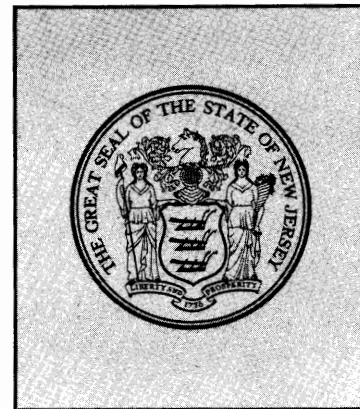
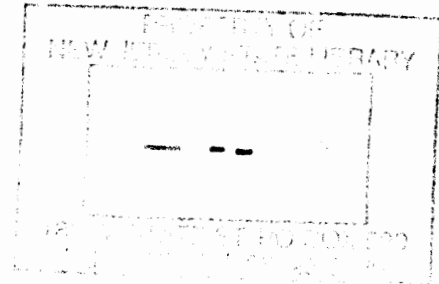


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1st Annual Report

Economic Policy Council
and Office of Economic Policy

Department of the Treasury
State of New Jersey
April, 1968

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State of New Jersey
April, 1968



State of New Jersey
DEPARTMENT OF THE TREASURY
OFFICE OF ECONOMIC POLICY
STATE HOUSE
TRENTON, NEW JERSEY 08625

April 9, 1968.

HONORABLE RICHARD J. HUGHES
Governor, State of New Jersey

DEAR GOVERNOR HUGHES:

The Economic Policy Council has the honor to transmit the first annual report in accordance with Chapter 129 of the New Jersey Laws of 1966.

A modest but sound beginning has been made in the important work of describing and projecting the course of the State's economy. We are concerned with identifying critical issues, with providing information, and with conducting analyses in support of policy formation.

The analyses undertaken thus far are directed toward both immediate and long-term problems, some suggested by public officials and others identified by the Council. Work in progress and completed studies are both described in the report.

The Council members have participated directly in the work, preparing sections of the report and encouraging contributions by others who are acknowledged in the report. Information and assistance has been provided by the research and statistics staffs of the Departments of the Treasury, Agriculture, Community Affairs, Conservation and Economic Development, and Labor and Industry, as well as by others in private business, universities and government.

The work of the Office of Economic Policy has been organized and directed by Dr. Harry F. Stark who also serves as Secretary to the Council. The editing of this report has largely been the work of Dr. Gerhard Bry with the assistance of Miss Barbara Jahnel.

Respectfully submitted,

William C. Freund

WILLIAM C. FREUND, *Chairman*

William J. Baumol

WILLIAM J. BAUMOL

Monroe Berkowitz

MONROE BERKOWITZ

ECONOMIC POLICY COUNCIL

DR. WILLIAM C. FREUND, *Chairman*
Vice President and Economist, New York Stock Exchange

DR. WILLIAM J. BAUMOL, *Member*
Professor of Economics, Princeton University

DR. MONROE BERKOWITZ, *Member*.
Chairman, Department of Economics, Rutgers, The State University

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Assistant Dean, University Extension Division
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STATISTICAL APPENDIX

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I.

THE ECONOMIC POLICY COUNCIL

THE New Jersey Economic Policy Council and the Office of Economic Policy were established by Chapter 129 of the Laws of 1966 (approved June 17, 1966) of the State of New Jersey. The Economic Policy Council was formally constituted on December 19, 1966.

At the initial meeting, Governor Richard J. Hughes stated "Our central long range purpose is to identify the critical issues which will affect and influence our State's economic growth, and to provide supporting information and analysis." The Governor also directed the Council to determine "major research priorities and how they might best be met" and suggested that the Council should "involve New Jersey's talented economists in this work and perhaps attract promising young professionals to research and analytical assignments."

Accordingly, the Council organized its work on two complementary lines. First, the Council met with the Governor, the Treasurer, and other State officials for consultations on the economic aspects of current policy issues and for periodic reviews of economic conditions in State and nation. Second, the Council began a program of studies to develop and present information basic to the understanding and the resolution of the State's major economic problems.

From the outset the Council sought to work in cooperation with other State agencies. For that purpose the Council members conferred with principal officials in the Department of the Treasury, the Department of Conservation and Economic Development, the Department of Community Affairs, the Department of Health, the Department of Labor and Industry, and in the Commuter Agency.

The Council is developing a research program in response to problems identified by the Governor and other State officials, initiating studies recommended by its members, and responding to research suggestions made by people outside the State Government. Study projects may be conducted directly under the Council's auspices or recommended to appropriate State and private agencies.

Two operating principles have guided the Council's work. One is that flexibility and a variety of approaches are essential for the effective development of its activities. This includes cooperative relationships with the economics profession in the academic community and in business and labor organizations as well as in government. The other is that the Council should function in a professional manner and provide the services of the discipline of economics as an instrument for the pursuit of the public interest, without regard for political advantage. For this reason it is necessary to maintain a clear distinction between the identification and analysis of policy issues on the one hand, and the determination of policy on the other. The Council confines its efforts to the former, in order to provide support for the latter which is the province of the Governor and the Legislature.

II.

RESEARCH PROGRAM

Current and Completed Studies

DURING this year the Economic Policy Council addressed itself to a number of pressing policy issues, some of which are described in greater detail later in this report. It has also kept informed of general economic prospects and their implications for employment and fiscal policies in the State of New Jersey. The major current and completed studies are listed below.

Two primary study projects have been initiated on the Council's recommendation, with financial support from the Office of Economic Policy:

1. An analysis of the implications of federal-state revenue sharing is being prepared by the Bureau of Economic Research at Rutgers as part of a group of public finance studies in progress under the direction of Dr. C. Harry Kahn. These finance studies also include analysis of the incidence or effective rate of taxation in New Jersey relative to income; the income responsiveness of New Jersey's tax system and the relationship of expenditure growth to income; and the expected effects of sales tax reciprocity arrangements between adjoining states.

2. An analytical system for describing and projecting New Jersey employment and income levels is being developed by Dr. Gerhard Bry of New York University. This is the first phase of a three-year program intended to produce a short-term state forecasting model and long-term economic trend analysis. The work will be related to the planning functions of the Department of Community Affairs with particular reference to economic aspects of long-range planning. An immediate goal is the improvement of information for monthly and annual economic reports.

Some other projects, whose scope is more narrowly defined, have been conducted under the Council's auspices:

3. An analysis of economic aspects of a state lottery has been prepared by Dr. Alvin Klevorick, at Princeton University, under the direction of Council member Dr. William Baumol.
4. Studies of business location and of the "entry" decisions of new firms are being made at Rutgers University by Dr. Matityahu Marcus.

In addition, the Council members themselves are engaged in several related research projects conducted either under Council auspices or in association with universities and research agencies:

5. Council Chairman Dr. William Freund, in cooperation with Mr. Robert E. Snyder of the Prudential Insurance Company, has been concerned with the preparation of the annual economic report and a study of the economic impact of defense spending on New Jersey. Dr. Freund also worked on the development of monthly economic reports, short-term forecasting techniques, and the analysis of long-range economic trends in New Jersey.
6. Council member Dr. William Baumol and a group of economists at Princeton University are working on the economic viability of cities, their financial problems and other aspects of urban growth. This work has financial support from the Ford Foundation and the Brookings Institute. Dr. Baumol is also conducting research on the effects of various levels of income maintenance as employment incentives.
7. Council member Dr. Monroe Berkowitz has been working on the economics of human resources, with particular reference to education, welfare, and social insurance. Dr. Berkowitz is also conducting a series of studies at Rutgers University on training and vocational rehabilitation, sponsored by federal and state vocational rehabilitation agencies.

Prospective Studies of Policy Issues

The Economic Policy Council's plans for the next year are similar in ambition and scope. Some of the studies described above will continue into the next year. In addition, new areas have been marked out for study, and a few projects have reached the planning stage. The following paragraphs give the broad outlines of some of the proposed work. These are subject to changing priorities and other contingencies, and are to be taken as an indication of the Council's interests rather than as definite research projects.

1. Revenue Sharing

As the costs of local government mount and the urban crisis adds to the fiscal demands upon cities, it becomes increasingly clear that local governments will have to turn beyond their borders for financial help. Specifically, the federal government is in a far better position than the governments of the states to arrange for revenues to keep up with mounting needs. There are several reasons for this, not the least of which is the historical fact that the federal government has pre-empted some of the most lucrative sources of income and has thereby made it very difficult for the states to draw freely from the same sources. Secondly, the nature of the main sources of tax revenues of the federal government is such that these revenues are "income elastic": as national income rises, the total amount collected goes up more than in proportion. The progressivity of the Federal income tax, for example, makes it virtually certain that total revenues from this source will be income elastic. Local taxes characteristically are less elastic—excise and property taxes are less responsive to income changes than the income tax. Finally, while states are reluctant to raise taxes unilaterally, for fear of driving industry away, the federal government is far less subject to such inhibitions.

For all these reasons there has been a growth of interest in plans for direct federal financial assistance to the states, such as the revenue sharing plans developed by Walter Heller and Joseph Pechman. Should such proposals come to fruition, it is important for New Jersey to be aware of their implications and of the means by which they can be implemented most quickly and effectively. In particular, the State should be prepared to deal with one of the most difficult issues which will arise in the course of implementation—the means to assure an adequate flow of funds from the State to the cities where, at least at the moment, they are most urgently needed. New Jersey should be prepared to offer reasonable assurance that such funds will be allocated equitably. These issues

and the means for dealing with them will be studied by the Economic Policy Council in order to prepare the State to take effective advantage of the opportunities which revenue-sharing programs would provide.

2. The Use of Continuous Bonding in the Financing of Capital Programs

There has been a marked tendency in the State to finance a considerable proportion of long-term public investment out of current income rather than through the issue of long-term bonds. It is conceivable that this has inhibited or delayed some long-term investments which might otherwise have been deemed economic. Economic analysis suggests that this sort of financing is not defensible as a normal procedure. By the very nature of durable investment projects, many of their benefits will only accrue to the general public in the distant future. It is therefore reasonable that a corresponding portion of the funding needed to pay for such investments should also be shifted to the future. Bond financing tailored to a proposed capital program may well be an appropriate funding arrangement to coordinate the stream of payments with the flow of benefits.

In any event, careful study is needed to determine the extent to which bond issues may be reasonable alternatives to financing out of current income. Studies might also indicate whether and to what extent desirable capital programs in New Jersey were limited by current income financing. Finally, it would be useful to formulate a set of operational criteria that specify circumstances in which a bond issue constitutes the preferred financial instrument.

3. The Cost of Education

The costs of both elementary and higher education have been rising at a spectacular rate over the postwar period. This has given rise to increasingly critical problems for private educational institutions, which find it constantly harder to raise the funds necessary to maintain their quality. In the case of public schools, colleges, and universities these cost rises have caused an ever-increasing drain on the public purse—representing one of the most pressing demands on the treasuries of state and local governments. The costs of education constitute a very large proportion of the urban budget. No doubt they play an important role in the financial difficulties of the cities, where the quality of the educational system has been a significant factor in the tensions by which the urban communities are beset. It is therefore essential to determine the sources, the

magnitudes and the likely prospects of the mounting educational costs. Analysis of these circumstances may identify broadly conceived countermeasures and help to prepare early and effective action to replace the customary *ad hoc* reactions to recurrent crises. For these reasons, and as a means to preserve and improve our educational system, the Economic Policy Council proposes to initiate a study of the financial needs of the State's educational system. This study should also focus on the available options for modifying educational costs and meeting them.

4. Study of Prospective Economic Characteristics of the State

For many purposes of state planning, a consistent set of data is needed on the long-term trends likely to prevail in the New Jersey economy, assuming both a continuation of existing policies, as well as some possible policy variants. Such longer-term projections would specify expected trends in population, employment, income, and industrial development including the rate of growth in manufacturing and other major economic sectors during the next decade. The projections would allow an assessment of the likely position of the State of New Jersey relative to the nation and other industrialized states in the East. The projected conditions might stimulate policy actions to modify the prospective economic environment. In fact, a systematization of the long-term economic relationships may permit us to assess the consequences of alternative policy combinations.

Other study topics which have been identified for future consideration are: the economic effects of the inheritance tax in New Jersey; the economics of transportation as a factor in urban development; and economic decision making in New Jersey's state and state-related agencies. A wider variety of activities will be stimulated by the continuation of studies currently under way and by the need to respond to questions which will develop through the year, but which cannot yet be foreseen.

III.

OTHER ACTIVITIES OF THE COUNCIL AND THE OFFICE OF ECONOMIC POLICY

Publication Program

THE first objective of the Council's publication program is to issue, as required by statute, an annual economic report which should (1) identify significant present and future policy issues and relate them to a research agenda, (2) present the substantive findings of studies made under the Council's auspices, (3) review developments in the New Jersey economy, and (4) provide short-term forecasts. The present report is an effort in this direction, and subsequent annual reports should benefit from the research projects now in progress. A brief year-end economic assessment and an outlook statement were prepared by the Council and issued in December, 1967.

The second major objective is the publication of a monthly report on New Jersey economic conditions. This report is intended to consolidate and extend several present reports including the *New Jersey Economic Indicators*, now issued by the New Jersey Department of Labor and Industry at the request of the Office of Economic Policy, as is the monthly Economic Report prepared for the Governor's Cabinet by the staffs of several state statistical bureaus. This work has been made possible by the contribution

of research and statistics bureaus in the State Departments of Agriculture, Conservation and Economic Development, and the Treasury.

Finally, the results of major research undertakings will be published as monographs or in other appropriate forms, as the occasion requires.

Encouragement of Economic Research Oriented Toward New Jersey

To acquaint economists in the academic and business communities and in government with its establishment and plans, the Economic Policy Council sponsored a "Conference of New Jersey Economists" at Rutgers University on May 18, 1967. Two hundred invited guests spent the day in discussions with the Council members and heard a luncheon address by Governor Richard J. Hughes. The conference was arranged by Council member Dr. Monroe Berkowitz; proceedings were published for the Council by the Rutgers Bureau of Economic Research, under the title, *New Approaches to Economic Policy in State Government*.

At the conference, a \$10,000 stipend was announced to encourage research on economic problems of significance to New Jersey. The Council invited proposals stating that preference would be given to economists teaching at institutions of higher learning in the State other than Rutgers and Princeton Universities. The stipend was intended for use during the 1967-1968 academic year or the 1968 calendar year. In December, 1967, the Council accepted a joint proposal by Professors Frank Davis and Robert Browne of Fairleigh Dickinson University for a study of methods for encouraging Negro entrepreneurship in the city of Newark.

The Council encourages research concerned with problems of the New Jersey economy. It welcomes research proposals and will give support, by providing information, facilitating contacts with State agencies and other means.

