Thousands of Persons Except Percents)

	1955	1960	1965	Percent of Change 1955-60	Percent of Change 1960-65	Percent of Change 1955-65
Maine	108.3	104.5	106.4	-3.5	1.8	-1.8
New Hampshire	83.1	87.0	88.7	4.7	2.0	6.7
Vermont	37.1	35.3	38.5	-4.9	9.1	3.8
Massachusetts	700.7	698.0	661.1	-0.4	-5.3	-5.7
Rhode Island	131.7	119.7	116.8	-9.1	-2.4	-11.3
Connecticut	423.2	407.2	435.8	-3.8	7.0	3.0
.....						
New England	1484.1	1451.7	1447.3	-2.2	-0.3	-2.5
.....						

Source: 8 and 12

TABLE 110

MANUFACTURING EMPLOYMENT <sup>1</sup>

Maine Subareas and Counties 1956 - 1964

(In Persons Except Percent)

	1956	1959	1964	Percent of Change 1956-64
MAINE	104,888	97,108	97,632	-6.9
.....				
Aroostook	3,519	3,612	4,224	20.0
Penobscot	12,292	11,754	11,297	-8.1
.....				
SUBAREA ONE	15,811	15,366	15,521	-1.8
.....				
Kennebec	11,636	10,619	10,281	-11.6
Androscoggin	16,661	15,719	13,077	-21.5
Sagadahoc	3,581	1,471	3,635	1.5
Cumberland	15,314	18,251	16,953	10.7
York	12,477	9,329	11,054	-11.4
.....				
SUBAREA TWO	59,669	55,389	55,000	-7.8
.....				
Oxford	7,866	7,018	7,824	-0.5
Franklin	3,517	3,689	3,722	5.8
Somerset	6,699	5,648	5,756	-14.1
Piscataquis	1,823	2,004	1,881	3.2
Waldo	1,846	2,060	1,886	2.2
Lincoln	1,292	637	842	-34.8
Knox	2,047	1,687	1,832	-10.5
Hancock	1,844	1,622	1,434	-22.2
Washington	2,384	1,826	1,802	-24.4
.....				
SUBAREA THREE	29,318	26,191	26,979	-8.0
.....				

Source: 10

1 - Employment stated as of mid-March pay period

(Note: Totals may not add to state total due to some employees being classified as "statewide".)

After losing nearly 5% of its manufacturing workers in the first half of the decade, Vermont showed a strong gain of 9.1% in manufacturing employment in 1960-65 to register the strongest gain among the New England states and far above the total for the region which was virtually static.

Manufacturing employment in Maine which accounts for some 37% of the non-agricultural employment, declined from 108,300 employees in 1955 to 104,500 employees in 1960 and then registered a gain to 106,400 employees in 1965.

#### COUNTY BUSINESS PATTERNS IN MANUFACTURING

The employees on mid-March payrolls as recorded in County Business Patterns (Table 110) account for the bulk of the average number of manufacturing workers during the year. However, the state decline as measured by mid-March payrolls was 6.9% over the 1956-64 period. All of the subareas and most of the counties followed patterns similar to the state but declines in manufacturing employment were most marked in Androscoggin, Lincoln, Hancock and Washington counties with drops in manufacturing employment of more than 20%. Only six counties registered gains in manufacturing employment over the decade -- Aroostook (with the most pronounced gain of 20%) Sagadahoc, Cumberland, Franklin, Piscataquis, and Waldo.

#### WHOLESALE AND RETAIL TRADE EMPLOYMENT

There was substantial growth in trade employment of more than 20% from 1955 to 1965 in three states -- New Hampshire, Vermont and Connecticut. Moderate gains were registered in Massachusetts which picked up 11.8% more

TABLE 111

## WHOLESALE AND RETAIL TRADE EMPLOYMENT

New England States 1955 - 1965

(In Thousands of Persons Except Percents)

	1955	1960	1965	Percent of Change 1955-60	Percent of Change 1960-65	Percent of Change 1955-65
Maine	54.1	53.9	55.0	-0.4	2.0	1.7
New Hampshire	31.3	34.2	39.2	9.3	14.6	25.2
Vermont	18.1	20.4	22.1	12.7	8.3	22.1
Massachusetts	367.9	386.6	411.3	5.1	6.4	11.8
Rhode Island	53.6	53.5	56.4	-0.2	5.4	5.2
Connecticut	144.7	159.9	183.8	10.5	14.9	27.0
.....						
New England	669.7	708.5	767.8	5.8	8.4	14.6
.....						

Source: 8 and 12

employees in this category and in Rhode Island which gained 5.2%. In Maine there was virtually no change over the decade with employment in this classification increasing only 900 persons or 1.7%, compared with a regional average of 14.6% for the ten years.

Similar patterns for the two halves of the decade are shown by Table 111 which indicates that in 1955-60 Maine and Rhode Island were the only two states in the region to lose employment in wholesale and retail trade. Maine's gain of 2% in trade employment in 1960-65 was the lowest in the region and well below the regional gain of 8.4%.

TABLE 112

WHOLESALE TRADE EMPLOYMENT <sup>1</sup>

Maine Subareas and Counties 1956 - 1964

(In Persons Except Percent)

	1956	1959	1964	Percent of Change 1956-64
MAINE	13,215	13,134	13,572	2.7
.....				
Aroostook	1,572	1,455	1,331	-15.3
Penobscot	2,002	2,101	2,055	2.6
.....				
SUBAREA ONE	3,574	3,556	3,386	-5.3
.....				
Kennebec	753	705	842	11.8
Androscoggin	1,113	1,149	1,318	18.4
Sagadahoc	45	60	58	28.9
Cumberland	5,019	5,426	5,517	9.9
York	398	314	390	-2.0
.....				
SUBAREA TWO	7,328	7,654	8,125	10.9
.....				
Oxford	167	248	207	24.0
Franklin	97	46	25	-74.2
Somerset	170	126	219	28.8
Piscataquis	45	61	78	73.3
Waldo	106	101	104	-1.9
Lincoln	116	85	89	-23.3
Knox	451	450	276	-38.8
Hancock	201	180	222	10.4
Washington	215	168	292	35.8
.....				
SUBAREA THREE	1,568	1,465	1,512	-3.6
.....				

Source: 10

1 - Employment stated as of mid-March pay period  
 (Note: Totals may not add to state total due to some employees  
 being classified as "statewide".)

TABLE 113

RETAIL TRADE EMPLOYMENT <sup>1</sup>

Maine Subareas and Counties 1956 - 1964

(In Persons Except Percent)

	1956	1959	1964	Percent of Change 1956-64
MAINE	37,813	37,483	37,659	-0.4
.....				
Aroostook	3,694	3,437	3,420	-7.4
Penobscot	5,104	4,838	5,073	-0.6
.....				
SUBAREA ONE	8,798	8,275	8,493	-3.5
.....				
Kennebec	3,570	4,081	3,789	6.1
Androscoggin	3,937	3,768	3,875	-1.6
Sagadahoc	737	604	550	-25.4
Cumberland	10,096	10,286	9,889	-2.1
York	3,157	3,122	3,434	8.8
.....				
SUBAREA TWO	21,497	21,861	21,537	0.2
.....				
Oxford	1,083	1,179	1,253	15.7
Franklin	480	505	628	30.8
Somerset	1,035	972	1,228	18.6
Piscataquis	556	464	484	-12.9
Waldo	505	570	443	-12.3
Lincoln	596	502	609	2.2
Knox	1,109	1,078	1,101	-0.7
Hancock	1,011	976	982	-2.9
Washington	826	819	771	-6.7
.....				
SUBAREA THREE	7,201	7,065	7,499	4.1
.....				

Source: 10

1 - Employment stated as of mid-March pay period

(Note: Totals may not add to state total due to some employees being classified as "statewide".)



## COUNTY BUSINESS PATTERNS IN WHOLESAL AND RETAIL TRADE

Maine's lack of growth in employment in wholesale and retail trade is also exhibited (Table 112) by the mid-March payroll totals from County Business Patterns. In the 1956-64 period Maine gained only 2.7% in employment in wholesale trade. Subarea One and Three noted a decline in wholesale employment while Subarea Two picked up 10%. The numbers of workers involved in wholesale trade in many counties is small with only Aroostook, Penobscot, Androscoggin and Cumberland having more than 1,000 employees in this classification. In these counties Aroostook dropped 15.3% of its workers, Penobscot gained 2.6%, Androscoggin gained 18.4%, and Cumberland 9.9%.

In contrast to the about 13,500 Maine workers in wholesale trade who are covered by social security there are some 37,600 retail trade workers (Table 113) who fall in this group. Maine noted a decline of 0.4% in employment in retail trade over the 1956-64 period. There was a loss of 3.5% of retail trade employment in Subarea One, virtually no change in Subarea Two and a gain of 4% in Subarea Three. The pattern among the counties was varied with only Kennebec, York, Oxford, Franklin, Somerset and Lincoln counties noting any gains in retail trade employment between 1956 and 1964.

## SERVICE AND MISCELLANEOUS EMPLOYMENT

Employment in this group includes hotels, personal services such as laundries and beauty shops, business services, repair services, amusements, medical, legal and health services. As noted in the income section, this is one of the fastest growing segments of industry with income from these sources increasing 72% in Maine and 97% in the region over the last ten years.

TABLE 114

## SERVICE AND MISCELLANEOUS EMPLOYMENT

New England States 1955 - 1965

(In Thousands of Persons Except Percent)

	1955	1960	1965	Percent of Change 1955-60	Percent of Change 1960-65	Percent of Change 1955-65
Maine <sup>1</sup>	28.5	30.2	33.3	6.0	10.3	16.8
New Hampshire	22.8	26.9	34.5	18.0	28.3	51.3
Vermont	14.6	16.7	22.1	14.4	32.3	51.4
Massachusetts <sup>1</sup>	243.3	299.4	360.4	23.1	20.4	48.1
Rhode Island <sup>1</sup>	31.9	39.3	46.5	23.2	18.3	45.8
Connecticut	93.7	113.8	136.4	21.5	19.9	45.6
.....						
New England	434.8	526.3	633.2	21.0	20.3	45.6
.....						

Source: 8 and 12

1 - Includes mining

Maine had in 1965 some 33,300 persons employed in the various service categories compared with 28,500 persons so employed in 1955, or a gain of 16.8%. This was the lowest percentage of gain (Table 114) of any of the New England states and less than half of the growth registered by the region which picked up 45.6% in service employment over the decade. Gains in the other New England states were all over 40% ranging from 45.6% in Connecticut to 51.4% in Vermont.

The county and subarea totals in service employment as stated in County Business Patterns are omitted here due to changes in the Social Security laws for the period under discussion. The 1959 edition of County Business Patterns

began for the first time to include data for all employment of religious, charitable, educational and other non-profit institutions voluntarily covered under the elective provisions of Social Security. The employment and payrolls of these organizations are heavily concentrated in the service division especially in the hospital and education industries in which they are the dominant factor. The affect on the totals can be seen by comparing the estimate of the Bureau of Labor Statistics that Maine had 28,500 persons employed in service industries in 1955 but only 13,548 were reported in County Business Patterns as being covered by Social Security. Maine had in March of 1964 in Subarea One 5,123 persons on covered employment in service industries; 17,262 in Subarea Two; and 5,271 in Subarea Three. There has been substantial growth at the county level in employment in the service industries but it is not possible to separate increases in the totals so that they can be allocated to growth due to more persons being hired and growth due to additional persons electing to be covered by Social Security.

## GOVERNMENT

Maine employment in government (Table 115) increased from 41,900 persons in 1955 to 53,500 persons in 1965 or a gain of 27.7%. This was the third highest percentage of increase in government employment in New England ranking only under the 35.2% increase in New Hampshire and the 41.1% increase in Connecticut. All New England states showed increases of more than 20% with the average for the region being 29%.

Maine's increase in government employment of 15% in the 1955-60 period was above that of every other state except Connecticut and was above the

TABLE 115

## GOVERNMENT EMPLOYMENT

New England States 1955 - 1965

(In Thousands of Persons Except Percents)

	1955	1960	1965	Percent of Change 1955-60	Percent of Change 1960-65	Percent of Change 1955-65
Maine	41.9	48.2	53.5	15.0	11.0	27.7
New Hampshire	19.6	22.5	26.5	14.8	17.8	35.2
Vermont	15.0	16.0	18.2	6.7	13.8	21.3
Massachusetts	221.3	249.1	279.4	12.6	12.2	26.3
Rhode Island	36.8	40.1	44.4	9.0	10.7	20.7
Connecticut	79.8	93.7	112.6	17.4	20.2	41.1
.....						
New England	414.4	469.6	534.6	13.3	13.8	29.0
.....						

Source: 8 and 12

regional average. The increase of 11% in Maine in the last half of the decade was under the regional average and was exceeded by every other state except Rhode Island.

A breakdown of employment into federal and state and local sources as compiled by the Bureau of Labor Statistics was not available for the entire 1955-65 period at the time of writing, however, Table 116 indicates the breakdown of federal, state and local government employment in 1960 and 1964. In 1964 there were 52,600 persons in government employment in Maine with 16,700 or 31.7% being in federal employment and 35,900 or 68.3% being in state and local government employment (including teachers). These totals represented a decline of

TABLE 116

## GOVERNMENT EMPLOYMENT IN MAINE 1960 - 1964

(In Thousands of Persons Except Percents)

	1960	1964	Percent of Change 1960-64	Percent in Each Class 1964
Federal	18.5	16.7	-9.7	31.7
State and Local	29.7	35.9	20.9	68.3

Source: 8

9.7% in federal employment in Maine over the four years and an increase of 20.9% in state and local employment over the same period.

Due to the fact that many state and local government employees have special pension plans and are not covered by Social Security, the totals for government employment on the county level are not given in County Business Patterns.

SOURCES FOR EMPLOYMENT AND  
OTHER ECONOMIC INDICATORS SECTION

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14. Projective Economic Studies of New England, Arthur D. Little Inc., Cambridge, Mass., 1964-65



APPENDIX A      POPULATION TABLES

- A - 1      New England Population in Census Years 1940-60 and Projections  
                 1970-80 With Percentages of Change
- A - 2      New England Population by Five Year Periods - Estimates 1960-65  
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                 Projections of New England Population by Age - 1960-80  
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- A - 3      Ages 5 - 17
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- A - 7      Maine Counties and Subareas - Population 1940-60 and Population  
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                 Urban, and Density Per Square Mile
- A - 8      Net Migration Totals for Maine Counties and Subareas by Selected  
                 Age Groups 1950-60
- A - 9      Migration Rates for Maine Counties and Average Rates of Migration  
                 for Subareas 1950-60





TABLE A-1 NEW ENGLAND POPULATION IN CENSUS YEARS 1940-60 AND PROJECTIONS 1970-80 WITH PERCENTAGES OF CHANGE

In 1000's	1940	Percent of Change		Percent of Change		Percent of Change		Percent of Change		Percent of Change	
		1930 - 40	1950	1940 - 50	1960	1950 - 60	1970	1960 - 70	1980	1970 - 80	1940 - 80
Maine	847	6.2	914	7.9	969	6.1	1030	6.3	1141	10.8	34.7
New Hampshire	492	5.6	533	8.5	607	13.8	717	18.1	847	18.2	72.2
Vermont	359	-0.1	378	5.2	390	3.2	439	12.6	499	13.7	39.0
Massachusetts	4317	1.6	4691	8.7	5149	9.8	5648	9.7	6421	13.7	48.7
Rhode Island	713	3.8	792	11.0	859	8.5	944	9.9	1016	7.6	42.5
Connecticut	1709	6.4	2007	17.4	2535	26.3	3064	20.9	3670	19.8	114.8
New England	8437	3.3	9314	10.4	10509	12.8	11842	12.7	13595	14.8	61.1
United States	132165	7.3	151326	-14.5	179323	18.5	208249	16.2	244566	17.4	85.0

Source: Census Years 1940-60 Statistical Abstract of the United States 1965

Projections 1960-80, U. S. Census Bureau, Current Population Reports, Series P-25, No. 326, Feb. 7, 1966

TABLE A-2 NEW ENGLAND POPULATION BY FIVE YEAR PERIODS - ESTIMATES 1960-65 AND PROJECTIONS 1965-80 WITH PERCENTAGES OF CHANGE

In 1000's	Census		Percent of Change		Percent of Change		Percent of Change		Percent of Change	
	1960	1965	1960 - 65	1970	1965 - 70	1975	1970 - 75	1980	1975 - 80	1960 - 80
Maine	969	993	2.4	1030	3.7	1081	5.0	1141	5.6	17.8
New Hampshire	607	669	10.3	717	7.2	777	8.4	847	9.0	39.5
Vermont	390	397	1.9	439	10.6	467	6.4	499	8.0	27.9
Massachusetts	5149	5349	3.9	5648	5.6	6002	6.3	6421	7.0	24.7
Rhode Island	859	891	3.7	944	5.5	975	3.3	1016	4.2	18.3
Connecticut	2535	2833	11.7	3064	8.2	3345	9.2	3670	9.7	44.8
New England	10509	11132	5.9	11842	6.4	12647	6.8	13595	7.5	29.4
United States	179323	193818	8.1	208249	9.4	225123	8.1	244566	8.6	36.4

Source: 1965 Estimates and 1960-65 Percentages of Change - U. S. Census Bureau, Current Population Reports, Series P-25, No. 324, Jan. 20, 1966

1970-75-80 Totals and 1960-80 Percentages of Change - U. S. Census Bureau, Current Population Reports, Series P-25, No. 326, Feb. 7, 1966

Percentages of change 1965-70, 1970-75, 1975-80 derived from totals

TABLE A-3 PROJECTIONS OF NEW ENGLAND POPULATION BY AGE 1960-80  
WITH PERCENTAGES OF CHANGE -- AGES 5 - 17

<u>AGE 5 - 17</u>			Percent of Change		Percent of Change		Percent of Change		Percent of Change	Percent of Change	Percent of Change	Percent of Change
In 1000's	1960	1964	1960 - 64	1970	1964 - 70	1975	1970 - 75	1980	1975 - 80	1960 - 80	1960 - 70	1970 - 80
Maine	240	256	6.3	262	2.3	266	1.5	278	4.5	15.8	9.0	6.1
New Hampshire	144	166	15.3	181	9.0	192	6.1	207	7.8	43.5	25.5	14.4
Vermont	98	104	5.7	112	7.7	115	2.7	122	6.1	23.8	14.1	9.0
Massachusetts	1160	1285	10.8	1366	6.3	1407	3.0	1492	6.0	28.6	17.8	11.7
Rhode Island	192	211	10.4	226	7.1	226	0.0	234	3.5	21.9	18.1	3.5
Connecticut	582	689	18.3	759	10.2	800	5.4	869	8.6	49.2	30.3	14.5
New England	2417	2711	12.2	2907	7.2	3007	3.4	3202	6.4	32.5	20.2	10.2
United States	43881	49536	12.9	52957	6.9	55302	4.4	59725	8.0	36.1	20.7	12.8

Source: 1960-64 Totals and Percentages of Change - U. S. Census Bureau,  
Current Population Reports, Series P-25, No. 333, March 30, 1966.

1970-80 Totals and Percentages of Change 1960-70, 1960-80 - U. S.  
Census Bureau, Current Population Reports, Series P-25, No. 326,  
Feb. 7, 1966.

1964-70, 1970-75, 1975-80, 1970-80 Percentages of Change Derived from  
Totals.

TABLE A-4 PROJECTIONS OF NEW ENGLAND POPULATION BY AGE 1960 - 80  
WITH PERCENTAGES OF CHANGE - AGES 18 - 44

<u>AGES 18 - 44</u>			Percent of Change		Percent of Change		Percent of Change		Percent of Change	Percent of Change	Percent of Change	Percent of Change
In 1000's	1960	1964	1960 - 64	1970	1964 - 70	1975	1970 - 75	1980	1975 - 80	1960 - 80	1960 - 70	1970 - 80
Maine	320	318	-0.6	345	8.5	375	8.7	414	10.4	29.3	7.9	20.0
New Hampshire	202	218	7.8	242	11.0	273	12.8	311	13.9	53.9	12.7	28.5
Vermont	125	124	-0.8	150	20.9	166	10.7	186	12.0	48.6	19.2	24.0
Massachusetts	1758	1729	-1.7	1899	9.8	2099	10.5	2360	12.4	34.2	8.0	24.3
Rhode Island	305	298	-2.0	324	8.7	344	6.2	376	9.3	23.4	6.3	16.0
Connecticut	898	953	6.2	1046	9.8	1179	12.7	1348	14.3	50.2	16.5	28.9
New England	3608	3641	0.9	4006	10.0	4436	10.7	4995	12.6	38.5	11.0	24.7
United States	62504	64878	3.8	71873	10.8	80064	11.4	90185	12.6	44.3	15.0	25.5

Source: Same as Table A-3

TABLE A-5 PROJECTIONS OF NEW ENGLAND POPULATION BY AGE 1960 - 80  
WITH PERCENTAGES OF CHANGE AGES 45 - 64

<u>AGES 45 - 64</u>			Percent of		Percent of		Percent of		Percent of		Percent of	
	In 1000's		Change	Change	Change	Change	Change	Change	Change	Change	Change	Change
	1960	1964	1960 - 64	1970	1964 - 70	1975	1970 - 75	1980	1975 - 80	1960 - 80	1960 - 70	1970 - 80
Maine	194	195	0.9	201	3.1	201	0.0	195	-3.0	0.7	3.9	-3.0
New Hampshire	127	133	5.1	143	7.5	147	2.8	147	0.0	16.0	12.7	2.8
Vermont	78	80	1.5	84	5.0	85	1.2	83	-2.3	6.0	7.0	-1.2
Massachusetts	1110	1144	3.0	1200	4.9	1212	1.0	1178	-2.8	6.1	8.1	-1.8
Rhode Island	184	190	3.4	200	5.3	198	-1.0	185	-6.5	0.5	8.9	-7.5
Connecticut	535	597	11.6	666	11.6	700	5.1	699	-0.1	30.8	24.5	5.0
New England	2227	2339	5.0	2494	6.6	2544	2.0	2487	-2.2	11.7	12.0	-0.3
United States	36058	38409	6.5	41834	8.9	43394	3.7	43223	-0.4	19.9	16.0	3.3

Source: Same as Table A-3

TABLE A-6 PROJECTIONS OF NEW ENGLAND POPULATION BY AGE 1960 - 80  
WITH PERCENTAGES OF CHANGE - AGES 65 - OVER

<u>AGES 65 - OVER</u>			Percent of		Percent of		Percent of		Percent of		Percent of	
	In 1000's		Change	Change	Change	Change	Change	Change	Change	Change	Change	Change
	1960	1964	1960 - 64	1970	1964 - 70	1975	1970 - 75	1980	1975 - 80	1960 - 80	1960 - 70	1970 - 80
Maine	107	110	3.2	116	5.5	120	3.5	125	4.2	17.3	8.6	7.8
New Hampshire	68	72	6.1	77	6.9	81	5.2	86	6.2	27.5	13.3	11.7
Vermont	44	45	1.9	47	4.4	49	4.3	51	4.1	17.5	8.0	8.5
Massachusetts	572	598	4.6	627	4.9	650	3.7	682	5.0	19.3	9.7	8.8
Rhode Island	90	95	5.7	103	8.4	107	3.9	113	5.6	26.2	14.6	9.7
Connecticut	243	261	7.7	284	8.8	308	8.5	343	11.4	41.5	17.2	20.8
New England	1122	1180	5.2	1254	6.3	1316	5.7	1401	6.5	24.9	11.8	11.7
United States	16560	17856	7.8	19571	9.6	21171	8.2	23087	9.1	39.4	18.2	18.0

Source: Same as Table A-3

TABLE A-7 MAINE COUNTIES AND SUBAREAS - POPULATION 1940 - 60 AND POPULATION PROJECTIONS 1960 - 80 WITH PERCENTAGES OF CHANGE, PERCENTAGES URBAN, AND DENSITY PER SQUARE MILE

WHOLE NUMBERS	POPULATION IN CENSUS YEARS - PER CENT OF CHANGE										PERCENTAGE URBAN				DENSITY		
	1940	Percent of Change 1930 - 40	1950	Percent of Change 1940 - 50	1960	Percent of Change 1950 - 60	1970	Percent of Change 1960 - 70	1980	Percent of Change 1970 - 80	1950	1960	1970	1980	Square Miles	Per Sq. Mile 1960	Per Sq. Mile 1980
MAINE TOTAL	847226	6.2	913774	7.9	969265	6.1	1,019,400	5.2	1,126,600	10.5	51.7	51.3	53.4	56.6	31040	31.3	36.3
SUBAREA #1																	
Aroostook	94436	7.5	96039	1.7	106064	10.4					34.1	38.3		6805	15.6		
Penobscot	97104	5.1	108198	11.4	126346	16.8					56.8	61.9		3408	37.1		
Area #1 Totals	191540		204237	6.6	232410	13.8	239,800	3.2	272,200	13.5	46.1	51.1	53.4	56.6	10213	22.8	26.7
SUBAREA #2																	
Kennebec	77231	9.3	83881	8.6	89150	6.3					62.1	60.7		865	103.1		
Androscoggin	76679	7.7	83594	9.0	86312	3.3					80.3	82.0		478	180.6		
Sagadahoc	19123	13.0	20911	9.3	22793	9.0					50.9	47.0		257	88.7		
Cumberland	146000	8.4	169201	15.9	182751	8.0					71.4	67.9		855	213.7		
York	82550	13.2	93541	13.3	99402	6.3					62.9	56.3		1000	99.4		
Area #2 Totals	401583		451128	12.3	480408	6.5	519,300	8.1	579,400	11.6	68.6	65.7	66.8	70.0	3455	139.0	167.7
SUBAREA #3																	
Oxford	42662	2.8	44221	3.7	44345	0.3					32.6	31.2		2085	21.3		
Franklin	19896	-0.2	20682	4.0	20069	-3.0					15.1	13.7		1715	11.7		
Somerset	38245	-2.2	39785	4.0	39749	-0.1					39.0	41.3		3948	10.1		
Piscataquis	18467	1.3	18617	0.8	17379	-6.7					13.8	0.0		3948	4.4		
Waldo	21159	4.3	21687	2.5	22632	4.4					27.5	27.1		734	30.8		
Lincoln	16294	5.1	18004	10.5	18497	2.7					0.0	0.0		457	40.5		
Knox	27191	-1.8	28121	3.4	28575	1.6					44.5	43.0		362	78.9		
Hancock	32422	5.5	32105	-1.0	32293	0.6					20.3	13.8		1542	20.9		
Washington	37767	-0.2	35187	-6.8	32908	-6.5					21.9	20.5		2553	12.9		
Area #3 Totals	254103		258409	1.7	256447	-0.8	260,300	1.5	275,000	5.7	26.4	24.4	26.7	28.3	17344	14.8	15.9

Source: U. S. Census 1940, 1950, 1960

Projections 1970 - 80, Arthur D. Little Inc., "Projective Economic Studies of New England", 1964 - 65

TABLE A-8 NET MIGRATION TOTALS FOR MAINE COUNTIES AND SUBAREAS BY SELECTED AGE GROUPS 1950 - 60

WHOLE NUMBERS	ALL AGES	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69
SUBAREA #1													
Aroostook	-14655	-2002	-1875	-1183	-1760	-577	-495	-802	-843	-752	-547	-388	-450
Penobscot	-611	-644	794	2152	135	-1674	-610	-75	-81	88	-41	-106	-228
Total	-15266	-2646	-901	969	-1625	-2251	-1105	-877	-924	-664	-588	-494	-678
SUBAREA #2													
Kennebec	-5209	-482	-132	-1187	-1374	-747	-294	-183	-30	-133	-45	1	16
Androscoggin	-7006	-695	-372	-1061	-1580	-886	-597	-316	-261	-162	-186	-67	-144
Sagadahoc	-215	0	-289	-302	-130	125	76	-11	-36	69	-13	71	9
Cumberland	-6584	-330	262	-815	-1975	-821	-301	-295	-350	-182	-160	-331	-136
York	-4982	-675	-424	-1086	-1221	-858	-638	-340	-72	3	-36	133	180
Total	-23996	-2182	-955	-4451	-6280	-3187	-1754	-1145	-749	-405	-440	-193	-75
SUBAREA #3													
Oxford	-5498	-580	-841	-1332	-1077	-178	-251	-215	-188	-96	-84	-33	-128
Franklin	-3164	-380	-297	-395	-560	-345	-181	-190	-161	-116	-81	-53	-75
Somerset	-4589	-328	-505	-1107	-833	-310	-267	-254	-169	-50	-107	-181	-121
Piscataquis	-3112	-263	-365	-696	-536	-181	-111	-103	-79	-93	-80	-37	-56
Waldo	-1218	-33	-317	-621	-317	36	-36	-82	17	-13	-2	5	34
Lincoln	-635	-49	-323	-468	-264	53	35	1	11	14	78	96	130
Knox	-1258	-196	-267	-530	-330	-58	-90	-57	14	20	52	49	59
Hancock	-2304	-242	-373	-625	-718	-176	-76	-109	-138	-20	15	63	66
Washington	-4839	-545	-779	-1178	-885	-251	-351	-160	-206	-155	-105	-63	-41
Total	-26617	-2616	-4067	-6952	-6520	-1410	-1328	-1109	-899	-509	-314	-154	-132
MAINE TOTALS	-65881	-7444	-5923	-10434	-13425	-6848	-4187	-3131	-2572	-1578	-1342	-841	-885

