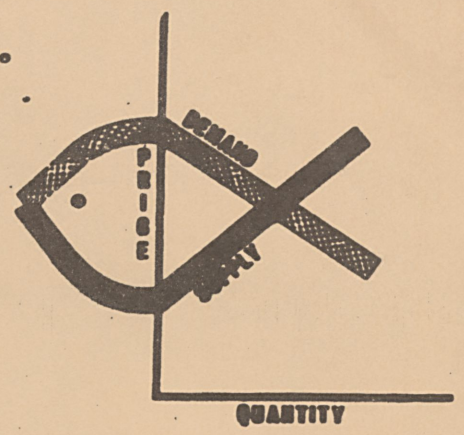

NOT FOR QUOTATION

The Demand for Non Urban

Outdoor Recreation in Texas:

1968-2000

Volume I

by

Robert R. Wilson

June 1, 1972

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U.S. NATIONAL MARINE FISHERIES SERVICE
ECONOMIC RESEARCH DIVISION

THE DEMAND FOR NON URBAN OUTDOOR RECREATION IN TEXAS: 1968-2000

VOLUME I

ECONOMETRIC MODEL FOR NON URBAN TRIPS AND PARTICIPATION IN TEXAS: A REPORT ON PARAMETER ESTIMATION WITH POLICY SIMULATIONS

by

Robert R. Wilson

Texas Agricultural Experiment Station

Texas A&M University

Submitted in Partial Fulfillment

of

Interagency Cooperation Contract IAC(70-71)-388

to the

Texas Parks and Wildlife Department

June 1, 1972

This is exploratory work. The development of an econometric forecasting system for recreational demands that is logically consistent with behavioral theory has never before been accomplished. The magnitudes of each model are perhaps larger and the degrees of sophistication greater than was originally understood by personnel both at Texas A&M University and Texas Parks and Wildlife Department. Few tasks of such magnitude have ever been attempted in the field of econometrics. The Texas A&M University staff agreed to undertake the implementation of a gravity model to be used as a substitute if the econometric model could not be estimated.

Completion of the work was affected by extensive editing of the data resulting from the sheer magnitude of the data base and the persistence of errors in the data. The requirement for analysis based on 37 regions, as opposed to the three in the original survey design, further affected the work.

It is important to keep modelling results in perspective when endeavoring to utilize them as an aid to policy decision-making. Models are tools which can be employed to make vast amounts of information for policy decision-making more readily available and applicable to decisions. Decisions cannot be made by models operating on computers. They must be made by planning personnel who can, at their option, use modelling results as a guide.

A word of caution is appropriate for the interpretation of the modelling results. First, since the econometric model incorporates much more information than the gravity model, its results are similarly more highly subject to biases from errors in the original and projected data. Second, with respect to long term projections, the hazards associated with reliance upon forecasts based on data projected beyond the range of the original data can be extreme with both models. Thus, both the models and their forecasts should be updated at frequent intervals using new survey data.

FOREWORD

Texas Parks and Wildlife Department has responsibility for development of the Texas Outdoor Recreation Plan. Texas A&M University has a continuing comprehensive research program on outdoor recreation in both the Department of Agricultural Economics and the Department of Recreation and Parks.

Because of mutual interest in data generated during preparation of the outdoor recreation plan, there has been a working relationship between Texas A&M University and Texas Parks and Wildlife Department for several years. This cooperative effort has been carried out under a series of short-term agreements. Responsibilities have been allocated by Texas Parks and Wildlife Department to Texas A&M University and to University of Texas consultants, private consultants and a private research firm. However, overall research management was retained by Texas Parks and Wildlife Department staff.

All data were collected and supplied by Texas Parks and Wildlife Department. Under the final contract, Interagency Contract (70-71)-388, Texas A&M University agreed to provide an econometric model to be used in preparation of a statewide comprehensive outdoor recreation plan. The limit on funding to Texas A&M University under the contract was established by Texas Parks and Wildlife Department. The limit on time was the fiscal year ending August 31, 1971. It was recognized by both parties (including the Texas Parks and Wildlife Department consultants) that neither limit was an adequate reflection of the magnitude of the task under the prescribed operating conditions.