Office of Economic Policy

1. Formation and Function

Chapter 129 of the Laws of New Jersey (approved June 17, 1966) provides for an Economic Policy Council advisory to the Governor and establishes an Office of Economic Policy in the Department of the Treasury.

The purposes of the legislative act as stated in the preamble were to provide ". . . an office of economic policy and an economic policy council continually to evaluate the impact of international, federal, and State programs in terms of their effect on the economy of the State, and to provide an annual economic report and in-

tegrated information identifying more fully and timely the character, performance and potential of the economy; . . . ”

The Office of Economic Policy was established to provide staff support for the Governor and the Council and to provide, for both officials and the public, comprehensive information about the economy of the State and region. In particular, the Office was to consolidate and improve the several periodic economic reports which have been developed cooperatively by State statistical agencies. The Office's activities were not intended to replace or integrate the programs for statistical information and research which the various departments of State government conduct for purposes pertinent to their functions.

2. Statistical Standardization

In addition, the Office of Economic Policy was given, by the legislation, the task of assisting “the Governor and the executive departments with the establishment of statistical standards and procedures.” Apart from improvements and additions to statistical data, this work should also cover such aspects as coordination, avoidance of duplication, comparability, and internal consistency.

To enable the Council to concentrate on economic policy issues, the major implementation of the statistical standardization function is being carried out in cooperation with the Division of Budget and Accounting in the Treasury Department and with the Department of Community Affairs. Concern with statistical administration falls within the scope of activity assigned to the Office, but the interests of the Council in this area relate primarily to the timely availability of adequate economic information.

In June 1967, a conference on statistical standardization was held in Trenton, to which representatives of State agencies and State-related organizations were invited. After that meeting, statistical representatives were named by each agency for purposes of interagency communication, and a Steering Committee of ten was established. The Committee includes the chiefs of the major state research and statistics bureaus. The work is organized through technical sub-committees which include additional members from agencies with particular interest in specific statistical standards.

Technical sub-committees have been formed to consider population and manpower statistics. The need for more detailed data on current and prospective population has been recognized, and it has been recommended to the Treasury Department that additional resources be allocated for the expansion of the State's official

population statistics program. Another sub-committee is working on an information exchange procedure to keep the various co-operating statistical agencies informed of new research projects and statistical programs.

In addition, a technical group has reached agreement on a recommended standard municipal code and on a method for exchanging information, coded by municipality, acceptable to electronic data processing equipment. The standard code and a usage manual, when completed, will be circulated to State agencies for comment and eventual adoption. Through this first standardization project, general procedures for requesting, defining, and promulgating statistical standards are being developed.

Not only are the various State and State-related agencies co-operating in the development of the standardization function, but also inter-state collaboration is being encouraged through the Council of State Governments and the Office of Statistical Standards in the Federal Bureau of the Budget.

3. Staffing and Financing

Financing for the Office was planned on the assumption that major research activities would be identified, encouraged and, perhaps guided by the Council, but that they would not necessarily be subsidized directly by the Office. Extensive study projects should be funded through appropriate State agencies or other sources. Consequently, the resources of the Office are being utilized primarily for the preparation of current economic reports and for related analytical and coordinating activities.

During the first year of operation, professional services have been provided by several executive departments and have also been obtained by contract. In addition, some relatively small research projects have been commissioned directly and supported by the Office on behalf of the Council. In the future, the continuing work of the Office will be accomplished by a small professional staff supplemented, on a project basis, by economists and statisticians from nongovernmental organizations.

General direction for the work of the Office has been provided by the Council Secretary, Dr. Harry Stark, who also is chairman of the Steering Committee for Statistical Standardization. Guidance for the work of standardization and the technical sub-committees has been provided by Miss Aileen Cavanagh of the Department of Community Affairs and Mr. Edward Hofgesang of the Division of Budget and Accounting in the Treasury Department.

IV. STUDY REPORTS

INTRODUCTION

THIS section reports briefly the results of a number of studies made under the auspices of the Economic Policy Council. The studies are intended to provide economic information and analysis, which constitute indispensable ingredients of rational policy determination. Of course, economics alone cannot offer an adequate basis for policy decisions: sociological, political and other data and analyses must be considered and, together with pertinent value judgments, must also enter the decision process. The following paragraphs are intended as a reader's guide, providing brief summaries of the research reported more fully later in this section.

Fiscal policy formation is intimately related to economics and of vital importance to a state. State governments retain considerable power in this sphere; the receipts and the allocation of a state's fiscal resources directly affect its welfare. Four of the studies presented here are related to New Jersey's public finance. They deal with new revenue-raising devices and with important economic aspects of the present tax system.

A *state lottery* and state-sponsored *off-track betting* are two frequently mentioned potential sources of additional revenue for New Jersey. An accurate economic evaluation of these devices is somewhat difficult, because of the limited experience with them in this country. A study prepared for the Council suggests that a lottery is likely to have very limited value as a

major revenue-raising method. The most likely gross receipts from a lottery in New Jersey are estimated at between \$25-million and \$28-million a year. The costs of operation would cut this revenue approximately in half, resulting in net revenues between \$12.5 million and \$14 million—a small amount relative to state needs. The Council also examined off-track betting as another means of raising revenue for the State. A formal study was not made, but a preliminary examination suggested that the funds likely to be derived from this source are even smaller than those that can be expected from a state lottery.

An analysis of *effective state tax rates* for New Jersey residents shows that present tax structure has resulted in a generally regressive system; the overall effective tax burden declines sharply, relative to income, as income rises. Heavy reliance on the property tax, the most regressive state tax, is largely responsible for this situation.

A study of *reciprocal sales tax* collection between states indicates that New Jersey's revenue would be increased by a reciprocity agreement with the State of New York. At present, it is possible for New Jersey residents to make certain purchases, free of tax, in other states which results in a loss of state revenue, a distortion of trade patterns, and in losses of employment and personal income to the State's inhabitants. However, as the study shows, reciprocal collection agreements are not equally beneficial to each state and may, therefore, be difficult to institute.

Analysis of *defense-dependency* is important for anticipating the effects on employment and income in New Jersey of rises, declines, or structural changes in defense spending. As the nation's military commitments increase, defense spending has a growing impact on state economies. Compared with other states, New Jersey has a high dollar volume of defense contracts and subcontracts, although the percentage of New Jersey's employment dependent on defense orders is slightly below the national average. In addition, the study shows that the employment effect of defense spending in New Jersey is heavily concentrated in the manufacture of durable goods. The recent growth in this segment of the state economy can largely be attributed to increases in defense spending. The results of this study suggest that growth trends in durables be regarded with caution; they also suggest consideration of appropriate action to offset the employment and income effects of a possible future reduction in defense spending. The States of New York and Massachusetts have established commissions to study the effects of a return to peaceful international relations on their economies. The initiation of defense reduction impact studies for the State of New Jersey appears desirable.

These studies may have important policy implications, which are obvious in some cases and more remote in others. The Council's objective is the provision of factual information and analysis.

1. Likely Revenues From A New Jersey Lottery*

Any evaluation of the economic efficiency of a state lottery as a revenue-raising device for New Jersey is a precarious but necessary task. It is precarious due to the nature of the available data. It is necessary because a lottery is frequently suggested as an alternative to more customary fiscal measures by those seeking what appears to be an easy way to raise some of the increasing amounts of money required for government operations. The existence of a state lottery in New York will undoubtedly add to the pressure for instituting a lottery which is brought to bear on governments of neighboring states.

In the face of these suggestions and pressures, it is imperative that there be some evaluation of the prospective efficiency of a New Jersey lottery as a revenue-raising device. Leaving social and political considerations aside, any attempt to evaluate potential revenues from a lottery in New Jersey is beset with difficulties. Lack of relevant and useful information precludes straight-forward estimating procedures. Thus one is forced to turn to indirect approximations. Several alternative estimates of potential revenue from a state lottery are discussed and a "best estimate" of such revenue is presented.

Estimating Lottery Revenue

It is clear that one could calculate the net revenue from a lottery if one had (1) an estimate of how many tickets could be sold at any given price, and (2) an estimate of the cost of selling any particular quantity of lottery tickets.

The demand schedule in (1) and the cost schedule in (2), however, are not easily derived. The number of tickets sold and the cost of selling them depend on many factors, such as: (a) the price of tickets, (b) the pay-out schedule; specifically the proportion of gross sales paid out in prizes, the percentage of winning tickets, and the size distribution of prizes, (c) the frequency of drawings, (d) the amount of advertising, (e) the number and types of outlets provided, (f) the level and distribution of personal income of the state, (g) the extent and character of interstate travel. The state can control the first five items. Hence, it must do more than determine the price that maximizes its gross take. It must select that combination of price,

* Dr. Alvin K. Klevorick of Yale University conducted this study.

prizes, frequency of drawings, advertising, and outlets that will yield the largest net revenue.

The difficulties involved in pursuing this optimal approach to the calculation of prospective net revenue are readily apparent. The very limited experience with lotteries in the United States—three years in New Hampshire and three months in New York at the time of this writing—makes it impossible to obtain useful estimates of the demand and cost functions that are crucial for this type of revenue estimate.

Although the information on domestic lotteries can be supplemented with data about lotteries in other countries, one must be careful in drawing inferences from foreign experience. Differences in the attitudes of populations toward lotteries, differences in the purposes of the lotteries and other dissimilarities, limit the relevance of that experience. The French lottery, for example, does not meet with the same moral objections that have confronted the lotteries proposed or instituted in the United States. Also, there are dissimilarities in the mix of objectives: 60 percent of the French lottery's gross return is paid out in prize money as contrasted with a payout ratio of 30 percent in the New York lottery, while 32 percent is returned to the French Treasury as compared with the 55 percent of each lottery dollar which goes to the New York State Treasury. Furthermore, French lottery proceeds are spent as general revenue and not earmarked for education as are the proceeds of the lotteries established in the United States. Finally, any attempt to predict the net revenue of a New Jersey lottery from foreign experience is marred by the inadequacy of the statistics for foreign lotteries.

An Alternative Approach

Since the most desirable path to the estimation of the net revenue of a New Jersey lottery is not feasible, an alternative approach was followed. It was assumed that the proportion of a state's or country's total income spent on a lottery is "reasonably stable." Then, by using these proportions established for New Hampshire, New York, and France, the expected gross revenue of a New Jersey lottery was calculated.

In using this approach, one is immediately confronted with the problem of determining the relevant total income figure to be used. While state residents can buy lottery tickets in their state, they are not the only ones who can purchase the tickets. For example, only 17 percent of the gross receipts of the first three years' operation of the New Hampshire lottery was derived from sales to New Hampshire's residents. One must take account of these "tourist" purchases of lottery tickets. (Such "tourists" may include commuters or residents of a neighboring state who hop across the state line only long enough to purchase a lottery ticket.)

The relationship between the gross receipts of a lottery and the total personal income of residents in the state is thus probably not a stable one. The relationship between lottery receipts and total expenditures in the state or country—i.e., gross state product or gross national product—would probably come closer to stability as it enables us to take some account of the “tourist” lottery-ticket purchasers. Gross-national-product data are available for France, but gross-state-product data are not readily available for the years for which they would be required. Hence, in using the New York and New Hampshire experience to project the possible gross revenues that might accrue from a state lottery for New Jersey, one has to resort to other devices. These will be explained presently.

After the relationship between lottery receipts and total income was derived, the result was used in conjunction with the total personal income of New Jersey in 1966, \$23.549 billion, to obtain an estimate of gross receipts. Several estimates of the first-year annual gross proceeds of a New Jersey lottery are summarized in the accompanying table.

ESTIMATES OF ANNUAL GROSS PROCEEDS OF A NEW JERSEY LOTTERY		<i>Projection</i>
<i>Basis of Projection</i>		<i>(Millions of Dollars)</i>
1. French Experience—		
a. Gross Receipts/National Income: 1965		47.1
b. Gross Receipts/Gross National Product at Market Prices: 1965		35.3
2. New Hampshire Experience—		
a. Average Annual Gross Receipts/Average Total Personal Income of New Hampshire: 1964-1966		61.9
b. Average Annual Gross Receipts/Hypothetical Average Total Personal Income of New Hampshire Winners: 1964-1966		51.1
c. Average Annual Gross Receipts from New Hampshire Residents/Average Total Personal Income of New Hampshire + Nonresidents Addition: 1964-1966		22.1
3. New York Experience—		
a. Gross Receipts/Total Personal Income of New York: 1967		24.5
b. Gross Receipts from New York Residents/Total Personal Income of New York + Nonresidents Addition: 1967		31.8
4. New York Projection—		
a. Gross Receipts/Total Personal Income of New York		44.5
b. Gross Receipts from New York Residents/Total Personal Income of New York + Nonresidents Addition		57.7
NOTE: The derivations of the projections presented above are explained in the text.		

The French Experience

The estimates based upon the French experience are straightforward. For example, to obtain the figure in line 1a, New Jersey’s total personal income in 1966 was multiplied by the ratio of the gross receipts of the French national lottery in 1965 to French national income in the same year.

These estimates tend to be high because the French lottery has several advantages which a New Jersey lottery, especially one primarily aimed at

raising revenue, would not enjoy. First, the French lottery is very well accepted, as indicated by a recent estimate that 50 percent of the adult population of France buys lottery tickets. Second, approximately 60 percent of the lottery's gross receipts is paid out in prizes. In addition, although the great bulk of the winners receives little more than the original purchase price, each player has a chance of winning that is better than 1 out of 4, as compared with 1 chance in 4,167 for New York's lottery. Third, in France all prizes are tax free while any New Jersey winners would have to pay income taxes on their winnings. Fourth, tickets appear in denominations of sixty cents or \$5.20, a convenience of purchase size which a New Jersey lottery could probably not provide while staying administratively manageable. Fifth, the number and types of outlets used by the French lottery (including street-corner vending by blind men and aged women), the regular weekly drawings, and the absence of restrictions on its advertising are all advantages a New Jersey lottery would not have.

On the other hand, there are two factors that might tend to impart a downward bias to the estimates based upon the French experience. First, the per capita personal income of New Jersey residents is about $2\frac{2}{5}$ times that of French residents. Hence, all other conditions being equal, New Jersey residents might be willing to spend a higher portion of their income on a lottery. Second, in obtaining the estimate in line 1b, the ratio of French gross receipts to French gross national product was applied to New Jersey's total personal income. A more accurate procedure would require that the ratio for France be applied to New Jersey's gross state product, and the latter is larger than New Jersey's total personal income.

It is difficult to say how the upward and downward biases compare in magnitude. In my judgment, the elements of overestimation significantly outweigh the downward biases in the estimate in line 1a while they are probably closer to offsetting in line 1b. If an estimate were to be based upon the French experience, the estimated annual gross proceeds of a New Jersey lottery would be in the range of 35 to 40 million dollars.