Source: Economic Research Service, U. S. Department of Agriculture, "Net Migration of the Population 1950-60 By Age, Sex and Color", Vol. I, Part 1, May 1965

TABLE A-9 MIGRATION RATES FOR MAINE COUNTIES AND AVERAGE RATES OF MIGRATION FOR SUBAREAS 1950 - 60 (Rate per 100 of population - see text)

RATES = PERCENT OF 1960 POPULATION	ALL AGES	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69
SUBAREA #1													
Aroostook	-12.1	-15.0	-17.3	-12.5	-19.3	-7.6	-7.2	-12.6	-14.9	-14.9	-13.2	-11.6	-15.1
Penobscot	-0.5	-5.2	10.5	26.5	1.6	-16.8	-7.3	-1.1	-1.2	1.5	-0.8	-2.2	-5.3
Average Rate	-6.3	-10.1	-3.4	7.0	-8.9	-12.2	-7.3	-6.9	-8.5	-6.7	-7.0	-6.9	-10.2
SUBAREA #2													
Kennebec	-5.5	-5.5	-1.9	-20.3	-22.0	-12.1	-4.8	-3.2	-0.6	-2.6	-1.0	0	0.5
Androscoggin	-7.5	-7.7	-5.4	-17.7	-24.9	-14.6	-9.7	-5.5	-4.8	-3.3	-3.0	-1.6	-4.1
Sagadahoc	-0.9	0	-13.9	-18.2	-9.0	11.3	5.6	-0.8	-2.6	5.5	-1.2	7.5	1.0
Cumberland	-3.5	-1.9	1.9	-7.1	-16.3	-6.8	-5.5	-2.5	-3.1	-1.8	-1.7	-3.9	-1.8
York	-4.8	-6.7	-5.4	-16.1	-18.4	-12.4	-8.9	-5.3	-1.2	0.1	-0.7	2.9	4.5
Average Rate	-4.4	-4.4	-4.9	-13.9	-18.1	-6.9	-4.7	-3.5	-2.5	-0.4	-1.7	1.0	0.0
SUBAREA #3													
Oxford	-11.0	-11.3	-20.5	-39.2	-31.4	-6.2	-8.1	-7.4	-7.1	-3.8	-3.7	-1.7	-6.8
Franklin	-13.6	-15.8	-15.4	-24.8	-34.0	-23.1	-12.7	-10.5	-12.8	-10.0	-7.8	-5.7	-9.0
Somerset	-10.4	-7.6	-13.9	-34.7	-27.3	-11.5	-9.7	-9.6	-6.7	-2.3	-5.4	-9.6	-7.5
Piscataquis	-15.2	-12.8	-22.0	-47.2	-39.1	-16.0	-9.4	-9.1	-6.9	-8.5	-8.2	-4.3	-6.5
Waldo	-5.1	-1.4	-16.0	-36.3	-20.1	2.9	-2.6	-6.4	1.4	-1.1	-0.2	0.5	3.9
Lincoln	-3.3	-2.9	-19.7	-36.7	-21.3	5.2	3.3	0.1	1.0	1.3	8.6	11.2	16.2
Knox	-4.2	-6.9	-12.0	-29.8	-18.9	-3.3	-4.6	-3.3	0.9	1.3	3.5	3.3	4.4
Hancock	-6.7	-7.3	-13.8	-27.5	-30.5	-8.5	-3.9	-5.4	-6.8	-1.0	0.8	4.2	4.8
Washington	-12.8	-15.0	-25.1	-42.8	-32.9	-10.7	-14.6	-7.4	-9.8	-7.9	-5.9	-3.7	-2.7
Average Rate	-9.1	-9.0	-16.5	-35.4	-28.4	-15.3	-6.9	-6.6	-5.2	-3.6	-2.0	-0.6	-0.4
MAINE TOTALS	-6.4	-7.4	-7.3	-15.2	-19.3	-10.3	-6.4	-5.1	-4.5	-3.0	-2.8	-2.0	-2.4

Source: Same as Table A-8



APPENDIX B - INCOME TABLES

- B-1 Revised Series - Per Capita Personal Income in the New England States  
1955-65
- B-2 Revised Series - Per Capita Personal Income New England States  
1955 - 1960 - 1965 New England and Maine Indices and Dollar Spreads
- B-3 Unrevised Series - Per Capita Personal Income New England States  
1955-63
- B-4 Unrevised Series - Per Capita Personal Income New England States  
1955 - 1960 - 1963 New England and Maine Indices and Dollar Spreads
- B-5 Per Capita Disposable Personal Income, New England States 1955-63
- B-6 Per Capita Disposable Personal Income, New England States  
1955 - 1960 - 1963 New England and Maine Indices and Dollar Spreads
- B-7 Per Capita Real Disposable Personal Income, New England States 1955-63
- B-8 Per Capita Real Disposable Personal Income, New England States  
1955 - 1960 - 1963 New England and Maine Indices and Dollar Spreads
- B-9 Projections of Personal Income Per Capita, New England States  
1960 - 1970 - 1980
- B-10 Projections of Personal Income Per Capita, New England States  
1960 - 1970 - 1980 New England and Maine Indices and Dollar Spreads
- Distribution of Personal Income from Current Production Within  
Individual New England States
- B-11 1955
- B-12 1957
- B-13 1961
- B-14 1964



Percent of Change in Personal Income from Current Production Within  
the Individual New England States

B-15 1955-57

B-16 1957-61

B-17 1961-64

B-18 1955-64

B-19 Disposable Income and Cash Income per Household, New England States  
and Maine Counties 1955 - 1960 - 1965

TABLE B-1 REVISED SERIES -- PER CAPITA PERSONAL INCOME IN THE NEW ENGLAND STATES

	TOTALS IN CURRENT DOLLARS 1955 - 1965											CHANGE (In Current Dollars)			CHANGE (In Percent)		
	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965 <sup>1</sup>	Gain 1955-60	Gain 1960-65	Gain 1955-65	1955-60	1960-65	1955-65
	Maine	1549	1631	1674	1736	1777	1842	1827	1901	1952	2093	2245	293	403	696	18.9	21.9
New Hampshire	1765	1829	1928	1958	2091	2151	2213	2309	2351	2447	2570	386	419	805	21.9	19.5	45.6
Vermont	1481	1601	1659	1659	1747	1848	1880	1980	2012	2135	2340	367	492	859	24.8	26.6	58.0
Massachusetts	2028	2148	2247	2287	2372	2457	2542	2656	2735	2874	3023	429	566	995	21.2	23.0	49.1
Rhode Island	1972	2001	2003	2044	2158	2213	2280	2422	2496	2641	2817	241	604	845	12.2	27.3	42.8
Connecticut	2412	2604	2714	2637	2693	2804	2889	3036	3104	3232	3390	392	586	978	16.3	20.9	40.5
New England	2032	2154	2242	2257	2338	2424	2495	2616	2688	2824	2979	392	555	947	19.3	22.9	46.6
United States	1876	1975	2045	2068	2161	2215	2264	2368	2451	2574	2724	339	509	848	18.1	23.0	45.2

Source: Department of Commerce, Office of Business Economics,  
Survey of Current Business, April 1966

1. Preliminary  
(Note: Includes Alaska and Hawaii starting in 1960)

TABLE B-2 REVISED SERIES -- PER CAPITA PERSONAL INCOME - NEW ENGLAND STATES 1955-1960-1965

In Current Dollars	New England Index New England = 100			Maine Index Maine = 100			Spread (In Current Dollars) New England = 0			Spread In Current Dollars Maine = 0		
	1955	1960	1965	1955	1960	1965	1955	1960	1965	1955	1960	1965
	Maine	76.2	76.0	75.4	100	100	100	-483	-582	-734	0	0
New Hampshire	86.9	88.7	86.3	113.9	116.8	114.5	-267	-273	-409	216	309	325
Vermont	72.9	76.2	78.6	95.6	100.3	104.2	-551	-576	-639	-68	6	95
Massachusetts	99.8	101.4	101.5	130.9	133.4	134.7	-4	33	44	479	615	778
Rhode Island	97.0	91.3	94.6	127.3	120.1	125.5	-60	-211	-162	423	371	572
Connecticut	118.7	115.7	113.8	155.7	152.2	151.0	380	380	411	863	962	1145
New England	100	100	100	131.2	131.6	132.7	0	0	0	483	582	734
United States	92.3	91.2	91.4	121.1	120.2	121.3	-156	-209	-255	327	373	479

Source: Department of Commerce, Office of Business Economics,  
Survey of Current Business, April 1966

(Note: Percentages derived; Includes Alaska and Hawaii after 1960;  
Based on Preliminary 1965 Estimate)

TABLE B-3 UNREVISED SERIES -- PER CAPITA PERSONAL INCOME - NEW ENGLAND STATES 1955-1960-1963

	Unrevised Totals (Current Dollars) Per Capita			Change (In Current Dollars)			Change (In Percent)		
	1955	1960	1963	1955-60	1960-63	1955-63	1955-60	1960-63	1955-63
	Maine	1575	1869	1999	294	130	424	18.7	7.0
New Hampshire	1712	2079	2252	367	173	540	21.4	8.3	31.5
Vermont	1528	1882	2042	354	160	514	23.2	8.5	33.6
Massachusetts	2085	2511	2811	426	300	726	20.4	11.9	34.8
Rhode Island	1960	2180	2414	220	234	454	11.2	10.7	23.2
Connecticut	2489	2854	3127	365	273	638	14.7	9.6	25.6
New England	2076	2459	2723	383	264	647	18.4	10.7	31.2
United States	1866	2217	2448	351	231	582	18.8	10.4	31.2

Source: Department of Commerce, Office of Business Economics,  
Survey of Current Business April 1965

TABLE B-4 UNREVISED SERIES -- PER CAPITA PERSONAL INCOME - NEW ENGLAND STATES 1955-1960-1963

In Current Dollars	New England Index (Percent) New England = 100			Maine Index (Percent) Maine = 100			Spread Current Dollars New England=0			Spread Current Dollars Maine=0		
	1955	1960	1963	1955	1960	1963	1955	1960	1963	1955	1960	1963
	Maine	75.9	76.0	73.4	100	100	100	-501	-590	-724	0	0
New Hampshire	82.5	84.5	82.7	108.7	111.2	112.7	-364	-380	-471	137	210	253
Vermont	73.6	76.5	76.0	97.0	100.7	102.2	-548	-577	-681	-47	13	43
Massachusetts	100.4	102.1	103.2	132.4	134.3	140.6	9	52	88	510	642	812
Rhode Island	94.4	88.7	88.7	124.4	116.6	120.8	-86	-279	-309	385	311	415
Connecticut	119.9	116.1	114.8	158.0	162.7	156.4	413	395	404	914	985	1128
New England	100	100	100	131.8	131.6	136.2	0	0	0	501	590	724
United States	89.9	90.2	89.9	118.5	118.6	122.5	-210	-242	-276	291	348	449

Source: Same as Table B-3

TABLE B-5 PER CAPITA DISPOSABLE PERSONAL INCOME - NEW ENGLAND STATES

	TOTALS IN CURRENT DOLLARS 1955 - 1963									CHANGE (In Current Dollars)			CHANGE (In Percent)		
	1955	1956	1957	1958	1959	1960	1961	1962	1963	1955-60	1960-63	1955-63	1955-60	1960-63	1955-63
	Maine	1446	1485	1520	1585	1625	1677	1660	1725	1770	231	93	324	16.0	5.5
New Hampshire	1531	1571	1637	1661	1764	1813	1865	1933	1963	282	150	432	18.4	8.3	28.2
Vermont	1380	1431	1477	1516	1596	1662	1700	1779	1795	282	133	415	20.4	8.0	30.1
Massachusetts	1827	1952	2038	2064	2123	2164	2268	2356	2422	337	258	595	18.4	11.9	32.6
Rhode Island	1735	1757	1752	1788	1897	1910	1961	2067	2107	175	197	372	10.1	10.3	21.4
Connecticut	2173	2351	2443	2375	2391	2454	2527	2633	2688	281	234	515	12.9	9.5	23.7
New England	1828	1940	2013	2026	2083	2129	2205	2297	2353	301	224	525	16.5	10.5	28.7
United States	1651	1739	1800	1821	1900	1932	1980	2057	2122	281	190	471	17.0	9.8	28.5

Source: Department of Commerce, Office of Business Economics,  
Survey of Current Business, April 1965

(Note: Excludes Alaska and Hawaii and income of U. S. Citizens stationed abroad temporarily.)

TABLE B-6 PER CAPITA DISPOSABLE PERSONAL INCOME - NEW ENGLAND STATES 1955-1960-1963

	Dollar Spread New England = 0			Dollar Spread Maine = 0			New England Index (Percent) New England = 100			Maine Index (Percent) Maine = 100		
	1955	1960	1963	1955	1960	1963	1955	1960	1963	1955	1960	1963
	Maine	-382	-452	-583	0	0	0	79.1	78.8	75.2	100	100
New Hampshire	-297	-316	-390	85	136	193	83.8	85.2	83.4	105.9	108.1	110.9
Vermont	-448	-467	-558	-66	-15	25	75.5	78.1	76.3	95.4	99.1	101.4
Massachusetts	-1	35	69	381	487	652	99.9	101.6	102.9	126.3	129.0	136.8
Rhode Island	-93	-219	-246	289	233	337	94.9	89.7	89.5	120.0	113.9	119.0
Connecticut	345	325	335	727	777	918	118.9	115.3	114.2	150.3	146.3	151.9
New England	0	0	0	382	452	583	100	100	100	126.4	127.0	132.9
United States	-177	-197	-231	205	255	352	90.3	90.7	90.2	114.2	115.2	119.9

Source: Department of Commerce, Office of Business Economics,  
Survey of Current Business, April 1965

(Note: Excludes Alaska and Hawaii and income of U. S. citizens stationed abroad temporarily.)

TABLE B-7 PER CAPITA REAL DISPOSABLE PERSONAL INCOME - NEW ENGLAND STATES 1955-1963

	TOTALS IN 1954 DOLLARS									CHANGE (in 1954 Dollars)			CHANGE (in Percent)		
	1955	1956	1957	1958	1959	1960	1961	1962	1963	1955-60	1960-63	1955-63	1955-60	1960-63	1955-63
Maine	1441	1451	1444	1469	1497	1524	1493	1526	1551	83	27	110	5.8	1.8	7.6
New Hampshire	1527	1536	1557	1543	1626	1649	1682	1713	1722	122	40	195	8.0	4.4	12.8
Vermont	1377	1399	1406	1405	1466	1505	1526	1570	1570	128	65	193	9.3	4.3	14.0
Massachusetts	1818	1891	1935	1919	1960	1965	2044	2098	2126	147	161	308	8.1	8.2	16.9
Rhode Island	1716	1687	1633	1631	1704	1693	1722	1783	1785	-23	92	69	-1.3	5.4	4.0
Connecticut	2168	2298	2324	2209	2194	2213	2269	2343	2335	45	122	167	2.1	5.5	7.7
New England	1821	1866	1910	1881	1915	1926	1981	2038	2054	105	128	233	5.8	6.6	12.8
United States	1644	1703	1713	1697	1751	1755	1782	1836	1871	111	116	227	6.6	6.6	13.8

Source: Same As Tables B-3 and B-4

TABLE B-8 PER CAPITA REAL DISPOSABLE PERSONAL INCOME - NEW ENGLAND STATES 1955-1960-1963  
(1954 Dollars Except Percents)

	Dollar Spread New England = 0			Dollar Spread Maine = 0			New England Index (Percent) New England = 100			Maine Index (Percent) Maine = 100		
	1955	1960	1963	1955	1960	1963	1955	1960	1963	1955	1960	1963
Maine	-380	-402	-503	0	0	0	79.1	79.1	75.5	100	100	100
New Hampshire	-294	-277	-332	86	125	171	83.9	85.6	83.8	106.0	108.2	111.0
Vermont	-444	-421	-484	-64	-19	19	75.6	78.1	76.4	95.6	98.8	101.2
Massachusetts	-3	39	72	377	441	575	99.8	102.0	103.5	126.2	128.9	137.1
Rhode Island	-105	-233	-269	275	169	234	94.2	87.9	86.9	119.1	111.1	115.1
Connecticut	347	287	281	727	689	784	119.1	114.9	113.7	150.5	145.2	150.5
New England	0	0	0	390	402	503	100	100	100	126.4	126.4	132.4
United States	-177	-171	-183	203	231	320	90.3	91.1	91.1	114.1	115.2	120.6

Source: Same as Tables B-3 and B-4

TABLE B-9 PROJECTIONS OF PERSONAL INCOME PER CAPITA - NEW ENGLAND STATES 1960-1970-1980

	PER CAPITA TOTALS (1954 DOLLARS)			CHANGE (1954 DOLLARS)			CHANGE (PERCENT)		
	1960	1970	1980	1960-70	1970-80	1960-80	1960-70	1970-80	1960-80
Maine	1641	2158	2663	517	505	1022	31.5	23.4	62.3
New Hampshire	1824	2283	2815	459	532	991	25.2	23.3	54.3
Vermont	1647	2071	2749	424	678	1102	25.7	32.7	66.9
Massachusetts	2199	2770	3367	571	597	1168	26.0	21.6	53.1
Rhode Island	1907	2474	2947	567	473	1040	29.7	19.1	54.5
Connecticut	2502	3126	3770	624	644	1268	24.9	20.6	50.7
New England	2150	2728	3324	578	596	1174	26.9	21.8	54.6

Source: Arthur D. Little Inc., Projective Economic Studies of New England 1964-65  
(Percents Derived)

TABLE B-10 PROJECTIONS OF PERSONAL INCOME PER CAPITA - NEW ENGLAND STATES 1960-1970-1980  
(1954 Dollars Except Percents)

	Dollar Spread New England = 0			Dollar Spread Maine = 0			New England Index New England = 100			Maine Index Maine = 100		
	1960	1970	1980	1960	1970	1980	1960	1970	1980	1960	1970	1980
Maine	-509	-570	-661	0	0	0	76.3	79.1	80.1	100	100	100
New Hampshire	-326	-445	-509	183	125	152	84.8	83.7	84.7	111.2	105.8	105.7
Vermont	-503	-657	-575	6	-87	86	76.6	75.9	82.7	100.4	96.0	103.2
Massachusetts	49	42	43	558	612	704	102.3	101.5	101.3	134.0	128.4	126.4
Rhode Island	-243	-254	-377	266	316	284	88.7	90.7	88.7	116.2	114.7	110.7
Connecticut	352	398	446	861	968	1107	116.4	114.6	113.4	152.5	144.9	141.6
New England	0	0	0	509	570	661	100	100	100	131.0	126.4	124.8

Source: Same as Table B-7 Percentages Derived

TABLE B-11 DISTRIBUTION OF PERSONAL INCOME FROM CURRENT PRODUCTION WITHIN INDIVIDUAL NEW ENGLAND STATES 1955

	Total	Farms	Mining	Contract Construction	Manufacturing	Wholesale Retail Trade	Finance Insurance Real Estate	Transportation	Communication and Public Utilities	Services	Government	Other
Maine	100	9.2	0.2	7.2	32.9	19.6	2.9	4.6	2.8	9.3	10.2	1.2
New Hampshire	100	3.8	0.1	7.1	39.2	17.4	3.5	3.5	3.1	11.3	10.6	0.3
Vermont	100	10.9	1.1	4.0	30.6	19.4	3.3	5.4	2.7	12.7	9.8	0.4
Massachusetts	100	1.0	0.2	5.7	37.6	19.6	5.2	3.8	3.2	12.6	10.7	0.5
Rhode Island	100	0.9	0.1	5.4	41.9	19.0	4.5	3.2	3.1	10.5	11.0	0.4
Connecticut	100	1.8	0.1	6.4	46.3	16.4	5.2	2.8	2.5	11.2	6.8	0.5
New England	100	2.2	0.2	6.0	39.9	18.5	4.8	3.6	2.9	11.7	9.5	0.5
United States	100	5.9	1.7	6.4	31.3	20.1	4.3	5.5	2.7	11.2	10.5	0.3

Source: Personal Income by States Since 1929, Department of Commerce,  
Office of Business Economics, 1956

Note: Percentages Derived

TABLE B-12 DISTRIBUTION OF PERSONAL INCOME FROM CURRENT PRODUCTION WITHIN INDIVIDUAL NEW ENGLAND STATES 1957

	Total	Farms	Mining	Contract Construction	Manufacturing	Wholesale Retail Trade	Finance Insurance Real Estate	Transportation	Communication and Public Utilities	Services	Government	Other
Maine	100	6.0	0.1	6.9	33.8	20.1	3.6	4.9	2.9	9.8	10.6	1.2
New Hampshire	100	3.0	0.1	6.4	39.5	17.1	4.4	3.4	3.0	11.8	10.8	0.4
Vermont	100	9.5	1.2	5.7	30.3	18.8	3.8	5.3	2.6	12.3	10.1	0.4
Massachusetts	100	0.8	0.2	5.8	37.3	18.8	5.5	3.7	3.1	13.6	10.7	0.6
Rhode Island	100	0.7	0.1	5.6	40.6	18.9	5.0	3.3	3.0	10.9	11.4	0.5
Connecticut	100	1.4	0.1	7.7	45.0	16.2	5.7	2.7	2.5	11.5	6.7	0.5
New England	100	1.7	0.2	6.4	39.5	18.1	5.3	3.5	2.9	12.4	9.5	0.6
United States	100	5.2	1.7	6.8	31.0	19.5	4.7	5.4	2.8	11.9	10.7	3.5

Source: U. S. Department of Commerce, Office of Business Economics,  
Survey of Current Business, July 1965  
(Percentages Derived)

TABLE B-14 DISTRIBUTION OF PERSONAL INCOME FROM CURRENT PRODUCTION WITHIN INDIVIDUAL NEW ENGLAND STATES 1964

	Total	Farms	Mining	Contract Construction	Manufacturing	Wholesale Retail Trade	Finance Insurance Real Estate	Transportation	Communication and Public Utilities	Services	Government	Other
Maine	100	5.9	0.1	6.1	32.3	18.2	3.8	4.1	2.9	11.4	14.0	1.3
New Hampshire	100	0.9	0.1	5.8	37.0	17.1	4.6	2.7	2.8	15.0	13.8	0.3
Vermont	100	6.0	0.9	6.4	27.3	19.1	4.5	3.9	2.8	16.6	12.2	0.3
Massachusetts	100	0.5	0.1	5.9	33.2	18.6	5.9	3.1	3.0	16.7	12.5	0.4
Rhode Island	100	0.4	0.1	6.6	36.2	18.3	6.4	3.2	3.0	12.6	14.1	0.4
Connecticut	100	0.8	0.1	6.4	42.6	16.5	6.3	2.4	2.6	13.3	8.6	0.5
New England	100	1.1	0.1	6.1	36.2	17.9	5.7	3.0	2.8	15.0	11.6	0.5
United States	100	3.8	1.1	6.5	29.3	19.1	5.2	4.6	2.8	13.7	13.5	0.3

Source: Same as Table B-10

TABLE B-13 DISTRIBUTION OF PERSONAL INCOME FROM CURRENT PRODUCTION WITHIN INDIVIDUAL NEW ENGLAND STATES 1961

	Total	Farms	Mining	Contract Construction	Manufacturing	Wholesale Retail Trade	Finance Insurance Real Estate	Transportation	Communication and Public Utilities	Services	Government	Other
Maine	100	4.7	0.1	6.6	32.4	18.9	3.9	4.4	3.1	11.2	13.6	1.2
New Hampshire	100	1.7	0.1	6.2	38.2	16.4	4.4	2.8	3.0	14.0	12.9	0.3
Vermont	100	8.4	1.3	6.2	27.5	18.6	4.1	4.5	2.9	14.1	12.4	0.2
Massachusetts	100	0.5	0.1	5.3	35.5	18.5	5.9	3.2	2.9	15.7	11.9	0.4
Rhode Island	100	0.6	0.1	5.7	37.7	18.3	5.3	3.0	3.0	12.3	13.6	0.4
Connecticut	100	0.9	0.1	6.1	43.2	16.4	6.5	2.5	2.7	13.0	8.2	0.5
New England	100	1.2	0.1	5.7	37.6	17.8	5.8	3.1	2.9	14.3	11.1	0.5
United States	100	4.9	1.3	6.5	29.0	19.2	5.3	4.8	2.9	13.2	12.7	0.4

Source: Same as Table B-10



TABLE B-15 PERCENT OF CHANGE IN PERSONAL INCOME FROM CURRENT PRODUCTION WITHIN THE INDIVIDUAL NEW ENGLAND STATES 1955 - 1957

Income Change All Sources	Farms	Mining	Contract Construction	Manufacturing	Wholesale Retail Trade	Finance Insurance Real Estate	Transportation	Communication and Public Utilities	Services	Government	Other
Maine	7.6	-30.1	0.0	3.7	10.5	10.5	13.5	12.9	14.4	11.3	15.4
New Hampshire	10.9	-10.7	0.0	0.0	11.7	9.3	7.7	8.7	15.5	12.7	50.0
Vermont	10.5	-4.1	20.0	55.6	9.5	6.9	8.3	8.3	10.9	13.6	0.0
Massachusetts	13.4	-6.5	23.1	16.5	12.5	9.1	10.3	9.0	22.1	13.2	25.0
Rhode Island	6.1	-10.0	0.0	9.4	2.8	5.8	7.9	2.7	10.6	10.1	20.0
Connecticut	18.2	-8.6	40.0	41.2	15.0	17.1	11.1	20.0	21.2	16.7	18.2
New England	13.6	-14.1	22.2	22.2	12.4	10.9	10.4	11.4	20.0	13.5	21.4
United States	14.5	0.9	17.9	21.3	13.3	11.2	11.8	16.2	21.1	17.1	22.8

Source: Same as Tables B-9 and B-10  
(Percentages Derived)

TABLE B-16 PERCENT OF CHANGE IN PERSONAL INCOME FROM CURRENT PRODUCTION WITHIN THE INDIVIDUAL NEW ENGLAND STATES 1957 - 1961

Income Change All Sources	Farms	Mining	Contract Construction	Manufacturing	Wholesale Retail Trade	Finance Insurance Real Estate	Transportation	Communication and Public Utilities	Services	Government	Other
Maine	13.6	-11.1	0.0	7.1	8.8	7.0	1.7	20.0	29.4	46.1	13.3
New Hampshire	21.5	-32.0	0.0	17.0	17.5	16.3	0.0	20.0	44.3	44.9	0.0
Vermont	17.4	4.3	0.0	28.6	6.7	16.1	0.0	30.8	34.4	44.0	-50.0
Massachusetts	18.6	-23.6	-12.5	7.5	12.9	16.4	5.0	12.7	37.7	31.6	-8.0
Rhode Island	15.7	-11.1	0.0	18.6	7.5	11.9	7.3	15.8	30.1	38.0	-76.9
Connecticut	14.0	-29.9	0.0	-9.2	9.5	15.2	5.7	21.2	29.0	39.7	11.5
New England	16.8	-18.1	-6.1	3.2	11.2	15.0	4.6	16.5	34.6	36.0	0.0
United States	16.2	9.3	-13.7	11.0	8.6	14.3	4.1	19.1	29.3	37.2	18.2

Source: Same as Table B-10

TABLE B-17 PERCENT OF CHANGE IN PERSONAL INCOME FROM CURRENT PRODUCTION WITHIN THE INDIVIDUAL NEW ENGLAND STATES 1961 - 1964

	Income Change All Sources	Farms	Mining	Contract Construction	Manufacturing	Wholesale Retail Trade	Finance Insurance Real Estate	Transportation	Communication and Public Utilities	Services	Government	Other
Maine	14.3	43.8	0.0	5.6	13.9	9.6	13.2	6.7	9.5	11.6	17.6	17.6
New Hampshire	16.3	-41.2	0.0	9.7	12.6	21.3	22.7	10.7	10.0	24.3	24.0	0.0
Vermont	15.3	-18.4	0.0	19.4	14.4	18.5	25.0	0.0	11.8	35.4	13.9	100
Massachusetts	14.7	10.9	7.1	27.3	7.3	15.3	15.2	10.1	16.9	22.0	21.2	13.0
Rhode Island	16.1	-25.0	100	32.5	11.4	16.3	15.8	20.5	13.6	19.2	20.9	0.0
Connecticut	19.6	9.6	0.0	25.3	17.8	20.6	16.1	14.9	15.0	22.7	25.6	17.2
New England	16.3	9.0	6.5	24.2	11.9	16.7	15.9	11.2	15.2	22.2	21.7	14.7
United States	18.3	-6.5	5.6	18.9	19.6	17.6	17.5	13.4	16.0	22.2	25.4	16.8