THE DEMAND FOR NON URBAN OUTDOOR RECREATION IN TEXAS: 1968-2000

VOLUME I

ECONOMETRIC MODEL FOR NON URBAN OUTDOOR RECREATION TRIPS AND PARTICIPATION IN TEXAS: A REPORT ON PARAMETER ESTIMATION WITH POLICY SIMULATIONS

AND

VOLUME II

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by

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CONTENTS

The human race, to which so many of my readers belong, has been playing at children's games from the beginning...And one of the games to which it is most attached is called, "Keep to-morrow dark," and which is also named (by the rustics in Shropshire, I have no doubt) "Cheat the Prophet." The players listen very carefully and respectfully to all that the clever men have to say about what is to happen in the next generation. The players then wait until all the clever men are dead, and bury them nicely. They then go and do something else. That is all. For a race of simple tastes, however, it is great fun.

G. K. CHESTERTON,
The Napoleon of Notting Hill

ECONOMETRIC MODEL FOR NON URBAN OUTDOOR RECREATION TRIPS AND PARTICIPATION IN TEXAS: A REPORT ON PARAMETER ESTIMATION WITH POLICY SIMULATIONS

by

Robert R. Wilson

I. Introduction

The development of an econometric model that can be useful in the planning of public recreational facilities must incorporate a great many things. Among these must be a consideration of (1) the basis in economic theory, (2) the quantity and quality of data available, (3) the statistical methods applicable for parameter estimation and (4) the ultimate planning uses for the model. A model was conceived, estimated, and made operational which seems to be consistent with the above considerations and limitations. This report contains a discussion of the manner in which the model relates to each of these categories. This report does not contain a complete discussion of assumptions and adjustments related to the model. It would not be possible to write all of these down. However, additional information on assumptions and adjustments are contained in appendices to this report. Furthermore, any refinements on further adjustments in the reduced form model and/or policy simulations will be treated as supplements to this report.

II. Economic Theory and Recreation

Most discussions of economic theory related to outdoor recreation center on the market aspects external to the consumer. Generally, economists have been concerned with obtaining the traditional market demand and supply relationships for recreation such as might be applicable to a completely exchangeable commodity such as, for example, potatoes. In economic studies of recreation, great pains have been taken to find some variable that would behave similarly to a market price in order to be able to apply conventional forms of economic theory.

In the case of recreation, a majority of the transactions seems to be internal to the consumer, rather than between the consumer and some other individual. That is, there are a great many commodities that are simultaneously created and consumed through the use of the consumer's time and talent, and his use of other commodities. Recreation would seem to be such a commodity. It would also seem that the interpersonal pure exchange models of conventional economic theory would not strictly apply to recreation. An effort was made to develop a consumer behavior theory that would incorporate both interpersonal and intrapersonal transactions. Essential to this theory is the recognition that participatory activities are conceptually a different class of commodities than the ones usually considered in economic theory. A participatory activity is not just a good, but is a combination of goods and time for consumption as a unit. A mathematical statement of this theory is as follows.[1/]

Maximize $U = U(x_1,\ldots,x_n)$

Subject to $F(z_1,\ldots,z_n,y_1,\ldots,y_m,v_1,\ldots,v_n,s_1,\ldots,s_r, Y_1 \ldots Y_m) = 0$

$x_i = w_i + z_i,\ i = 1,\ldots,n$

$$\sum_{i=1}^{n} q_i w_i + \sum_{i=1}^{m} p_i y_i = I$$

$$\sum_{i=1}^{n} t_i w_i + \sum_{i=1}^{n} v_i = \tau$$

[1/] This presentation follows closely that in "Demand Theory: Time Allocation and Outdoor Recreation." R. R. Wilson, Southern Journal of Agricultural Economics, Dec. 1971.

where $x_1,\ldots,x_n$ are work and consumption activities with $w_1,\ldots,w_n$ purchased and $z_1,\ldots,z_n$ produced; $y_1,\ldots,y_m$ are goods; $q_1,\ldots,q_n$ and $p_1,\ldots,p_m$ are exogenous prices of purchased activities and input goods respectively; $s_1,\ldots,s_r$ and $Y_1,\ldots,Y_m$ are exogenous production parameters; $t_1,\ldots,t_n$ are exogenous time coefficients for purchased activities; $v_1,\ldots,v_n$ are variable non-negative endogenous time inputs for the produced activities; I is a residual wealth parameter; and τ is the length of planning period.