The New Hampshire Experience

The estimates of the annual gross receipts of a New Jersey lottery that rely on New Hampshire experience require some explanation. The annual gross receipts of New Hampshire's lottery that enter the calculations of lines 2a and 2b are a simple average of the total gross receipts of the New Hampshire lottery in the years 1964, 1965 and 1966. The average total personal income figure for New Hampshire used in line 2a is a weighted average of New Hampshire total personal incomes in the three years, the weight for each year being the fraction which the gross receipts in that year were of the 1964-1966 gross receipts.

The “hypothetical” average total personal income of New Hampshire used in line 2b represents one attempt to take account of the fact that New Hampshire lottery tickets in 1964-1966 were widely purchased by residents of states other than New Hampshire. Once again the income figure is a weighted average using the same weights as in line 2a. The annual income estimates were, however, constructed in a special way. It was assumed that the drawing of lottery winners was perfectly random so that the percentage of gross receipts received from residents of each state was exactly equal to the percentage of winners residing in that state. It was also assumed that the state per capita personal incomes of visitors’ home states accurately reflected the personal incomes of the visitors. A hypothetical per capita personal income of winners was computed for a given year, by weighting each state’s per capita personal income in that year by the percentage of winners it accounted for in the New Hampshire lottery’s three years of operation. The states considered in the computations accounted for 92 percent of the New Hampshire 1964-1966 winners. Any state whose residents accounted for at least 1 percent of the winners in the 1964-1966 period was included. To get the hypothetical total personal income for the given year, the resulting per capita personal income was multiplied by New Hampshire’s population in that year.

Comparing the two estimates in lines 2a and 2b, one sees that correcting for differences between the personal income of New Hampshire and the personal incomes in the home states of those actually buying tickets reduces the annual gross proceeds estimate for a New Jersey lottery more than 16 percent, from \$61.9 million to \$51.1 million.

The decline in the projected gross receipts of a New Jersey lottery is even more striking when one goes from the estimate in line 2a to that in line 2c. The latter attempts to take better account of the fact that New Hampshire lottery tickets were widely purchased by nonresidents. The propensity of New Hampshire residents to purchase New Hampshire lottery tickets out of their total personal income was calculated first. This was based on the previously mentioned assumption that the percentage of lottery receipts dollar expenditures from residents of a state equals the percentage of winning tickets held by residents of the state. The percentage for New Hampshire residents for their state’s lottery during 1964-1966 was 17 percent. Dividing the estimated gross receipts contributed by New Hampshire residents by the weighted average of New Hampshire’s actual total personal income during the 1964-1966 period (the figure used in the ratio in line 2a) yielded a measure of the propensity of New Hampshire residents to purchase New Hampshire lottery tickets. Application of this propensity to New Jersey’s total 1966 personal income yielded an estimated \$10.5 million for the sales of a New Jersey lottery to New Jersey residents. To this must

be added the estimated prospective sales of a New Jersey lottery to non-residents, \$11.6 million, resulting in projected total receipts of \$22.1 million as shown in line 2c of Table 1. The estimate of prospective sales of a New Jersey lottery to nonresidents will now be explained.

The estimate of ticket sales to residents of states other than New Jersey (used in line 2a) was based on the brief experience of the New York lottery. The gross receipts of the New York lottery in its first three months of operation were quadrupled to get an annual gross-receipts figure. Since 15 percent of New York's June winners and 20 percent of the July winners came from outside New York State the average of 17.5 percent was multiplied by the estimated annual gross receipts for the New York lottery, \$66.242 million. Based on this estimate, the New York lottery would be expected to sell \$11.592 million worth of tickets to nonresidents in its first year of operation. This figure for New York was then used as an estimate of the sales that a New Jersey lottery could expect to make to nonresidents. The use of this figure as an approximation of potential New Jersey experience was based on the greater similarity as states between New York and New Jersey than between New Hampshire and New Jersey.

Admittedly, this is a tenuous estimate. First of all, the actual gross receipts for the entire first year of operation of the New York lottery may be significantly different from the \$66.242 million obtained by prorating the results of the first three months of operation. It would, however, be surprising if it were very much higher than that prorated amount. Second, the rest of the year's operations may indicate a change in the proportion of resident to nonresident sales. Third, there is the questionable step of using estimated New York's sales to nonresidents as an approximation to the prospective experience with a New Jersey lottery.

Finally, there is the fact that should New Jersey establish a lottery it would be competing with the one in New York. Some indication of the strength of such a competitive effect can, perhaps, be gleaned from recent New Hampshire experience. While New Yorkers bought an estimated 16 percent of all tickets sold for the 1964-1966 New Hampshire lotteries, they bought only 9 percent of the tickets for the July 1967 New Hampshire drawing which took place after their own lottery began selling tickets in June 1967.

In view of all these considerations, the \$11.6 million figure for estimated sales of a New Jersey lottery to nonresidents is probably an upward biased estimate of what such sales might actually turn out to be. The estimate given in line 2c (i.e., \$22.1 million), which includes the sales to nonresidents, is bound to reflect this upward bias.

The New York Experience

The projection of gross receipts of \$24.5 million presented in line 3a of the table is based upon the ratio of prorated gross receipts of the New York lottery for June 1967-May 1968 to New York's total personal income in 1966; this ratio was applied to the corresponding 1966 income measure for New Jersey. The estimate of annual gross proceeds from a New Jersey lottery that appears in line 3b is based upon the propensity of New York residents to buy their own state's lottery tickets (again applied to New Jersey total personal income) plus the estimate of New Jersey sales to non-residents. The method of calculating these estimates was described in connection with the New Hampshire-based estimate in line 2c.

The estimates shown in part 4 of the table are higher than those given in part 3, although the approach used in obtaining them is the same. The higher results occur because New York State's original estimate that its lottery would garner \$120 million in receipts was substituted for our prorated gross-receipts estimate of \$66.242 million. The estimate that New York would sell \$120 million worth of tickets remains the optimistic projection of those familiar with New York State's lottery. Thus, lines 4a and 4b are based on this projection rather than on the more widely publicized figure of \$360 million. The nonresidents component of line 4b is now \$21 million, an estimate based on the assumption that nonresidents would continue to account for 17.5 percent of the New York lottery's revenue.

An Overview of Gross Receipt Estimates

The estimates of the annual gross proceeds of a New Jersey lottery thus cover a wide range. They vary from \$22.1 million to \$61.9 million, with the extremes arising from different extrapolations of New Hampshire's experience. The upper bound of \$61.9 million seems to be a gross overestimate. It is based on the ratio of New Hampshire's lottery receipts to New Hampshire's personal income. Use of this ratio for the derivation of New Jersey's potential revenue ignores the fact that while New Jersey is attractive to tourists, tourism is relatively more important to New Hampshire's lottery sales than it would be to a New Jersey lottery's sales. The \$51.1 million figure in line 2b is based on a ratio which takes account of the differences between the per capita personal incomes of the home states of those who bought tickets in New Hampshire and the per capita personal income of New Hampshire itself. The swelling of New Hampshire's population due to tourists is, however, not taken into account.

Interestingly enough, when one does correct for the impact, on New Hampshire's lottery, of a large tourist trade from states with a higher average per capita personal income, the estimate of gross proceeds for a New Jersey lottery falls precipitously to \$22.1 million.

In view of the obvious shortcomings of the estimates given in lines 2a and 2b, it seems appropriate to regard the range of possible annual gross proceeds from a New Jersey lottery as extending from \$22.1 million to \$40 million. The upper bound is now derived from the experience of the French lottery, with the estimates based on that experience adjusted in light of the major sources of upward and downward bias. New York's actual experience would lead one to doubt that the projections upon which the estimates in lines 4a and 4b are based could be attained.

If forced to single out the most plausible estimate of those presented, we would select the one given in line 3b, which is based upon New York's experience and uses the available information about the division of sales between residents and nonresidents. The main weakness of this estimate of \$31.8 million is that the estimated sales to nonresidents are probably overstated especially in view of the competitive position in which the New Jersey and the New York lotteries would find themselves. Taking into account all computations and considerations, our best guess of the prospective annual gross revenues of a New Jersey lottery would fall between \$25 and \$28 million.

Estimated Net Revenue of a New Jersey Lottery

The percentages of total gross revenues which established lotteries return or are expected to return to their government treasuries are relevant to the question of the likely net revenue from a New Jersey lottery. In France, 32 percent of the gross revenues are left for the Treasury, in New Hampshire the share is about 50 percent (with 1965 being an abnormal year due to an Internal Revenue refund on the previous year's payment of the excise tax on gambling), while in New York, the State Treasury expects to receive 55 percent of the lottery's gross revenues for state aid to education. If New Jersey established a lottery, net revenue ratios would probably be closer to those of New Hampshire and New York than to that of France.

Assuming that the State of New Jersey retains about half of the gross return, the net revenue from the lottery would be between \$11 million (corresponding to the receipts of line 2c) and \$20 million (adjusted French experience), with the "most likely" revenue being between \$12.5 and \$14 millions.

It is clear that the State of New Jersey could raise some additional revenue from a state lottery. The estimates indicate, however, that the net revenues that could be expected are miniscule in relation to the overall needs of the State: a lottery would be a minor revenue-raising device. In light of this fact, it is important to reiterate that this study deals only with the revenue expectations for a lottery as an isolated revenue-providing

mechanism. These estimated revenues can only be judged properly in light of the social and political implications of a lottery. In particular, one must consider whether the net impact of a lottery will be regressive, proportional or progressive relative to income; and one must weigh the effect of a lottery on the fate of other possible means for raising revenue for the State of New Jersey.

2. New Jersey Tax Burden by Income Groups*

A study of the distribution of the tax burden among New Jersey citizens was designed to answer two questions: what increase in the tax burden results from taxes levied by state and local government, and how is this burden distributed in relation to income size? Heretofore, no study had been based on actual incomes and actual expenditure patterns in New Jersey, for all taxes combined. Whereas the relevance of such a study to fiscal policy is obvious, its absence so far is easily explained by the difficulty of obtaining data on consumption patterns, property, and incomes for a single state. Such state data are still not available in complete form and certainly not for every year. This study was based on United States Bureau of Labor Statistics data on income and expenditures in selected New Jersey areas for the early 1960's; these data were projected to 1966.

Once the basic distribution of income, consumption expenditures, and property had been estimated by income-size classes, it was possible to compute average effective tax rates (ratios of taxes paid to income) for all existing New Jersey taxes as well as for some hypothetical taxes that are of interest. Preliminary results are shown in Table I for the combined state and local New Jersey tax system for nine income size groups. All of the figures are on a fiscal year 1966 basis, which was the year before introduction of the New Jersey sales tax of 3 percent. However, the hypothetical effective tax rate for the 3 percent sales tax could easily be estimated for the year 1966, on the basis of our detailed 1966 income-class distribution of consumption expenditures. Table I thus shows the average effective rate for all New Jersey taxes before and after introduction of the sales tax. For all income groups combined the total effective rate was 7.8 percent without sales tax and 8.6 percent when the sales tax was included.

But, for consumer units† with incomes less than \$2,000 the overall effective rate was much higher for that year, and for those with money incomes over \$15,000 it was less than the average. In fact, with one exception, the overall effective rate declines with rising income throughout the

* This is a joint study by Professors Harry Kahn and Jeffrey Schaefer at Rutgers, The State University.

† The distributions are for expenditure units of varying size. Thus, both single individuals and families with children are included in the same income group.

Table 1
ESTIMATED EFFECTIVE STATE TAX RATES* ON CONSUMER UNITS RESIDING IN NEW JERSEY
BY TYPE OF TAX AND INCOME CLASS, 1966

Type of Tax	Under 2000	2-2999	3-3999	4-4999	5-5999	6-7499	7.5-9999	10- 14,999	15+
Total—Without Sales Tax									
Average Rate 7.77%	19.58	12.48	11.71	10.84	9.12	9.38	8.28	7.19	5.48
Estimated Sales Tax									
Average Rate 0.82%	0.95	0.58	0.73	0.86	0.92	0.95	0.82	0.83	0.68
Total—With Estimated Sales Tax									
Average Rate 8.59%	20.53	13.06	12.44	11.70	10.04	10.33	9.10	8.02	6.16
Property Tax—Residential									
Average Rate 3.08%	12.58	7.23	6.63	4.92	3.79	3.89	3.25	2.58	1.92
Property Tax—Other									
Average Rate 1.90%	3.36	2.18	2.18	2.31	2.01	2.48	1.95	1.67	1.49
Property Tax—Total									
Average Rate 4.97%	16.09	9.62	8.72	7.21	5.79	6.37	5.19	4.36	3.41
Corporation Business Taxes									
Average Rate 0.22%	0.32	0.19	0.19	0.26	0.23	0.22	0.19	0.20	0.30
Public Utility Taxes									
Average Rate 0.49%	1.01	0.86	0.71	0.77	0.61	0.59	0.54	0.46	0.30
Insurance Taxes									
Average Rate 0.19%	0.22	0.16	0.17	0.16	0.15	0.17	0.18	0.17	0.12
Beverage Taxes									
Average Rate 0.16%	0.13	0.09	0.19	0.22	0.08	0.15	0.11	0.19	0.18
Tobacco Taxes									
Average Rate 0.39%	0.54	0.70	0.54	0.83	0.62	0.52	0.45	0.34	0.18
Taxes on Spectator Sports									
Average Rate 0.09%	0.07	0.01	0.12	0.10	0.08	0.08	0.10	0.11	0.06
Motor Fuels Taxes									
Average Rate 0.62%	0.71	0.42	0.64	0.69	0.78	0.74	0.70	0.67	0.31
Motor Vehicle Fees									
Average Rate 0.48%	0.49	0.43	0.53	0.53	0.48	0.51	0.56	0.49	0.34
Inheritance—Estate Taxes									
Average Rate 0.20%	.....	.....	.....	0.12	0.30	0.03	0.26	0.20	0.28

* Effective tax rates are the ratio of taxes paid to money income for consumer units in each indicated income class.
Source: Study of Incidence of New Jersey Taxes on New Jersey Residents.

distribution, and the system as a whole is thus regressive. It can also be seen from Table 1 that most of the individual taxes in the system are regressive, but by no means to the same degree and by no means uniformly throughout the income distribution. Much of the striking decline in the overall effective rate from 20.5 to 6.2 percent, between the lowest and the highest income class, is attributable to the property tax whose effective rate accounts for a drop from 16.1 to 3.4 percent. For all other state-collected taxes, the estimated decline is only from 4.4 to 2.8 percent, and some taxes—notably those on inheritances, beverages, and corporations—are, on the average, progressive over the income distribution.