Source: Same as Table B-10

TABLE B-18 PERCENT OF CHANGE IN PERSONAL INCOME FROM CURRENT PRODUCTION WITHIN THE INDIVIDUAL NEW ENGLAND STATES 1955 - 1964

	Income Change All Sources	Farms	Mining	Contract Construction	Manufacturing	Wholesale Retail Trade	Finance Insurance Real Estate	Transportation	Communication and Public Utilities	Services	Government	Other
Maine	39.7	-10.7	0.0	17.3	37.0	29.5	81.8	23.1	48.4	72.1	91.3	53.8
New Hampshire	56.7	-35.7	0.0	28.3	47.8	54.3	107.7	19.2	43.5	107.1	102.5	50.0
Vermont	49.6	-18.4	20.0	138.9	33.6	47.1	100.0	8.3	58.3	101.8	86.4	0.0
Massachusetts	54.4	-19.5	15.4	59.4	36.3	46.4	76.7	27.6	43.7	104.9	80.6	30.0
Rhode Island	42.6	-40.0	100.0	71.9	23.1	37.7	66.0	39.5	35.1	71.5	83.7	20.0
Connecticut	61.2	-29.6	40.0	60.6	48.4	62.7	93.5	34.9	67.3	91.7	104.7	54.5
New England	54.3	-23.3	22.2	56.7	39.8	48.9	82.8	28.4	49.3	97.3	87.9	39.3
United States	57.4	3.2	7.4	60.1	47.1	49.4	91.3	32.0	60.5	91.4	101.4	69.5

Source: Same as Tables B-9 and B-10

TABLE B-19 DISPOSABLE INCOME AND CASH INCOME PER HOUSEHOLD - NEW ENGLAND STATES & MAINE COUNTIES 1955-1960-1965

	DISPOSABLE INCOME									CASH INCOME									
	DOLLARS PER HOUSEHOLD			PERCENT OF CHANGE PER HOUSEHOLD			DOLLAR SPREAD MAINE = 0			MAINE INDEX MAINE = 100			HOUSEHOLDS 1965						
	1955	1960	1965	1955-60	1960-65	1955-65	1955	1960	1965	1955	1960	1965	0	\$2500	\$4000	\$7000	\$10,000	\$10,000	
													\$2500	\$4000	\$7000	\$10,000	Over		
Maine	4851	5956	6996	22.8	17.5	44.2	0	0	0	100	100	100	18.3	22.8	30.7	15.1	13.1		
New Hampshire	5025	6264	7524	24.7	20.1	49.7	174	308	528	103.6	105.2	107.5	16.6	17.9	33.6	16.4	15.5		
Vermont	4571	5969	7427	45.7	24.4	62.5	-280	13	431	94.2	100.2	106.2	19.7	16.1	32.4	16.1	15.7		
Massachusetts	5941	7511	9105	26.4	21.2	53.3	1090	1555	2109	122.5	126.1	130.1	13.4	12.2	32.6	16.4	25.4		
Rhode Island	5786	6676	7832	15.4	17.3	35.4	935	720	836	119.3	112.1	111.9	18.6	16.0	34.2	12.5	18.7		
Connecticut	7035	8308	9989	18.1	20.2	42.0	2184	2352	2993	145.0	139.5	142.8	11.1	11.1	32.0	17.9	27.9		
Aroostook	5166	6135	6188	18.8	0.9	19.8	315	179	-808	106.5	103.0	88.5	24.5	25.4	28.3	12.2	9.6		
Penobscot	4981	6202	7389	24.5	19.1	48.3	130	246	393	102.7	104.1	105.6	16.1	22.1	31.1	16.0	14.7		
Kennebec	5076	6262	7401	23.4	18.2	45.8	225	306	405	104.6	105.1	105.8	16.4	22.1	31.1	16.0	14.4		
Androscoggin	5359	6356	7031	18.6	10.6	31.2	508	400	35	110.5	106.7	100.5	15.5	22.6	32.9	16.0	13.0		
Sagadahoc	4031	6230	7305	54.6	17.3	81.2	-820	274	309	83.1	104.6	104.4	15.6	21.2	31.8	16.4	15.0		
Cumberland	5248	6257	8023	19.2	28.2	52.9	397	301	1027	108.2	105.1	114.7	14.0	20.6	31.2	16.9	17.3		
York	4972	6195	7208	24.6	16.4	45.0	121	239	212	102.5	104.0	103.0	17.2	21.9	31.1	16.1	13.7		
Oxford	4738	5800	6915	22.4	19.2	45.9	-113	-156	-81	97.7	97.4	98.8	17.8	21.8	30.9	15.8	13.7		
Franklin	4814	5950	6201	23.6	4.2	28.8	-37	-6	-795	99.2	99.9	88.6	21.7	25.2	30.9	13.1	9.1		
Somerset	4250	5268	6270	24.0	19.0	47.5	-601	-688	-726	87.6	88.4	89.6	19.9	23.9	31.1	14.6	10.5		
Piscataquis	4192	5268	5845	25.7	11.0	39.4	-659	-688	-1151	86.4	88.4	83.5	21.3	26.2	31.1	12.5	8.9		
Waldo	3596	4613	5421	28.3	17.5	50.8	-1255	-1343	-1575	74.1	77.5	77.5	25.8	26.4	29.7	11.2	6.9		
Lincoln	3850	4931	5813	28.1	17.9	51.0	-1001	-1025	-1183	79.4	82.8	83.1	23.9	25.9	28.9	11.9	9.4		
Knox	4126	5348	6368	29.6	19.1	54.3	-725	-608	-628	85.1	89.8	91.0	22.4	25.0	30.4	13.1	9.1		
Hancock	4364	5164	5923	18.3	14.7	35.7	-487	-792	-1073	90.0	86.7	84.7	23.8	25.7	29.4	12.2	8.9		
Washington	3589	4612	5069	28.5	9.9	41.2	-1262	-1344	-1927	74.0	77.4	72.5	31.3	26.4	25.8	9.9	6.6		

Source: Sales Management - Survey of Buying Power, May 10, 1956, May 10, 1961, June 10, 1966

A STUDY OF MAINE'S STATE FINANCES

Ralph J. Chances



This is a study of expenditures and revenues of the State of Maine. I concern myself essentially with the past decade and with the coming years. A general framework is required which will enable us to see all the parts and also how they fit with one another. It must in addition be sufficiently durable to include others, like state governments besides ours, and local governments. Governments are organized differently and so present their information differently for historical, social and economic reasons. Comparisons become difficult, therefore, if we look simply at the data as published in each capital. What one will include under a specific heading may be quite different from that of another. Uniformity is strongly needed. The need is cleanly served by the system of the U. S. Bureau of the Census. Therefore, I shall use its conceptual framework throughout. All governmental expenditures and revenues are classified into three groups, general, liquor stores, and insurance trust. Highway spending, say, is part of general expenditures, and not considered as coming out of a special fund. Tolls that are collected by a Toll Authority are likewise placed in general revenues. Etc. Revenue involves all amounts of money received by a government from external sources -- net of refunds -- other than from issue of debt, liquidation of investments, and as agency and private trust transactions. Revenue excludes noncash transactions such as receipt of services and commodities. Expenditures are treated in parallel fashion. The Bureau's figures virtually all derive originally from the states and localities back home, of course.

General expenditures of state governments have been rising very rapidly indeed. This simple fact has inflicted deep and abiding problems on officials in charge. Governors and legislatures have been tormented by the need to seek out new revenue sources -- not once, but repeatedly. The additions are coming thick and fast now a days.

State expenditures, as Chart 1 makes plain, have climbed from something like \$15 billions for All States combined to over \$40 billions in just about one decade. The same kind of advance occurred in Maine, although somewhat moderated.

Over what is after all a very brief span, Table 1 shows a growth of better than two-thirds in Maine expenditures, and of well over 100% in the entire country! Now some of this is not true expansion at all, but only a reflection of price changes. People working for states were being paid more dollars for doing the same thing; goods purchased later cost more than they had earlier. This was a not-insignificant 35% for the state governments in the large, and for want of a better figure, we assume the same occurred in Maine. This set of costs has advanced more than other prices. Very likely the reason is that productivity has tended to change more slowly in this sector. (Notice that if a commodity, for instance, costs less to turn out because better methods of production are introduced, its price will tend to decline, speedily or slowly depending on the nature of the market.) In this area, such cost reductions have been much less evident than in other sectors of the economy. For states as a whole this meant that the greatest part of the increase was still unaccounted for.

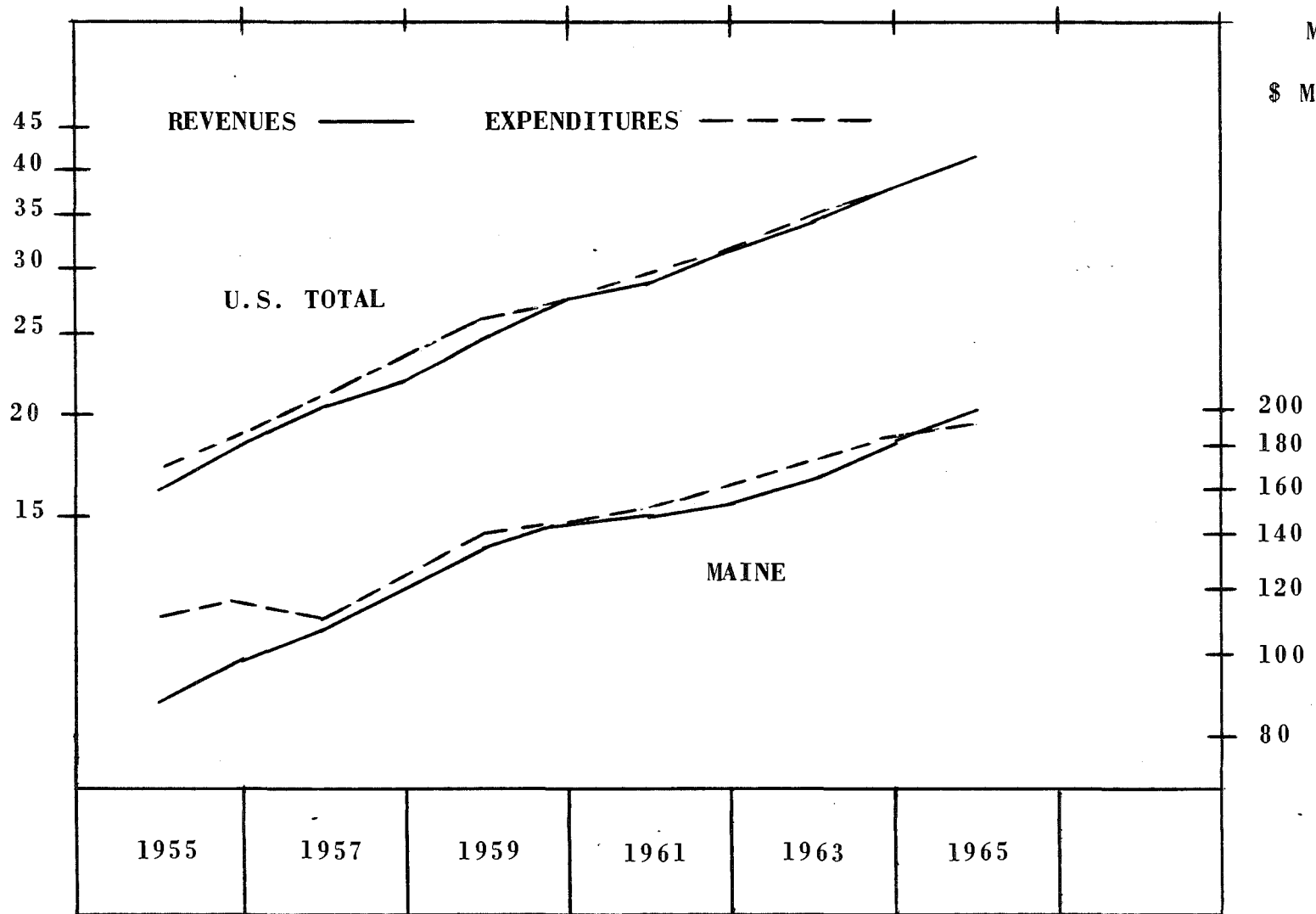
It might be well to point out that the real and the price changes combine

GENERAL REVENUES AND GENERAL EXPENDITURES , STATE GOVERNMENTS

CHART ONE

U.S.  
\$ BILLIONS

MAINE  
\$ MILLIONS



Source same as Table One





to achieve the move in total general expenditures. However, it is one of the quirks of arithmetic that the two will add to the total only for small figures. These elements can be seen in Table 1.

We are left with a real increase of about 60% for the country and 27% for Maine: more "things", in large doses were being provided by states. Some of this was necessary because there was a growing populace (16.6% and 9.2% respectively) so that what had been done for few required doing for many. Some represented an addition of "things" done for each individual. Hefty additions are involved here. To visualize it, what we are saying means that at this rate in some 20 years, the state government is providing twice as much of real substance for each of us in the United States. In Maine the growth while sizeable is less than half the other. These more insistent demands possibly stem from the trend toward urbanization and from the rising incomes of our families. The greater interdependence of city-dwelling calls for more government dollars than does the more simple rural atmosphere. Richer people acquire and require costly schooling, transportation and so on.

Thus Maine's total expansion is not nearly so great as for a "typical" American state, this fact attributable in part to the lesser growth in population. But, much of the difference is traceable to the toned-down increases in the state in what is being done per individual resident by state government. And the latter is due to our lower incomes. Although it can be done, it is more difficult for us to provide additional services than it is for our neighbors, if their pocketbooks are in better shape than ours.

TABLE 1

STATE GOVERNMENTS  
GROWTH RATES OF GENERAL EXPENDITURES  
1954-56 to 1963-65

## A. ALL STATES

	Total Growth in the Period	Growth per Year
Total General Expenditures	115.6%	8.9%
Price (=cost of a unit of goods and services pur- chased by state govern- ments)	35.0%	3.4%
Real Expenditures		5.3
Real Per Capita	37.0%	3.6%
Population	16.6	1.7

## B. MAINE

Total General Expenditures	71.2%	6.2%
Price	35.0%	3.4%
Real Expenditures	26.8	2.7
Real Per Capita	16.1%	1.7%
Population	9.2	1.0

Source: Calculated from data found in Compendium of State Government Finances and Survey of Current Business for the various years.

All these forces thus press incessantly and simultaneously -- population, demands by increasingly wealthy communities, and prices. The result is steeply climbing total dollar general expenditures of state government. This climb is persistent. It will not soon vanish.

Table 2 - 5 provide some clues to what has been occurring. One should not place his complete weight on the pictures that emerge from these tables, however, for they leave significant blanks with respect to spending by local governments. We cannot come to grips, for example, with the question of whether enough is going into public education from the information here, or even whether public outlay in Maine measures reasonably with that of other states. The state-local government data will be examined below but the present facts do direct attention to some state government problems per se, inexorable growth all over the nation with everything this entails.

TABLE 2

## GENERAL EXPENDITURES OF STATE GOVERNMENTS

	<u>Total General Expenditures</u>	<u>Education</u>	<u>Highways</u>	<u>Public Welfare</u>	<u>Health &amp; Hospitals</u>
A. ALL STATES					
	\$Billions				
1957	21.1	6.6	6.0	2.8	1.9
1962	31.3	10.7	8.0	4.3	2.4
1965	40.3	14.5	9.8	5.4	2.9
B. MAINE					
	\$ Millions				
1957	110.9	19.6	40.5	15.9	10.3
1962	163.0	39.7	54.4	24.3	13.0
1965	190.2	49.4	61.8	27.6	13.4

TABLE 3

## GENERAL EXPENDITURES OF STATE GOVERNMENTS

Percent

	<u>Total General Expenditures</u>	<u>Education</u>	<u>Highways</u>	<u>Public Welfare</u>	<u>Health &amp; Hospitals</u>
A. ALL STATES					
1957	100.0	31.3	28.4	13.3	9.0
1962	100.0	34.1	25.6	13.7	7.7
1965	100.0	36.0	24.3	13.4	7.2
B. MAINE					
1957	100.0	17.7	36.5	14.3	9.3
1962	100.0	24.4	33.4	14.9	8.0
1965	100.0	26.0	32.5	14.5	7.0

TABLE 4

## GENERAL EXPENDITURES OF STATE GOVERNMENTS

Per Capita

	<u>Total General Expenditures</u>	<u>Education</u>	<u>Highways</u>	<u>Public Welfare</u>	<u>Health &amp; Hospitals</u>
A. MEDIAN STATE					
1957	128.26	38.53	40.60	16.46	9.87
1962	177.87	59.76	47.94	20.99	11.26
1965	213.89	76.42	59.75	25.08	13.75
B. MAINE					
1957	119.27	21.12	43.53	17.09	11.04
1962	163.19	39.76	54.50	24.28	12.99
1965	191.57	49.72	62.20	27.83	13.51

TABLE 5

## GENERAL EXPENDITURES OF STATE GOVERNMENTS

Per \$1,000 of Personal Income

	<u>Total General Expenditures</u>	<u>Education</u>	<u>Highways</u>	<u>Public Welfare</u>	<u>Health &amp; Hospitals</u>
A. AVERAGE OF ALL STATES					
1957	65.41	20.33	18.48	8.59	5.91
1962	74.76	25.66	19.04	10.25	5.62
1965	82.59	29.77	20.17	11.13	5.95
B. MAINE					
1957	71.55	12.67	26.11	10.25	6.62
1962	88.55	21.57	29.57	13.17	7.05
1965	90.24	23.42	29.30	13.11	6.45

Source: Tables 2 - 5: U. S. Department of Commerce, Bureau of the Census, Compendium of State Government Finances for the relevant years.



We see strong advances in dollar spending on practically all the major state government categories, education, highways, public welfare, and health and hospitals. There is only one exception visible, there has been virtually no change in Maine's spending on health and hospitals in the last three years, after a substantial increase from 1957 to 1962. We see in Table 3 that education in relation to other expenditures has grown both inside and outside Maine; but within Maine there was a spurt to 1962, slower but continued growth thereafter. The proportion going to education still lags inordinately behind the relative level in the average U. S. state.

In this period, highways were much above any competitors for state government dollars in Maine, even after the education advances; and they took, relatively, much more than elsewhere. In each case the proportion going to highways has fallen, i. e., needs of other kinds having been more keenly felt.

Public welfare has bounced in each jurisdiction. Maine, a poorer state than average, is a bit higher.

Health and hospital expenditures have been at about the same relative level over these years, the proportion declining in each instance.

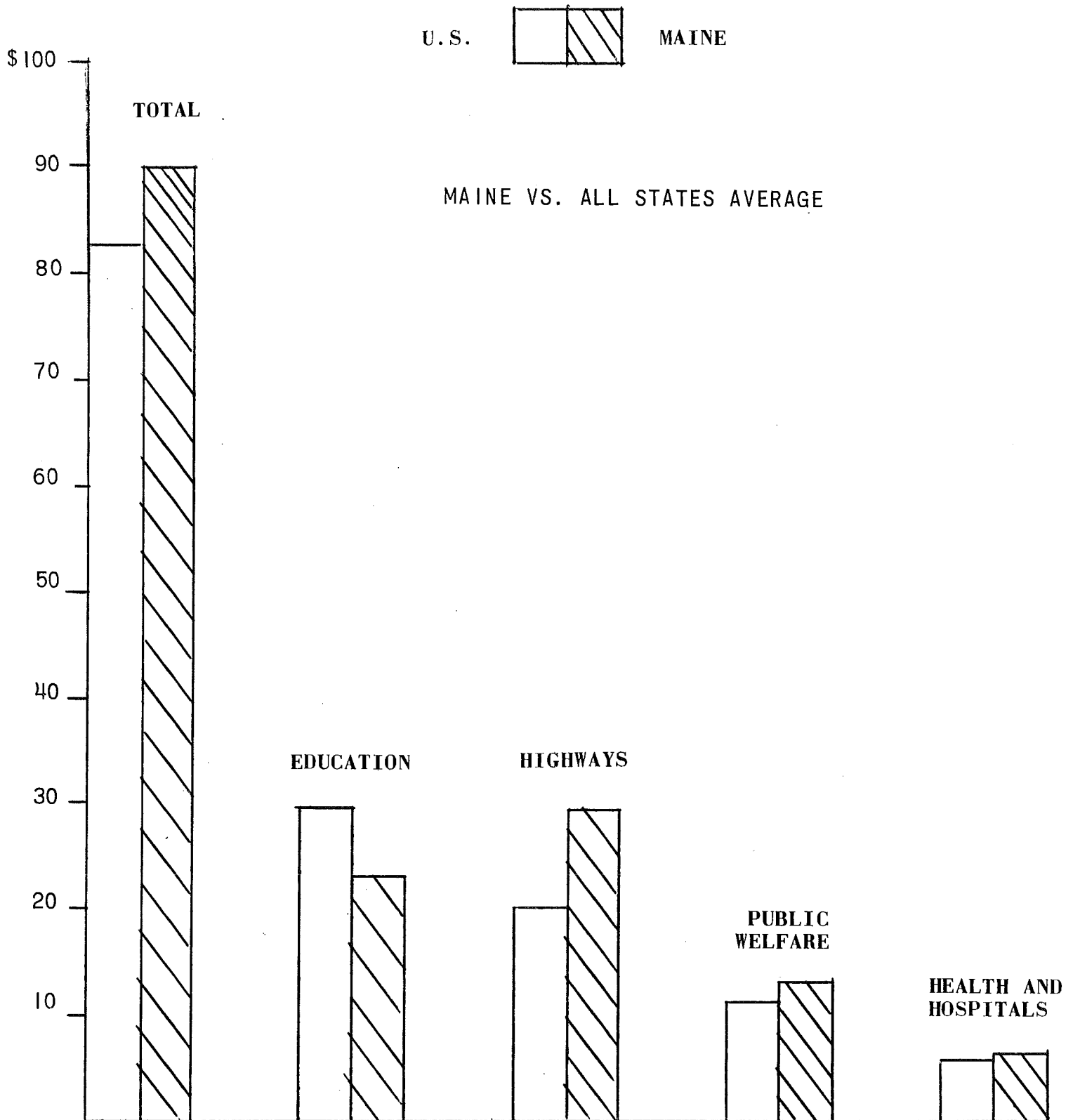
On a per capita basis close examination unveiled essentially the same results.

Chart 2 shows the expenditure structure from a different perspective. Of every \$1,000 of personal income earned in the state, how much goes to state government expenditure? One might perhaps say that this carries us a step beyond the per capita data, for they are expected to be high for a state whose inhabitants have a high income, and vice versa, other things being equal.

CHART TWO

GENERAL EXPENDITURES PER \$1,000 OF INCOME,

1965



Source: Compendium, 1965



But in this instance we look at a picture in which the different states are put on the same income footing. Which then spends more, which less; and what areas are considered important to the state to warrant great government effort in terms of the income its citizenry earns; where is it slacking off? In toto, Maine spends more than average. This is clearest, structurally, for highways, just barely so for health and hospitals. But on education, Maine does not put forth the exertion found typically outside. If we examine the same items moving through time, we seem to see essentially the same relations back to 1957.

#### STATE AND LOCAL FINANCING

This study centers its attention on the finances of state government of Maine. It is not completely possible, however, to ignore the existence of local government. Both levels are frequently involved in providing the same type of service to the public, and distortion would result if one level were ignored. Sums that are not unimportant flow from one level to another. The money raised by one level generally comes out of the same pocket as that collected by the other. Furthermore, some significant information that we require for our central purpose -- that which stems from The Council of State Governments -- comes in the combined state-local package. To analyze the state figures we must untie them from the totals as presented. Consequently we look at the state-local data for information that will help us. The massive tables now coming up deal with some of these points.

TABLE 6

## GENERAL EXPENDITURES OF STATE AND LOCAL GOVERNMENTS

	<u>1965</u>	<u>1962</u>	<u>1957</u>	<u>1942</u>
A. ALL STATES				
	\$ Billions			
Total	75.0	60.2	40.4	9.2
Education	29.0	22.2	14.1	2.6
Local Schools	22.4	17.7	11.7	2.2
Institutions of higher education	5.9	4.0	2.2	.3
Other	.7	.4	.3	.1
Highways	12.2	10.4	7.8	1.5
Public Welfare	6.3	5.1	3.5	1.2
Health and Hospitals	5.4	4.3	3.1	.6
Other	22.1	18.2	11.9	3.3
B. MAINE				
	\$ Millions			
Total	310.8	284.4	191.0	56.3
Education	107.3	103.4	57.2	13.9
Local Schools	82.5	81.3	46.5	10.8
Institutions of higher education	19.9	19.0	8.0	1.8
Other	4.9	3.1	2.6	1.8
Highways	78.0	69.3	53.1	14.7
Public Welfare	29.9	26.4	19.0	7.8
Health and hospitals	15.8	15.2	11.0	2.9
Other	79.7	70.0	50.7	16.9
C. NEW HAMPSHIRE				
	\$ Millions			
Total	227.2	187.7	136.8	38.7
Education	79.7	60.7	41.1	9.5
Local schools	58.1	47.1	32.3	7.2
Institutions of higher education	18.1	11.3	7.1	1.9
Other	3.5	2.3	1.6	.4
Highways	56.6	52.5	41.9	10.1
Public Welfare	15.8	13.7	10.8	5.3
Health and Hospitals	14.1	11.9	9.7	2.7
Other	61.0	48.9	33.3	11.1

TABLE 6

## GENERAL EXPENDITURES OF STATE AND LOCAL GOVERNMENTS

	<u>1965</u>	<u>1962</u>	<u>1957</u>	<u>1942</u>
D. VERMONT				
\$ Millions				
Total	164.2	146.5	90.0	23.7
Education	62.3	49.7	30.9	6.0
Local Schools	39.4	33.3	23.0	5.2
Institutions of higher education	19.5	13.6	6.3	.3
Other	3.4	2.8	1.6	.6
Highways	48.2	50.9	27.3	6.7
Public Welfare	12.9	10.6	7.7	2.5
Health and Hospitals	8.0	7.1	5.6	1.2
Other	32.8	28.2	19.4	7.3

## E. MASSACHUSETTS

	\$ Millions			
Total	2,188.0	1,782.7	1,406.3	366.4
Education	651.5	529.0	342.3	83.4
Local Schools	560.0	483.7	313.1	78.8
Institutions of higher education	72.1	33.6	15.9	3.0
Other	19.4	11.7	7.3	1.6
Highways	321.5	248.2	231.3	37.7
Public Welfare	247.7	201.6	151.8	64.8
Health and Hospitals	199.2	166.0	145.7	33.7
Other	768.1	637.9	475.2	146.8

TABLE 6

## GENERAL EXPENDITURES OF STATE AND LOCAL GOVERNMENTS

	<u>1965</u>	<u>1962</u>	<u>1957</u>	<u>1942</u>
F. CONNECTICUT				
	\$ Millions			
Total	1,140.0	948.1	732.8	150.5
Education	397.4	325.8	211.0	39.3
Local schools	332.4	279.6	183.3	34.0
Institutions of higher education	44.1	28.7	18.7	2.7
Other	20.9	17.5	9.0	2.6
Highways	204.4	168.1	242.6	29.7
Public Welfare	91.4	68.3	45.0	16.1
Health and Hospitals	65.8	55.6	46.9	10.0
Other	381.0	330.3	187.3	55.4
G. RHODE ISLAND				
	\$ Millions			
Total	348.5	254.6	179.6	55.5
Education	114.2	83.2	52.1	14.7
Local schools	86.6	64.4	42.5	13.1
Institutions of higher education	19.8	14.1	6.8	.9
Other	7.8	4.7	2.8	.7
Highways	62.2	37.8	31.3	6.9
Public Welfare	35.7	26.3	20.0	5.5
Health and Hospitals	22.2	18.2	13.7	3.5
Other	114.2	89.1	62.5	24.9

Source: U. S. Department of Commerce, Bureau of the Census, Governmental Finances in 1964-65; Historical Statistics on Governmental Finances and Employment, 1962.