Under appropriate conditions, the equations representing the first-order Lagrange conditions for this problem may be solved for each of the variables, $z_1,\ldots z_n$, $w_1,\ldots w_n$, $y_1,\ldots,y_m$, $v_1,\ldots v_n$, to obtain locally differentiable generalized demand and supply functions dependent on the parameters, $s_1,\ldots,s_r$, $Y_1,\ldots,Y_m$, $q_1,\ldots,q_n$, $p_1,\ldots,p_m$, I, $t_i,\ldots,t_n$ and τ. The 3 n+m generalized demand and supply functions are all homogeneous of degree zero in the money parameters $q_1,\ldots,q_n$, $p_1,\ldots,p_m$, and I. However, all of them cannot be homogeneous of degree zero in the time parameters.

Certain points should be noted about the functions obtained from the first-order Lagrange conditions. The produced activities do not possess market prices, but their generalized demand functions are well defined and depend on the other prices and parameters. Furthermore, the prices in the system are all attached to either inputs or purchased activities. Time, as a variable factor input in the production of an activity, behaves as a good in that a generalized derived demand function for its use in each activity is deduced. However, the different time demands do not have associated market prices.

The production parameters, $s_1,\ldots,s_r$, have an interesting interpretation in the case of outdoor recreation. Amongst these parameters are included

such items as the minimum distance that must be traveled if a particular recreation site is to be visited (an activity). The actual travel distance is an activity jointly demanded with the site visit. Also included as parameters would be the minimum required values of travel time, total travel expenditure, total time expenditure, total expenditure, outfitting expenditure, etc. Such production parameters are obviously exogenous, but the actual levels chosen in the allocation process for these items are either endogenous activities or activity total costs, as the case may be. Neither the production parameters nor the values of related activities nor their total costs in money or time would appear to be surrogates for prices for produced activities on theoretical grounds. The prices are simply supposed to be in the model also.

Another set of parameters arising from the production relationships, $Y_1,\ldots,Y_m$, have found their place in recreation demand analysis. An attempt will be made to rationalize such procedures and demonstrate their consistency with time allocation demand theory. In a period sufficiently short to have relevance in a consumer's time allocation process, it would seem reasonable to regard the existing stocks of recreational facilities, environmental attributes (crowding, quality, etc.) and the degree and diversity of recreational development as parameters. These facility input supply parameters would then represent constraint parameters for the aggregated production of recreation by all consumers recreating in a given geographic region. As the consumer performs his utility calculus, these parameters could enter his computations as parameters in his recreation production function that reflect his knowledge of aggregate behavior. That is, they might be viewed as micro-surrogates for macro-constraints on aggregate recreation production, thus

they logically would appear as parameters in the generalized demand functions.

It should be mentioned that with produced activities such as recreation, the activity quantities may be measured in amounts of time spent. In such circumstances, the fixed time parameters will be equal to 1 and the variable time for such an activity will be identical to the quantity of activity. For activities measured in time units, demand functions for associated time inputs will be redundant.

For example, suppose that the typical consumer has available to him three activities, working x_1, dining x_2, and recreation x_3. He may obtain recreation in either of two ways; by the purchase of a fixed recreation package w_3, or by production of recreation, utilizing variable amounts of a services recreation facility y and time v. The production parameter d might represent distance to the facility, while Y might represent the size of the facility and e a positive constant. The consumer's choice problem is characterized as follows:

$$\text{Maximize} \qquad U = U(x_1, x_2, x_3)$$

$$\text{Subject to} \qquad x_3 = w_3 + z_3$$

$$z_3 = av^2 + by^2 - cvy - d + eY$$

$$x_1 p_1 + x_2 p_2 + w_3 p_3 + y p_y = 0$$

$$x_1 t_1 + x_2 t_2 + w_3 t_3 + v = \tau$$

where it is assumed that $p_y = 0$.