Because the effective rate of a tax may vary considerably over the income distribution, it is difficult to judge the overall degree of regressivity (or progressivity), on the basis of Table 1 alone. For instance, we find the effective rate for beverage taxes rose from 0.13 to 0.18 percent of income between the highest and the lowest income group, but between the \$4,000-\$5,000 group and the \$15,000-and-over group, the rate declined. To facilitate overall comparisons between the degrees of regressivity of different taxes, summary measures were computed. For each tax an index of average progressivity* is shown in Table 2. In addition to the index for the present sales tax, four indexes considering broader sales tax bases are included; they illustrate the effect which expansions in the base would have on the progressivity of the tax. An index of one means that the tax is on average proportional to income; less than one means that it is regressive; and more than one that it is progressive.

The overall progressivity index—on the basis of annual income and without regard to family size or age—is considerably below one, indicating regressivity. The new sales tax varies nearly in proportion with income (0.96) and therefore, raises the overall progressivity index from 0.61 to 0.64. The taxes on alcoholic beverages, spectator sports (mainly race tracks), and inheritances are progressive relative to income.

The retail sales tax, presently in force, has two broad and important exemptions: food consumed off the premises and clothing. The former, if included in the base, would reduce the progressivity index by a large amount from 0.96 to 0.80. But the inclusion of clothing in the base appears to have the opposite effect: it raises the index to 1.01. This is a somewhat surprising finding in view of the presumed character of clothing as a basic necessity, with inelastic responses to income. However, clothing expenditures do respond elastically to income, over a significant part of the income distribution. This response is boosted by a positive relationship between family size and

* The progressivity index is a weighted average income elasticity for each tax. It relates the percentage changes in the effective tax to the percentage changes in income between income classes.

income and, of course, family size and clothing needs. In view of the observed elasticity of clothing expenditures to income, the inclusion of these expenditures in the sales tax base might be considered an alternative to an increase in the rate of the sales tax, should the need for additional revenue make such considerations relevant.

Table 2
SUMMARY MEASURES OF PROGRESSIVITY FOR EXISTING NEW JERSEY STATE
AND LOCAL TAXES AND FOR SOME HYPOTHETICAL SALES TAX BASES

<u>Taxes</u>	<u>Progressivity Index^a</u>	<u>Percent of Total Revenue^b</u>
Total		
Without present sales tax	0.61	
With present sales tax	0.64	100.0
Property	0.51	57.6
Public Utility	0.61	5.7
Insurance	0.91	1.7
Beverage	1.17	1.5
Tobacco	0.58	3.6
Spectator sports	1.22	1.4
Motor fuel	0.87	6.8
Motor vehicle licenses	0.94	4.4
Inheritance-Estate	5.74	2.4
Railroads	0.99	0.8
Corporation income and net worth	0.95	4.1
Retail Sales		
Present base	0.96	9.5
Present base plus food consumed at home	0.80	....
Present base plus clothing	1.01	....
Present base plus clothing for those 18 years and older	0.98	....
All consumption expenditures	0.75	....

Source: Study of Incidence of N. J. Taxes on N. J. Residents.

- a. The progressivity index is the weighted average cross-section income-elasticity of a tax. The weights are the frequencies of families and single individuals in the relevant income ranges. An index of 1 indicates that, over the important income range, the tax varies in proportion with income; an index greater than 1 indicates that the tax varies more than in proportion (progressive), and an index of less than 1 that the tax varies less than in proportion (regressive).
- b. The percentages shown do not add up to 100.0 because of omission of some minor tax sources.

3. Sales Tax Reciprocity Between Neighboring States*

The study of reciprocal sales tax collection is addressed to certain problems which arise because citizens of sales-tax states may purchase goods from neighboring states free of tax, even if the neighboring state has a sales tax of its own. This may result not only in a loss of revenue to the state but also in a tax-induced distortion of trade patterns. Some form of fiscal coordination is thus clearly in the interest of the combined region represented by two or more states for which this problem exists. But is it in the interest of the individual states? Is it in the interest of New York to collect New Jersey's taxes, and of New Jersey to collect New York's?

On general economic grounds, reciprocity seems clearly desirable. It amounts to the closing of an avenue of tax avoidance, and will tend to raise state revenues while removing the wholly fortuitous advantages and disadvantages (distortions) arising from a non-neutral tax structure. The immediate question is, then, whether reciprocity is also desirable from the standpoint of any particular state. This obviously depends upon how a state evaluates reciprocity effects. A simple and plausible evaluation is proposed. First, any state is assumed to regard a tax revenue increase as a net gain. It is also assumed that since reduction in economic distortions is a rather tenuous notion, state governments would be unlikely to evaluate it in quantitative terms.† It is assumed, however, that states are sensitive to the altered pattern of trade that may result from reciprocity. The imposition of reciprocity should be expected to reduce cross-over purchasing generally, by removing tax incentives to shop out-of-state. If reciprocity has no effect on the general level of purchasing, and if consumers' choice is limited to purchasing in the neighbor state or at home, then any reduction in a cross-over implies a sales increase in the home state precisely equal to the sales decrease of the neighbor. From the states' point of view, the economic gain or loss that results from altered sales patterns is best expressed in terms of value added rather than retail sales revenue.**

If reciprocity reduces crossing over in a perfectly symmetrical way, neither state experiences a net value added effect. The gain in sales (and value added) from residents who return home to purchase, is just offset by the loss of outstate purchasers who similarly return home. Thus the net value added change is zero for each state. There is, however, no reason to

* The study is the work of Professor Peter Asch, at Rutgers, the State University.

† If it were evaluated, however, it should presumably be considered as a net gain.

** That is, the changes in sales revenue resulting from reciprocity are not themselves an accurate measure of economic gain or loss for each state. A state may be said to benefit from the economic activity carried on within its borders. Should the state, for example, suffer a loss in retail sales, it may nevertheless continue to benefit from those activities associated with the commodities at earlier stages of production. The economic loss to the state is only the incremental, or value added, quantity at retail. To use a gross sales figure as the measure of loss, would thus overstate the true effect.

expect such symmetry. It is likely that the cross-over change will be greater in one direction than the other, and if so, one state will suffer a net sales (and value added) loss, while the other experiences a net gain. Will the net loss in value added due to reduced sales outweigh the gain in sales tax revenue for one of the states under reciprocal enforcement?

To answer this question, one would have to have fairly precise information on a) the sales tax rates of the participating states; b) the proportion of retail sales accounted for by value added;* c) the initial magnitude of cross-over sales from each state; and d) the price-elasticity of the demand of cross-over shoppers in each direction (i.e., the sensitivity of cross-over shoppers to a rise in prices of previously tax-free items). If statistics for each of these variables were available, the reciprocity effect for a state, A, in relation to state B could then be calculated through the following formula: A's Reciprocity Effect = $t_a X_a + v [(t_a E_a X_a) - (t_b E_b X_b)]$ where t_a is the sales tax rate of state A, X_a is initial cross-over sales to A residents in state B, v is value added as a percentage of retail sales revenue and E_a is the price elasticity of A's cross-over shoppers. Similarly, t_b is the sales tax rate of state B, *et cetera*. The term $t_a X_a$ is A's tax revenue gain; $v [(t_a E_a X_a) - (t_b E_b X_b)]$ is the net value-added effect for state A.**

The only precise data at hand, however, are the sales tax rates for each state. For the rest, only fragmentary information is available. Therefore, reciprocity outcomes for a pair of states, New Jersey and New York, have been calculated for a wide variety of cases incorporating all combinations of the following values, in the relevant quantities:

$$\begin{array}{ll} t_{nj} = .03 & t_{ny} = .03, .05 \\ E_{nj} = 0.5, 1.0, 2.0, 3.0 & E_{ny} = 1.0, 2.0, 3.0, 10.0 \\ X_{nj}/X_{ny} = 1.0, 2.0, 3.3 & \\ v = 0.15, 0.30, 0.50 & \end{array}$$

Only the cross-over *ratio*, X_{nj}/X_{ny} , was specified; no effort was made to consider actual magnitudes of cross-overs. It can be seen by inspection of the reciprocity effect formula, that the existence of a reciprocity gain or loss depends purely on this ratio, given the values of all other variables. The sizes of cross-over will alter the magnitudes of gain or loss, but if either state gains (loses) under a particular ratio, it will continue to do so regardless of how large or small the cross-overs may be.

* It is necessary to assume that the proportion of value added at retail is the same for goods shipped interstate as for all goods.

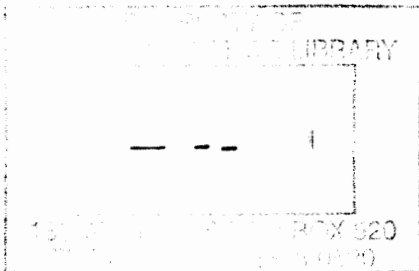
** The initial value-added effect may be subject to a multiplier. The multiplier is not explicitly included in the reciprocity formula, primarily because it can be considered implicitly in the value of v (e. g., a "high" v may be interpreted as a multiple of the original value-added proportion at retail.)

The results of calculations are instructive in defining the nature of value combinations in the variables which inflict a net reciprocity loss on one state. (The combined reciprocity effect is positive since the states gain in revenue and the combined value added-effect is zero. It is therefore not possible for both states to lose on balance; both may gain or one may lose.) The table below shows outcomes under varying elasticity combinations, where the other variables are specified: $t_{nj} = .03$, $t_{ny} = .05$, $X_{nj}/X_{ny} = 3.3$, and $v = 0.30$. Cells containing a plus sign (+) indicate elasticity pairs under which both states gain from reciprocity; -NJ and -NY indicate pairs under which state nj or ny respectively suffer net losses.

		ELASTICITY OF NY RESIDENTS (E_{ny})				
		-10.0	-6.0	-3.0	-2.0	-1.0
Elasticity of NJ residents (E_{nj})	-6.0	+	-NY	-NY	-NY	-NY
	-3.0	+	+	+	-NY	-NY
	-2.0	+	+	+	+	+
	-1.0	-NJ	+	+	+	+
	-0.5	-NJ	+	+	+	+

It is evident that the cross-over ratio has been weighted in favor of New Jersey. Since New Jersey's residents purchase 3.3 times as much outstate as do New York's, New Jersey has more to gain from a reciprocity arrangement that discourages crossing over. It is seen that under the specified values, New York loses from reciprocity only if E_{nj} is high (-6.0) or if E_{nj} is moderately high (-3.0) and E_{ny} is relatively low (-2.0, -1.0). New Jersey loses only for the most asymmetrical elasticity situations ($E_{ny} = 10.0$, $E_{nj} = 1.0, 0.5$). Generally, New Jersey will tend to lose when the term $(t E X)_{nj}$ is much smaller than $(t E X)_{ny}$; New York loses in opposite cases. An extremely asymmetrical situation is required for an overall loss to occur, since the net value added loss is offset by the tax revenue gain.

In the specific New Jersey-New York case, an attempt was made to specify all pertinent values other than elasticities, and then to define the results under different elasticity assumptions. The value of v was specified as 0.30, based on rather stable historical estimates of value added at retail. Tax rates are known to be .03 for New Jersey and .05 for New York (where New York City was taken as the relevant New York area.) Data supplied by the United Parcel Service on cross-over shipments indicate a cross-over ratio, X_{nj}/X_{ny} , which is probably even greater than the 3.3 ratio assumed in the table. That is, crossing is almost completely dominated by New Jersey residents purchasing in New York. It turns out that under these specified values, there is no elasticity pair that would cause New Jersey to



lose from reciprocity. Even if New Yorkers' elasticity were infinite, (so that New Yorkers cease to purchase in New Jersey when reciprocity is imposed) and New Jerseyites' were zero (so that there is no change whatever in purchases by New Jersey residents in New York), New Jersey would gain on balance. This surprising result is attributable to the extremely high preponderance of New Jersey residents' purchases in the total cross-over pattern. If there is a multiplier effect operating on value-added changes, then v is effectively raised, and cases in which New Jersey suffers a net reciprocity loss become possible. Such a result, however, remains highly unlikely.

The New York position is a bit more precarious. Under certain elasticity combinations, New York can lose from reciprocity; however this will not occur if New Yorkers' elasticity is high and New Jerseyites' low. Existing empirical evidence is fragmentary, but at least two studies indicate that New Yorkers have demonstrated great sensitivity to the imposition of new retail sales taxes.* If the hypothesis is accepted that New Jersey purchasing in New York is tied largely to the attractiveness of New York stores, and perhaps to commuting patterns, the elasticity for New Jersey residents would be expected to be relatively low. Under these circumstances, New York as well as New Jersey would benefit from reciprocity, and this result is a plausible one.**

Conclusions

Several conclusions and qualifications have been reached:

1. Sales tax reciprocity is generally beneficial, and is likely to benefit both parties (states) unless highly asymmetrical situations in cross-over, elasticity, and tax rates obtain. Both states are likely to gain even if one or two of these variables demonstrate high asymmetry; and the smaller value added is (at retail), the more likely is a mutual gain.
2. New Jersey is in an especially fortunate position with respect to reciprocity. However, nothing has been said (or could be said without extensive surveys) about the likely magnitude of gain.
3. Some states (New Jersey and New York included) have, in effect, a kind of partial, informal reciprocity via application of use taxes

* See William Hamovitch, "Sales Taxation: An Analysis of the Effects of Rate Increases in Two Contrasting Cases," *National Tax Journal*, Vol. XIX (December 1966), pp. 411-420; and Henry M. Levin, "An Analysis of the Economic Effects of the New York City Sales Tax," in *Financing Government in New York City*, Graduate School of Public Administration, New York University (June, 1966), pp. 635-691. These two authors conclude independently that the tax elasticity coefficients for New York City residents are on the order of -6 .

** Once again, should a multiplier be operative, the possibilities are somewhat altered. With a larger v , New York would lose on balance in some cases which, with $v = 0.30$, produce net gains.

to out-of-state purchases shipped home. The effectiveness of these arrangements may vary considerably among states, since certain limitations on the use tax, as well as compliance problems, can be significant.* States undertaking these procedures are moving in the right direction, from both their own viewpoint and from a general overview; and it seems probable that more comprehensive (and perhaps more formal) agreements would prove to be of additional benefit.

4. Economic Impact of Defense Spending on New Jersey†

Introduction

A continuing study** recently instituted by the Defense Department provides the most detailed information to date on the role of defense spending in U.S. employment. It is based on a reporting system set up to measure the impact of prime military contracts, subcontracts, and vendor purchases on industrial sectors, on states, and on local areas.

Coverage of the study is incomplete in two respects. First, the study covers only about half of defense employment. It includes all persons working on prime military contracts, but only 12 percent of those employed as a result of subcontracts and vendor purchases of goods and services. Second, the totals exclude all the income multiplier and accelerator effects which induce employment through subsequent consumption or investment purchases.