TABLE 7

## GENERAL EXPENDITURES OF STATE AND LOCAL GOVERNMENTS

	Percent			
	<u>1965</u>	<u>1962</u>	<u>1957</u>	<u>1942</u>
<b>A. ALL STATES</b>				
Total	100.0	100.0	100.0	100.0
Education	38.7	36.9	35.0	28.1
Local schools	29.9	29.5	28.9	24.2
Institutions of higher education	7.9	6.7	5.5	3.2
Other	0.9	0.7	0.7	0.7
Highways	16.3	17.2	19.4	16.2
Public Welfare	8.4	8.4	8.6	13.4
Health and Hospitals	7.2	7.2	7.7	6.4
Other	29.5	30.2	29.5	35.9
<b>B. MAINE</b>				
Total	100.0	100.0	100.0	100.0
Education	34.5	36.4	29.9	24.7
Local schools	26.5	28.6	24.4	19.2
Institutions of higher education	6.4	6.7	4.2	3.2
Other	1.6	1.1	1.4	2.2
Highways	25.1	24.4	27.8	26.2
Public Welfare	9.6	9.3	10.1	13.9
Health and Hospitals	5.1	5.3	5.7	5.2
Other	25.6	24.7	26.4	30.0
<b>C. NEW HAMPSHIRE</b>				
Total	100.0	100.0	100.0	100.0
Education	35.1	32.3	30.0	24.5
Local schools	25.6	25.1	23.7	18.6
Institutions of higher education	8.0	6.0	5.2	4.9
Other	1.5	1.2	1.2	1.1
Highways	24.9	28.0	30.7	26.1
Public Welfare	7.0	7.3	7.9	13.7
Health and Hospitals	6.2	6.4	7.1	7.0
Other	26.8	26.1	24.3	28.7



TABLE 7

## GENERAL EXPENDITURES OF STATE AND LOCAL GOVERNMENTS

	Percent			
	<u>1965</u>	<u>1962</u>	<u>1957</u>	<u>1942</u>
<b>D. VERMONT</b>				
Total	100.0	100.0	100.0	100.0
Education	37.9	33.9	33.9	25.5
Local schools	24.0	22.8	25.3	21.8
Institutions of higher education	11.9	9.3	6.9	1.1
Other	2.1	1.9	1.7	2.6
Highways	29.4	34.7	30.0	28.4
Public Welfare	7.9	7.2	8.5	10.8
Health and Hospitals	4.9	4.8	6.2	5.2
Other	20.0	19.2	21.3	30.8
<b>E. MASSACHUSETTS</b>				
Total	100.0	100.0	100.0	100.0
Education	29.8	29.7	24.3	22.8
Local schools	25.6	27.1	22.7	21.5
Institutions of higher education	3.3	1.9	1.1	0.8
Other	0.9	0.7	0.5	0.4
Highways	14.7	13.9	20.7	10.3
Public Welfare	11.3	11.3	10.8	17.7
Health and Hospitals	9.1	9.3	10.4	9.2
Other	35.1	35.8	33.8	40.1

TABLE 7

## GENERAL EXPENDITURES OF STATE AND LOCAL GOVERNMENTS

Percent

	<u>1965</u>	<u>1962</u>	<u>1957</u>	<u>1942</u>
<b>F. CONNECTICUT</b>				
Total	100.0	100.0	100.0	100.0
Education	34.9	34.4	28.8	26.1
Local schools	29.2	29.5	25.0	22.6
Institutions of higher education	3.9	3.0	2.5	1.8
Other	1.8	1.8	1.2	1.7
Highways	17.9	17.7	33.1	19.7
Public Welfare	8.0	7.2	6.1	10.7
Health and Hospitals	5.8	5.9	6.4	6.6
Other	33.4	34.8	25.6	36.8
<b>G. RHODE ISLAND</b>				
Total	100.0	100.0	100.0	100.0
Education	32.8	32.7	29.0	26.5
Local schools	24.8	25.3	23.6	23.6
Institutions of higher education	5.7	5.5	3.8	1.7
Other	2.2	1.8	1.6	1.2
Highways	17.8	14.9	17.4	12.5
Public Welfare	10.2	10.3	11.2	9.9
Health and Hospitals	6.4	7.1	7.6	6.2
Other	32.8	35.0	34.8	44.9

TABLE 8

## GENERAL EXPENDITURES OF STATE AND LOCAL GOVERNMENTS

Per Capita

	<u>1965</u>	<u>1962</u>	<u>1957</u>	<u>1942</u>
A. ALL STATES				
Total	386.73	324.00	236.98	68.14
Education	149.47	119.55	82.96	19.18
Local schools	115.44	95.46	68.42	16.50
Institutions of higher education	30.25	21.76	12.95	2.20
Other	3.79	2.33	1.59	.48
Highways	63.05	55.73	45.88	11.05
Public Welfare	32.58	27.36	20.45	9.09
Health and Hospitals	27.66	23.37	18.31	4.39
Other	113.97	97.99	69.38	24.43
B. MAINE				
Total	312.96	290.79	202.51	67.05
Education	108.10	105.72	60.61	16.55
Local schools	83.12	83.10	49.36	12.90
Institutions of higher education	20.02	19.43	8.51	2.18
Other	4.94	3.19	2.74	1.47
Highways	78.56	70.90	56.34	17.55
Public Welfare	30.12	27.04	20.17	9.31
Health and Hospitals	15.94	15.51	11.62	3.49
Other	80.23	71.61	53.77	20.15
C. NEW HAMPSHIRE				
Total	339.58	301.80	239.10	80.41
Education	119.09	97.55	71.84	19.74
Local schools	86.85	75.78	56.55	14.98
Institutions of higher education	27.05	18.09	12.41	3.90
Other	5.18	3.68	2.88	.85
Highways	84.63	84.43	73.30	21.00
Public Welfare	23.57	21.99	18.94	11.01
Health and Hospitals	21.02	19.17	16.94	5.62
Other	91.27	78.66	58.08	23.04

TABLE 8

## GENERAL EXPENDITURES OF STATE AND LOCAL GOVERNMENTS

	Per Capita			
	<u>1965</u>	<u>1962</u>	<u>1957</u>	<u>1942</u>
D. VERMONT				
Total	413.52	378.56	241.74	69.03
Education	156.95	128.40	82.06	17.57
Local schools	99.36	86.13	61.15	15.03
Institutions of higher education	49.05	35.15	16.74	.77
Other	8.53	7.12	4.18	1.77
Highways	121.32	131.41	72.68	19.59
Public Welfare	32.60	27.35	20.58	7.42
Health and Hospitals	20.24	18.22	15.01	3.61
Other	82.41	73.18	51.41	20.84
E. MASSACHUSETTS				
Total	409.05	343.62	285.32	83.84
Education	121.80	101.97	69.44	19.09
Local schools	104.69	93.24	64.75	18.03
Institutions of higher education	13.48	6.47	3.22	.68
Other	3.63	2.26	1.47	.37
Highways	60.11	47.83	59.10	8.64
Public Welfare	46.30	38.86	30.79	14.82
Health and Hospitals	37.24	32.00	29.56	7.72
Other	143.60	122.96	96.43	33.57

TABLE 8

## GENERAL EXPENDITURES OF STATE AND LOCAL GOVERNMENTS

	Per Capita			
	<u>1965</u>	<u>1962</u>	<u>1957</u>	<u>1942</u>
F. CONNECTICUT				
Total	402.40	361.19	310.63	83.99
Education	140.26	124.10	89.42	21.95
Local schools	117.33	106.53	77.71	19.00
Institutions of higher education	15.56	10.92	7.91	1.50
Other	7.36	6.65	3.80	1.46
Highways	72.14	64.05	102.85	16.59
Public Welfare	32.25	26.01	19.06	8.98
Health and Hospitals	23.23	21.16	19.86	5.57
Other	134.52	125.87	79.44	30.90
G. RHODE ISLAND				
Total	391.08	290.03	211.09	74.22
Education	128.17	94.78	61.16	19.67
Local schools	97.15	73.33	49.91	17.54
Institutions of higher education	22.26	16.09	7.95	1.24
Other	8.74	5.36	3.31	.89
Highways	69.80	43.09	36.80	9.26
Public Welfare	40.02	29.92	23.55	7.32
Health and Hospitals	24.91	20.72	16.13	4.64
Other	128.18	101.52	73.45	33.33

TABLE 9

## GENERAL EXPENDITURES OF STATE AND LOCAL GOVERNMENTS

Per \$1,000 of Personal Income

	<u>1965</u>	<u>1962</u>	<u>1957</u>	<u>1942</u>
A. U.S. AVERAGE				
Total	152.66	136.91	115.78	75.07
Education	59.00	50.52	40.53	21.13
Local schools	45.57	40.34	33.43	18.18
Highways	24.89	23.55	22.41	12.17
Public Welfare	12.86	11.56	9.99	10.01
Health and Hospitals	10.92	9.87	8.95	4.83
B. MAINE				
Total	147.42	148.51	120.10	79.01
Education	50.92	53.99	35.95	19.50
Local schools	39.15	42.45	29.25	15.17
Highways	37.00	36.21	33.41	20.68
Public Welfare	14.19	13.81	11.96	10.97
Health and Hospitals	7.51	7.92	6.89	4.12
C. NEW HAMPSHIRE				
Total	146.09	134.66	127.70	94.57
Education	51.23	43.53	38.37	23.21
Local schools	37.36	33.79	30.16	17.60
Highways	36.41	37.67	39.15	24.69
Public Welfare	10.14	9.81	10.12	12.95
Health and Hospitals	9.04	8.55	9.05	6.61

TABLE 9

## GENERAL EXPENDITURES OF STATE AND LOCAL GOVERNMENTS

Per \$1,000 of Personal Income

	<u>1965</u>	<u>1962</u>	<u>1957</u>	<u>1942</u>
D. VERMONT				
Total	189.35	187.34	144.73	90.71
Education	71.87	63.54	49.13	23.09
Local schools	45.49	42.58	36.62	19.92
Highways	55.55	65.03	43.52	25.75
Public Welfare	14.92	13.54	12.32	9.75
Health and Hospitals	9.26	9.02	8.99	4.75
E. MASSACHUSETTS				
Total	138.23	124.75	123.95	77.77
Education	41.16	37.02	30.17	17.71
Local schools	35.38	33.85	28.12	16.73
Highways	20.31	17.37	25.67	8.01
Public Welfare	15.64	14.11	13.38	13.75
Health and Hospitals	12.58	11.62	12.84	7.16
F. CONNECTICUT				
Total	125.62	118.18	113.36	59.09
Education	43.78	40.60	32.64	15.44
Local schools	36.62	34.85	28.36	13.35
Highways	22.52	20.96	37.54	11.67
Public Welfare	10.06	8.51	6.95	6.32
Health and Hospitals	7.25	6.92	7.25	3.92

TABLE 9

## GENERAL EXPENDITURES OF STATE AND LOCAL GOVERNMENTS

Per \$1,000 of Personal Income

	<u>1965</u>	<u>1962</u>	<u>1957</u>	<u>1942</u>
G. RHODE ISLAND				
Total	151.63	124.10	106.04	62.94
Education	49.69	40.55	30.73	16.68
Local schools	37.66	31.38	25.09	14.85
Highways	27.06	18.44	18.49	7.85
Public Welfare	15.51	12.80	11.83	6.21
Health and Hospitals	9.65	8.87	8.10	3.93

Source: Same as Table 6, and Survey of Current Business, July 1965.



TABLE 10

STATE GOVERNMENT PERCENTAGE OF DIRECT GENERAL  
EXPENDITURES OF STATE AND LOCAL GOVERNMENTS

	<u>1965</u>	<u>1962</u>	<u>1957</u>	<u>1942</u>
United States	34.9	33.8	33.8	30.1
Maine	51.6	49.5	50.7	49.3
New Hampshire	47.6	47.5	49.3	44.9
Vermont	59.7	59.7	51.2	45.5
Massachusetts	32.0	28.0	33.1	18.7
Connecticut	43.1	41.3	50.9	39.3
Rhode Island	48.3	46.8	45.8	30.5

Source: Same as Table 6

In the totals we see a strong rise, as we did before. Table 10 informs us that there were minor changes in the percentages spent by state government out of the total direct general state-local expenditures in the United States, Maine, New Hampshire, Massachusetts, and possibly Rhode Island. Thus in these jurisdictions state and local spending rose at about the same rate.

However, there were big differences (a) in Vermont, where there was a heavy swing toward state government spending, and (b) in Connecticut, strongly away from state spending from 1957 to the 1960's.

Turn to the structural elements. Table 7 makes evident the fact that from 1962 to 1965 the proportion of spending on education in Maine declined, while it was rising in every other one of the jurisdictions portrayed. It must be said that on the other hand from 1957 to 1965 the percentage rose very substantially in Maine, as it did elsewhere.

The directions of the proportions we spend on highways are perhaps too diverse to be easily characterized. As to the latest level of these proportions, notice that the less populous states of New England are, broadly, at the Maine mark.

Public welfare percentages are not remarkable dissimilar. Finally, Table 7 tells us that the proportion going to health and hospitals in Maine runs consistently below that in our sister states, if we exclude Vermont.

Now for the per capita figures, a strong effort pulled Maine close to the country at large from 1957 to 1962, in respect to higher education and to local schools. The relative position deteriorated rapidly; by 1965 Maine was once more far behind. For local schools, our position compared to the others in New England can perhaps be described as similarly uncomfortable. For higher education Maine shows up somewhat better in the comparison.

The highway per capitās in New England are too different to be neatly and simply compared.

The public welfare movements seem to be most uniform for all these geographic entities: Massachusetts is the only one glaringly different; it moved as did the others, but on a far higher plane.

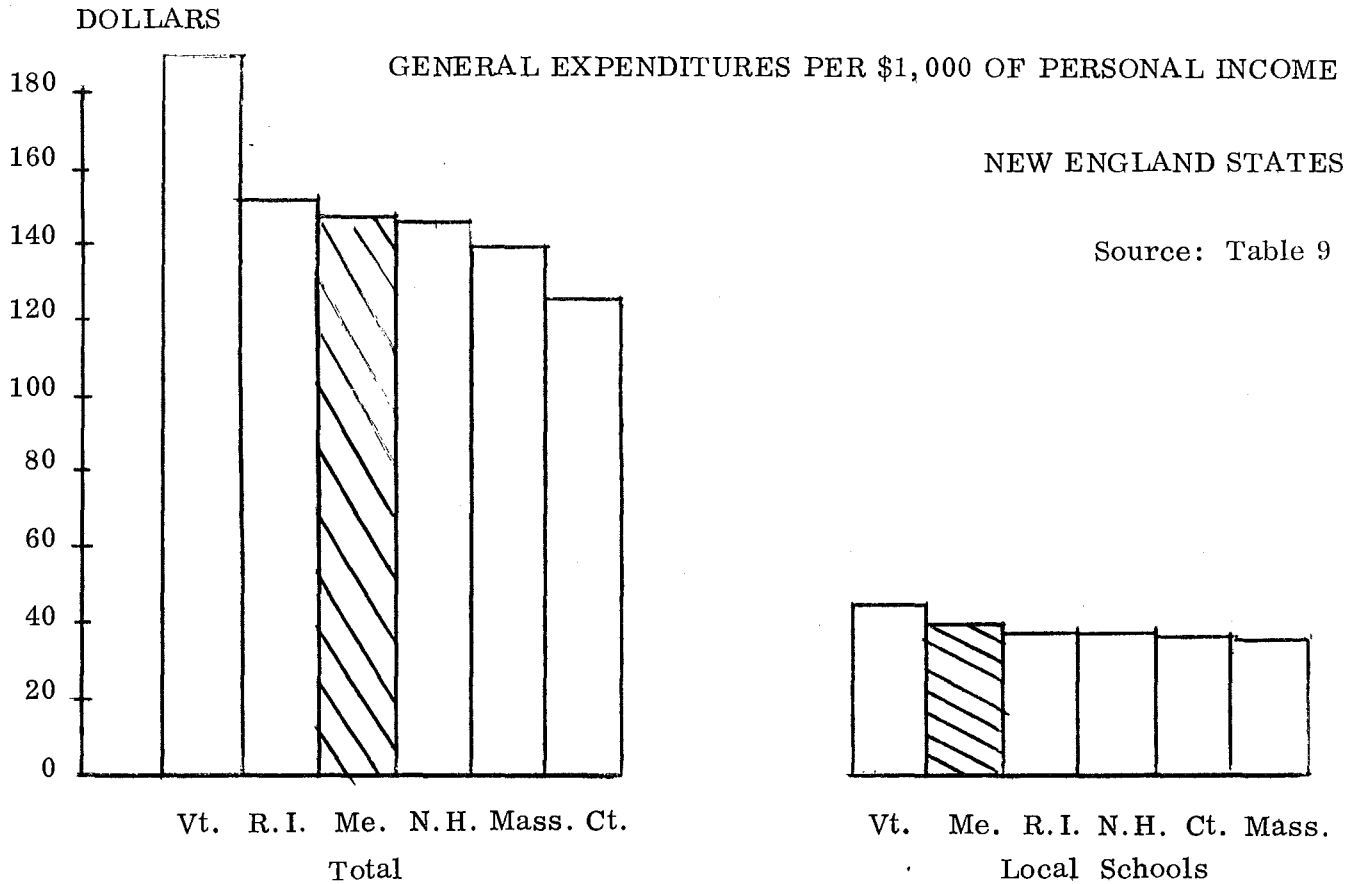
Health and hospitals -- again a rough similarity of movement, but Maine is the lowest of those viewed.

#### PERSONAL INCOME AND SERVICES

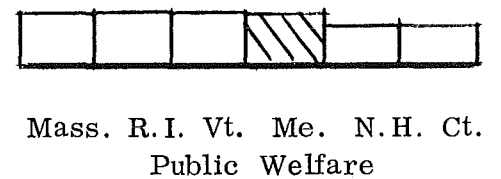
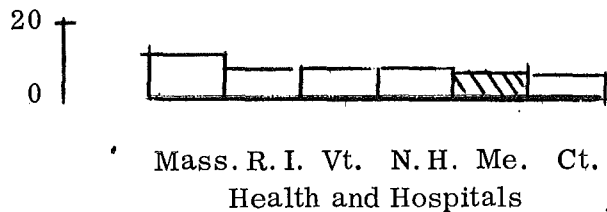
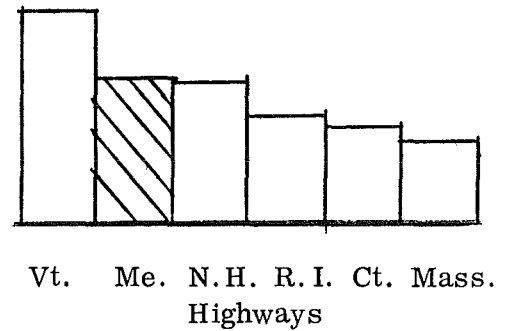
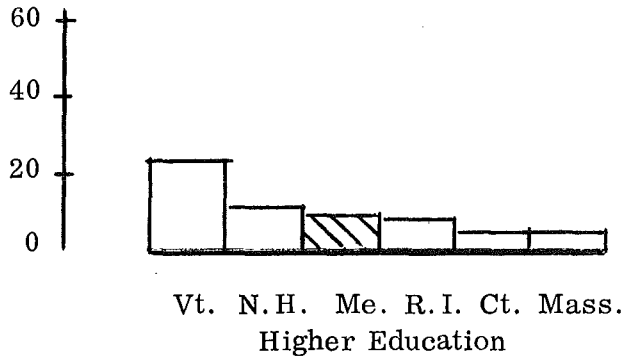
From the important standpoint of the part of personal income spent on government services -- state and local -- we derive some rather interesting results. Spending per \$1,000 of income is of course equivalent to percentage of income spent. When we are told, e. g. , that Maine in 1965 spent \$147.42 per \$1,000 of income all-in-all, then our information amounts to 14.7% of personal income. Comparing Maine with the average state in the United States

CHART THREE

STATE AND LOCAL GOVERNMENTS, 1965



Dollars





in 1965, in all the classes shown Maine is lower, with two exceptions: highways and public welfare. The panels of Chart 3 relate Maine to the other New England states. Essentially, Maine stands comfortably in the middle. On the total it is some goodly distance from both bottom and top. In no category is it either first or last. It is second twice -- local schools and highways. It is fifth once, health and hospitals.

Vermont is highest in the two education categories and highways, as well as in the sum of all types of general expenditures. Connecticut is fifth or sixth in all. Massachusetts is frequently near the bottom, but in two expenditure classes puts more of her state's income into them than do the others: health and hospitals, and public welfare.

If one is tempted to argue that Massachusetts and Connecticut are low "in the nature of things", i. e., by virtue of their high population and income, the view would have to contend with the fact that (a) rich and populous states outside New England can be found that spend much more on these categories, and (b) if one harks back to 1942, a number of discrepancies with the present can be seen; to choose just one -- Massachusetts spending on local schools was not the lowest, for it was above Maine, Rhode Island, (and Connecticut). Thus, the element of desirability of spending in these ways is of consequence, in addition to the element of arithmetic -- if a schooling is to be given at all, a minimum capital investment is required; if you have few people or little income the spending per capita or per \$1,000 of income must be high. What we are looking at in the panels is the resultant of both thrusts.

## PROJECTIONS OF EXPENDITURES

We are trying to discover the dimensions of the Maine tax problem. What faces us in the course of the next few years? To make headway, we must determine first what money is likely to be spent. Charts 4 and 5 provide a framework within which we may come to grips with this. Chart 4 compares total general expenditures of the State of Maine with the gross national product of the entire United States, i. e., with a major measure of our country's income. This is done for the twelve fiscal years ending 1965. Each x in the graph indicates the pairing for a specific year of Maine expenditures and the U. S. Gross national product. The latest figure shown is for 1965, for instance, where our expenditures were \$190.2 millions and gross national product was \$654.0 billions. On the basis of these pairs I calculated a relationship. This relationship is plotted on the same paper. Now the connection, as can be seen, is an exceedingly close one.

Chart 5 does the same with expenditures for all the states in the country combined, and again a tight tie is visible. In fact so good are these relationships that for Maine the correlation coefficient is .98, for All States .99 -- where 1.00 represents perfection. More particularly, the relationships can be described this way. Should U. S. national product advance 10% Maine expenditures would increase 11.8% and All States 16.3%.

Possibly a somewhat more accurate method involves finding the relationship between the real Maine expenditures, i. e., the expenditures after we eliminate the effect of price changes, and real gross national product.

This produces a very tight connection for the years studied, 1954 - 1965. Next

connect the movements of the prices of state government purchases<sup>1</sup> with prices in general; the objective is to predict the cost of a unit of goods purchased by government. I now have two relationships which are used to predict the real volume of state expenditures to 1970 and the prices per unit. The two are multiplied in each year to give the estimated value of Maine's state government total dollar expenditures. These are the figures that appear as a connected line in Chart 4.

The reason for emphasizing this is that if the connections, which in the past stand out so very clearly, continue to hold in the near future, we may be able to arrive at good expenditure estimates for the developing years. This is what we now attempt. I worked up estimates of gross national product for fiscal years 1967 through 1970, as will be described below in the sections on taxation. The fiscal year 1966 figure has already been published by the United States government. Our calculated relationship has then been put into play to derive the desired expenditure estimates.

These projections should be tested against any other information obtainable on the subject for hints or stronger indications of their potential validity. The regressions, the relationships, which we discover for Maine expenditures and gross national product used numbers through 1965 only. It is therefore possible to test them for actual 1966 results. The Bureau of the Census gives Maine general expenditures as \$190.2 millions for 1965. Its 1966 figure will not appear for some seven or eight months. Our relationship based on 1966 gross national product predicts 1966 expenditure at \$214.8 millions or virtually a 13% increase.

1. Actually, the data are available for prices of state and local government expenditures combined, and these were the figures that were used.



TABLE 11

ESTIMATED TOTAL GENERAL EXPENDITURES  
STATE GOVERNMENT, MAINE

Fiscal Year	U. S. Gross National Product \$ Billions	Expenditures \$ Millions
1966		214.8
1967	792.5	245.9
1968	863.2	271.5
1969	940.3	299.8
1970	1,024.2	331.3

Source: See Text

GENERAL EXPENDITURES IN RELATION TO GROSS NATIONAL PRODUCT

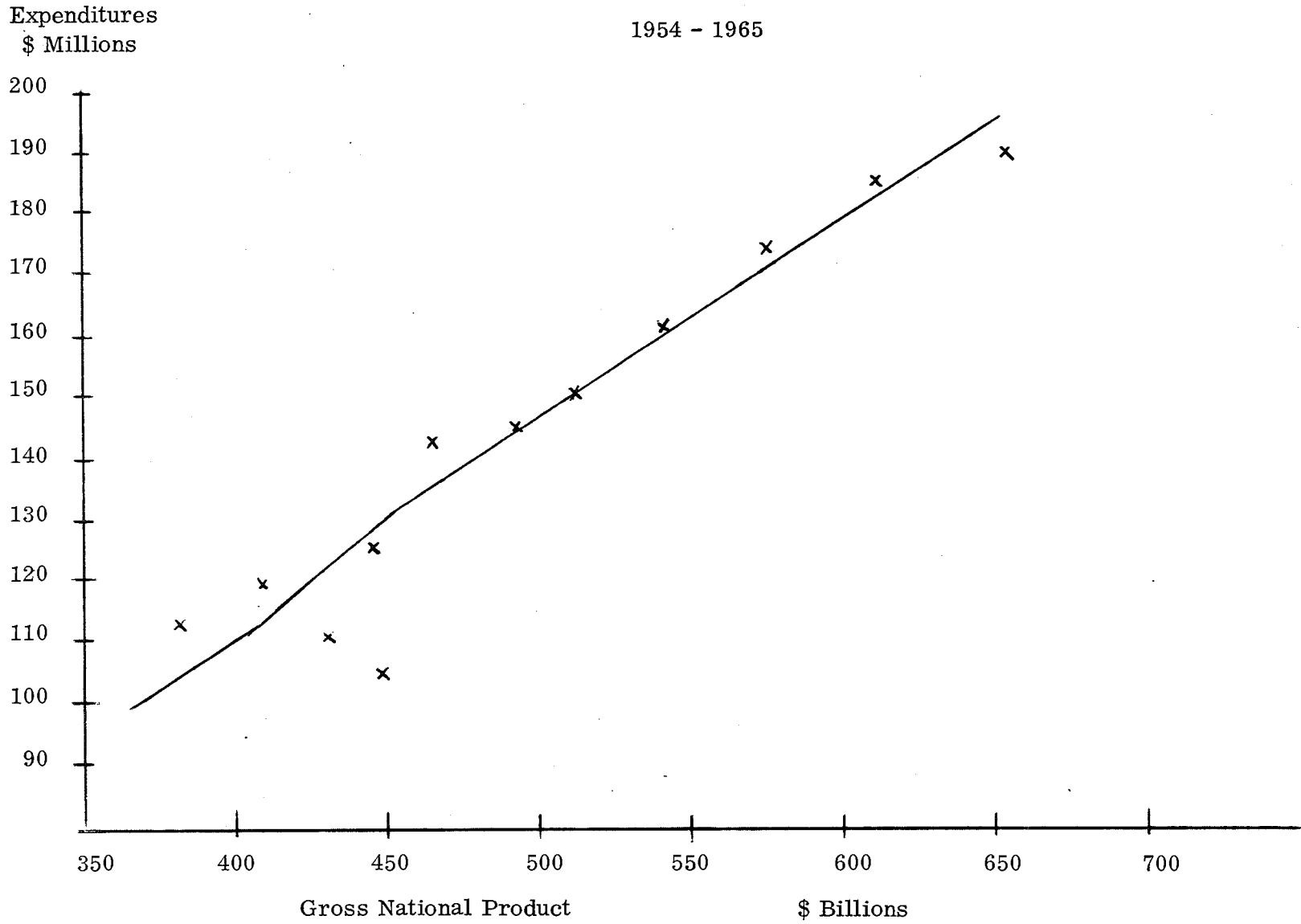
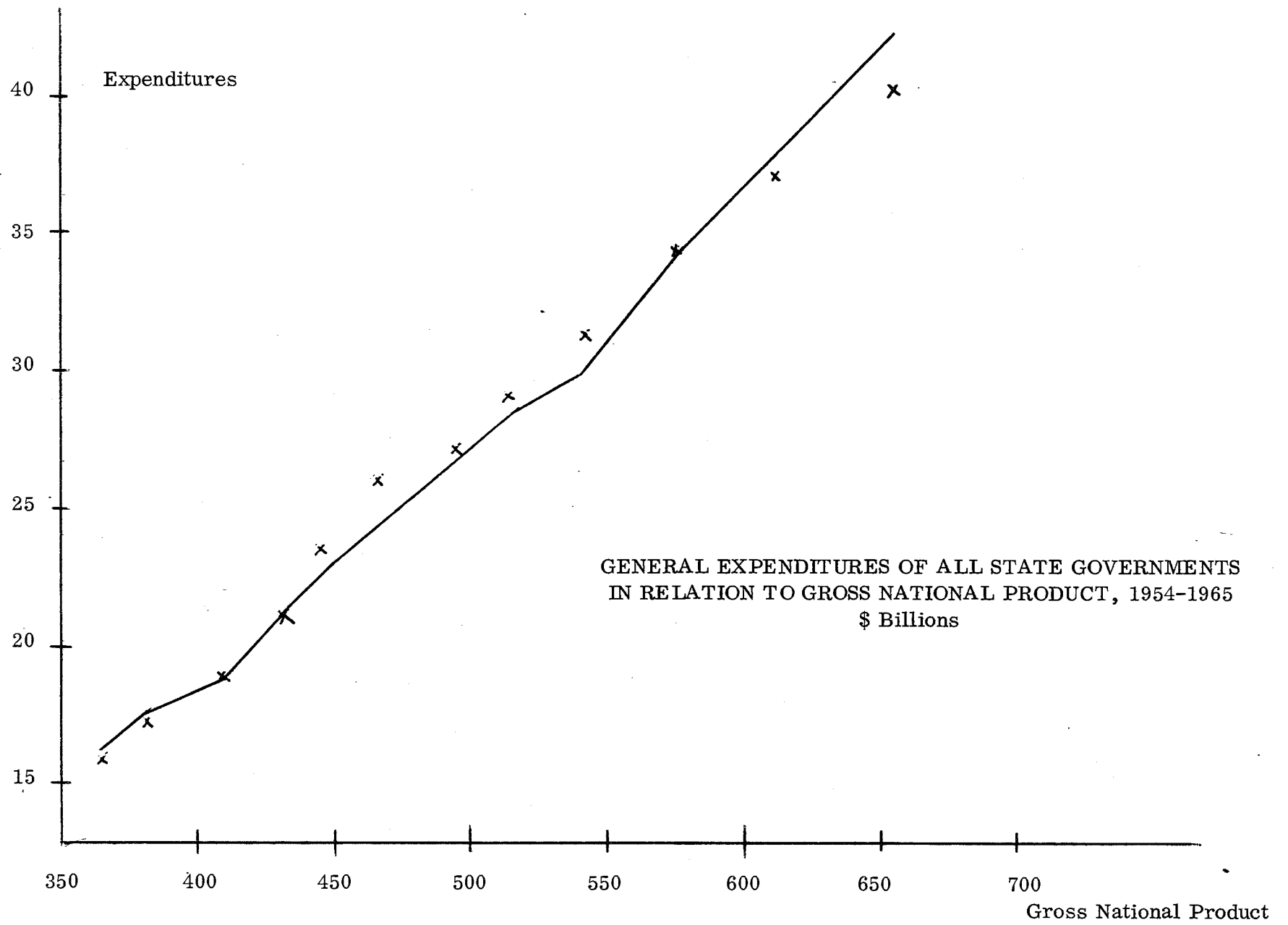




CHART 5





The Maine Department of Finance and Administration publishes expenditure data which do not relate neatly to that of the Bureau of the Census. However, the Department's 1966 figures are available. What I did was, for 1965 and 1966, take the totals as reported and deduct Transfers to Other Operating Funds, Other Transfers, and Debt Retirement to arrive at a figure as close as one can get at this moment to total expenditures for the state. The 1965 figure is \$167.2 millions; the 1966, \$190.8 millions. My 1966 estimate, if the reporting system of the Maine Department had been used would be \$189 millions, against their reported \$190.8. The error would be less than \$2 millions, or less than 1%. Incidentally, my 1966 estimated total expenditure for Maine in terms of the Bureau of the Census classification scheme is \$214.8 millions.