The Lagrangean function

$$L = U(x_1, x_2, w_3 + z_3) + \lambda(av^2 + by^2 - cvy - d - z_3 + eY) + \gamma(p_1 x_1 + p_2 x_2 + p_3 w_3 + p_y y) + \delta(t_1 x_1 + t_2 x_2 + t_3 z_3 + v - \tau)$$

yields first order conditions for a relative constrained maximum of U which, under certain conditions, may be solved for x_1, x_2, w_3, z_3, y, v, λ, γ, δ, in terms of the parameters, $a,b,c,d,e,Y,p_1,p_2,p_3,p_y,t_1,t_2,t_3$ and τ. The solutions (generalized demand or supply functions) may be expressed as:

$$v_i = h^i(a,b,c,d,e,Y,p_1,p_2,p_3,p_y,t_1,t_2,t_3,\tau), \text{ for } i = 1,\ldots,9.$$

The demand (supply) functions h^i are each differentiable, unique and homogeneous of degree zero in the prices, p_1,p_2,p_3, and p_y, provided that U is strictly quasi-concave. They are not homogeneous in a,b,c,d,e and Y nor t_1,t_2,t_3 and τ.

The demand function for x_3 is $h^3 + h^4$. Its rate of change cannot be deduced for compensated changes in p_3 or p_y.

The sign and magnitude of certain of the compensated and uncompensated rates of change in demand can be deduced.

It should be noted that public and private policy makers could control Y, the quantity (stock) of a facility on hand and manipulate it at their will. Similarly, p_y could be manipulated.

Moving back from the example to the general theory discussed previously, another aspect should be considered before moving into empirical considerations. It would seem that more than one of the recreation participatory activities might be desired at nearly the same time or in approximately the same environment. This would suggest the possibility of defining a trip as a participatory activity closely related to more specific and closely linked recreational activities such as fishing, boating, or camping in the consumer's decision making.

The decision linkages should be explicit in the first order conditions for the consumer's optimization of utility. However, for participatory activities a lack of observable interpersonal prices would likely allow these linkages to become attached in complex and possibly indistinguishable ways to nonprice parameters in the solved demand relationships. Because the recreation activities are commodities of this type it seems likely that the decision structure may be more completely captured by the examination of either first order conditions or partially reduced equations intermediately between the first order conditions and the ultimate demand relationships. The empirical modelling of consumer decision processes in recreation incorporated this aspect.

III. The Data Base And Its Relation to Modelling

Perhaps the largest quantity of high quality data in history was assembled for the Texas recreation planning effort. The data covered so wide a scope that only a tiny fraction of it could possibly be incorporated into an empirical model of behavior. Furthermore the nature of many responses indicates that it is possible that the tedium imposed by the questionnaire on the person surveyed may have seriously biased responses in some

cases.

For this reason it was suggested by the outside consultants, Dr. Johnson and Dr. Ellis that a sophisticated econometric model should be applied only to the data for trips of more than one day in length. The survey data indicated what appeared to be serious understatement of one day trips in relation to longer trips, suggesting a tendency not to mention short trips on the part of the persons surveyed.

Other problems are in evidence as well. There were 15,100 households in the original sample, stratified according to population density and with inferences to be made for three regions of the state. The needs of the state planners had changed between the sample design stage and the model development stage so that forecasts and other inferences were now required for a minimum of some thirty-seven regions.

Data from a sample of 15,000 households may be incredibly thin for many purposes. From the sample, the proportion of households that took at least one overnight or longer recreation trip ranged from 0.07 to 0.39 over the 37 regions finally decided upon. Similarly, the proportion of households sampled that took at least one vacation ranged from a low of 0.046 to a high of 0.50 over different regions. The proportion of sampled households that participated in recreational boating on an overnight trip ranged from a low of 0.0 in two regions to a high of only 0.076. The proportion of sampled households that participated in boating on a vacation ranged from a low of 0.0 to a high of 0.109. It should be recognized that the trip figures represent a six-month period while the vacation figures represent twelve months. To avoid unpleasant statistical difficulties, it often is necessary to deal only with that portion of the sample in the participating group. If the sample contained only 100 households and there were 0.02 of the total

participating then there might be an effective sample for that region of size 2. It goes without saying that such a sample is too small to be useful.

Over time the type of models needed by the planners changed. As I understand it the type of model originally needed should be able to forecast participating in the important recreational activities according to the places of residence of the households. Over time, the emphasis shifted to the type of model that could forecast participation by region of origin and also forecast the breakdown of this origin participation by region of destination. An econometric model was first designed to estimate the household decision structure and forecast participation at the origins. As planning requirements evolved the econometric model was replicated in order to allocate from any number of origin regions to several destination regions. Upon attempting to estimate the model for one of the more active destination areas, it was discovered that the household survey contained far fewer observations in many cases than there were variables in the equations. In such instances the sample does not contain enough information for parameter estimation. Upon the discovery that the data was only sufficiently rich to support a constructive model with two or three rather gross destination replications it was decided to pursue a statewide econometric model oriented to origins and ignoring destinations. A scheme for translating origin demands into destination participation was to be developed at a later time. At that time work on a gravity type model as a self contained alternative to the econometric model was commissioned and commenced. It now appears that the gravity model may be the best possible approach to the allocation to destinations of demand at origins as forecast by the econometric model.