Statewide Impact

Defense employment is defined as employment of civil service workers at military installations and persons privately employed as a direct result of defense orders. Its importance in New Jersey total employment, although not substantial, grew considerably during the period considered, June 1965 to December 1966 (Table 1).

At the earlier date, defense dependency (defense employment as percent of civilian labor force) amounted to 2.4 percent; by year-end 1966 it

* A use tax goes to the Treasury of the state in which an item is initially used, although it is collected by the out-of-state stores in which the purchase was made. However, this arrangement is only enforceable for vendors that have branches in both affected states. For some fragmentary evidence on the ineffectiveness of the use tax in this context, see: M. Slade Kendrick, "Improving the Use Tax," *National Tax Journal*, Vol. XX (March 1967), pp. 93-101.

† This report was prepared by Mr. Robert Snyder of The Prudential Insurance Company, Newark, New Jersey.

** See "Economic Impact of Defense Programs" by Col. Vernon M. Buehler, U. S. A., Office of the Assistant Secretary of Defense, Washington, D. C. (Available upon request.) This report provides state totals only for a single period, June 1966. Data for other periods and for N. J. local areas were supplied separately by the Defense Department.

was 3.2 percent. The latter figure was slightly below the national average of 3.4 percent; it was also exceeded by dependency rates in 20 states with the highest rate being nearly 11 percent. Despite this middle position in defense employment, however, New Jersey ranked ninth in the total dollar value of prime contracts awarded and third in the value of subcontracts.

Table 1
NEW JERSEY DEFENSE DEPENDENCY, JUNE 1965 TO DECEMBER 1966
(Thousands)

	<i>June 1965</i>	<i>December 1965</i>	<i>June 1966</i>	<i>December 1966</i>
<i>Defense Employment</i>				
Private firms	41.8	45.9	52.3	59.9
Civil service workers in military installations .	25.1	26.7	28.3	29.6
Total	66.9	72.6	80.6	89.5
<i>Civilian Labor Force*</i>	2736	2680	2756	2783
<i>Defense Dependency</i>	2.4%	2.7%	2.9%	3.2%

* Labor force data refer to preceding month.

Defense employment by industrial sector

Of the 89,500 jobs existing as a direct result of defense spending in December 1966, about 29,600 were civil service positions in military installations. The balance of 59,900 jobs was distributed* among private defense industries in the following proportions:

Electronics and Communications	59.5%
Aircraft	19.3
Missile and Space	16.4
Shipbuilding	2.2
Research, Development, Testing and Evaluation (RDT&E)	0.4
Ammunition	1.5
Other	0.7
	100.0%

All of these categories, except RDT&E and "other," are clearly in durable goods manufacturing; hence, approximately 99 percent of the State's 59,900 defense-generated private employment was concentrated in this sector. This amounted to 59,300 or 12.5 percent of the 473,000 persons then employed in the durables industries of the New Jersey economy. Thus, although only 3.2 percent of the State's total labor force was involved in defense work, just about all the privately employed part of it was concentrated in durables manufacture.

* Distribution based on a June 1966 survey covering about half of private defense employment.

The heavy impact of defense spending on employment in New Jersey's durable goods industries becomes particularly clear through an analysis of recent job growth. Assuming that the high percentage of durables defense employment, shown in the above tabulation for June 1966, also held for June 1965 and December 1966, then the durables component of defense employment rose between these dates from 41,400 to 58,900 or by 17,500 persons. Over the same period total employment in the State's durable goods production rose by 28,000 (from 441,000 to 469,000). Thus, defense employment accounted for two-thirds of the total rise in durable goods employment over the 18-month period.

Local impact

The geographic distribution of the State's defense employment is also of interest. Data provided by the Defense Department give this information for New Jersey by labor market areas. A labor market area consists of a central city, or several cities, plus environs within commuting distance. Each area constitutes an economically integrated geographical unit within which workers can change jobs without changing residence.

Table 2 shows defense employment and defense dependency rates for all of the State's six major labor areas, the New Jersey portion of the Philadelphia area, and three smaller areas within the State. One of the latter, Monmouth County, had the State's highest defense dependency, 9.1 percent. The high dependency rate was due mainly to some 9,000 civilians employed at military installations, a fairly substantial number in relation to the County's work force. The second highest dependency rate, 5.5 percent, occurred in the New Jersey portion of the Philadelphia labor area. Defense employment here was split 40/60 between civil service and private industry. Bergen-Passaic Counties ranked third with 4.4 percent, with all the direct impact of defense spending concentrated in private employment. The two Counties' total defense employment, nearly 24,000, was the largest for any labor market area within the State. Dependence on military spending in the remaining seven places on the list was below the State average. The State's largest labor market area, comprising Essex, Morris and Union Counties, had a defense dependency rate of 2.4 percent, split about 40/60 between civil service and private employment.

Thus the geographical impact of defense spending is fairly diffuse, with only two areas having a dependency rate considerably above the State figure. There are, however, several areas that would be hit hard by marked reduction in defense spending, particularly if indirect employment effects are considered. Furthermore, we must remember that the sample on which the present discussion is based, covers only 12 percent of total employment

Table 2
DEFENSE DEPENDENCY BY LABOR AREAS
DECEMBER 1966
(thousands)

<i>Labor Area (Counties)</i>	<i>Civilian Labor Force</i>	<i>Defense Generated Employment</i>			<i>Percent Defense Dependency</i>
		<i>Private</i>	<i>Def. Dept. Civil Service</i>	<i>Total</i>	
Monmouth	136	3.3	9.1	12.4	9.1
Burlington-Camden- Gloucester*	353	11.3	8.1	19.4	5.5
Bergen-Passaic	534	23.7	0.0	23.7	4.4
Mercer	142	3.2	0.5	3.7	2.6
Ocean County	44	0.1	1.0	1.1	2.5
Essex-Morris-Union ..	878	12.0	9.0	21.0	2.4
Cumberland	54	1.0	0.0	1.0	1.8
Atlantic	76	1.0	0.0	1.0	1.3
Hudson	295	1.5	1.9	3.4	1.1
Somerset-Middlesex ..	271	2.8	0.0	2.8	1.0
Total New Jersey ...	2,783	59.9	29.6	89.5	3.2

* These three counties comprise the N. J. portion of the Philadelphia labor area. Figures were derived as a residual of state totals less the sum of the other nine areas, thus they are approximate.

arising from military subcontracts. With complete coverage of subcontracts, defense dependency of the larger areas would be higher. If, in addition, the indirect employment effects of defense activities were counted (resulting from the re-spending of incomes and stimulation to private investment), defense dependency would be larger and differently distributed. It is hoped that future studies may help to evaluate the problem of defense dependency more completely.

Summary

1. As of year-end 1966, about 89,500 persons, or 3.2 percent of the State's civilian labor force, were employed as a direct result of defense spending.
2. Excluding civil service workers at military installations, nearly all these employees were concentrated in durables manufacturing; they comprised nearly 13 percent of such employment in New Jersey.
3. The gain in the State's defense employment (again excluding civil service) between mid-1965 and December 1966, accounted for nearly two-thirds of the total increase in durables employment over that period.
4. Although such defense employment is highly concentrated industrially, it is fairly well dispersed geographically.

V.

THE NEW JERSEY ECONOMY IN 1967 AND PROSPECTS FOR 1968*

The Year 1967

United States

GNP rose to \$785 billion in 1967, up by some \$40 billion or 5.6 percent from 1966. Perhaps the most significant feature of the expansion was its unevenness. Total business spending dropped, consumer spending was restrained, but government outlays soared.

Burdened by excess inventories, business cut current production by \$18 billion in the first half of the year in order to reduce stocks. Excess capacity limited the increase in spending on new plant and equipment. Consumers turned cautious, devoting a higher proportion of income to repaying debt and building liquid assets. As a result of these shifts, output, especially of durables, fell during the course of the year. The production

* This report was prepared by Mr. Robert Snyder of the Prudential Insurance Company of America and Dr. William C. Freund, Chairman, Economic Policy Council. Acknowledgment for assistance in providing information for this report and in preparation of the statistical appendix is due to: Walter J. Chartier, N. J. Department of Labor and Industry, Division of Employment Security; Gladys W. Ellsworth, N. J. Department of Conservation and Economic Development; Arthur J. O'Neal, N. J. Department of Labor and Industry, Division of Labor; Mr. Eugene Taylor, N. J. Department of Agriculture; and Mr. Sidney Glaser, N. J. Department of the Treasury.

index for durables declined from 168 at year-end 1966 to 160 ten months later. The resulting slack was taken up by substantial increases in spending by government. Defense outlays jumped some \$12 billion; state and local spending rose by \$9 billion.

These developments provided the environment for the changes in economic activity experienced by New Jersey.

New Jersey

Employment

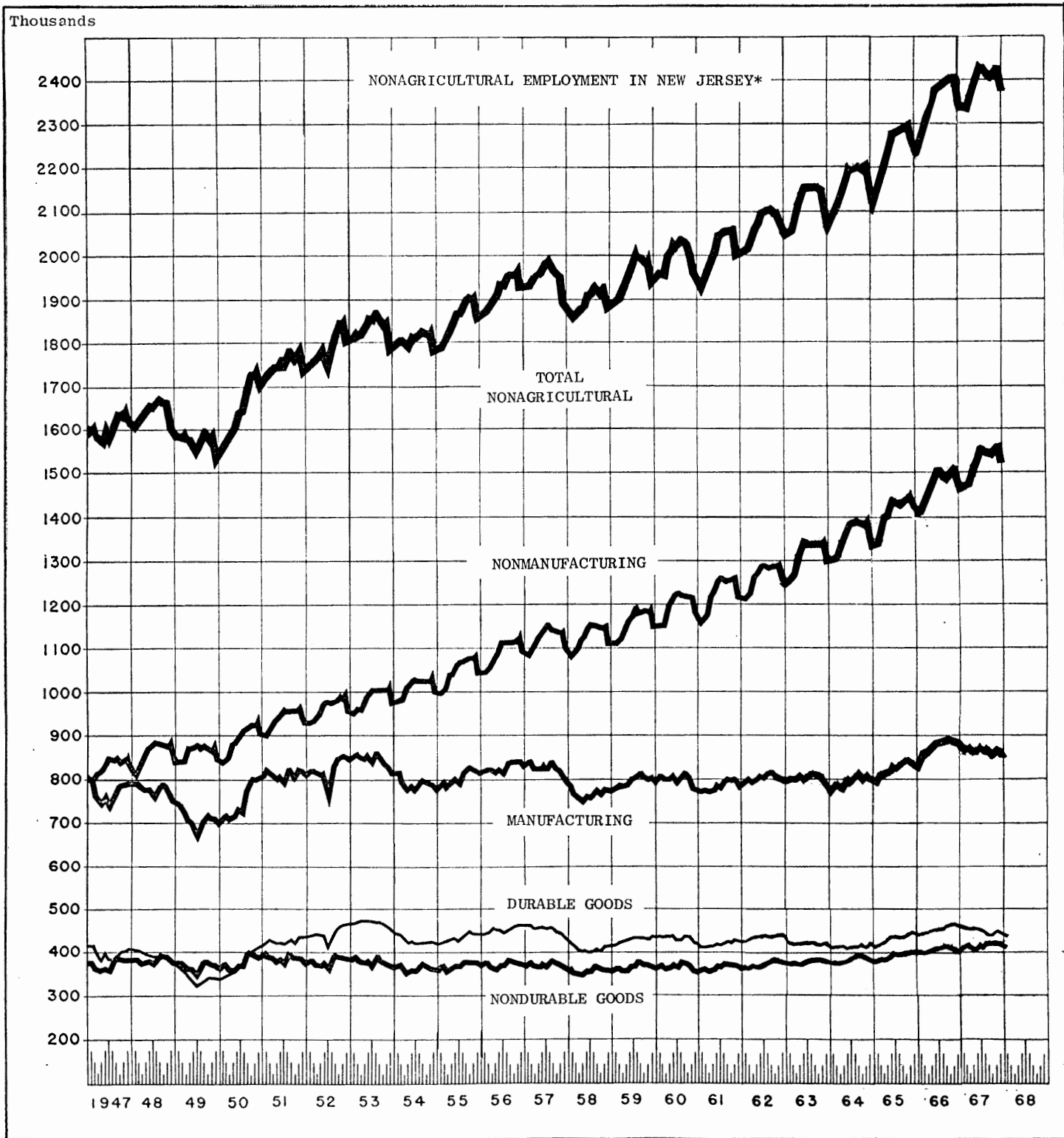
During the present decade, New Jersey enterprise created 400,000 new jobs. Seventy thousand were in manufacturing, an increase of 9 percent over 1959. But the growth in factory jobs has been erratic, with really substantial increases occurring only in the two boom years of 1965 and 1966. There were declines in three other years and only minimal gains during the rest of the period. This points up a key characteristic of employment in New Jersey manufacturing: significant expansion occurs only during peaks of business activity.

The State shared the drop in the nation's durable manufacturing employment during 1967, but the impact was sharper here because of the relatively larger role of factory production in the State's economy. Such major lines as primary metals, electrical equipment and transportation all registered declining employment between 1966 and 1967. As a result, employment in total manufacturing declined in the course of 1967. However, the national demand for nondurables remained close to previous peak levels, and nondurable employment levels in the State held fairly stable during the year.

These trends in manufacturing employment reflect a basic transition in New Jersey's economy. As in most states of the nation, the real stimulus to long-term growth is shifting from the production of goods to the provision of services. And it has been the latter activities which brought major steady job growth. (See the accompanying chart.) From 1959 to 1967, they boosted job opportunities by 350,000, for a gain of some 30 percent.

During the year 1967, the service industries added about 55,000 jobs to their payrolls, with the largest gains in trade, personal services, and government. Also contributing to the advance were finance, real estate, insurance, transportation, and public utilities.

The net effect of growth in these sectors, combined with the trend in manufacturing and minor losses in other areas, was to increase total State employment to 2.72 million, a gain of 1 percent for the year.



Source: N.J. Dept. of Labor And Industry
Bureau of Statistics and Records

*Excludes self-employed, domestic
and unpaid family workers.

Labor Force and Unemployment

The State's labor force averaged 2.85 million in 1967; on the average, during the course of the year some 128,000 of these workers were without jobs. This resulted in an unemployment rate of 4.5 percent, up from last year's 4.4 percent, but still the second lowest for any year of this decade. The State's jobless rate relative to that of the U.S. maintained its customary position: above the national level but by a margin of less than one percentage point.