Another lead we possess is the very painstaking group of studies done by The Council of State Governments.<sup>1</sup> The nine volumes that comprise their State and Local Finances Projects were directed by Selma J. Mushkin. This set provides an elaborate and finely knit work, culminating in eight of the nine, in estimates for the country as a whole and for each of the 50 states and the District of Columbia, of revenues and expenditures in 1970 of state and local governments combined. There are no projections either for years earlier or later than 1970. There is no split of state data from the local. The projections also refer to the calendar year, where ours have all been for fiscal years.

1. Public Spending for Higher Education in 1970 - Selma J. Mushkin and Eugene P. McLoone; Transportation Outlays of States and Cities: 1970 Projections, Selma J. Mushkin and Robert Harris; State Programming and Economic Development, Selma J. Mushkin; Financing Public Welfare: 1970 Projections, Selma J. Mushkin and Robert Harris; Property Taxes: The 1970 Projections, Selma J. Mushkin; Local School Expenditures: 1970 Projections, Selma J. Mushkin and Eugene P. McLoone; Income and Sales Taxes: The 1970 Outlook for States and Localities, Robert Harris; Water-Supply and Sanitation Expenditures of State and Local Governments: Projections to 1970, Robert W. Rafuse, Jr.; Health and Hospital Expenditures of State and Local Governments: 1970 Projections, Selma J. Mushkin. These were published in the years 1964 to 1966.

The work, supported by a special grant from the Ford Foundation, is carried out by a staff that has spent a number of years on it and obtained frequent help from federal agencies. They point to cooperation provided by state governors. They are "estimates based on a series of assumptions both with respect to national economic developments and the economic pattern in states consistent with the assumed pattern of national growth." The assumptions relating to the national economy are apparently based on one of several models of the aggregate economy developed by the U. S. Department of Labor and the Interagency Project on Economic Growth and Employment Opportunities.

The national assumptions: The unemployment rate is not over 4% of the civilian labor force. A 4.1% average growth rate (at constant prices) of the national economy, 1962 - 1970; a higher growth rate in the first part of the period than in the later period. Gross national product thus will reach \$864 billions in 1970; personal income, \$672.8 billions; "as compared with the 1964 rate of \$622 billions for gross national product and \$491 billions for personal income. The 1962 aggregates were \$556 billions . . . and \$442 billions for personal income (respectively)."

These estimates assume price increases of 1.5% per year on the ground that these would be consistent with experience in the first five years of the 1960's.

Economic growth in the last part of the 1960's breaks into a 1.6% per year rise in employment and a 2% per year increase in output per worker. At a personal income of \$672.8 billions for 1970, disposable personal income will be \$584.3 billions, and total wages and salaries including military pay, \$460.8 billions.

To project for individual states, assumptions must be made about developments in employment, population, and income in the states. Differences among

them have been the experience, and they can be expected in the years to come. The projections they work with, "are necessarily very approximate, but they are consistent with the patterns of assumption on national economic developments and seem generally useful as a basis for state-by-state evaluation of the financial problem ahead. The general assumptions:

Aggregate personal income is assumed to rise faster in the West and Southeast than elsewhere, as it has in the past decade.

Income per capita will continue to rise more rapidly in the poorer states than elsewhere.

The concentration of population in urban areas will continue; thus a major share of the people even in the states now predominately rural would be city-dwellers."<sup>1</sup>

These assumptions are then put to work in the special studies to derive 1970 estimates for higher education, state and city transportation outlays, public welfare, water-supply and sanitation, health and hospital expenditures, property taxes, income taxes, and sales taxes. The detail that is used is minute and very full, calling forth a veritable forest of working assumptions. The possibilities for error are naturally very great, but the probability of being useably accurate is far, far greater than if horseback judgments were made. Pertinent figures from the Mushkin Studies follow. For those interested in comparisons with the U. S. and with other New England states, these may be found in the appendix to the present study, Table A1.

1. The Council of State Governments, Health and Hospital Expenditures (State and Local Government, 1966, pp. 89-96.



I attempt now to check these estimates against ours. This is not possible with precision, but it can be done. The two sets were derived in independent ways; not alone are the people who did the projecting different individuals, but the methods are as well. Furthermore, The Council of State Governments worked up only the most important of the expenditure categories. For the present study it was indispensable to have the total of all general expenditures. Finally, we must think in terms of the state government, while The Council of State Governments' numbers refer in every instance to the single sum of state and local outlays.

To come to grips with these problems:

1. I examined the trends from 1960 forward for Maine of state and local expenditures in the categories covered by The Council of State Governments. These are local schools, institutions of higher education, highways, public welfare, and health and hospitals. Only the last four of these apply to the state government significantly. Table 13 contains the relevant numbers.

2. By means of these figures, I derived expenditures per capita and per \$1,000 of personal income for the various classes for the state government alone.

3. The trends they showed were projected to calendar year 1970 and checked with The Council of State Governments' projections. All appeared to be reasonable, except the health and hospitals. But with the various programs of the federal government now -- see the next section on federal grants -- it might easily be that 1970 will see materially higher spending here than Maine trends from 1960 on might lead us to expect. This in fact is what The Council of State Governments would have us believe.

TABLE 12

## DIRECT EXPENDITURES, CALENDAR YEAR 1970

	Maine, State and Local Governments Council of State Governments Estimates			Maine State Government
	Total \$ Millions	Per Capita	Per \$1,000 of Personal Income	Total \$ Millions
Local schools	115.6	114.12	60.84	
Institutions of higher education	55.0	54.29	28.95	55.0
Highways	105.7	104.34	55.63	74.0
Public Welfare	41.1	40.57	21.63	36.8
Health and Hospitals	31.3	30.90	16.47	26.6

Source: See Text

TABLE 13

MAINE STATE AND LOCAL GOVERNMENT  
DIRECT GENERAL EXPENDITURES  
\$ Millions

	Total	Local Schools	Higher Education	Highways	Public Welfare	Health & Hospitals	Other
<b>A. TOTAL</b>							
1960	249.4	68.6	10.8	66.9	24.6	14.0	64.5
1961	254.0	66.5	14.5	65.4	25.1	15.1	67.4
1962	284.4	81.3	19.0	69.3	26.4	15.2	73.2
1963	298.2	84.6	19.9	73.2	29.1	15.2	76.2
1964	305.8	85.4	20.8	77.0	29.7	14.9	78.0
1965	310.8	82.5	19.9	78.0	29.9	15.8	84.7
<b>B. STATE &amp; LOCAL BREAKDOWN</b>							
<u>1960</u>							
State	125.3	.4	10.8	50.0	21.8	11.8	30.5
Local	124.1	68.2		16.9	2.8	2.2	34.0
<u>1961</u>							
State	130.7	1.5	14.5	46.8	22.2	12.9	32.8
Local	123.3	65.0		18.6	2.9	2.2	34.6
<u>1962</u>							
State	140.8	.9	19.0	50.5	23.6	12.9	33.9
Local	143.6	80.3		18.9	2.8	2.3	39.3
<u>1963</u>							
State	150.6	1.0	19.9	53.3	26.5	12.9	37.0
Local	147.7	83.6		19.9	2.7	2.3	39.2
<u>1964</u>							
State	157.2	1.1	20.8	56.6	27.1	12.6	39.0
Local	148.6	84.3		20.4	2.6	2.3	39.0
<u>1965</u>							
State	160.4	1.1	19.9	57.9	26.8	13.4	41.3
Local	150.3	81.4		20.1	3.1	2.4	43.3
<b>C. PER CAPITA</b>							
1960	256.06	70.43	11.08	68.69	25.26	14.37	66.22
1961	256.05	67.04	14.62	65.93	25.30	15.22	67.94
1962	290.79	83.10	19.43	70.90	27.04	15.51	74.81
1963	302.47	85.83	20.15	74.20	29.52	15.43	77.34
1964	309.17	86.33	21.02	77.89	30.02	15.05	78.86
1965	312.96	83.12	20.02	78.56	30.12	15.94	85.20

TABLE 13

MAINE STATE AND LOCAL GOVERNMENT  
DIRECT GENERAL EXPENDITURES  
\$ Millions

	Total	Local Schools	Higher Education	Highways	Public Welfare	Health & Hospitals	Other
D. PER \$1,000 PERSONAL INCOME							
1960	134.74	37.06	5.83	36.14	13.29	7.56	34.85
1961	138.95	36.38	7.93	35.78	13.73	8.26	36.87
1962	148.51	42.45	9.92	36.21	13.81	7.92	38.19
1963	151.23	42.92	10.09	37.10	14.76	7.72	38.64
1964	155.13	43.31	10.55	39.08	15.06	7.55	39.57
1965	147.44	39.14	9.44	37.00	14.19	7.50	40.18

Source: Compiled from data found in Governmental Finances, 1960-61, 1963-65. Census of Governments, 1962.

4. Next we need to look at the total of general expenditures for the state. This consists of the four classes we have talked about plus "other" direct expenditures and also intergovernmental expenditures. The relations of each of the latter two to the total since 1960 were studied and on this basis a judgment was made as to calendar year 1970 estimates.

5. I subtracted, finally, the sum of the two items obtained in #4, \$128.5 millions, from my calendar year 1970 total, \$347.4 millions, to arrive at a number that corresponds to the 4-categor sum of The Council of State Governments. My estimate is \$218.9 millions; theirs \$192.4 millions. The difference is 12.1%, not wildly unrelated. Possibly even more relevant, since I require only totals when I come later to study Maine's tax needs, would be a comparison between the total general expenditures I project and the total obtained by adding the four of The Council of State Governments to the two I derived in #4. This total is \$320.9 millions. The difference is 7.6%. I conclude the two games are being played in the same ball park. Our estimates for the next several years may indeed contain some measure of relevance to Maine's tax requirements.

#### REVENUES OTHER THAN TAXES

Where is all this money coming from? A worthwhile perspective is possible if we return to the combination, the sumation, of state and local finances -- more specifically, of their revenues. It helps also to compare Maine with others, so that it may become clearer why different answers to revenue problems appear desirable in different states. See tables 14 - 16, which portray movements from the 1950's to the middle sixties.

TABLE 14

## GENERAL REVENUE OF STATE AND LOCAL GOVERNMENTS

	Percent		
	<u>1965</u>	<u>1962</u>	<u>1957</u>
A. ALL STATES			
Total	100.0	100.0	100.0
From Federal Government	14.8	13.5	10.1
From State and Local sources	85.2	86.5	89.9
Taxes	69.4	71.3	75.5
Property	30.8	32.7	33.7
Nonproperty	38.6	38.6	41.8
Charges and miscellaneous general revenues	15.7	15.2	14.4
B. MAINE			
Total	100.0	100.0	100.0
From Federal Government	16.5	15.7	12.1
From State and Local sources	83.5	84.3	87.9
Taxes	71.5	73.8	77.1
Property	35.5	39.0	38.5
Nonproperty	35.9	34.8	38.5
Charges and miscellaneous general revenues	12.1	10.5	10.8
C. NEW HAMPSHIRE			
Total	100.0	100.0	100.0
From Federal Government	15.6	17.9	9.3
From State and Local sources	84.5	82.1	90.7
Taxes	68.9	69.5	77.5
Property	44.4	44.2	48.7
Nonproperty	24.4	25.3	28.9
Charges and miscellaneous general revenues	15.6	12.6	13.2

TABLE 14

## GENERAL REVENUE OF STATE AND LOCAL GOVERNMENTS

	Percent		
	<u>1965</u>	<u>1962</u>	<u>1957</u>
<b>D. VERMONT</b>			
Total	100.0	100.0	100.0
From Federal Government	24.9	28.8	13.1
From State and Local sources	75.1	71.2	86.9
Taxes	64.5	62.9	77.5
Property	26.7	28.4	34.8
Nonproperty	37.8	34.5	42.6
Charges and miscellaneous general revenues	10.6	8.3	9.4
<b>E. MASSACHUSETTS</b>			
Total	100.0	100.0	100.0
From Federal Government	13.1	11.0	7.2
From State and Local sources	87.0	89.0	92.8
Taxes	76.1	78.9	83.5
Property	43.8	47.8	48.4
Nonproperty	32.3	31.1	35.1
Charges and miscellaneous general revenues	10.8	10.1	9.3

TABLE 14

## GENERAL REVENUE OF STATE AND LOCAL GOVERNMENTS

Percent

	<u>1965</u>	<u>1962</u>	<u>1957</u>
<b>F. CONNECTICUT</b>			
Total	100.0	100.0	100.0
From Federal Government	12.4	10.7	5.4
From State and Local sources	87.6	89.3	94.6
Taxes	74.7	76.9	83.0
Property	39.0	41.2	41.5
Nonproperty	35.7	35.7	41.5
Charges and miscellaneous general revenues	12.9	12.5	11.5
<b>G. RHODE ISLAND</b>			
Total	100.0	100.0	100.0
From Federal Government	19.1	13.6	12.2
From State and Local sources	80.9	86.4	87.8
Taxes	71.8	77.4	79.0
Property	33.1	37.0	39.8
Nonproperty	38.7	40.4	39.2
Charges and miscellaneous general revenues	9.1	9.0	8.8

Source: Computed from Governmental Finances in 1957 and 1965; Census of Governments, 1962.

Note: Detail may not add to total because of rounding.



TABLE 15

## GENERAL REVENUE OF STATE AND LOCAL GOVERNMENTS

	Per Capita		
	<u>1965</u>	<u>1962</u>	<u>1957</u>
<b>A. ALL STATES</b>			
Total	\$383.56	\$313.48	\$224.00
From Federal Government	56.90	42.36	22.56
From State and Local sources	326.66	271.13	201.44
Taxes	266.11	223.62	169.14
Property	118.25	102.54	75.50
Nonproperty	147.87	121.08	93.64
Charges and miscellaneous general revenues	60.55	47.50	32.30
<b>B. MAINE</b>			
Total	\$326.41	\$273.24	\$193.53
From Federal Government	53.85	42.83	23.34
From State and Local sources	272.55	230.42	170.20
Taxes	233.18	201.69	149.20
Property	116.05	106.51	74.60
Nonproperty	117.13	95.18	74.60
Charges and miscellaneous general revenues	39.37	28.73	21.00
<b>C. NEW HAMPSHIRE</b>			
Total	\$321.11	\$290.22	\$196.36
From Federal Government	50.01	51.91	18.27
From State and Local sources	271.09	238.32	178.09
Taxes	220.95	201.77	152.25
Property	142.46	128.34	95.58
Nonproperty	78.48	73.42	56.66
Charges and miscellaneous general revenues	50.14	36.55	25.84

TABLE 15

## GENERAL REVENUE OF STATE AND LOCAL GOVERNMENTS

Per Capita

	<u>1965</u>	<u>1962</u>	<u>1957</u>
D. VERMONT			
Total	\$430.61	\$378.57	\$222.75
From Federal Government	106.97	109.10	29.24
From State and Local sources	323.64	269.47	193.51
Taxes	277.84	238.06	172.53
Property	115.21	107.52	77.59
Nonproperty	162.62	130.55	94.94
Charges and miscellaneous general revenues	45.80	31.41	20.98
E. MASSACHUSETTS			
Total	\$396.80	\$347.67	\$247.22
From Federal Government	51.88	38.23	17.83
From State and Local sources	344.91	309.43	229.40
Taxes	302.03	274.23	206.50
Property	173.90	166.09	119.75
Nonproperty	128.13	108.15	86.75
Charges and miscellaneous general revenues	42.88	35.20	22.90

TABLE 15

## GENERAL REVENUE OF STATE AND LOCAL GOVERNMENTS

## Per Capita

	<u>1965</u>	<u>1962</u>	<u>1957</u>
F. CONNECTICUT			
Total	\$389.43	\$339.06	\$235.83
From Federal Government	48.27	36.13	12.84
From State and Local sources	341.15	302.92	222.99
Taxes	291.04	260.58	195.83
Property	151.97	139.61	97.96
Nonproperty	139.07	120.97	97.87
Charges and miscellaneous general revenues	50.10	42.34	27.16
G. RHODE ISLAND			
Total	\$365.97	\$277.79	\$193.60
From Federal Government	69.98	37.76	23.63
From State and Local sources	295.98	240.03	169.97
Taxes	262.74	214.95	152.92
Property	120.95	102.84	77.04
Nonproperty	141.79	112.11	75.88
Charges and miscellaneous general revenues	33.24	25.08	17.05

Source: Same as Table 14

Note: Detail may not add to total because of rounding.

TABLE 16

## GENERAL REVENUE OF STATE AND LOCAL GOVERNMENTS

Per \$1,000 of Personal Income

	<u>1965</u>	<u>1962</u>	<u>1957</u>
<b>A. U. S. AVERAGE</b>			
Total	\$151.41	\$132.47	\$109.44
From Federal Government	22.46	17.90	11.02
From State and Local sources	128.94	114.57	98.42
Taxes	105.04	94.49	82.64
Property	46.68	43.33	36.89
Nonproperty	58.37	51.16	45.75
Charges and miscellaneous general revenues	23.90	20.07	15.78
<b>B. MAINE</b>			
Total	\$153.76	\$139.55	\$114.78
From Federal Government	25.37	21.87	13.84
From State and Local sources	128.39	117.67	100.94
Taxes	109.84	103.00	88.49
Property	54.66	54.40	44.24
Nonproperty	55.17	48.61	44.25
Charges and miscellaneous general revenues	18.54	14.67	12.45
<b>C. NEW HAMPSHIRE</b>			
Total	\$138.15	\$129.50	\$104.87
From Federal Government	21.51	23.16	9.76
From State and Local sources	116.63	106.34	95.11
Taxes	95.06	90.03	81.31
Property	61.29	57.27	51.05
Nonproperty	33.76	32.76	30.26
Charges and miscellaneous general revenues	21.57	16.31	13.80

TABLE 16

## GENERAL REVENUE OF STATE AND LOCAL GOVERNMENTS

Per \$1,000 of Personal Income

	<u>1965</u>	<u>1962</u>	<u>1957</u>
<b>D. VERMONT</b>			
Total	\$197.18	\$187.35	\$133.36
From Federal Government	48.98	53.99	17.50
From State and Local sources	148.19	133.36	115.86
Taxes	127.22	117.81	103.30
Property	52.71	53.21	46.45
Nonproperty	74.51	64.61	56.85
Charges and miscellaneous general revenues	20.97	15.54	12.56
<b>E. MASSACHUSETTS</b>			
Total	\$134.09	\$126.22	\$107.40
From Federal Government	17.53	13.88	7.74
From State and Local sources	116.56	112.34	99.66
Taxes	102.07	99.56	89.71
Property	58.76	60.30	52.02
Nonproperty	43.30	39.26	37.69
Charges and miscellaneous general revenues	14.49	12.78	9.95

TABLE 16

## GENERAL REVENUE OF STATE AND LOCAL GOVERNMENTS

Per \$1,000 of Personal Income

	<u>1965</u>	<u>1962</u>	<u>1957</u>
<b>F. CONNECTICUT</b>			
Total	\$121.57	\$110.93	\$86.06
From Federal Government	15.07	11.82	4.68
From State and Local sources	106.49	99.11	81.38
Taxes	90.85	85.26	71.47
Property	47.44	45.68	35.75
Nonproperty	43.42	39.58	35.72
Charges and miscellaneous general revenues	15.64	13.85	9.91
<b>G. RHODE ISLAND</b>			
Total	\$141.89	\$118.86	\$97.26
From Federal Government	27.13	16.15	11.87
From State and Local sources	114.76	102.70	85.39
Taxes	101.87	91.97	76.82
Property	46.91	44.00	38.70
Nonproperty	54.96	47.97	38.12
Charges and miscellaneous general revenues	12.88	10.73	8.56

Source: Same as Table 14; and Survey of Current Business, July 1965.

Note: Detail may not add to total because of rounding.

In the first of these, where we see the structure of the state-local revenue systems, we may glean at least the following.

1. The money received from the federal government has grown and is growing steadily, occupying now a solid -- although still definitely minor -- part of the whole. This is true in each of the jurisdictions presented: Maine; each of the other New England States; and the total of all states in the United States, or what is in important respect the same thing, the "average" state.

2. In this regard Maine moved, broadly speaking, as did All States, New Hampshire, and Rhode Island.

3. In Vermont, Massachusetts and Connecticut the federal role roughly doubled in this very brief span -- eight years can hardly be called a long time.

4. In Vermont, Washington supplies a quarter of all government general revenues. This is the least populous and one of the poorest (in terms of per capita income) states in New England. In Massachusetts and Connecticut, the federal government occupies a relatively small place; these are precisely the richest and the most populous. The others, Maine among them, lie in between.

5. Revenue received by these governments from (a) selling things, be it books in a state university bookstore or water or electric power or rides on a governmentally-owned transit system or whatever, and (b) from a polyglot "miscellaneous" was a fairly stable portion of the whole in this time. It rose moderately, but in every case it did rise between the terminal dates in the Table. By and large, all lie between 10 and 15% of the totals in 1965.

6. The points made thus far reveal that structurally some pressure has been removed from the tax burden of these state and local governments. In Maine, for example, almost 29% of the take now comes from non-state-local taxes,

whereas it was less than 1/4 in 1957. The same general movement and magnitudes, approximately, occurred in All States, New Hampshire, and Rhode Island.

7. Let us divide taxes into just two groups, property and nonproperty. (The former provide the overwhelming preponderance of tax money for local governments.) In Maine there is about an even split between them, each yielding 1/3 of all general revenue, say. In the average American state the nonproperty yield more, but recall how many different taxes this includes. (How very productive the property tax is!) This is true in Vermont and Rhode Island too. But in our more urban and prosperous states, Connecticut and Massachusetts, and in New Hampshire too, the property tax produces more than all others combined -- not terribly far in fact from 50%, in the last two.

8. If one rides rough shod over differences in order to achieve a rule of thumb, he might say that this income divides about 1/3 each from property taxes, nonproperty taxes, and federal government plus charges -- miscellaneous. He might have to blink a bit when making the statement, but it would certainly not require complete blindness.

#### PER CAPITA DATA

Turn to the per capita data.

1. The dominant theme as expected is growth, more money per person, and strongly at that.

2. Maine collects less than the average American government, or about the same as New Hampshire: around \$320 per capita versus, say, \$380 for All States.



3. The wealthier New England territories collect more than the average. This, one might perhaps surmise in advance. But the poorest, Vermont, rakes in the most, by a good deal. Perhaps as determining factors her low income -- not much per head can be obtained when each head lacks income -- is outweighed by her sparse population. Close scrutiny reveals the gem for Vermont is the federal government, which gave \$107 for each individual in 1965, or approximately double the amount received elsewhere.

4. From state and local sources, Vermont generally parallels All States. Maine and New Hampshire are significantly lower, in the \$270 range.

5. And the richer Massachusetts and Connecticut do what they can afford to do, produce more out of home sources.

#### TAX EFFORT

In Table 16 we are looking at the efforts put forward by the state-local government grouping relative to income. One test of the willingness to undergo a burden steps forward from these data. If it be true that taxes, e. g. , levied with some states are borne by the people there, and not shifted onto someone else's shoulders, then a high fraction of income going to taxes indicates a heavy burden.<sup>1</sup> Of course, one is not always convinced that the individual payer of a tax and the individual burdened are one and the same individual.

1. At any rate, slurring this point now, we see that in Maine, revenue to these governments increased from about 11.5% of income (\$114.78 per \$1,000 of personal income is the same as 11.478% of income) to approximately 15.5%, again an important advance, particularly in view of the narrow time band. This is

1. A meaningful statement, I think, but certainly an incomplete one.

pretty much what occurred on average in the country, and possibly in Rhode Island.

2. In Connecticut, Massachusetts, and New Hampshire it is less.

3. In Vermont the figure is virtually 20%.

4. Something approaching 5% of income comes from federal sources and charges--miscellaneous, in the case of Maine and All States. Again we have more in Vermont and less in Connecticut and Massachusetts.

5. The total tax "burden" is remarkably similar these days among the jurisdictions under our magnifying glass. Six of seven are greater than 9% and less than 11%. (Vermont is again the maverick.)

6. Obeisance may be paid to the growth in the tax element, but the big strides since 1957 have been taken by federal payments and by charges.

Tables 17 and 18 point up a little more of the same. Currently -- considering 1965 as current -- about 15% of state and local government general revenue derives from the federal government, a bit more here a little less there. But Vermont is, as usual, different. Notice how successful Vermont has been in garnering federal money.

As between state and local governments the origin of the funds varies a good deal: 45% from the state in Maine and Vermont, only 35% or thereabouts in New Hampshire and Massachusetts; and Connecticut is more like Maine than New Hampshire is; or Massachusetts is less like Connecticut than like New Hampshire. Alternatively, in New Hampshire and Massachusetts local governments raise about 50% more money than does the state government; in Vermont this is reversed.

From 1957 to 1965, examination of the case of Maine versus the "average" state reveals the federal trend (revenue from the federal government) that stood out in the above paragraph and also the lack of trend in each instance in state

TABLE 17

STATE AND LOCAL GOVERNMENTS  
GENERAL REVENUE, BY ORIGINATING LEVEL OF GOVERNMENT  
(Before Transfers Among Governments)

1965

Percent

	Federal	State	Local
All States	14.8	41.2	44.0
Maine	16.5	44.6	38.9
New Hampshire	15.6	34.0	50.4
Vermont	24.9	44.9	30.3
Massachusetts	13.1	36.1	50.9
Connecticut	12.4	42.4	45.2
Rhode Island	19.1	42.8	38.1

Source: Governmental Finances in 1964-65.