Finally, the survey data itself is suspect in many cases. The types and numbers of errors that almost invariably result on extensive surveys of this type, especially those employing a long and complicated questionnaire, have been documented a great many times by statisticians. The influence of the interviewer on the respondent is known to have pronounced effects on survey results. A great many puzzling aspects are borne out by a cursory examination of the survey data. Among these, for example, is the higher percentage of participation and general interest in water oriented recreational activities and camping by West Texas and Panhandle residents shown by the survey data. If such findings represent scientific truths they are significant. If they are spurious, they may have significant effects on any analyses or modelling efforts based on the survey data. Errors in variables resulting from survey data can seriously bias parameter estimation in any modelling effort. In the case of an econometric model, errors in variables can render badly biased structural parameters or even the entire model underidentified. Since the gravity model uses aggregated data, the opportunities for difficulties to arise from the survey data are not quite as great. As we of the Texas A&M University Task Force did not manage the collection of the survey data, it is not possible for us to determine the extent to which the data create biases.

In retrospect, it appears that modelling capabilities might have been considerably enhanced if the data base had been more carefully designed. It would have helped substantially in the design of the data base if thought had been given to (1) the type of planning devised that would ultimately be utilized and (2) to the type of models that could be formulated and implemented given the current state of economic and statistical science and the

requirements of planning. If these considerations had been more carefully scrutinized, it is suspected that a much shorter questionnaire would have been devised and a much larger sample taken.

IV. The Econometric Model

The model ultimately devised is a revision of those evolved during this study. In particular, it is a sub-model of the model given in a report to Texas Parks and Wildlife Department, dated March 25, 1971.[2/] The March 1971 model evolved as was discussed in section III above. One day trips were eliminated from the econometric model because the one day trip data appeared to have a large fraction of unreported trips. If one day trips were considered in the econometric model not only is it likely that the one day portion of the model would be biased by incomplete data, but that the more than one day trip and vacation sub-models would be biased as well through the interdependencies. The March 1971 version had a rather incomplete set of probability identities linking the system together. In this report, the model will be discussed as it was finally estimated.

The decisions on the part of a household were assumed to be logically ordered as (1) whether or not to take any kind of a trip, (2) if a trip is to be taken, whether or not it is to be a 1-day trip, an overnight trip, or a vacation, (3) how many trips of the decided upon varieties are to be taken. (4) which of the six recreational activities are to receive attention on each type of trip decided upon, (5) how much of the decided upon activities are

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2/ This report was also published as Department Information Report DIR-71-6 of the Department of Agricultural Economics and Rural Sociology, Texas A&M University.

to be enjoyed on each of the trip types chosen, and (6) which destinations are to be visited. It is recognized that the behavior of the typical household may not be as cooly calculating as the abstraction presented here, but it is felt that the abstraction contains the essentials of reality. This simple logical hierarchy represents the central idea of the econometric model presented with all its complexities. Because of problems associated with the application of the data base to such a conceptual structure part (1), the 1-day trip aspects of parts (2), (3), (4), and (5), and part (6) could not be implemented with the econometric model, but are treated in a different fashion by the gravity model.

The estimation of models using survey data in which the variables have zero or positive values has presented difficulties for many years. A number of statistical formulations have been proposed to avoid difficulties with statistical distributions and constraints on the ranges of variables for simple single equation situations, including the twin linear probability model, the tobit model and the poisson regression model. Of these, the twin linear probability model appeared to be easily generalized for a complex interdependent equation system.

The basic idea in the twin linear probability model employs an indicator variable that is 0 if the quantity variable has a value of zero and is 1 if the quantity variable is positive. The quantity variable is redefined conditionally on the indicator variable to be defined only when the indicator has a value of 1. For example, in the model we have an indicator variable as the probability of an overnight trip. The quantity variable companion to this indicator variable is the number of overnight trips given

that at least 1 was taken. The indicator variables are estimated jointly with other indicator variables by means of a fitted equation.