A narrower measure of persons without work—those eligible to collect unemployment compensation—shows unemployment to have been 3.35 percent of insured employment (1967 annual average), fairly close to the decade low of 2.8 percent set a year earlier. This classification provides some information about the characteristics of these jobless: about half were male, about half were over 45, about two-thirds had been out of work for more than a month, and a fifth for fifteen weeks or more.

Construction

Early in 1966, home building was hit by a severe shortage of mortgage money. In consequence, residential construction in New Jersey fell off sharply during the year. Although the supply and cost of financing eased somewhat during the first half of 1967 (they have since tightened again) recovery of home building from the previous year's low point was slow. For, in addition to the time lags arising from the need for financial arrangements, builders were faced with two problems: reassembling experienced work crews broken up during the slack months of 1966, and a shortage of suitable residential building sites.

As a result, both physical and dollar measures of residential building in 1967 were below the levels of 1966. Dwelling units authorized were down an estimated 9 percent and contract awards were off by 3 percent.

Other construction activities in the State fared better, shown by contract awards for factories, warehouses, stores, and other business structures. Gains in dollar volume for the year were estimated at 6 percent while spending on such heavy engineering projects as highways, airports, and sewer systems were up 28 percent.

Agriculture

Vagaries of the weather spoiled what otherwise might have been a good year for the State's truck farmers. Total output was satisfactory, but cold wet weather during spring and summer delayed vegetable harvests. Con-

sequently, the shortening of harvest periods caused glutting of markets and brought prices down for much of the produce.

The resulting pressure on farm income was further intensified by the steady rise in prices which farmers had to pay for machinery, materials, and labor. The squeeze was especially severe on egg producers; there was, in consequence, a further decline in the number of poultry farmers.

Cash receipts from New Jersey farm output ran \$255 million this year, off by some 7 percent from 1966. Realized net income per farm was estimated at \$6,700—down 24 percent.

Personal Income

State personal income in 1967 was \$25.2 billion, compared to \$23.8 billion in the previous year. The pattern of annual income growth closely follows the business cycle with yearly gains this decade generally moving upwards from a low of 4.3 percent in 1960 to a high of 7.6 percent in 1966. Growth in 1967, at 7.0 percent, was near the high end of the range but below the previous year's figure.

Developments in farming and in the manufacture of durables accounted for part of the decline in the year's growth rate. Cash farm income fell because of declining prices and increasing costs. Income originating in the production of durable goods declined because of shortening job rolls and a reduction of the average work week by about one hour. Thus, although average hourly earnings rose, the total payroll in durables did not change appreciably from the previous year. There was, in addition, a fairly substantial rise in the number of workers on strike, and this too had adverse effects on income.

Other income sources showed more strength. In nondurable manufacturing, higher hourly wages for a relatively stable job force more than offset the effects of a half-hour reduction in hours worked. In nearly all other important lines more people were working at higher levels of weekly and hourly pay.

As noted above, personal income growth in the State was about 7 percent, but it was accompanied by a rise in consumer prices of about 3 percent. Allowance for the latter leaves a real gain of 4 percent.

Per capita income of the State's nearly 7.1 million residents was estimated at \$3,579—up 4 percent in current dollars and 1 percent in real terms.

Prices

During most of the 1960's the Consumer Price Index (for the New York City and Philadelphia metropolitan areas combined) rose by less than 2

percent per year. But in 1966, the costs of maintaining a given consumption pattern jumped by slightly more than 3 percent, and this rise was equalled in 1967.

The increases were widely spread across the range of consumer items, although not every item rose. The major price jumps occurred in food, apparel, footwear, and services. Within the latter category, medical care and private transportation rose most.

Retail Trade

The dollar value of retail sales in New Jersey rose by about 2 percent in 1967. But after the rise in consumer goods prices is taken into account, the real gain in sales is negligible.

Retail sales for the year were \$10.9 billion as against \$10.7 billion in the previous year. The bulk of the increased spending occurred in soft goods—foods, beverages, and apparel. Hard good sales fell; the drop was centered in new car sales which decreased early in the year because of weak demand and during the fall because of the auto workers' strike.

THE OUTLOOK FOR 1968

United States

Gross national product for 1968 is generally estimated to rise by about 8 percent, to a level close to \$850 billion. A resurgence of spending by business and consumers is expected—a notable change from the previous year. Having restored a better balance between inventories and sales, business will once again build stocks. Pressures of rising plant utilization rates and increasing costs will tend to stimulate a moderate revival of plant and equipment spending.

Consumers enter the new year in good financial shape. Last year's cautious buying and high saving rates reduced debt and built family assets. Recent trends in retail sales point to a somewhat freer spending mood. Higher incomes will help finance this spending even if a Federal surtax is imposed. Government spending in 1968 will also move up again.

In summary, an across-the-board advance in all major sectors of the national economy is expected.

New Jersey

Employment

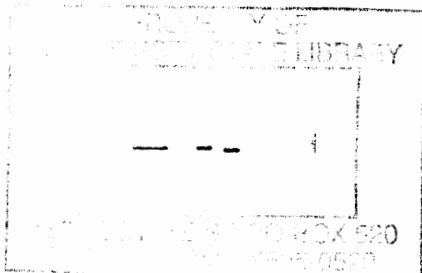
The economic growth of the nation will bolster New Jersey's business activity in 1968. Revival of business and consumer demand for manufactures, especially for hard goods, should check the month-by-month decline which occurred in the State's manufacturing employment last year.

Stability in the manufacturing work force is likely to be accompanied by continued job expansion in most other sectors of the New Jersey economy. The largest growth is likely to be, as in past years, in the service industries, led by trade, personal service industries, and government. All told, the gain should amount to some 50,000 jobs. Other employment—that of construction workers, domestic workers, farm workers and self-employed—is also expected to remain stable. Thus total 1968 employment is likely to average 2.77 million, a rise of about 1.5 percent for the year.

A potential weakness which may show up in 1968, but is perhaps more likely to appear in later years, is the effect of stabilization and eventual decline in defense spending. Of course, unforeseen international developments could quickly upset this process. The latest measurement of the employment effect of defense outlays on New Jersey's economy was made in December 1966. (The only data available since then have been total defense outlays and prime military contracts awarded to N.J. firms. These indicate a likelihood that there has been little change in the amount of defense employment in N.J. since year-end 1966.) As of year-end 1966, about 90,000 persons were employed in the State as a direct result of defense spending. This represented about 3.2 percent of the State's civilian work force in 1966, a rate slightly below the national average of 3.4 percent. About 30,000 defense employees were Civil Service workers in military installations. The remaining 60,000 were in industry. Nearly all of the 60,000 persons privately employed on defense orders were concentrated in the manufacture of durables; they comprised 13 percent of the total hard goods employment.

Labor Force and Unemployment

The State's labor force is anticipated to average slightly over 2.9 million in 1968. Entrance into the labor force will be raised by the continuing effects of the high birth rate in the period following World War II. Some of the new workers will be married women moving from households into industry because of decreasing family responsibilities and/or the desire to supplement family income. New entrants to the labor market will also include some 25,000 men discharged from the military service during 1968.



The expected high rate of business activity in the State is likely to mean continued shortages of professional, technical, skilled and semi-skilled workers.

It is estimated that unemployment will continue to be moderate, averaging about 4.5 percent of the labor force. This pool of jobless persons poses a challenge for government and industry to increase their efforts to provide job opportunities, training, and incentives.

Construction

Prospects for an improvement in the State's housing industry in 1968 were somewhat dimmed by the broad consequences of the British devaluation late in 1967. The reaction in the United States brought about higher mortgage rates with, perhaps, tighter money to follow. Higher rates alone could be enough to choke off a revival of housing construction in New Jersey, since the State's laws set a limit of 6 percent on residential mortgages to individuals. Going rates are likely to continue above that level; the only way to bridge the gap is by "points" paid to lenders. The problems connected with this practice, and its effects on the price of new homes and on rental costs of new apartments, will deter both types of construction. The effects of the 6 percent ceiling should be studied with a view to desirable modification.

Thus the most reasonable outlook for housing in 1968 is, perhaps, for a repeat of 1967 with no change in the number of housing starts (about 40,000). There will be, however, some increase in the dollar value of this residential building, all of it due to rising construction costs.

Other forms of construction activity should fare better than housing. Contract awards for nonresidential building could increase by 5 percent, with new spending on heavy engineering projects coming close to the impressive 1967 gain of 28 percent.

Agriculture

Rising population will bring further growth in the demand for farm output. Given good weather, farmers will enjoy both good yields and a more even flow of output to markets, all of which is expected to boost cash receipts by about 4 percent, to \$265 million. However, increased production costs are likely to keep realized net farm income close to 1967 levels.

Personal Income

State personal income in 1968 is expected to grow at a rate exceeding 7 percent.

Manufacturing employment is likely to remain at about current levels throughout the year, in contrast with the 1967 decline. Also in contrast with last year, the average workweek is expected to hold level and may even rise slightly. Lastly, higher wage settlements negotiated in recent months just about guarantee a rise in hourly rates paid. Thus, total income from the factory sector should show a good advance.

Farm income in 1968 is likely to continue at last year's level. Gains of income originating in construction must come from rising hourly earnings, since little change is anticipated in the number of jobholders.

The service sectors which generate almost two-thirds of the state's total personal income, are likely to continue growing as vigorously in 1968 as in recent years. Again, there will be more persons working at higher pay.

Total personal income generated in New Jersey may top \$27 billion, averaging out to \$3,770 for each of the State's 7.2 million residents.

Prices

Living costs are likely to rise by 3 to 4 percent in 1968, since most of the forces which have been escalating the prices of goods and services will continue to operate. That is, manufacturers faced with higher costs for labor, materials, and borrowed money, can be expected to pass these on in the form of raised retail prices. The situation is even worse in the case of services, for the advantages of technological advance are reaped mainly by users of capital equipment—those who produce goods. Producers of services, since they can make much less use of capital, do not obtain the full benefits of average productivity gains. Lacking this offset to higher costs, prices of services are likely to show greater increase than prices of goods.

Retail Trade

Despite the possible restraint of the proposed surtax on income, retail sales are expected to show bigger gains in 1968 than in 1967. Forces operating nationally should be working in New Jersey: higher incomes together with a higher rate of personal spending. Soft good sales should rise at least as much as they did between 1966 and 1967; durables may make larger gains, boosted by an expected increase of about 10 percent in new car sales. All told, sales are likely to total more than \$11.7 billion, for a gain of about 5 percent.

STATISTICAL APPENDIX

TABLE 1
POPULATION AND EMPLOYMENT, NEW JERSEY, 1956-1967

Year	Civilian Resident Population	Work Force	Employment	Unemployment		Insured Unemploy- ment
				Number (000)	Rate (Percent)	Rate (Percent)
-----In Thousands-----						
1956	5,570.0	2,416.3	2,272.9	138.6	5.7	4.6
1957	5,686.0	2,457.0	2,298.9	156.8	6.4	5.3
1958	5,836.0	2,482.1	2,257.6	222.5	9.0	7.6
1959	5,964.0	2,494.1	2,314.2	175.5	7.0	5.5
1960	6,053.0	2,530.4	2,360.3	168.5	6.7	5.7
1961	6,220.0	2,566.1	2,377.9	185.8	7.2	6.0
1962	6,331.0	2,601.3	2,441.1	159.1	6.1	5.2
1963	6,490.0	2,644.5	2,473.7	169.0	6.4	5.4
1964	6,630.0	2,682.3	2,516.3	162.2	6.0	4.8
1965	6,749.0	2,751.5	2,609.1	140.2	5.1	3.9
1966	6,843.0	2,810.3	2,685.3	122.6	4.4	3.2
1967	6,947.0	2,854.8	2,721.9	128.4	4.5	3.4

NOTES:

The 1967 estimate is provisional.

The rate of insured unemployment is based on weekly averages of insured unemployment (State UI Program) expressed as a percent of the average total number of jobs covered by the State Unemployment Compensation Program.

Work force, employment, and unemployment estimates are adjusted to first quarter 1966 benchmarks. Data will be adjusted to 1967 benchmarks in the course of Spring, 1968.

Annual average work force and employment data for 1967, 1966, 1965, 1964, and 1963 are based on monthly data (12-month averages). Annual averages for 1962 and prior years are based on bimonthly data (6-month averages).

Sources: New Jersey Department of Labor and Industry, U. S. Department of Commerce.

TABLE 2
WORK FORCE, UNEMPLOYMENT, AND EMPLOYMENT
ATLANTIC CITY LABOR AREA, 1956-1967
(In thousands)

Year	Work Force ^a	Unemployment		Employment		
		Number	Rate (Percent)	Wage and Salary Employment	All Other ^b	Agricultural
1956	62.8	5.6	8.9	44.2	10.4	2.6
1957	64.1	6.4	10.0	44.9	10.2	2.6
1958	66.6	7.9	11.9	45.3	10.7	2.7
1959	68.8	6.8	9.9	48.2	11.1	2.8
1960	68.8	5.6	8.1	49.3	11.1	2.8
1961	70.6	6.2	8.8	50.1	11.5	2.9
1962	71.9	5.7	7.9	51.7	11.4	3.1
1963	72.2	5.6	7.8	52.5	11.1	3.0
1964	73.9	5.5	7.4	54.0	11.3	3.1
1965	75.5	4.9	6.5	56.4	11.2	3.0
1966	77.8	4.4	5.7	59.5	11.0	2.9
1967	78.2	4.4	5.6	60.3	10.6	2.8

a Persons involved in labor-management disputes are included in total work force estimates and are excluded from unemployment and employment estimates.

b "All other" nonagricultural employment includes self-employed, unpaid family, and domestic workers in private households.

Atlantic City, Camden, Jersey City, Long Branch, Newark, Paterson, Perth Amboy and Trenton Labor Areas, for which data are presented in Tables 2-9, contained 92.2% of the New Jersey work force in 1967. The other labor areas are Bridgeton, Flemington, Lakewood, Newton, Phillipsburg, Salem and Wildwood.

All estimates are adjusted to first quarter 1966 benchmarks. Data will be adjusted to 1967 benchmarks in the course of Spring, 1968.

Annual average work force and employment data for 1967, 1966, 1965, 1964, and 1963 are based on monthly data (12-month averages). Annual averages for 1962 and prior years are based on bimonthly data (6-month averages).

Source: New Jersey Department of Labor and Industry.