TABLE 18

STATE AND LOCAL GOVERNMENTS  
GENERAL REVENUE, BY ORIGINATING LEVEL OF GOVERNMENT  
(Before Transfers Among Governments)

Percent

	Federal	State	Local
A. ALL STATES			
1957	10.1	43.1	46.8
1962	13.5	40.6	45.8
B. MAINE			
1957	12.1	45.6	42.4
1962	15.7	41.9	42.4

Source: Historical Statistics on Governmental Finances and Employment, 1962

collections compared with local.

If governments of nearby states and in the nation at large make a total tax effort of something like 10% of the state's personal income, it may perhaps be unnatural, all circumstances considered, to expect that the state government of Maine will be willing to do more over the near term -- but remember Vermont. Also remember it has been done: taxes have risen, here and elsewhere, so that they amount to a larger part of income than earlier. Furthermore, strong economic growth has often accompanied these tax-income movements. Therefore, if the government expenditure that requires raising additional funds from some source is sufficiently growth-inducing, an appropriate tax may on balance be logically desirable.

#### REVENUE TRENDS

We must now attend to the state government directly, placing the local deep into the background. Once more we start with a moving picture of structure, and a comparison. Table 17 pointed to the fact that it would be confusing to line up the six New England states, one with another. There is too much that is disparate among them. Let us now concentrate on Maine, but to keep others in mind in a general way we also have before us in Table 19 the All States grouping.

One of the two most important trends visible is the rapid advance of the federal government as a source of state funds. In the dim past, the 1920's, states received 5% of their general revenue from Washington. The depression brought to the surface elemental needs and by the late 1930's, this was pushed to 15%. Twenty years later, 1957, as shown here, the proportion was not much different -- the first post-war decade had not seriously changed the balance for the average

TABLE 19

## REVENUES OF STATE GOVERNMENTS

Percent

## A. ALL STATES

Fiscal Year	Total General Revenues	From Outside Sources		From Own Sources		
		Federal Government	Local Governments	Total Taxes	Current Charges	Miscellaneous General Revenues
1957	100.0	17.2	2.0	71.1	5.9	3.6
1962	100.0	22.8	1.3	66.0	7.1	2.9
1965	100.0	24.2	1.0	63.8	7.6	3.4

## B. MAINE

Fiscal Year	Total General Revenues and Liquor Revenue <sup>(a)</sup>	From Outside Sources		From Own Sources			Liquor Revenue
		Federal Government	Local Government	Total Taxes	Current Charges	Miscellaneous General Revenue	
1957	100.0	18.5	3.2	62.1	8.8	2.2	5.2
1962	100.0	24.1	2.3	57.7	9.3	2.2	4.4
1965	100.0	24.3	2.0	57.0	10.0	3.0	3.7

(a) Liquor revenue is the net contribution to the general funds of the alcoholic beverage monopoly.

Source: Compiled from data in Compendium, and State of Maine Department of Finance and Administration, Financial Report, for the appropriate years.

American state. But the eight years before us strongly altered the stream again. By now, virtually 1/4 of dollars flowing into states come from the national government. In Maine it is the same. This particular answer to a strong need was evidently very widely accepted. (Notice that for Maine, 100% is represented by general revenue plus the net revenue of the state liquor stores.) This points firmly to the difficulties of raising funds from taxation -- our second feature. Taxes keep dropping as a source of state revenue. In the nation at large, they do not now produce even 2/3 of the revenues. In Maine this is approaching half! The focus is altered some, if we add the net liquor store contribution to taxes, since in most other states government collections from liquor derive from taxes and their like, licenses; we find, then, that Maine does not differ much from All States.

Charts 6 and 7 make these points in a somewhat different manner. They talk dollars, not percentages. But one can see the more rapid advance in and out of Maine of the federal government's payments and also charges for current services. These charges are not negligible. 10% the Table informs us.

## REVENUE GROUPINGS

State revenues are separated by the Bureau of the Census into three groups: general, alcoholic beverage, and insurance trust. The insurance trust revenues and expenditures are a matter apart and distinct, not intertwined with the problems with which this study concerns itself. I shall not discuss them, therefore. The item, alcoholic beverage, refers to the net contribution of the state liquor stores to the general fund. Table 20 contains some information on this subject.<sup>1</sup>

1. A word about the relation of the figures shown under this Net Contribution and those reported in the Annual Financial Report of the Maine Department of Finance and Administration under the heading, "Transferred from Liquor Commission." In 1965 the Department showed \$11.6 millions here. If we take, in Table 20, the \$7.7 millions of Net Contribution, add the \$4.1 millions of Receipts from Taxes, and subtract a number available but not shown, representing expenditures for licensing and law enforcement, of \$0.2 millions, we arrive at the Department's figure.

TABLE 20

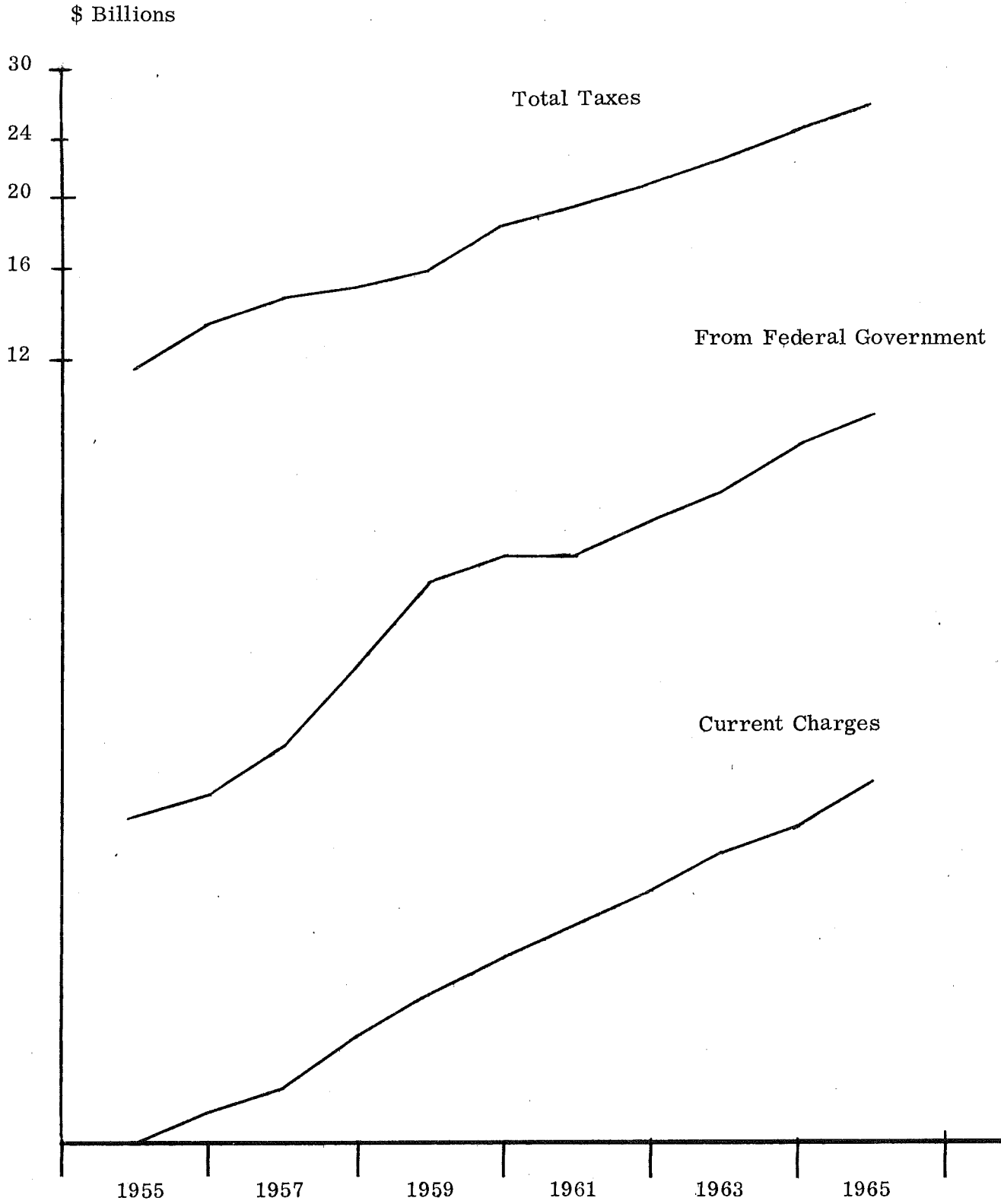
## STATE ALCOHOLIC BEVERAGE MONOPOLY SYSTEMS

	\$ Millions			
	Net Contributions To General Funds		Receipts from Taxes, Including Licenses and Permits	
	<u>Total 16 States</u>	<u>Maine</u>	<u>Total 16 States</u>	<u>Maine</u>
1955	183.6	4.7	78.4	2.6
1956	195.9	5.5	84.1	2.7
1957	208.2	5.9	86.4	2.6
1958	225.4	6.0	98.9	2.5
1959	207.5	6.2	101.5	2.5
1960	236.9	6.6	122.6	2.7
1961	232.0	6.8	132.7	2.7
1962	236.0	7.1	136.7	3.8
1963	272.2	7.2	176.5	3.9
1964	205.9	7.3	202.3	4.0
1965	234.2	7.7	213.7	4.1
Average Annual Change,				
1955-60: 10.7		.4	8.8	...
1960-65: -.5		.2	18.2	.3

Source: Basic data from Compendium and Financial Report for the appropriate years.

CHART 6

STATE GOVERNMENTS, MAJOR SOURCES OF GENERAL REVENUE  
ALL STATES



Source: Compendium

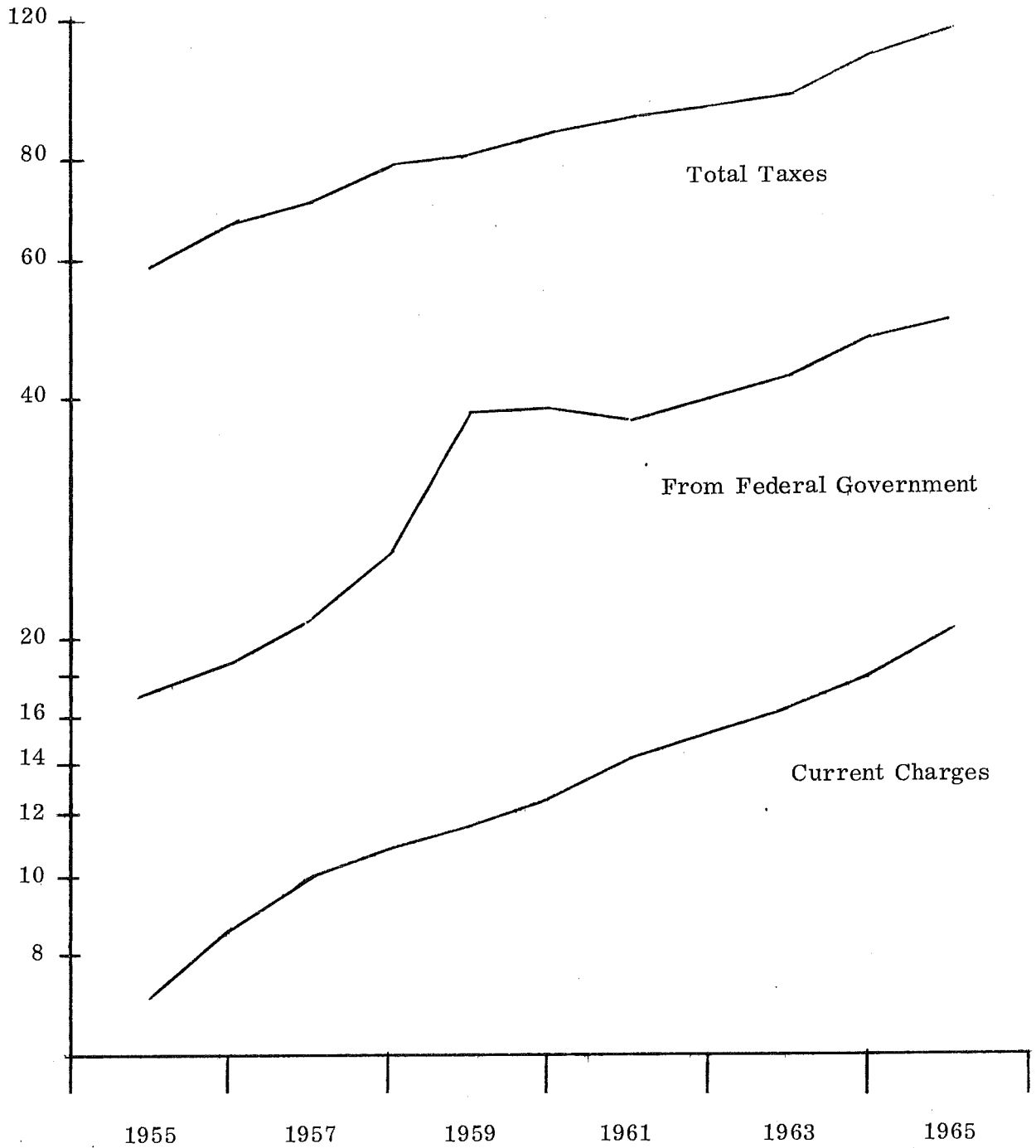




CHART 7

MAINE STATE GOVERNMENT  
MAJOR SOURCES OF GENERAL REVENUES

\$ Millions



Source: Compendium



The Table shows the Receipts from Taxes, Including Licenses and Permits. The subject of taxes will be aired at length below; the only reason for presenting these at this stage is to bring together elements of what may well be thought of as a single picture. At any rate, it would appear from these numbers that a reasonable expectation is an annual increase of something like \$300,000 for the Net Contribution of the alcohol monopoly. This is formalized in Table 21.

We are left with general revenues, which clearly must be relied upon to obtain most of the money we have spent in the earlier pages. This item, as we saw, comprises taxes (including licenses); intergovernmental revenues from two sources, the federal government, and local governments; service charges for current services performed by a state agency; and a catch-all miscellaneous sum, Other General Revenue.

Other General Revenue, as shown in Table 22, includes intergovernmental revenue from local governments; sale of property; interest earnings, fines and forfeits; rents and royalties; donations; and miscellaneous general revenue, not elsewhere classified. This differs a bit from the earlier Table, for there intergovernmental revenue from local governments was shown separately. The advance in this category is strong but jerky. On the average it seems to have climbed by close to half a million dollars a year in the latter part of the period shown. Hence we postulate such a rise, \$.5 millions annually, over the next few years, producing expected amounts as set down in Table 23. One is convinced that a pattern as neat as this is not what will in fact occur, but perhaps the actuals will not be too, too far away.

TABLE 21

NET CONTRIBUTIONS TO GENERAL FUNDS OF  
 MAINE STATE ALCOHOLIC BEVERAGE MONOPOLY SYSTEM

	Estimates
	\$ Millions
Fiscal Year	
1967	8.3
1968	8.6
1969	8.9
1970	9.2

Source: See Text

TABLE 22

STATE OF MAINE  
OTHER GENERAL REVENUE

\$ Millions

Fiscal Year	
1954	4.7
1955	5.6
1956	6.0
1957	6.2
1958	5.3
1959	5.5
1960	7.4
1961	7.9
1962	7.4
1963	7.6
1964	8.3
1965	10.3
Annual Average Increase	
1954-56 to 1959-61	.3
1959-61 to 1963-65	.45

Source: Compendium, for the various years.

TABLE 23

STATE OF MAINE  
OTHER GENERAL REVENUE

Estimates  
\$ Millions

Fiscal Year	
1967	11.2
1968	11.7
1969	12.1
1970	12.6

Source: See Text

Of the remaining revenue sources we examine next the second largest of all, intergovernmental revenues of the state from the federal government. This is a marvelously complex hydra, as Table 24 hints. It does no more than hint, however, for the number of categories, seven, is not too great, and the directions typically simple to follow. The largest segment goes to highways, whereas in 1957 it went to public welfare. The advancing tide of prosperity may be most responsible, but nevertheless welfare is second. Education is a distant third. The three leaders account for better than 85% of the total in 1965, both for Maine and All States.

We read: "The Federal Government is now administering over 40 separate programs of financial aid for urban development, involving some 13 departments and agencies."<sup>1</sup> Altogether there are perhaps almost 100 separate programs or segments of programs through which federal funds can flow to states and localities for health and hospital facilities and services."<sup>2</sup> The changes are so vast and so rapid that a Catalogue of this kind of spending issued in 1964 had to be supplemented almost immediately for 1965. Even that was quickly left behind by events; a second supplement was felt to be indispensable in 1966. The number of laws passed by Congress in 1965 alone, aiding states and local governments runs to 85.<sup>3</sup>

1. Subcommittee on Intergovernmental Relations of the Committee on Governmental Operations, U. S. Senate, Impact of Federal Urban Development Programs on Local Government Organization and Planning, 1964, p. iii.
2. The Council of State Governments, Health and Hospital Expenditures of State and Local Governments: 1970 Projections, p. 81.
3. Subcommittee on Intergovernmental Relations of the Committee on Governmental Operations, U. S. Senate, Catalogue of Federal Aids to State and Local Governments, Second Supplement, 1966, pp. 219-20. See also the Catalogue and the First Supplement; Intergovernmental Relations Commission, Maine, Federal Grant-in-Aid Programs for the State of Maine, August 1965; and Advisory Commission on Intergovernmental Relations, The Role of Equalization in Federal Grants, 1964.

TABLE 24

STATE GOVERNMENTS  
INTERGOVERNMENTAL REVENUE FROM THE FEDERAL GOVERNMENT

Percent

<u>Fiscal Year</u>	<u>Total</u>	<u>Education</u>	<u>Highways</u>	<u>Public Welfare</u>	<u>Health &amp; Hospitals</u>	<u>Natural Resources</u>	<u>Employment Security Administration</u>	<u>Other</u>
A. ALL STATES								
1957	100.0	12.2	27.8	44.2	3.2	3.4	6.9	2.4
1962	100.0	13.9	38.6	34.5	2.2	1.8	5.9	3.0
1965	100.0	14.1	40.4	31.7	2.2	1.7	4.6	5.2
B. MAINE								
1957	100.0	6.2	34.3	42.9	2.9	6.2	5.7	1.9
1962	100.0	5.1	45.9	36.9	1.8	4.4	4.9	1.0
1965	100.0	8.9	45.6	33.4	1.6	4.2	4.2	2.2

Source: Compiled from data in Compendium for the various years.

Note: Detail will not necessarily add to 100.0 because of rounding.



The amounts under such circumstances are exceedingly difficult to predict with assurance that estimates will be meaningfully close to future actuality. Furthermore, in the midst of the nation's Vietnam crisis the pressures are strong for the federal government to spend for arms. Since its funds are limited -- whatever appearances may indicate to the uninitiate -- there exists a powerful deterrent to other spending. High on the list of this "other" is, as we know, the federal aids to state and local governments.

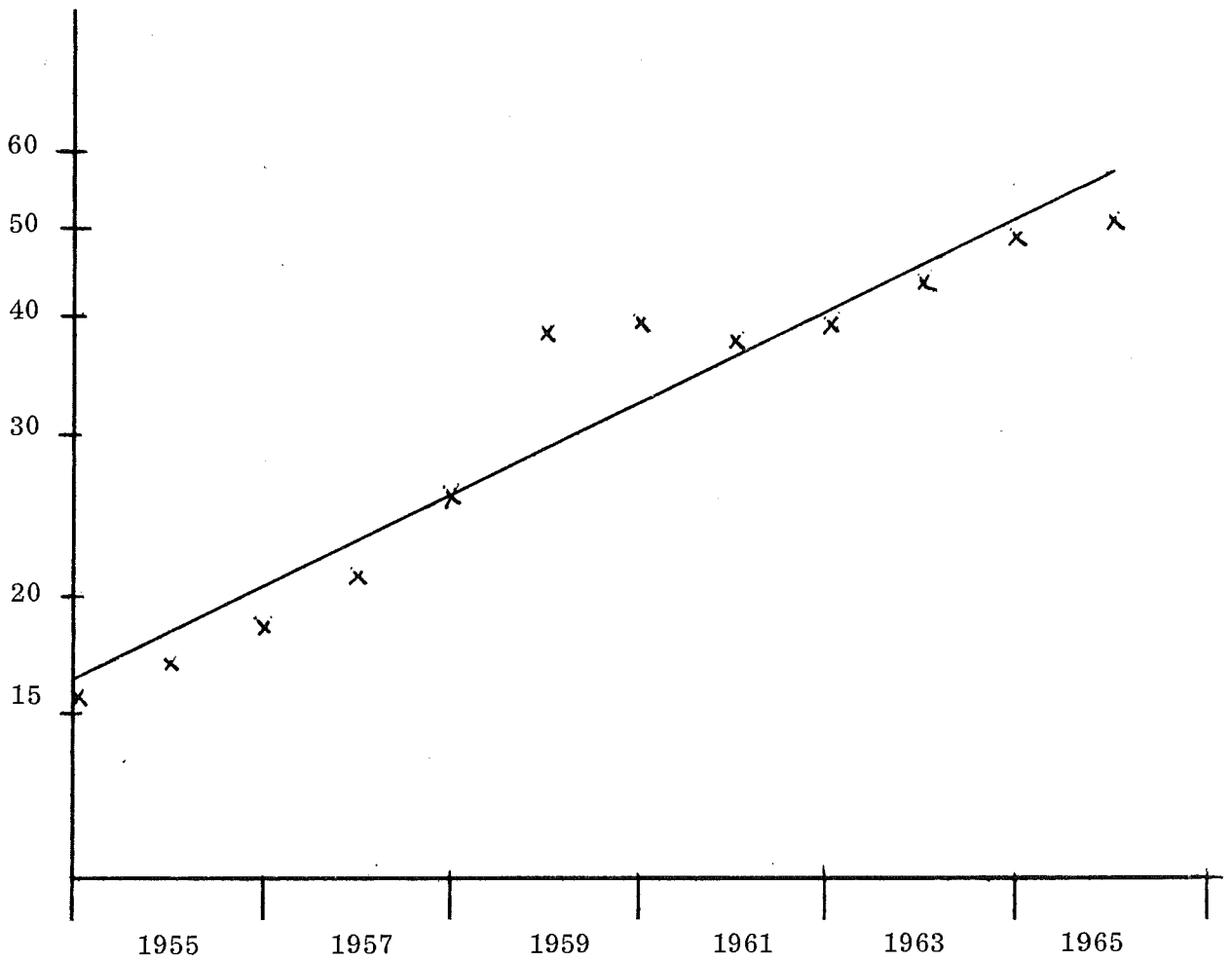
Nevertheless, if one is to discover the magnitude of Maine's tax problem, the attempt must be made. Chart 8 shows the results of a study of these expenditures to the State of Maine as they moved through time. There does appear to be a close connection, with a correlation coefficient of .95 (where a maximum correlation equals 1.00). Additionally it should be stated, the study carried through 1965 data. It predicts \$63.3 millions for fiscal 1966. Actual 1966 seems to be very close to \$64.4 millions. The prediction would have been in error by a mere 1.7%. Would that I could estimate everything that closely! Projecting in this fashion, we arrive at the estimates of Table 26. The numbers climb at a healthy rate, 12% per year, which clearly outstrips either the state government's expenditures, or national income, or gross national product for that matter.

We noticed that charges received by the state for current services it performs constitute a significant sum. What exactly is contained in this class? The Bureau of the Census states they are "amounts received from the public for performance of specific services benefiting the person charged, and from sales of commodities and services, except liquor store sales." Education, we see in Table 25, brings in half or more of these sums. The expansion in expenditure for higher education

CHART 8

MAINE STATE GOVERNMENT  
INTERGOVERNMENTAL REVENUE FROM THE FEDERAL GOVERNMENT

\$ Millions



Source: See Text



TABLE 25

## SERVICE CHARGES FOR CURRENT SERVICES

Percent

<u>Fiscal Year</u>	<u>Total</u>	<u>Education</u>	<u>Highways</u>	<u>Other</u>
A. ALL STATES				
1957	100.0	49.5	18.4	32.2
1962	100.0	50.0	19.8	30.2
1965	100.0	54.8	17.8	27.4
B. MAINE				
1957	100.0	40.0	46.0	14.0
1962	100.0	45.7	41.1	13.2
1965	100.0	50.5	36.9	12.6

Source: Compiled from Compendium, for the various years.

Note: Detail will not necessarily add to 100.0 because of rounding.

TABLE 26

MAINE STATE GOVERNMENT  
Estimated Revenues

\$ Millions

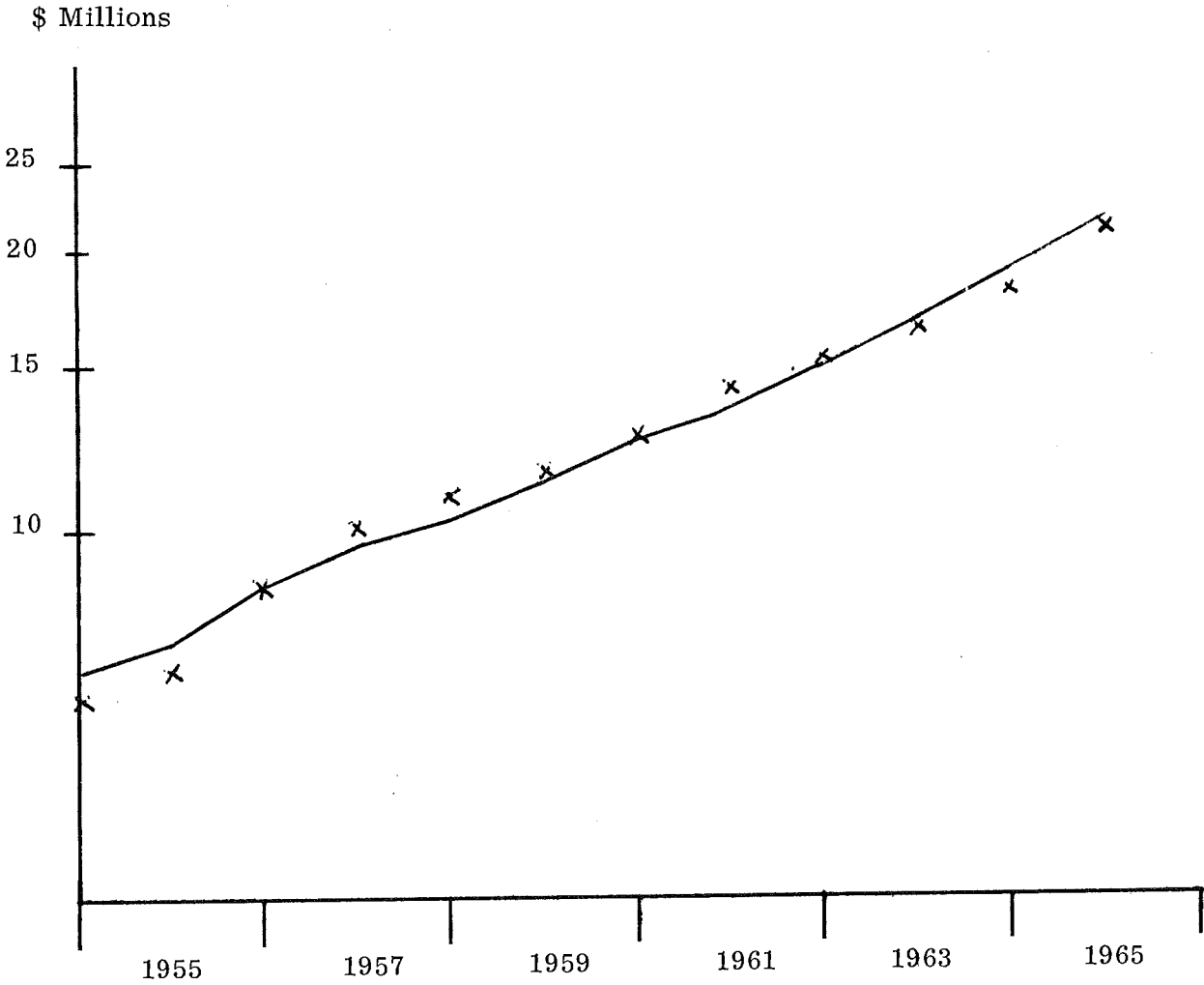
<u>Fiscal Year</u>	<u>Revenue from Federal Government</u>	<u>Service Charges for Current Services</u>
1967	70.9	31.1
1968	79.4	36.8
1969	88.9	43.4
1970	99.5	51.2

Source: See text

of late has forced more state tax money, more federal money, and more money via current charges. We realize by now that the total of current charges has been growing markedly, and in this Table we see that the fastest moving sector within this sphere is education -- it now takes a measurable larger percentage of All States total current charges. In Maine its growth has been phenomenal, for it now accounts for half of all. Highways in Maine pay a good deal of the remainder, but note the drop in proportion, 46% to 37%. What remains after these two brings in very small portions of such funds in Maine, more than 1/4 in the average state. It seems likely that such receipts of states, i. e., such spending by the public, would be related to the income of the public, gross national product. This was tested and fortunately the attempt appears to have succeeded. The correlation is .99. See Chart 9. Table 26 offers my estimates for 1967-70.