The equational estimates of the indicator variables correspond to estimates of the probability that a given household elected a positive quantity. Conditional quantities are estimated by means of a fitted equation as well. An estimate of the expected quantity per household is obtained as the product of the probability estimate and the conditional quantity estimate, which gives rise to the probability identity.

In single equation situations it has been shown that the covariance matrix of the probability equation is heteroskedastic, but parameter estimates and statistically more desirable estimates of standard errors may be obtained using weighted least squares. The heteroskedasticity result can be shown to hold for a simultaneous equation system of probability equations. The method of generalized two stage least squares would appear to provide adequate compensation for the heteroskedasticity in a simultaneous equation system such as this. The method of least squares, which is known to be biased in the absence of the heteroskedasticity problem was employed in this study. Ways of constraining probability estimates to lie between 0 and 1 have not been considered.

The estimation of equations involving the logarithms of dependent variables valued at 0.0 and 1.0 has further difficulties. In addition to the difficulties with properties of estimators, the logarithm of 0.0 is an undefinable quantity, being larger and more negative than any negative number. Thus the logarithm of 0.0 is impossible to approximate. The approach used in the report dated January 3, 1972 attempted an approximation of the

logarithm of 0.0. As explained in correspondence with Dr. Johnson dated May 10, 1972 (Appendix A) such an approximation caused considerable difficulty in the earlier forecasting system. Steps have been taken to adjust the approximation to the logarithms of probabilities to hold at the sample means instead. As will be seen in the forecasting system, a considerable degree of responsiveness to the policy variables has resulted.

The benefits to be derived, however, from employing the generalized twin linear probability approach are significant despite the estimation difficulties. As indicated earlier, the variables have non-negative values with a high proportion of zeros. Their distributions appear highly skewed. However, if one can employ only positive values and take logarithms, then the distributions appear to be similar to normal distributions. With estimation procedures that at least have desirable asymptotic properties, as opposed to the (biased) least squares, one might have little more than the usual difficulties, experienced with a simultaneous equation system. The model is stated in structural form in which forces operating jointly on endogenous variables (variables generated within the system) are characterized. The direct joint effects of exogenous variables (variables generated outside the system) upon the jointly determine endogenous variables are specified and estimated by the structural form.

The structural form of the model may under reasonable mathematical restrictions be solved or reduced to eliminate the joint effects of exogenous variables on endogenous variables. The resultant form of the model expresses the total effects of each exogenous variable on each endogenous variable whether or not they were related by the structural form and is usually the form used in forecasting. The reduced form contains fewer

restrictions than the structural form usually and never more restrictions. The additional restrictions on the structural form provide additional pieces of a-priori information to be used. Reduced form equations may be estimated directly, but it always provides at least as much information and usually more to estimate the structural equations and then solve them for the reduced form equations. This derived reduced form procedure was employed in this study.

A. Endogenous Variables

Complete documentation of the way in which endogenous and exogenous variables were computed is contained on the computer program decks that have been provided for Texas Parks and Wildlife Department. Probabilities refer to (0.0-1.0 valued) indicator variables classifying the households in terms of whether or not they engaged in particular types of activities and trips. Equations fitted for these indicator variables give estimates of the probabilities that households fall into the respective classes, given the exogenous variables. For all endogenous variables, the same notation will be used for numbers in arithmic units and in logarithmic units. The base of the numbers will be clear from the context as the model is presented. Similarly as projections are made and then expanded to regional and state totals, the units of the quantity variables will change from household averages to regional and state totals without the basic labels changing.

Endogenous variables employed in the model were as follows:

1. PROBTRIP - Probability that a household took one or more overnight or longer trips; an indicator variable in the original data, but a continuously varying proportion in equations.

2. NTRP/TRP - Number of overnight or longer trips taken given that the household took at least one.
3. PROBVACN - Probability that a household took one or more vacation trips; dually viewed as an indicator or a proportion of vacationers.
4. NVAC/VAC - Number of vacation trips taken given that the household took at least one.
5. PRB/TRIP - Probability that a household engaged in boating on overnight or longer trips given that at least one such trip was taken; dually viewed as an indicator or a proportion.
6. PRC/TRIP - Probability that a household engaged in outdoor camping on overnight or longer trips given that at least one such trip was taken; dually viewed as an indicator or a proportion.
7. PRF/TRIP - Probability that a household engaged in freshwater fishing on overnight or longer trips given that at least one was taken; dually viewed as an indicator or a proportion.
8. PRH/TRIP - Probability that a household engaged in hunting on overnight trips given that at least one such trip was taken; dually viewed as an indicator or a proportion.
9. PRP/TRIP - Probability that a household engaged in picnicking on overnight trips given that at least one such trip was taken; dually viewed as an indicator or a proportion.