TABLE 7
WORK FORCE, UNEMPLOYMENT, AND EMPLOYMENT
PATERSON LABOR AREA, 1956-1967
(In thousands)

Year	Work Force ^a	Unemployment		Employment		
		Number	Rate (Percent)	Nonagricultural		Agricultural
				Wage and Salary Employment	All Other ^b	
1956	439.2	23.7	5.4	347.1	64.4	3.6
1957	448.4	27.3	6.1	352.7	64.4	3.5
1958	452.9	42.1	9.3	341.9	65.2	3.4
1959	458.3	31.6	6.9	356.1	66.8	3.4
1960	462.8	30.6	6.6	363.5	66.6	3.2
1961	471.9	33.4	7.1	366.1	69.0	3.3
1962	481.4	26.7	5.5	381.8	69.7	3.1
1963	496.3	28.6	5.8	395.8	68.8	2.9
1964	505.9	30.3	6.0	402.4	69.5	2.6
1965	518.4	26.3	5.1	421.1	68.9	1.8
1966	529.7	22.6	4.3	439.1	66.4	1.2
1967	540.0	22.5	4.2	424.5	90.8	.9

See footnotes at the end of Table 2.

TABLE 8
WORK FORCE, UNEMPLOYMENT, AND EMPLOYMENT
PERTH AMBOY LABOR AREA, 1956-1967
(In thousands)

Year	Work Force ^a	Unemployment		Employment		
		Number	Rate (Percent)	Nonagricultural		Agricultural
				Wage and Salary Employment	All Other ^b	
1956	201.0	9.1	4.5	165.4	21.2	4.2
1957	207.1	10.7	5.2	170.3	21.8	4.1
1958	211.2	17.7	8.4	166.8	22.6	4.0
1959	214.5	12.9	6.0	173.5	23.4	3.9
1960	221.3	12.8	5.8	180.5	24.1	3.9
1961	227.0	14.8	6.5	182.8	25.0	4.0
1962	233.4	14.3	6.1	189.6	25.1	3.8
1963	238.3	14.6	6.1	195.0	24.6	3.7
1964	244.5	13.6	5.6	201.8	25.2	3.6
1965	254.5	12.4	4.9	213.1	25.3	3.3
1966	265.4	10.6	4.0	225.9	25.0	2.9
1967	275.0	12.0	4.4	233.9	24.5	2.9

See footnotes at the end of Table 2.

TABLE 9
 WORK FORCE, UNEMPLOYMENT, AND EMPLOYMENT
 TRENTON LABOR AREA, 1956-1967
 (In thousands)

Year	Work Force ^a	Unemployment		Employment		
		Number	Rate (Percent)	Nonagricultural		Agricultural
				Wage and Salary Employment	All Other ^b	
1956	125.8	7.0	5.6	102.8	12.8	2.4
1957	128.0	7.7	6.0	104.9	13.0	2.4
1958	127.8	11.2	8.8	100.7	13.4	2.1
1959	129.0	8.7	6.7	103.9	13.7	2.1
1960	130.3	8.0	6.1	106.3	14.0	2.0
1961	130.3	9.1	7.0	105.2	14.1	1.9
1962	130.1	6.8	5.2	107.3	13.9	1.9
1963	132.8	6.6	5.0	110.5	13.6	2.0
1964	136.0	5.8	4.3	114.1	13.9	1.7
1965	140.4	5.6	4.0	119.1	13.9	1.7
1966	142.3	5.3	3.7	122.1	13.2	1.7
1967	143.5	5.5	3.8	123.3	12.6	1.7

See footnotes at the end of Table 2.

TABLE 10
WAGE AND SALARY WORKERS IN NONAGRICULTURAL ESTABLISHMENTS, MAJOR INDUSTRY DIVISIONS,
NEW JERSEY, 1947-1967
(In thousands)

Year	<i>Total Non-Agricultural Employment</i>	<i>Manu- facturing</i>	<i>Mining</i>	<i>Contract Construction</i>	<i>Transportation and Public Utilities</i>	<i>Wholesale and Retail Trade</i>	<i>Finance, Insurance and Real Estate</i>	<i>Services and Miscellaneous</i>	<i>Government</i>
1947	1,622.6	782.6	4.0	65.4	142.2	249.7	63.1	158.8	156.8
1948	1,657.1	786.3	4.1	74.6	141.0	260.5	67.0	163.7	159.9
1949	1,595.6	721.8	4.0	72.5	134.0	264.5	66.5	166.2	166.1
1950	1,657.1	756.4	4.3	81.2	135.4	273.7	68.3	166.8	171.0
1951	1,768.1	821.2	4.5	95.4	143.9	285.5	69.8	169.8	177.7
1952	1,804.0	832.9	4.6	91.9	146.7	295.6	70.7	174.0	187.6
1953	1,850.2	856.2	4.7	90.3	147.8	303.4	73.6	180.6	193.6
1954	1,820.8	802.1	4.3	93.6	146.1	312.4	76.1	186.0	200.2
1955	1,865.3	811.1	4.0	98.7	148.4	322.5	78.8	195.4	206.4
1956	1,933.5	834.8	4.3	100.7	153.8	336.6	81.8	208.4	213.1
1957	1,968.3	835.0	4.4	96.2	154.3	349.1	85.4	222.7	221.2
1958	1,911.3	775.4	3.7	88.6	148.2	351.2	86.7	230.5	227.0
1959	1,970.5	801.3	3.6	95.7	147.0	360.5	87.3	241.6	233.5
1960	2,017.1	808.6	3.5	98.1	149.5	374.6	88.6	252.0	242.2
1961	2,033.7	791.1	3.4	99.4	150.1	380.7	91.2	264.2	253.6
1962	2,096.1	812.8	3.4	100.7	150.8	393.3	93.4	278.9	262.8
1963	2,129.3	809.1	3.5	100.2	151.9	405.5	95.5	291.5	272.1
1964	2,168.5	806.2	3.6	105.7	153.4	420.2	97.8	301.6	280.0
1965	2,255.7	836.0	3.5	109.3	157.0	439.0	99.9	315.6	295.4
1966	2,352.7	874.8	3.1	111.4	161.8	459.5	102.5	328.9	310.7
1967	2,405.5	872.8	3.1	110.0	164.5	480.2	106.8	343.5	324.6

Series have been adjusted to March 1966 benchmarks. Data will be adjusted to 1967 benchmarks in the course of Spring, 1968.

Source: U. S. Department of Labor, Bureau of Labor Statistics.

TABLE 11
WAGE AND SALARY WORKERS IN MANUFACTURING, DURABLE GOODS, NEW JERSEY, 1947-1967
(In thousands)

<i>Year</i>	<i>Total Durable Goods</i>	<i>Lumber and Wood Products</i>	<i>Furniture and Fixtures</i>	<i>Stone, Clay and Glass Products</i>	<i>Primary Metal Industries</i>	<i>Ordance and Fabricated Metals</i>	<i>Machinery, Except Electrical</i>	<i>Electrical Machinery</i>	<i>Transportation Equipment</i>	<i>Instruments and Related Products</i>	<i>Miscellaneous Manufacturing Industries</i>
1947	403.0	6.9	7.7	31.0	45.8	45.7	56.0	108.9	47.4	18.2	35.5
1948	397.2	7.0	8.2	31.4	44.2	44.3	53.8	106.7	45.9	18.8	36.9
1949	346.1	6.5	7.6	29.0	37.6	40.7	48.8	87.3	37.5	17.9	33.2
1950	372.3	6.8	8.9	31.7	40.5	44.2	49.9	97.2	40.1	17.8	35.3
1951	427.9	7.1	9.1	35.3	35.3	48.3	60.0	115.1	47.5	22.4	36.6
1952	446.6	6.4	8.5	33.4	33.4	50.5	61.7	121.7	60.2	24.7	34.3
1953	470.4	6.3	8.6	33.8	33.8	57.2	64.0	132.5	62.7	26.5	32.6
1954	431.3	6.4	8.2	32.5	32.5	54.6	60.6	116.7	56.5	24.9	28.3
1955	435.5	6.4	8.5	34.1	34.1	55.7	59.1	117.5	57.1	25.3	27.8
1956	455.9	6.4	9.1	34.3	34.3	55.5	65.8	124.3	57.4	27.9	27.9
1957	457.3	6.3	9.2	33.9	46.9	56.7	65.5	125.6	55.9	29.4	27.9
1958	411.9	5.6	8.7	31.9	40.9	50.9	57.0	115.0	48.7	27.4	25.8
1959	430.5	5.9	9.2	33.1	41.7	53.7	57.8	121.4	50.5	30.2	27.0
1960	436.5	5.7	9.8	33.7	42.7	54.2	61.0	122.4	48.5	31.7	26.8
1961	421.3	5.6	9.0	34.4	40.7	53.6	57.3	119.5	41.7	31.9	27.6
1962	436.1	5.8	9.7	34.6	40.1	55.6	60.3	125.2	42.5	32.4	29.9
1963	425.7	5.7	8.9	34.9	38.6	55.2	60.1	121.7	39.0	32.9	28.7
1964	418.6	5.6	9.0	35.6	37.9	56.7	61.4	115.1	35.6	31.0	30.7
1965	437.4	5.6	9.4	36.9	39.8	60.2	65.4	117.7	36.8	32.7	32.9
1966	459.7	5.2	10.3	39.6	40.7	63.9	70.3	127.0	36.4	34.1	32.2
1967	452.9	5.2	10.0	39.5	39.1	65.5	71.9	123.8	32.1	35.7	30.1

Series have been adjusted to March 1966 benchmarks. Data will be adjusted to 1967 benchmarks in the course of Spring, 1968.
Source: U. S. Department of Labor, Bureau of Labor Statistics.

TABLE 12

WAGE AND SALARY WORKERS IN MANUFACTURING, NONDURABLE GOODS, NEW JERSEY, 1947-1967
(In thousands)

Year	Total Nondurable Goods	Food and Kindred Products	Tobacco Manufactures	Textile Mill Products	Apparel and Related Products	Paper and Allied Products	Printing, Publishing and Allied Industries	Chemicals and Allied Products	Petroleum Refining and Related Industries	Rubber and Miscellaneous Plastic Products	Leather and Leather Products
1947	379.6	56.9	5.5	61.1	78.9	21.7	18.6	80.1	15.6	29.5	11.7
1948	389.1	57.1	5.1	64.7	85.6	22.2	19.9	77.6	16.2	28.4	12.3
1949	375.7	55.9	4.9	57.8	88.9	21.8	21.4	71.9	16.3	24.7	12.1
1950	384.1	56.5	4.6	58.2	89.0	23.5	22.8	73.7	16.5	26.4	12.9
1951	393.3	59.8	4.4	53.7	89.8	24.8	23.4	79.1	17.3	28.4	12.6
1952	386.3	61.3	4.4	50.1	88.7	24.2	23.5	78.5	16.3	27.3	12.1
1953	385.8	60.9	4.3	48.3	85.0	26.5	24.8	79.2	16.4	28.4	12.0
1954	370.8	62.2	4.0	41.9	79.7	26.0	25.9	78.0	15.2	26.7	11.2
1955	375.6	61.7	3.4	42.7	79.6	26.3	27.1	80.8	14.5	27.5	11.9
1956	378.9	63.5	2.6	41.6	79.7	27.2	28.1	81.8	14.3	28.3	11.8
1957	377.7	62.9	2.0	38.6	79.2	28.3	30.5	83.3	13.8	27.7	11.4
1958	363.5	62.9	1.9	33.0	76.7	28.0	30.3	80.8	12.3	26.6	11.1
1959	370.8	62.3	1.8	33.2	79.2	28.3	31.5	82.4	11.7	29.3	11.1
1960	372.1	62.9	1.7	31.4	77.7	28.0	32.3	86.4	11.5	29.2	11.0
1961	369.8	63.9	1.6	29.1	76.4	28.1	32.6	87.0	11.1	29.2	10.8
1962	376.7	64.2	1.5	28.6	75.8	29.7	33.0	91.0	10.7	30.7	11.5
1963	383.4	64.9	1.4	27.9	74.5	31.4	34.6	94.8	10.5	31.7	11.7
1964	387.6	65.0	1.5	27.8	74.6	31.5	35.8	96.4	9.6	34.2	11.2
1965	398.6	66.4	1.4	28.5	77.3	31.3	37.5	98.9	9.8	36.0	11.5
1966	415.1	68.3	.8	29.6	80.0	32.4	39.7	104.6	10.4	37.0	12.3
1967	419.9	69.1	.6	29.2	81.4	32.3	41.2	106.9	10.3	36.8	12.1

Series have been adjusted to March 1966 benchmarks. Data will be adjusted to 1967 benchmarks in the course of Spring, 1968.

Source: U. S. Department of Labor, Bureau of Labor Statistics.

TABLE 13
EMPLOYMENT, HOURS, AND EARNINGS OF PRODUCTION
WORKERS ON MANUFACTURING PAYROLLS,
NEW JERSEY, 1947-1967

<i>Year</i>	<i>Employment (thousands)</i>	<i>Average Weekly Hours</i>	<i>Average Weekly Earnings (dollars)</i>	<i>Average Hourly Earnings (dollars)</i>
1947	n.a.	40.7	52.26	1.28
1948	n.a.	40.5	56.37	1.39
1949	n.a.	39.4	56.97	1.45
1950	n.a.	40.8	61.65	1.51
1951	n.a.	41.1	67.28	1.64
1952	n.a.	41.1	71.02	1.73
1953	n.a.	40.9	74.32	1.82
1954	n.a.	39.8	74.43	1.87
1955	n.a.	40.7	79.16	1.94
1956	n.a.	40.5	82.98	2.05
1957	n.a.	39.9	85.23	2.14
1958	563.7	39.4	86.80	2.20
1959	583.8	40.3	92.45	2.29
1960	580.8	39.6	93.93	2.37
1961	563.1	40.0	97.60	2.44
1962	576.0	40.5	101.66	2.51
1963	567.5	40.5	104.90	2.59
1964	564.4	40.6	108.40	2.67
1965	587.1	41.0	112.34	2.74
1966	615.2	41.3	117.29	2.84
1967	612.2	40.6	119.23	2.94

n.a.—not available.

Series have been adjusted to March 1966 benchmarks.

Sources: New Jersey Department of Labor and Industry; U. S. Department of Labor, Bureau of Labor Statistics.

TABLE 14
 CONSUMER PRICE INDEXES
 FOR URBAN WAGE EARNERS AND CLERICAL WORKERS,
 1947-1967
 1957-59=100

<i>Year</i>	<i>United States</i>	<i>New York SCA^a</i>	<i>Philadelphia SMSA^b</i>	<i>Average of New York and Philadelphia Areas</i>
1947	77.8	79.7	77.6	78.6
1948	83.8	85.1	83.8	84.4
1949	83.0	84.1	82.8	83.4
1950	83.8	84.7	83.3	84.0
1951	90.5	91.0	91.0	91.0
1952	92.5	92.5	92.8	92.6
1953	93.2	93.0	93.2	93.1
1954	93.6	93.6	94.2	93.9
1955	93.3	93.1	94.1	93.6
1956	94.7	94.5	95.3	94.9
1957	98.0	97.6	98.4	98.0
1958	100.7	100.5	100.2	100.4
1959	101.5	101.9	101.4	101.6
1960	103.1	103.9	103.2	103.6
1961	104.2	104.8	104.4	104.6
1962	105.4	106.4	105.2	105.8
1963	106.7	108.7	107.2	108.0
1964	108.1	110.4	108.8	109.6
1965	109.9	112.2	110.6	111.4
1966	113.1	116.0	113.7	114.8
1967	116.3	119.0	116.8	117.9

a Standard Consolidated Area: New York-Northeastern New Jersey (17 counties).

b Standard Metropolitan Statistical Area.