MAINE STATE GOVERNMENT  
SERVICE CHARGES FOR CURRENT SERVICES

CHART 9



Source: See text



## TAXES

Taxes move to the center of the stage. Our statements thus far come to this. General expenditures are expected to total a given amount. We can expect non-tax revenues to produce all in all a certain sum. The difference between them is what taxes are required to achieve. Can they? Our answers must come from examination of the tax system. If they can be expected to collect the required monies the present inquiry can rest. If they cannot, we must push on and ask about the best sources, given all the circumstances. Table 27 gives my measures of the tax needs of the state government of Maine, obtained from my work in the earlier pages.

What is the tax system like, the system that is to yield this money? Once more we fall back on comparisons, so that our state is not looked at in a vacuum. Only the relatively important trends of Table 28 need be pointed out. The reader may, if he desires, obtain more details from a longer stopover with this bulky Table.

1. Sales taxes in Maine, important in 1957, are almost pre-empting the entire field at virtually 80% in 1965.

2. Actually it is the general sales tax which has blown up like bubble gum. It has gone in these few years from about 1/4 to virtually 40%.

3. Selective sales taxes were double the general sales volume in 1957; now they are at the same level. Their relative decline is felt most in motor fuels taxes. Perhaps this turn of events is not bad in view of the fact that the federal government collects sums in this manner that are not unsubstantial. A little more of the drop derives from tobacco products taxes. About two percentage points of it stem from Public Utilities. This one is somewhat misleading, however, for public utilities are now also within the scope of the general sales tax.



TABLE 27

MAINE STATE GOVERNMENT  
EXPENDITURES AND NONTAX REVENUES

Estimates

\$ Millions

Fiscal Year	(1) General Expenditures, Total	(2) Intergovern- mental Revenue from Federal Government	(3) Current Charges	(4) Other General Revenue	(5) Net Contributions Liquor Monopoly	(6) Tax Requirements =(1)-(2)-(3)-(4)-(5)
1967	\$245.9	\$70.9	\$31.1	\$11.2	\$8.3	\$124.4
1968	271.5	79.4	36.8	11.7	8.6	135.0
1969	299.8	88.9	43.4	12.1	8.9	146.5
1970	331.3	99.5	51.2	12.6	9.2	158.8

Source: Tables 11, 21, 23, and 26.

TABLE 28

## STATE TAX SYSTEMS

Percent

## A. ALL STATES

	Total Taxes	Total Sales & Gross Receipts	General Sales & Gross Receipts	Selective Sales and Gross Receipts								
				Total	Motor Fuels	Alcoholic	Tobacco Products	Insurance	Public Utilities	Pari- mutuels	Amuse- ments	Other Selective Sales Taxes
1965	100.0	57.7	25.7	32.0	16.5	3.4	4.9	2.8	1.9	1.4	0.2	0.8
1962	100.0	58.5	24.8	33.6	17.9	3.6	5.2	2.9	2.0	1.4	0.1	0.6
1957	100.0	58.1	23.2	34.8	19.5	3.9	3.8	2.9	2.4	1.5	0.1	0.7

	Total License Taxes	Indi- vidual Income	Corporation Net Income	Property	Death & Gift	Severance	Poll	Document & Stock Transfer	Other Taxes
1965	12.4	13.9	7.4	3.0	2.8	1.9	...	0.6	0.5
1962	13.0	13.3	6.4 <sup>2</sup>	3.2	2.6	2.1	...	0.6	0.3
1957	15.0	10.8	6.7	3.4	2.4	2.7	...	0.6	0.4

TABLE 28

## STATE TAX SYSTEMS

Percent

## B. MAINE

	Total Taxes	Selective Sales and Gross Receipts										
		Total Sales & Gross Receipts	General Sales & Gross Receipts	Total	Motor Fuels	Alcoholic	Tobacco Products	Insurance	Public Utilities	Pari- mutuels	Amuse- ments	Other Selective Sales Taxes
1965	100.0	79.2	39.5	39.7	22.5	3.0	6.7	2.5	3.7	1.2	...	...
1962	100.0	77.1	31.7	45.4	25.0	3.5	8.6	2.8	4.3	1.2	...	...
1957	100.0	74.8	24.3	50.4	29.6	2.9	8.2	2.9	5.6	1.1	...	...

	Total License Taxes	Indi- vidual Income	Corporation Net Income	Property	Death & Gift	Severance	Poll	Document & Stock Transfer	Other Taxes
1965	14.9	...	...	1.9	4.1	...	...	...	...
1962	16.7	...	...	2.2	4.0	...	...	...	...
1957	20.2	...	...	2.0	3.1	...	...	...	...

TABLE 28

## STATE TAX SYSTEMS

Percent

## C. NEW HAMPSHIRE

	Total Taxes	Total Sales & Gross Receipts	General Sales & Gross Receipts	Selective Sales and Gross Receipts								
				Total	Motor Fuels	Alcoholic	Tobacco Products	Insurance	Public Utilities	Pari- mutuels	Amuse- ments	Other Selective Sales Taxes
1965	100.0	63.2	...	63.2	30.8	2.4	10.3	4.4	1.4	13.9	...	...
1962	100.0	61.0	...	61.0	30.6	2.4	9.9	4.6	1.4	12.1	...	...
1957	100.0	53.5	...	53.5	27.5	3.1	9.7	4.7	...	8.4	...	...

	Total License Taxes	Indi- vidual Income	Corporation Net Income	Property	Death & Gift	Severance	Poll	Document & Stock Transfer	Other Taxes
1965	21.5	4.0	...	4.2	4.2	0.2	2.8	...	...
1962	22.3	3.7	...	3.9	6.1	0.2	2.9	...	...
1957	25.3	4.6	...	6.0	6.5	0.1	4.0	...	...

TABLE 28

STATE TAX SYSTEMS  
Percent

## D. VERMONT

	Total Taxes	Total Sales & Gross Receipts	General Sales & Gross Receipts	Selective Sales and Gross Receipts								
				Total	Motor Fuels	Alcoholic	Tobacco Products	Insurance	Public Utilities	Pari- mutuels	Amuse- ments	Other Selective Sales Taxes
1965	100.0	43.4	...	43.4	15.8	8.5	6.5	2.4	2.2	2.4	...	5.7
1962	100.0	44.9	...	44.9	18.8	8.8	7.3	2.4	2.9	...	...	4.7
1957	100.0	39.1	...	39.1	19.2	8.6	5.5	2.8	3.1	...	...	...

	Total License Taxes	Indi- vidual Income	Corporation Net Income	Property	Death & Gift	Severance	Poll	Document & Stock Transfer	Other Taxes
1965	17.6	29.5	5.3	0.6	2.5	...	1.3	...	...
1962	19.8	25.7	5.0	0.8	2.4	...	1.5	...	...
1957	20.9	26.1	6.6	1.2	4.0	...	2.2	...	...

TABLE 28

## STATE TAX SYSTEMS

Percent

## E. MASSACHUSETTS

	Total Taxes	Total Sales & Gross Receipts	General Sales & Gross Receipts	Selective Sales and Gross Receipts								
				Total	Motor Fuels	Alcoholic	Tobacco Products	Insurance	Public Utilities	Pari- mutuels	Amuse- ments	Other Selective Sales Taxes
1965	100.0	32.3	...	32.3	13.4	4.6	7.3	2.9	...	2.3	...	1.9 <sup>1</sup>
1962	100.0	34.5	...	34.5	14.9	5.1	7.7	2.5	...	2.6	...	1.8 <sup>1</sup>
1957	100.0	34.8	...	34.8	15.1	6.1	6.9	2.3	...	2.8	...	1.7 <sup>1</sup>

	Total License Taxes	Indi- vidual Income	Corporation Net Income	Property	Death & Gift	Severance	Poll	Document & Stock Transfer	Other Taxes
1965	22.9 <sup>2</sup>	32.6	7.3 <sup>2</sup>	...	4.6	...	...	0.3	...
1962	23.0 <sup>2</sup>	32.4	6.0 <sup>2</sup>	...	3.8	...	...	0.3	...
1957	25.6 <sup>2</sup>	26.9	7.3 <sup>2</sup>	...	4.9	...	...	0.3	...

TABLE 28

## STATE TAX SYSTEMS

Percent

## F. CONNECTICUT

	Total Taxes	Total Sales & Gross Receipts	General Sales & Gross Receipts	Selective Sales and Gross Receipts								
				Total	Motor Fuels	Alcoholic	Tobacco Products	Insurance	Public Utilities	Pari- mutuels	Amuse- ments	Other Selective Sales Taxes
1965	100.0	68.3	31.5	36.8	14.8	4.0	6.1	4.8	6.0	...	...	0.8 <sup>3</sup>
1962	100.0	72.4	31.0	41.2	15.5	4.7	6.0	5.3	8.6	...	...	1.0 <sup>3</sup>
1957	100.0	70.3	34.8	35.5	18.4	3.2	4.5	4.8	3.3	...	...	1.4 <sup>3</sup>

	Total License Taxes	Indi- vidual Income	Corporation Net Income	Property	Death & Gift	Severance	Poll	Document & Stock Transfer	Other Taxes
1965	9.1	...	14.6	...	7.9	...	...	...	...
1962	8.0	...	12.2	...	7.3	...	...	...	...
1957	9.6	...	13.1	...	7.0	...	...	...	...

TABLE 28

## STATE TAX SYSTEMS

Percent

## G. RHODE ISLAND

	Total Taxes	Total Sales & Gross Receipts	General Sales & Gross Receipts	Selective Sales and Gross Receipts								
				Total	Motor Fuels	Alcoholic	Tobacco Products	Insurance	Public Utilities	Pari- mutuels	Amuse- ments	Other Selective Sales Taxes
1965	100.0	71.1	29.7	41.4	15.5	2.7	7.5	2.7	4.9	7.2	...	0.8 <sup>4</sup>
1962	100.0	74.0	27.5	46.5	18.4	3.5	7.5	3.0	5.5	7.8	...	0.7 <sup>4</sup>
1957	100.0	71.2	24.2	47.0	14.8	3.8	5.5	3.5	6.7	11.3	NA	1.3 <sup>4</sup>

	Total License Taxes	Indi- vidual Income	Corporation Net Income	Property	Death & Gift	Severance	Poll	Docu- ment & Stock Transfer	Other Taxes
1965	11.8	...	9.9	...	7.3	...	...	...	...
1962	13.0	...	9.8	...	3.1	...	...	...	...
1957	13.1	...	12.6	...	3.2	...	...	...	...

Note: Detail may not add to total because of rounding.

Footnotes

(4) Tax on gross income of unincorporated businesses

(NA) Not available

(1) Tax on meals

(2) Amount for licenses includes corporation taxes measured in part by income.

(4) Tax on gross income of unincorporated business.



4. Licenses are falling as well. Here again we find motor vehicles involved, for they provide most of this money in vehicle registrations and operators' licenses.

5. In the All States grab-bag sales taxes were virtually stationary, contrary to Maine's movement.

6. Individual and corporate income taxes became increasingly important. Together they now bring in 21.3% of all tax revenue in a typical state. Maine lacks them.

7. Licenses, death and gift, and property taxes are at roughly Maine's level and moved in the same manner.

8. We pointed out earlier the differences in the financial structure of states and local governments in New England. It should therefore lift no eyebrows when evidence of differences in state tax structures comes into view. New Hampshire, where the state is required to raise considerably less revenue than Maine, has no point where they draw almost 2/3 tax money -- motor fuels primarily, followed by pari-mutuels and tobacco products. Licenses are more productive than in Maine, and New Hampshire gets relatively more, in a mild kind of way, from property and poll taxes.

9. Vermont differs from us in different ways yet: no general sales tax; sales taxes yield about half in percentage terms of the figure found in Maine strong reliance placed on income taxes -- together individual and corporate income taxes have not much less drawing than sales taxes; the remainder is filled out principally by licenses.

10. Massachusetts collected more in the sixties from income than sales taxes. The structure changed in 1966, a year for which we do not yet have the figures. Its licenses are swollen compared with any of our other jurisdictions. Licenses

turn out to be "net income" money from corporations, in part.

Variants of some of the above themes are to be found in Connecticut and Rhode Island. Once more there is diversity.

#### THE PRESENT TAX SYSTEM

How adequate will the Maine state tax system prove to its needs in the next years? We saw that this question concerns fundamentally the capability of sales taxes to deliver. Given proper enforcement, the yield of a tax will of course equal the tax-rate multiplied by the base. For example, if a tax is based upon sales, a 2% levy will bring in \$2 millions if sales are \$100 millions; a 3% rate \$3 millions, and so on. Suppose the rate is not monkeyed with; we hold it fixed. How much tax money will be forthcoming? An interesting question, because of all the fuss and feathers attendant upon changing a rate for an important tax. If an unchanged tax-rate will yield increasing amounts because the base is swelling, sales, e. g. ; and if this growth is at the same annual percentage as the growth in the spending of the government; then, other things being equal -- as economists are fond of saying -- there will be no problem of balancing budgets. Revenues will be sufficient unto requirements. If the base rises faster, and therefore so does tax revenue, a surplus will develop; and vice versa, for a slower move of the tax revenue at a given tax-rate.

One can attack this problem by falling back on the relationship that exists between a tax base and income in the society. If one examines an income tax, it seems fairly clear that there ought to be a relationship between the tax intake -- at unchanged tax rates -- and the income of the country. The most comprehensive income concept in the land is gross national product. Now there is furthermore,

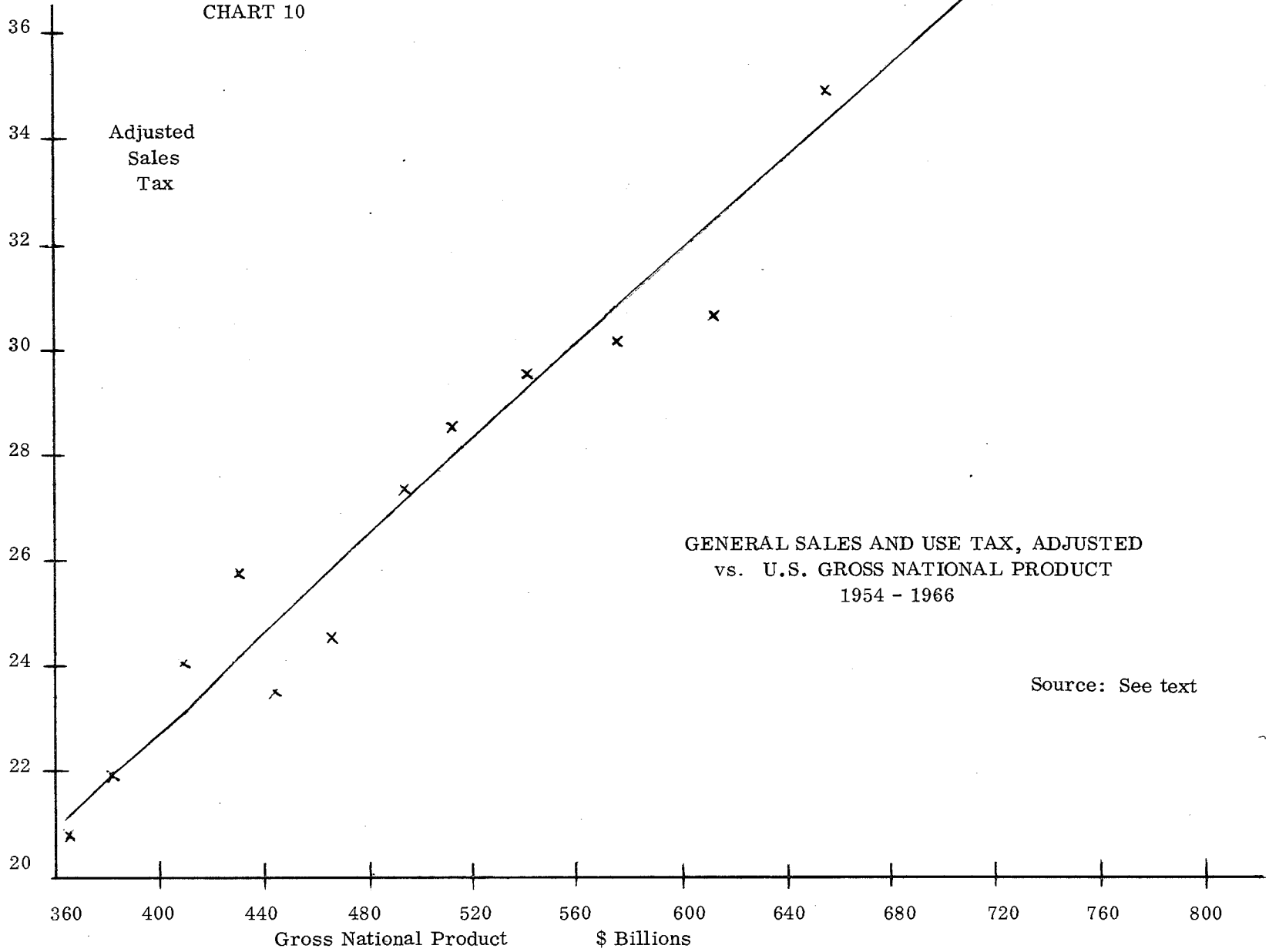
as one might expect, a close relationship between a family's consumption and its income. Since sales are to the fellow behind the counter what consumption is to the housewife, one would think that a tax based on sales would correlate well with gross national product. This connection is labeled the income elasticity of a tax. It is frequently best to look for such ties between "real" magnitudes: how many chairs will be bought if a family's real income is at a given level; how many if "real" income doubles; etc. At the close of investigation the answer can be multiplied by appropriate prices to arrive at dollar figures, when appropriate. For Maine revenues, I did this in the case of motor vehicle registrations. It did not appear feasible to obtain the tax elasticity in this manner for the other tax categories. (It might be well to remember that licenses, of which these registrations are one example, are listed as taxes - license taxes.) In all other instances I correlated dollar taxes at unchanged rates with dollar gross national product (what economists refer to as gross national product in current dollars).

The tax elasticity studies of Maine data were made by me for some 82%, in dollar value, of the state's total tax levies, and also for a type of tax not in Maine's current arsenal. Let us examine the results.

The largest, the general sales and use taxes, appears to have an elasticity of .84, which essentially means that when the gross national product rises by 10% the revenue from this tax will increase 8.4%. In other words, the tax revenue will grow less rapidly than income. Naturally if state expenditures should leap ahead as rapidly as income -- an "expenditure elasticity," if you will, of 1 -- there would be a gap. State expenditures, you see, would be rising by 10%, while tax revenues by only 8.4%. Extra revenue to a dollar amount equivalent to 1.6% would have to be raised in some other fashion: a higher rate, a different type

\$ Millions

CHART 10





of tax, or what-not.

This .84 was determined by adjusting revenue from Maine's general sales taxes to a rate of 3%, because this rate was in effect longer than any other, and studying its relationship to gross national product. The results are shown in Chart 10. The line joins all the sales tax values, 1954 to 1966 inclusive, that would arise if the connection with gross national product were perfect. It is not and is not intended to be a straight line. Do not be deceived. Each cross represents a pair of values, actual sales tax and gross national product for a particular year, one cross - one year. Notice the crosses are quite close to the "line."<sup>1</sup> Here the correlation coefficient is .976.

Chart 11 shows the results of an examination of the linkage between motor fuel taxes and gross national product. The points are even closer than in the previous case. An exceedingly tight tie. This is the stuff of which good predictions are made. The correlation is .987. A glance at an earlier result shows us these two taxes alone account for 62% of the total in 1965.

This technique fails in determining cigarette tax revenues. Table 29 shows that at a constant tax-rate, these revenues do not respond at all to income increases. How sluggish this tax is! It is of precious little help (at a constant tax-rate) in paying for expanding government requirements.

The results of elasticity research into Maine's motor vehicle registrations and operators' licenses are shown in Chart 12. The latest year examined was 1963, because a significant change was made in 1964, for which it seemed best not to attempt to adjust. For the ten years shown, the points again are close to the

1. The relationship calculated, and this is true of each of the tax cases below, was one in the logarithms of both variables.

TABLE 29

STATE OF MAINE  
CIGARETTE TAX REVENUES, ADJUSTED <sup>a</sup>

\$ Millions

<u>Year</u>	<u>Adjusted Cigarette Tax Revenues</u>
1955	5.6
1956	5.6
1957	5.8
1958	5.9
1959	6.2
1960	6.6
1961	6.9
1962	6.7
1963	6.7
1964	6.6
1965	6.7
1966	6.6

<sup>a</sup> Adjustments made to take into account rate changes in 1956, 1962, and 1965.

Source: Compiled from state Financial Report, and Report of the Bureau of Taxation, for the various years.

CHART 11

STATE OF MAINE  
MOTOR FUEL TAXES, ADJUSTED vs. U.S. GROSS NATIONAL PRODUCT  
1954 - 1966

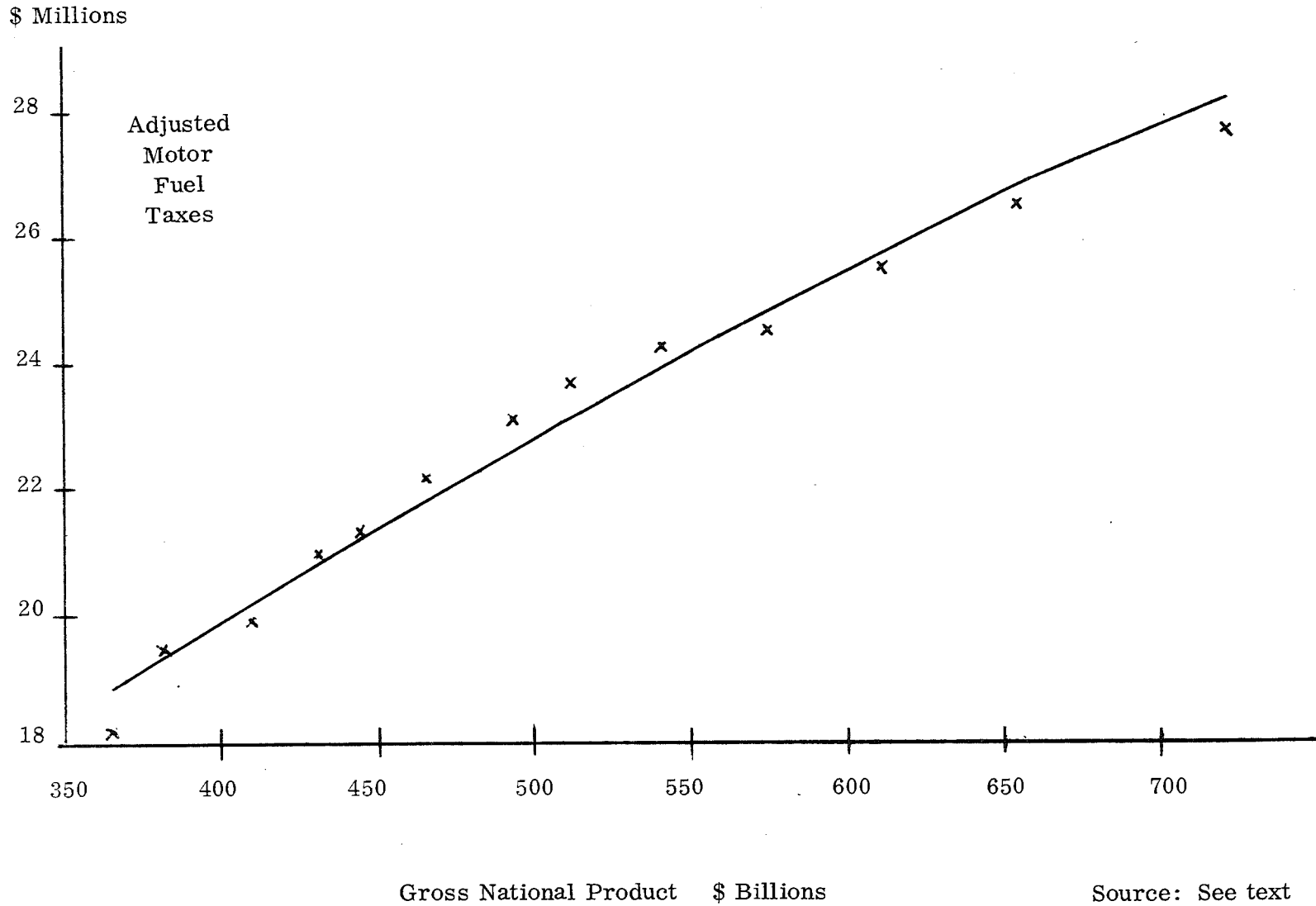
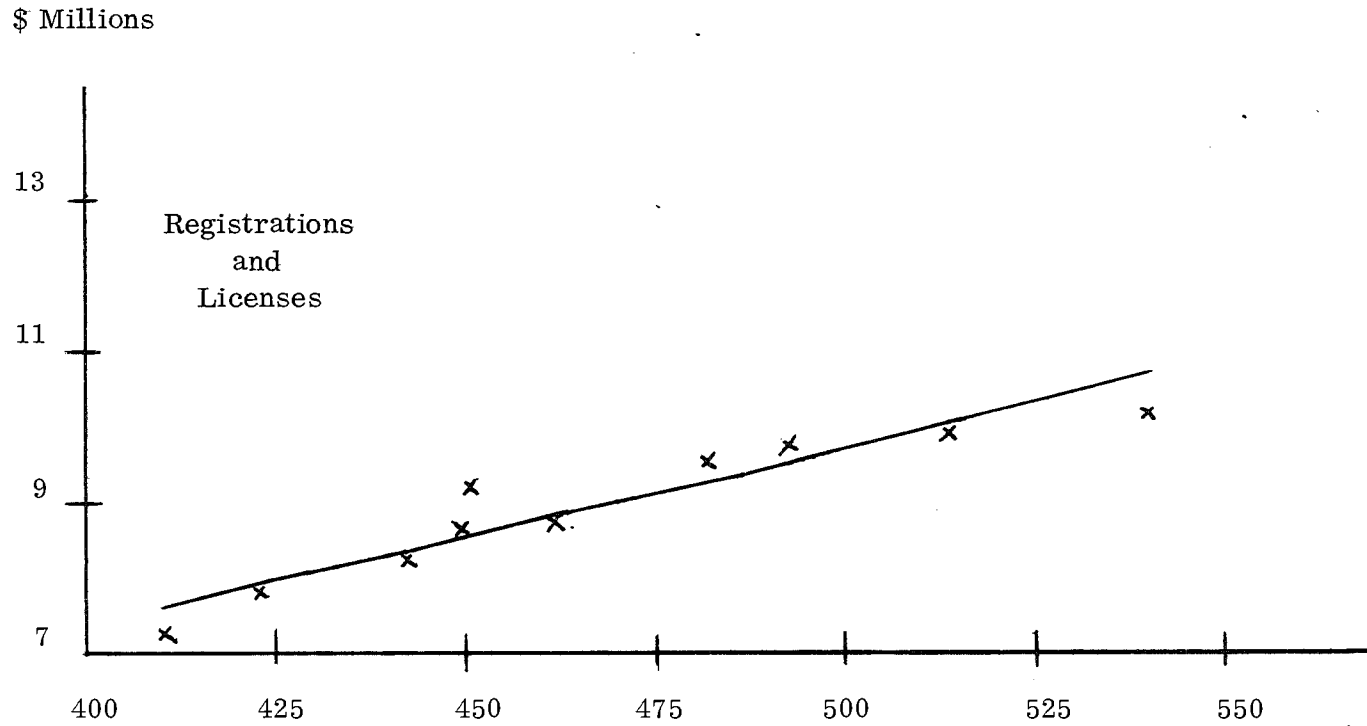






CHART 12

STATE OF MAINE  
MOTOR VEHICLE REGISTRATIONS AND OPERATORS' LICENSES  
vs. U. S. REAL GROSS NATIONAL PRODUCT



Gross National Product in 1958 Prices

\$ Billions

Source: See text



TABLE 30

## INCOME ELASTICITIES

Tax	Percentage of Maine State Taxes, 1965	Elasticities			
		Present Study, Maine	High	Medium	Low
General Sales	39.5%	.84	1.05	.97	.9
Motor Fuel	22.5	.61	.6	.5	.4
Cigarette	6.7	0	.4	.35	.3
Motor Vehicle Registrations & Licenses	9.6	.84 <sup>a</sup>	.4	.3	.2
Inheritance & Estate	4.1	1.71	1.2	1.1	1.0
Total	82.4%				

<sup>a</sup> This is the translation for the sake of comparability of the elasticity as calculated, into an elasticity with respect to Gross National Product in current dollars.