10. PRS/TRIP - Probability that a household engaged in swimming on overnight trips given that at least one such trip was taken: dually viewed as an indicator or as a proportion.

11. QB/B*TRP - Average number of person-days per trip in boating by a household on overnight or longer trips, given that boating occurred on at least one such trip.

12. QC/C*TRP - Average number of person-days per trip in outdoor camping by a household on overnight or longer trips, given that outdoor camping occurred on at least one such trip.

13. QF/F*TRP - Average number of person-days per trip in freshwater fishing by a household on overnight or longer trips, given that freshwater fishing occurred on at least one such trip.

14. QH/H*TRP - Average number of person-days per trip in hunting by a household on overnight or longer trips, given that hunting occurred on at least one such a trip.

15. QP/P*TRP - Average number of person-days per trip in picnicking by a household on overnight or longer trips, given that picnicking occurred on at least one such trip.

16. QS/S*TRP - Average number of person-days per trip in swimming by a household on overnight or longer trips, given that swimming occurred on at least one such trip.

17. NTRP/B*T - Number of overnight trips taken by a household given that boating occurred on at least one such trip.

18. NTRP/C*T - Number of overnight trips taken by a household given that camping occurred on at least one such trip.

19. NTRP/F*T - Number of overnight trips taken by a household given that freshwater fishing occurred on at least one such trip.

20. NTRP/H*T - Number of overnight trips taken by a household given that hunting occurred on at least one such trip.

21. NTRP/P*T - Number of overnight trips taken by a household given that picnicking occurred on at least one such trip.

22. NTRP/S*T - Number of overnight trips taken by a household given that swimming occurred on at least one such trip.

23. QB/TRP*P - Average number of person-days per trip in boating by a household on overnight or longer trips.

24. QC/TRP*P - Average number of person-days per trip in outdoor camping by a household on overnight or longer trips.

25. QF/TRP*P - Average number of person-days per trip in freshwater fishing by a household on overnight or longer trips.

26. QH/TRP*P - Average number of person-days per trip in hunting by a household on overnight or longer trips.

27. QP/TRP*P - Average number of person-days per trip in picnicking by a household on overnight or longer trips.

28. QS/TRP*P - Average number of person-days per trip in swimming by a household on overnight or longer trips.

29. QC/B*TRP - Average number of person-days per trip in outdoor camping by a household on overnight or longer trips, given that boating occurred on at least one such trip.

30. QF/B*TRP - Average number of person-days per trip in fishing by a household on overnight or longer trips, given that boating occurred at least one such trip.

31. QP/B*TRP - Average number of person-days per trip in picnicking by a household on overnight or longer trips, given that boating occurred on at least one such trip.

32. QS/B*TRP - Average number of person-days per trip in swimming by a household on overnight or longer trips, given that boating occurred on at least one such trip.

33. QB/C*TRP - Average number of person-days per trip in boating by a household on overnight or longer trips, given that outdoor camping occurred on at least one such trip.

34. QF/C*TRP - Average number of person-days per trip in freshwater fishing by a household on overnight or longer trips, given that outdoor camping occurred on at least one such trip.

35. QS/C*TRP - Average number of person-days per trip in swimming by a household on overnight or longer trips, given that outdoor camping occurred on at least one such trip.

36. QB/F*TRP - Average number of person-days per trip in boating by a household on overnight or longer trips, given that freshwater fishing occurred on at least one such trip.

37. QC/F*TRP - Average number of person-days per trip in outdoor camping by a household on overnight or longer trips, given that freshwater fishing occurred on at least one such trip.

38. QS/F*TRP - Average number of person-days per trip in swimming by a household on overnight or longer trips, given that freshwater fishing occurred on at least one such trip.

39. QC/H*TRP - Average number of person-days per trip in outdoor camping by a household on overnight or longer trips, given that hunting occurred on at least one such trip.