Source: U. S. Department of Labor, Bureau of Labor Statistics.

TABLE 15
PERSONAL INCOME, NEW JERSEY AND UNITED STATES,
1948-1967

<i>Year</i>	<i>Total Personal Income</i>		<i>Per Capita Personal Income</i>			
	<i>New Jersey</i> <i>(millions of dollars)</i>	<i>United States</i>	<i>New Jersey</i> <i>(current dollars)</i>	<i>United States</i>	<i>New Jersey^a</i> <i>(1957-59 dollars)</i>	<i>United States^b</i> <i>dollars)</i>
1948	8,063	208,878	1,689	1,430	2,001	1,706
1949	8,131	205,791	1,663	1,384	1,994	1,667
1950	8,934	226,214	1,834	1,496	2,183	1,785
1951	10,151	253,233	2,028	1,652	2,228	1,825
1952	10,934	269,767	2,133	1,733	2,303	1,874
1953	11,750	285,458	2,247	1,804	2,414	1,936
1954	11,957	287,613	2,231	1,785	2,376	1,907
1955	12,686	308,265	2,306	1,876	2,464	2,011
1956	13,719	330,481	2,443	1,975	2,574	2,086
1957	14,550	348,462	2,536	2,045	2,588	2,087
1958	14,822	358,474	2,516	2,068	2,506	2,054
1959	15,845	380,963	2,634	2,161	2,592	2,129
1960	16,528	398,725	2,708	2,215	2,614	2,148
1961	17,336	414,411	2,765	2,264	2,643	2,173
1962	18,449	440,192	2,889	2,368	2,731	2,247
1963	19,400	463,053	2,965	2,455	2,745	2,301
1964	20,550	494,913	3,076	2,586	2,806	2,392
1965	22,095	534,816	3,258	2,760	2,924	2,511
1966	23,767	580,483	3,445	2,963	3,001	2,620
1967 ^c . . .	25,196	626,300	3,579	3,145	3,036	2,704

a A simple average of the Consumer Price Indexes for the New York Standard Consolidated Area and the Philadelphia SMSA was used to express New Jersey per capita personal income in constant 1957-59 dollars.

b The Consumer Price Index for the United States was used to express United States per capita personal income in constant 1957-59 dollars.

c 1967 data are preliminary.

Sources: U. S. Department of Commerce and U. S. Department of Labor, Bureau of Labor Statistics.

TABLE 16
PRODUCTION AND TRADE, NEW JERSEY, 1948-1967

Year	Electric Power Sales				Gasoline Consumption	New Dwelling Units Authorized	Construction Contracts Awarded	Registration of New Vehicles		
	Total	Large Industrial and Commercial Users	Small Industrial and Commercial Users					Retail Sales	Passenger Cars	Commercial Vehicles
	(kilowatt hours in thousands)			(000 gal.)	(000)	(\$000)	(\$000,000)	(number)	(number)	
1948	6,887,131	3,736,931	1,359,854	1,108,524	n.a.	406,476	n.a.	116,847	25,504	
1949	7,026,664	3,578,396	1,483,196	1,199,979	n.a.	408,007	n.a.	165,179	23,544	
1950	8,023,122	4,161,464	1,630,075	1,337,876	n.a.	747,771	n.a.	210,436	27,229	
1951	8,944,201	4,648,835	1,806,808	1,396,712	n.a.	676,458	n.a.	178,862	25,002	
1952	9,578,722	4,837,880	1,969,215	1,487,026	n.a.	690,770	n.a.	149,168	19,335	
1953	10,435,872	5,191,330	2,180,598	1,587,990	n.a.	793,889	n.a.	208,376	23,048	
1954	10,931,039	5,214,694	2,348,391	1,677,573	n.a.	886,947	n.a.	207,252	20,601	
1955	12,184,077	5,874,199	2,584,701	1,806,242	n.a.	1,010,459	n.a.	258,079	22,262	
1956	13,224,653	6,323,544	2,807,035	1,846,099	n.a.	1,106,452	n.a.	219,297	21,903	
1957	14,196,487	6,642,234	3,097,755	1,850,252	n.a.	1,048,449	n.a.	219,865	20,320	
1958	14,949,906	6,829,115	3,322,774	1,907,497	n.a.	1,143,484	n.a.	183,770	17,616	
1959	16,632,611	7,683,942	3,719,151	2,007,697	n.a.	1,303,736	n.a.	219,305	20,374	
1960	17,569,054	8,125,141	3,967,306	2,050,208	558,591	1,256,532	n.a.	266,299	12,532	
1961	19,248,349	8,730,727	4,471,379	2,050,731	622,482	1,307,832	n.a.	250,432	24,606	
1962	20,630,556	9,506,486	4,848,024	2,109,581	618,663	1,392,618	n.a.	285,955	24,713	
1963	22,077,818	10,108,217	5,309,982	2,219,013	681,597	1,534,448	8,992	318,127	26,804	
1964	23,848,214	10,773,759	5,872,988	2,294,430	753,231	1,622,048	9,768	325,293	28,417	
1965	25,964,004	11,712,402	6,433,961	2,370,973	804,151	1,555,689	10,396	378,768	30,980	
1966	28,512,856	12,814,406	7,043,455	2,434,435	665,548	1,651,494	10,711	352,573	31,072	
1967	30,146,448	13,147,596	7,620,829	2,483,846	569,608 ^a	1,839,815	10,945	302,680	27,471	

n.a.—not available.

^a Data incomplete and subject to upward revision after all reports are in. Preliminary 1967 figure represents 82% of all possible monthly reports.

Sources: Electric Power Sales: Edison Electric Institute. Gasoline Consumption: American Petroleum Institute. New Dwelling Units Authorized: N. J. Department of Labor and Industry in co-operation with U. S. Department of Labor. Construction Contracts Awarded: F. W. Dodge Corporation. Retail Sales: U. S. Department of Commerce. Registration of New Vehicles: New Jersey Auto Lists Inc.

TABLE 17
BUSINESS ACTIVITY, NEW JERSEY, 1948-1967

Year	Postal Receipts ^a (dollars)	Advertising Linage ^b (000 lines)	Telephone Stations in Service (000)	Business Failures (number)	Liabilities of Business Failures (\$000)	New Incorporations (number)	Apparent Consumption of Distilled Spirits (000 gal.)	New Jersey Turnpike	
								Toll Revenue (\$000)	Number of Vehicles (000)
1948	25,521,507	133,515	1,424	219	15,286	5,510	6,857	n.a.	n.a.
1949	28,207,664	145,319	1,520	366	16,246	5,411	6,688	n.a.	n.a.
1950	29,428,662	151,024	1,620	346	10,926	6,009	8,243	n.a.	n.a.
1951	30,685,151	151,459	1,728	307	11,961	5,581	8,216	n.a.	n.a.
1952	33,226,624	162,413	1,840	319	18,627	6,146	7,824	16,245	17,948
1953	n.a.	172,671	1,964	360	25,856	6,651	8,443	19,195	22,005
1954	47,005,842	160,322	2,084	385	20,086	7,276	8,536	20,758	24,555
1955	58,516,344	171,876	2,234	456	29,753	8,386	9,045	21,124	25,888
1956	50,091,539	176,973	2,386	582	33,919	8,839	10,253	24,515	31,588
1957	52,614,766	172,607	2,526	565	39,604	8,097	9,331	29,025	39,270
1958	55,859,548	168,637	2,646	778	43,475	8,757	9,961	30,162	41,615
1959	63,172,822	178,818	2,801	639	27,619	10,436	10,702	33,321	46,199
1960	68,088,340	182,716	2,948	714	49,072	10,172	11,391	35,588	49,083
1961	71,359,658	177,863	3,074	717	53,282	9,650	11,743	37,197	51,738
1962	75,437,939	189,614	3,219	591	58,468	9,984	12,378	39,246	54,901
1963	85,541,527	197,736	3,345	509	256,075	9,716	12,810	40,781	56,677
1964	89,087,584	201,340	3,504	442	49,261	10,023	13,483	44,153	60,708
1965	89,863,285	266,092	3,692	512	96,334	10,439	14,383	46,128	64,958
1966	96,191,521	282,833	3,866	442	61,191	9,656	14,687	48,616	69,850
1967	99,334,013	278,160	4,053	414	64,215	10,220	15,064	51,238	73,529

n.a.—not available.

a 1949-52: postal receipts for 25 cities. 1954-67: postal receipts for 37 cities.

b 1948: 14 newspapers. 1949-53: 15 newspapers. 1954: 14 newspapers. 1955-64: 15 newspapers. 1965-67: 18 newspapers.

Sources: Postal Receipts: New Jersey Economic Review. Advertising Linage: Media Records, Inc. and New Jersey Economic Review. Telephone Stations-in-Service: N. J. Bell Telephone Company and N. J. Telephone Company only. Number and Liabilities of Business Failures: Dun and Bradstreet, Inc. Apparent Consumption of Distilled Spirits: Distilled Spirits Institute. New Jersey Turnpike—Toll Revenue and Number of Vehicles: New Jersey Turnpike Authority.

TABLE 18
FINANCE, NEW JERSEY, 1948-1967

Year	Bank Debits			Savings in All Insured Savings and Loan Associations	Savings in All Mutual Savings Banks	Ordinary Life Insurance Sales
	Eight Cities	Nine Cities	Five SMSA Areas			
	(millions of dollars)			(thousands of dollars)		
1948	19,756			355,258	516,590	580,688
1949	19,485			422,501	535,518	604,291
1950	22,352			506,037	588,388	725,712
1951	25,455			604,436	650,368	805,489
1952	26,634	26,662		724,481	739,695	890,944
1953		29,575		862,041	824,835	1,058,691
1954		30,014		1,083,298	924,330	1,107,907
1955		32,752		1,290,953	995,780	1,370,565
1956		34,767		1,460,342	1,103,782	1,620,565
1957		36,264		1,651,719	1,162,688	2,209,300
1958		37,993		1,889,145	1,256,831	2,185,685
1959		41,319		2,147,322	1,292,154	2,177,130
1960		43,864		2,414,376	1,327,447	2,171,985
1961		48,851		2,729,116	1,384,518	2,180,105
1962		51,622		3,052,389	1,547,302	2,163,371
1963		56,596		3,418,173	1,692,707	2,381,986
1964		61,709	79,920	3,801,004	1,833,533	2,748,766
1965			90,719	4,171,487	1,992,759	3,112,622
1966			104,425	4,263,274	2,122,482	3,202,899
1967			110,503	4,653,942	2,317,453	3,465,447

a Standard Metropolitan Statistical Areas: Jersey City; Newark Paterson-Clifton-Passaic; Atlantic City; and Trenton.

Sources: Bank Debits: Federal Reserve System. Savings in all Insured Savings and Loan Associations: New Jersey Economic Review. Savings in all Mutual Savings Banks: Savings Banks' Association of New Jersey. Ordinary Life Insurance Sales: Life Insurance Agency Management Association.

TABLE 19
STATE TAX REVENUES, NEW JERSEY, 1949-1967
(Thousands of dollars)

Year	<i>Total State Tax Revenues</i>	<i>Cigarette Tax</i>	<i>Corporation Tax</i>	<i>Inheritance Tax</i>	<i>Motor Fuel Tax</i>	<i>Motor Vehicle Tax</i>	<i>Pari- Mutuel Tax</i>	<i>All Other Taxes</i>
1949	155,135	17,713	15,633	10,179	35,167	33,542	11,801	31,100
1950	162,402	18,240	17,238	9,535	35,601	36,486	11,834	33,467
1951	177,994	18,996	18,992	11,103	38,293	41,309	14,661	34,640
1952	188,557	19,854	20,265	12,069	40,048	45,181	18,047	33,096
1953	203,033	20,079	22,294	12,357	42,660	48,577	20,710	36,355
1954	217,526	19,482	23,435	10,515	53,552	52,095	21,871	36,576
1955	256,142	19,952	36,811	14,316	67,196	57,835	22,822	37,210
1956	292,232	30,622	39,235	17,338	70,307	71,226	23,798	39,666
1957	292,059	34,806	41,831	18,123	70,538	62,492	24,484	39,783
1958	309,674	36,754	43,952	10,608	80,046	64,731	23,886	39,697
1959	357,756	39,529	69,327	18,771	97,184	68,476	24,571	39,898
1960	383,503	42,130	76,940	24,988	99,945	71,733	25,155	42,610
1961	410,832	56,075	78,724	22,051	111,210	74,958	25,309	42,506
1962	455,131	59,966	82,496	29,810	124,446	77,658	29,408	51,347
1963	492,835	66,243	88,060	48,568	128,952	81,980	27,213	51,818
1964	529,068	68,720	94,142	44,801	135,157	87,383	28,580	70,285
1965	561,971	75,031	101,838	50,278	141,938	91,094	28,826	72,966
1966	688,469	87,868	119,462	55,246	147,765	95,179	29,209	153,740
1967	859,639	97,241	134,406	54,097	150,166	97,288	31,215	295,226

Source: New Jersey Department of the Treasury.

TABLE 20
AGRICULTURE, NEW JERSEY, 1950-1967

Year	Agricultural Employment (thousands)	Cash Receipts from Farm Marketings		
		Total	From Livestock and Products (thousands of dollars)	From Crops
1950	n.a.	293,400	188,136	104,581
1951	n.a.	350,500	237,016	120,618
1952	n.a.	343,200	223,537	129,716
1953	n.a.	348,100	238,084	127,253
1954	n.a.	314,800	194,576	119,864
1955	n.a.	312,000	199,571	110,004
1956	51.8	337,057	201,216	135,841
1957	50.7	321,100	193,575	127,525
1958	49.7	314,062	192,042	122,020
1959	48.1	295,842	169,733	126,109
1960	46.8	304,967	167,267	137,700
1961	44.2	286,167	156,180	129,987
1962	44.0	278,001	146,024	131,977
1963	43.0	271,138	138,904	132,234
1964	40.5	252,632	123,334	129,298
1965	38.3	256,570	116,935	139,635
1966	36.3	274,079	126,537	147,542
1967 ^a	34.7	253,300	112,750	140,550

a 1967 data are preliminary.

n.a.—not available.

Source: U. S. Department of Agriculture.