Source: For Maine, see text. Others: Advisory Commission on Intergovernmental Relations, Federal-State Coordination of Personal Income Taxes, 1964, pp. 40-45; Morgan, D. C., Jr., Retail Sales Tax, 1964, pp. 90-91.

calculated figures. The correlation is .932. These types of taxes accounted in 1965 for close to 10% of all tax revenue. The study matched these against real income, i. e. , gross national product after the effect of prices has been eliminated.

Insofar as it is directly pertinent to Maine's system, the final study I made -- for 4% of all 1965 state taxes -- dealt with inheritance and estate levies. See Chart 13. For a tax that has the reputation for high variability, it is surprising how close the actual tax revenues fall to predicted values in all but 2 of 13 years. The correlation coefficient is .966.

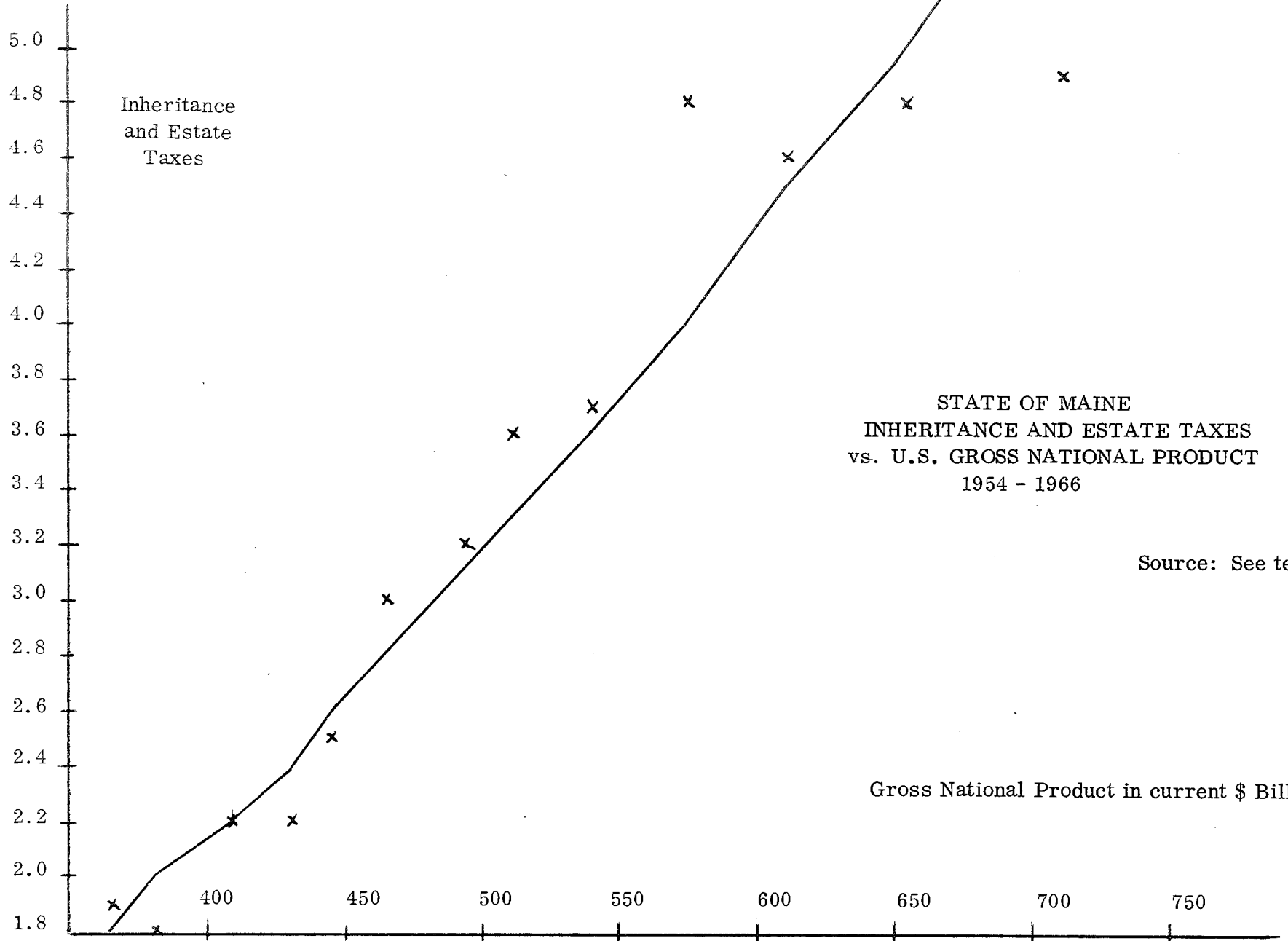
We might ask how these results for Maine in the latter half of the 1950's and the first half of the 1960's compare with those of other investigators for other states and times. The following Table gives a very compressed summary. My conclusions are not on the whole very different, but they are different. An interesting question arises as to causes, but we cannot stay, in this study, for the answer. Indeed we cannot find room here for full investigation of many other noteworthy problems.

The significance of the elasticities for the question in hand is that we use them to predict the tax revenues for the individual taxes. If we should know the gross national product of the years ahead, and the way this product affects tax behavior, and should it be true that this relationship is the dominant factor in the tax yield, we would know tolerably well how much money this tax is going to bring in.

I made predictions of gross national product for 1967 - 1970, based on recent experience, developing this out of experience of gross national product per capita, U. S. population, and price levels. I used the relationships discussed

\$ Millions

CHART 13



STATE OF MAINE  
INHERITANCE AND ESTATE TAXES  
vs. U.S. GROSS NATIONAL PRODUCT  
1954 - 1966

Source: See text

Gross National Product in current \$ Billions



above -- the elasticity studies -- against the specific gross national product predictions to arrive at the tax predictions for general sales, motor fuel, motor vehicle registrations and operators' licenses, and inheritance and estate taxes. These represent more than 3/4 of all 1965 taxes.

However, there still remain the cigarette tax and the various minor ones to bring into the story. Table 29 shows revenue from the cigarette tax, adjusted to eliminate the effect of changes in the rate on three occasions. This shows remarkable stability over the last seven years presented. I therefore postulate a similar stability in the future.

Finally, I have placed into a single category all the remaining taxes: insurance, public utilities, pari-mutuels, corporations in general, amusements, hunting and fishing, other license taxes, poll, alcoholic beverage (malt beverage, excise, and licenses and permits), property, and occupations and businesses not elsewhere classified. Chart 14 reveals how steady has been the arithmetic climb year by year in the sum of these, labeled Other Taxes. The actual points for 1955 to 1965 fall extremely close to a straight line. Therefore, we use this straight line to predict the revenue apt to be forthcoming from Other Taxes to fiscal year 1970.

Table 31 utilizes all the tax relationships for Maine which have been discussed. It classified them in a way I found convenient to work upon. If the reader will compare the annual totals with the tax requirements derived earlier, it will be apparent that if all these turn out to be reasonable fascimilies of actuality then the expenditures of the state over the next years will be adequately covered by revenues. Obviously if any of the important figures, or a string of



TABLE 31

STATE GOVERNMENT, MAINE  
TAX REVENUES  
Estimates 1967-1970 <sup>a</sup>  
\$ Millions

Fiscal Year	General Sales	Motor Fuels	Motor Vehicle Registrations & Licenses	Inheritance & Estate	Cigarette	Other	Total
1966	49.1	28.2	12.1	5.8	10.5	21.3	127.0
1967	53.8	30.1	13.0	7.0	10.5	22.0	136.4
1968	57.8	31.8	13.8	8.1	10.5	22.6	144.6
1969	62.1	33.5	14.7	9.3	10.5	23.3	153.4
1970	66.8	35.2	15.7	10.8	10.5	24.0	163.0

<sup>a</sup> Estimates are based on tax-rates unchanged from 1966 levels.

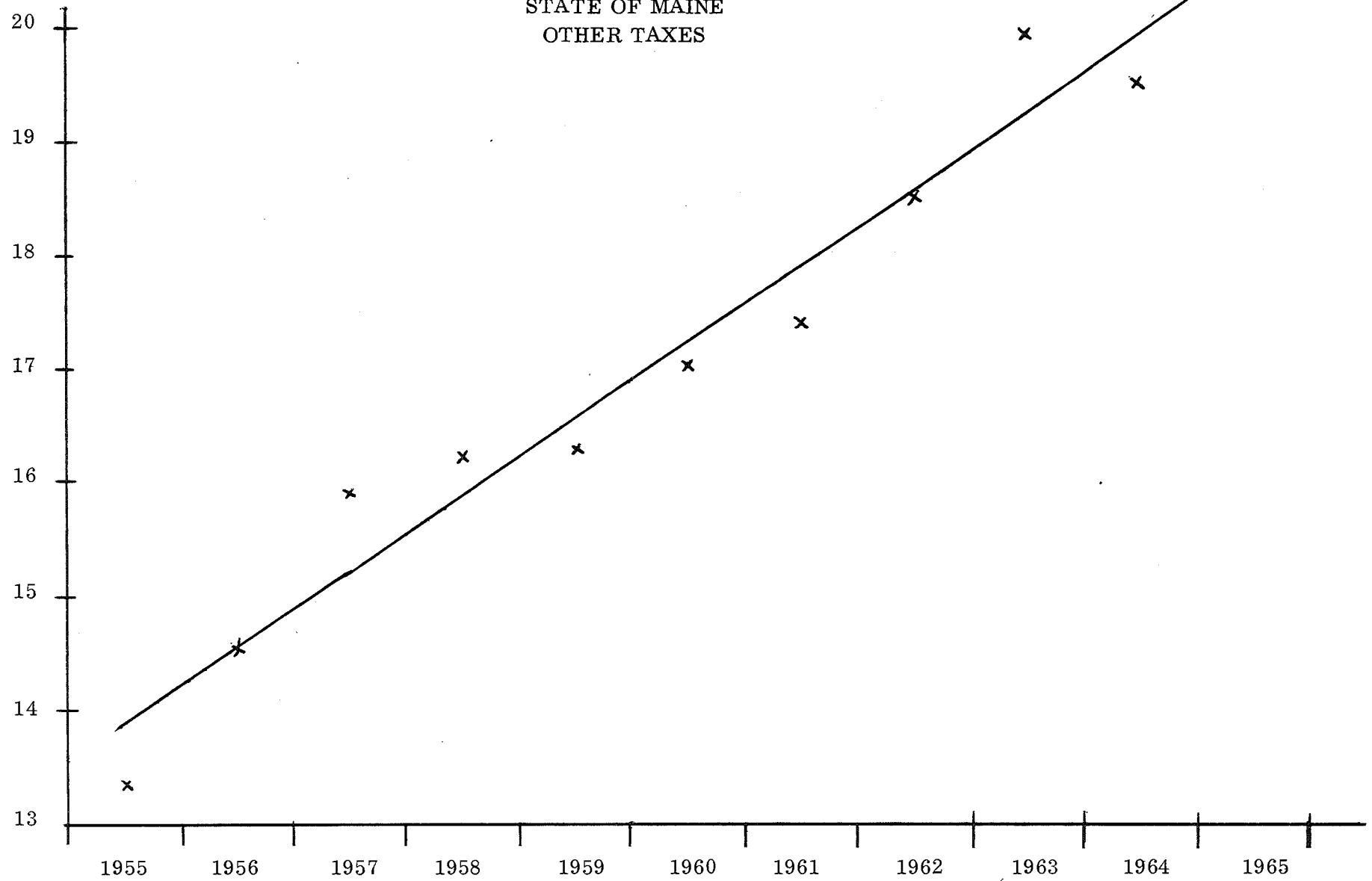
<sup>b</sup> Actual 1966 figure.

Source: See text.

\$ Millions

CHART 14

STATE OF MAINE  
OTHER TAXES



Source: See text



unimportant one, go the wrong way, there will be trouble. My tax, I take it, is to look for the more likely contingencies, and not for a bogey man.

We found earlier that Maine state expenditures have an income elasticity of 1.18, or act as though they do. The total tax system as it presently stands, if my estimates of the future have any relation to reality, turns out to have an elasticity of .68. Our results come to this: a rise in income will be accompanied by an expenditure hike of 12% and a tax advance of only 7%. Taxes, if rates and base structures remain unchanged, will come to play an even smaller role in general expenditures than they do now. By 1970 taxes would raise less than half of revenues! This is a far cry from the common view of expenditures covered primarily by taxes. (If we include the net contributions of the liquor monopoly in taxes, which is not altogether legitimate, taxes would account for just a mite more than half.) The federal government would be providing about 30%. How times have changed! In 1942, which is after all not 1,000 years ago, the federal government was providing about 10%. Current charges would be 15% by 1970; let the receiver of benefits pay for what he receives. This is the logic of events.

#### OTHER TAXES

The rates of Maine taxes, at least when considered on the bases legally levied upon, e. g. , sales, are frequently in a comfortable middle ground. This is true of gasoline and cigarette taxes. The general sales and use tax-rate is somewhat higher than usual: Pennsylvania has 5%; Maine and five others 4%; twenty-four states charge 3-3.9%; and rates keep rising, now one state instituting such a change, soon another.<sup>1</sup> Motor vehicle registrations seem to be lower:

1. See Commerce Clearing House, State Tax Handbook as of September 15, 1965.

Maine charges \$15, while not long ago a representative rate, according to The Advisory Commission on Intergovernmental Relations was \$32.64 per motor vehicle registered. <sup>1</sup>

Maine has no personal income tax nor corporation income tax. Their place in the context of some other state tax systems we have seen. It might be mentioned that in 34 states personal income is taxed; of these, 25 also have a general sales tax. Even more tax corporation income, 39. <sup>2</sup>

Income taxes have a distinct advantage, I might state, from a revenue viewpoint in an era of economic expansion. Their elasticity is greater than that of the bulk of Maine's taxes. Close examination of the payments by Maine residents, 1954 - 1963, of personal income taxes to the federal government provides a pretty good indication of what would have happened had there been a state income tax in effect in those years, naturally at rates far lower than the federal. My study of this question <sup>3</sup> yielded an income elasticity of 1.3 (with a correlation coefficient of .972). For national tax payments to the federal government, I obtained an elasticity of 1.2, which is close to that found by Richard Goode. <sup>4</sup> Studies of state income taxes usually yielded elasticities between 1.5 and 1.8, in one instance even 2.0 <sup>5</sup>. Income taxes do bring in money.

1. Measures of State and Local Fiscal Capacity and Tax Effort, 1962, p. 39.
2. The Council of State Governments, Book of States 1966-67, pp. 203-6.
3. Raw data are to be found in U. S. Treasury Department, Internal Revenue Service, Statistics of Income for Individual Income Tax Returns for these years.
4. The Federal Income Tax, Brookings Institution, 1964, pp. 293-4.
5. Morgan, op. cit.; The Advisory Commission on Intergovernmental Relations, Federal-State Coordination of Personal Income Taxes, ibid.

## THE GENERAL SALES TAX

The general sales tax is usually thought to be a tax on households. I buy a pair of shoes for myself, and I pay a sales tax on it. In fact a host of purchases by businesses from businesses at various stages of the productive process are taxed under this type of law. Maine is just about like some twenty-two other sales tax states as regards the taxable status of purchases by business enterprises. The following purchases are taxable: industrial machines, tools and equipment; fuel for industrial processing; office equipment and supplies, display equipment, etc.; construction materials and supplies; agricultural machines, tools, etc. In fifteen additional states some are taxable, different ones in different states. Exempt in Maine and these others are goods that become, so the rule runs, a physical part of the unit's product. Then they will presumably appear physically at a later stage, and the consumer will pay a tax on them.

A raw material will not be taxed. A machine will not appear in the product and will be taxed. Its purchase is held to be a final sale, and there is consequently no "later" in which to pick it up. This rule is nonsense. The textile machine appears in the final shirts sold in the department store just as truly as does the cotton cloth. Economically they are on a par. Nobody seriously imagines that the company will typically absorb the cost of the machine, whereas it will pass on in the price to the purchaser its payments for cloth. Each will in fact be in the price it charges. Thus if it can reasonably be thought that the sales tax is shifted forward, in other words is passed on to the buyer -- and most economists believe this -- then the sales tax paid by the consumer is capricious. If an article I buy passed through six taxed hands before arriving on the counter before me, I will in fact be hit with a much greater tax bill than if it passed through one. Nobody really knows

what this tax score is, item by item. But in total it is not insignificant. A very rough check I made with Maine data for 1965<sup>1</sup> indicates that about a third of all collections, some \$51 millions for the total, represent purchased by businesses, not consumers. This is a good fat sum. One would expect this percentage to vary a good deal among states, considering the differences among them in industries and tax laws. This expectation is borne out. It was found to vary from about 10% to approximately a third in states examined; Wisconsin, Texas, Michigan, and North Carolina.<sup>2</sup>

If we mean to tax consumers, let us tax consumers. This tax ought to be a single-stage one, insofar as this is administratively feasible.

Another point of consequence. Retail sales to final consumers of goods are from a business and economic standpoint no different from sales to final consumers of services. In fact, in many more than one case they are interchangeable: I might take taxicabs, trains, and planes, or buy a car; buy a swimming pool or go to a commercial one; buy a camera or engage a photographer; ... For the rest if I wish to watch TV and own no set, I buy one (a good); if my set is broken, I pay for the services of a repair man. This matter was not studied exhaustively. Keep the following in mind. Of all personal consumption expenditures in the United States in the second quarter of 1966, services accounted for 40.4%. And consumer services have grown at a higher rate than consumer goods for a very long time. The potential growth in yield is in its favor. Maine might wisely take a serious look in such directions.

1. State of Maine, Bureau of Taxation, Sales and Use Assessments - 1965. This report provides the amounts paid in sales tax and in use tax by each of approximately 90 industries.
2. Texas Research League, "The Sales Tax and Business," Analyzes, June 1961, p. 8; Musgrave, R. A., and Daicoff, D. W., "Who Pays the Michigan Taxes?" Michigan Tax Study, Staff Papers, Lansing, 1958, pp. 142 and 177; Morgan, D. C., Jr., ibid. pp. 26-27.

"The most extensive survey to date (1964) of service taxation under American sales tax bases (showed the following).

"Personal Services. Hotel, motel, and lodging service is the most frequently taxed personal service. Twenty-five states now sales tax this service and many others tax it under special taxes. Seven states tax the services of tailors, six tax dyers, and seven tax the services of dressmakers and seamstresses.

"Repair and Improvement Services. Six states tax automobile painting; eight tax the repair of air conditioning, heating, and refrigeration equipment; seven tax radio and television repair; eight tax the repair of musical instruments; six tax jewelers' services; four or five states tax the services of each of the following: blacksmiths, bookbinders, cabinetmakers, roofers, and fumigators.

"Public Utilities. Electricity is sales taxed in twenty-one states, natural gas in twenty, telephone and telegraph service in seventeen, and water in twelve.

"Amusements. Amusements, admissions, and recreation are subject to sales tax in nineteen states today.

"Professional and Technical Service. Professional service is very seldom taxed, except in gross-income states. However, twenty-six states sales tax photographers' services, thirty-two tax custom printing, and twenty-one tax the entire bill charged by engravers of plates used in printing."<sup>1</sup>

1. Morgan, ibid pp. 126-47. See also Hansen, R. R., "An Empirical Analysis of the Retail Sales Tax with Policy Recommendations," National Tax Journal, March 1962, pp. 1-14; Federation of Tax Administrators, "Sales Tax Base - Services," RM366, December 1960, p. 6.



Apparently there are no great administration or enforcement problems with such coverage in the State of Washington.<sup>1</sup>

The question of regressivity of the sales tax has been an all-time favorite of discussion. Studies have shown that in the very lowest income class, the percentage of income paid in tax was clearly higher than that paid by low income classes. However, when one moved to incomes just above this, the percentages were not much different; they declined, but only by 1-1.5%, as one moved from low incomes to over \$10,000.<sup>2</sup> When other sales-type taxes are added, such as cigarette and liquor, about 3/4 of 1% is added to regressivity. However, when food eaten off the premises is exempt from the law, the regressivity feature becomes much less serious. The total spread then tends to be such that the income class, less than \$1,000, is paying only about 1% more of its income than the \$10,000 and over group. In fact, if one uses various other concepts of income, it has even been found to be slightly progressive!<sup>3</sup>

1. Morgan, ibid., p. 174
2. Michigan Tax Study, Staff Papers, pp. 131-60; Indiana Commission, Final Report, 1962, p. 22; California Legislature, Assembly Interim Committee on Revenue and Taxation, A Major Tax Study, Part 4, The Sales Tax, p. 34.
3. California Legislature, ibid., pp. 36-71.

Broadening tendencies are occurring in Maine's revenues: money from the federal government and from current charges are increasingly evident. Further possibilities exist in taxation of consumer services far more extensively than is now done, instituting a personal income tax, and instituting a corporate income tax.

#### CONTINUOUS RESEARCH

State expenditures are headed ever up, and we saw they will soon, very soon, reach almost \$350 millions per year in Maine. Almost inevitably they will push on up from there. They are not about to rest. Thus we have a great deal of spending channeled into numerous streams, whose flows are constantly varying. All kinds and numbers of problems are raised, when so much money must be raised from so many people. Questions tumble about without let in this welter. What will be the great needs that must be attended to if Maine's economy is to prosper, if our people are to enjoy the material life inherently possible in the situation? Where ought we to spend money as a good investment in the future? Where, as a prop to consumer need? Where is a spending reduction wise? Why? How to collect without hurting economic growth? Without seriously damaging consumption or the desire to save or to put forth labor service? How to obtain money most equitably? The sums are huge, and the questions will not down. Research in some single location in the state, continuous research, is indispensable. A constant flow of information into that office is fundamental. It must be organized to study these data day-to-day to find out what the basic, important trends are, to compare them with other areas, and to come up with answers to each hard question. Then it must perform intensive studies of each answer so that finally

the best stand out alone. Best answers among the diverse and scattered parts must next be coordinated. Priorities cannot be ignored. We cannot afford to be caught unawares. The pork barrel temptations are too obvious, the public requirements too great. If the future is not to knock the breath out of us, if the winds of heaven are not to visit our faces too roughly, we must be ready.

TABLE A-1

STATE AND LOCAL GOVERNMENTS  
COUNCIL OF STATE GOVERNMENT ESTIMATES

A. Total Expenditures for Local Schools for Fiscal Years 1957 and 1962,  
and Calendar Year 1970.

	\$ Millions			Percent of Increase	
	<u>1957</u>	<u>1962</u>	<u>1970</u>	<u>1957-1962</u>	<u>1962-1970</u>
United States	\$11,934.2	\$17,739.3	\$30,996.7	48.6%	74.7%
New England	647.0	989.4	1,756.3	52.9	77.5
Maine	46.5	81.3	115.6	74.5	42.2
New Hampshire	32.3	47.1	88.6	45.8	88.0
Vermont	23.0	33.3	52.2	44.8	56.6
Massachusetts	319.4	483.7	864.5	51.5	78.7
Rhode Island	42.5	64.4	110.7	51.5	71.9
Connecticut	183.3	279.6	524.7	52.5	87.7

B. Total Expenditures of Public Colleges and Universities

	\$ Millions		Percent of Increase
	<u>1962</u>	<u>1970</u>	
United States	\$4,042.9	\$12,097.7	199.2%
New England	120.2	510.3	324.5
Maine	19.0	55.0	189.5
New Hampshire	11.2	34.5	208.0
Vermont	13.6	31.5	131.6
Massachusetts	33.6	219.9	554.5
Rhode Island	14.2	55.3	289.4
Connecticut	28.7	114.1	297.6

TABLE A-1

STATE AND LOCAL GOVERNMENTS  
COUNCIL OF STATE GOVERNMENT ESTIMATES

## C. Total Expenditures of State and Local Governments for Highways

	\$ Millions		Percent of Change
	1962 <u>Fiscal Year</u>	1970 <u>Calendar Year</u>	<u>1962-1970</u>
United States	\$10,341.5	\$16,163.0	56.3%
New England	629.3	1,062.9	68.9
Maine	71.5	105.7	47.8
New Hampshire	54.1	79.6	47.1
Vermont	50.3	71.8	42.7
Massachusetts	248.3	445.7	79.5
Rhode Island	38.1	74.9	96.6
Connecticut	167.0	285.2	70.8

## D. Total Expenditure for Public Welfare

	\$ Millions		Percent of Change
	1962 <u>Fiscal Year</u>	1970 <u>Calendar Year</u>	<u>1962-1970</u>
United States	\$5,084.0	\$8,887.8	74.8%
New England	346.8	522.0	50.5
Maine	26.4	41.1	55.7
New Hampshire	13.7	18.9	38.0
Vermont	10.6	16.0	50.9
Massachusetts	201.6	279.5	38.6
Rhode Island	26.3	42.3	60.8
Connecticut	68.3	124.3	82.0

TABLE A-1

STATE AND LOCAL GOVERNMENTS  
COUNCIL OF STATE GOVERNMENT ESTIMATES

## E. Total Expenditure for Health and Hospitals

	\$ Millions			Percent of Increase	
	<u>1957</u>	<u>1962</u>	<u>1970</u>	<u>1957-62</u>	<u>1962-70</u>
United States	\$3,139.4	\$4,337.3	\$8,025.5	38.2%	85.0%
New England	232.6	273.9	455.9	17.8	66.4
Maine	11.0	15.2	31.3	38.2	105.9
New Hampshire	9.7	11.9	21.9	22.7	84.0
Vermont	5.6	7.1	14.2	24.9	100.0
Massachusetts	145.7	166.0	239.0	13.9	44.0
Rhode Island	13.7	18.2	44.6	32.8	145.1
Connecticut	46.9	55.6	104.8	18.6	88.5

Source: The various volumes of The Council of State Governments,  
Project 1970, *ibid.*

TABLE A-2

## GENERAL REVENUE OF STATE AND LOCAL GOVERNMENTS

\$ Millions

	<u>1965</u>	<u>1962</u>	<u>1957</u>	<u>1942</u>
<b>A. NEW HAMPSHIRE</b>				
Total	214.8	180.5	112.3	41.9
From Federal Government	33.5	32.3	10.5	3.9
From State and Local sources	181.4	148.2	101.9	38.0
Taxes	147.8	125.5	87.1	34.0
Property	95.3	79.8	54.7	20.6
Nonproperty	52.5	45.7	32.4	13.4
Charges and miscellaneous revenues	33.5	22.7	14.8	4.0
<b>B. VERMONT</b>				
Total	171.0	146.5	83.8	26.6
From Federal Government	42.5	42.2	11.0	2.9
From State and Local sources	128.5	104.3	72.8	23.8
Taxes	110.3	92.1	64.9	22.3
Property	45.7	41.6	29.2	11.2
Nonproperty	64.6	50.5	35.7	11.0
Charges and miscellaneous revenues	18.2	12.2	7.9	1.5
<b>C. MASSACHUSETTS</b>				
Total	2,122.5	1,803.7	1,218.6	414.4
From Federal Government	277.5	198.3	87.9	29.0
From State and Local sources	1,844.9	1,605.3	1,130.7	385.4
Taxes	1,615.6	1,422.7	1,017.8	358.2
Property	930.2	861.7	590.3	240.6
Nonproperty	685.4	561.1	427.6	117.6
Charges and miscellaneous revenues	229.4	182.6	112.9	27.2

TABLE A-2

## GENERAL REVENUE OF STATE AND LOCAL GOVERNMENTS

\$ Millions

	<u>1965</u>	<u>1962</u>	<u>1957</u>	<u>1942</u>
<b>D. CONNECTICUT</b>				
Total	1,103.3	890.0	556.3	163.3
From Federal Government	136.8	94.9	30.3	10.1
From State and Local Sources	966.5	795.2	526.0	153.2
Taxes	824.5	684.0	462.0	143.6
Property	430.5	366.5	231.1	82.5
Nonproperty	394.0	317.6	230.9	61.1
Charges and miscellaneous revenues	141.9	111.2	64.1	9.7
<b>E. RHODE ISLAND</b>				
Total	326.1	243.9	164.8	56.1
From Federal Government	62.4	33.2	20.1	3.7
From State and Local Sources	263.7	210.7	144.6	52.5
Taxes	234.1	188.7	130.1	49.4
Property	107.8	90.3	65.6	30.9
Nonproperty	126.3	98.4	64.6	18.5
Charges and miscellaneous revenues	29.6	22.0	14.5	3.1

Source: Historical Statistics, 1962; Governmental Finances, 1964-65