40. QB/P*TRP - Average number of person-days per trip in boating by a household on overnight or longer trips, given that picnicking occurred on at least one such trip.

41. QF/P*TRP - Average number of person-days per trip in freshwater fishing by a household on overnight or longer trips, given that picnicking occurred on at least one such trip.

42. QS/P*TRP - Average number of person-days per trip in swimming by a household on overnight or longer trips, given that picnicking occurred on at least one such trip.

43. QB/S*TRP - Average number of person-days per trip in boating by a household on overnight or longer trips, given that swimming occurred on at least one such trip.

44. QC/S*TRP - Average number of person-days per trip in outdoor camping by a household on overnight or longer trips, given that swimming occurred on at least one such trip.

45. QF/S*TRP - Average number of person-days per trip, in freshwater fishing by a household on overnight or longer trips, given that swimming occurred on at least one such trip.

46. QP/S*TRP - Average number of person-days per trip in picnicking by a household on overnight or longer trips, given that swimming occurred on at least one such trip.

47. PRB/VACN - Probability that a household engaged in boating on vacation trips given that at least one such trip was taken.

48. PRC/VACN - Probability that a household engaged in outdoor camping on vacation trips given that at least one such trip was taken.

49. PRF/VACN - Probability that a household engaged in freshwater fishing on vacation trips given that at least one such trip was taken.

50. PRH/VACN - Probability that a household engaged in hunting on vacation trips given that at least one such trip was taken.

51. PRP/VACN - Probability that a household engaged in picnicking on vacation trips given that at least one such trip was taken.

52. PRS/VACN - Probability that a household engaged in swimming on vacation trips given that at least one such trip was taken.

53. QB/B*VAC - Average number of person-days per trip in boating by a household on vacation trips, given that boating occurred on at least one such trip.

54. QC/C*VAC - Average number of person-days per trip in outdoor camping by a household on vacation trips, given that outdoor camping occurred on at least one such trip.

55. QF/F*VAC - Average number of person-days trip in freshwater fishing by a household on vacation trips, given that fishing occurred on at least one such trip.

56. QH/H*VAC - Average number of person-days per trip in hunting by a household on vacation trips, given that hunting occurred on at least one such trip.

57. QP/P*VAC - Average number of person-days per trip in picnicking by a household on vacation trips, given that picnicking occurred on at least one such trip.

58. QS/S*VAC - Average number of person-days per trip in swimming by a household on vacation trips, given that swimming occurred on at least one such trip.

59. NVAC/B*V - Number of vacation trips taken by a household given that boating occurred on at least one vacation.

60. NVAC/C*V - Number of vacation trips taken by a household given that outdoor camping occurred on at least one vacation.

61. NVAC/F*V - Number of vacation trips taken by a household given that freshwater fishing occurred on at least one vacation.

62. NVAC/H*V - Number of vacation trips taken by a household given that hunting occurred on at least one vacation.

63. NVAC/P*V - Number of vacation trips taken by a household given that picnicking occurred on at least one vacation.

64. NVAC/S*V - Number of vacation trips taken by a household given that swimming occurred on at least one vacation.

65. QB/VAC*P - Average number of person-days per vacation in boating by a household on vacation trips.

66. QC/VAC*P - Average number of person-days per vacation in outdoor camping by a household on vacation trips.

67. QF/VAC*P - Average number of person days per vacation in freshwater fishing by a household on vacation trips.

68. QH/VAC*P - Average number of person-days per vacation in hunting by a household on vacation trips.

69. QP/VAC*P - Average number of person-days per vacation in picnicking by a household on vacation trips.

70. QS/VAC*P - Average number of person-days per vacation in swimming by a household on vacation trips.

71. QC/B*VAC - Average number of person-days per vacation in outdoor camping by a household on vacation trips, given that boating occurred on at least one vacation trip.

72. QF/B*VAC - Average number of person-days per vacation in fishing by a household on vacation trips, given that boating occurred on at least one vacation trip.

73. QP/B*VAC - Average number of person-days per vacation in picnicking by a household on vacation trips, given that boating occurred

on at least one vacation trip.

74. QS/B*VAC - Average number of person-days per vacation in swimming by a household vacation trips, given that boating occurred on at least one vacation trip.

75. QB/CV*VAC - Average number of person-days per vacation in boating by a household on vacation trips, given that outdoor camping occurred on at least one vacation trip.

76. QF/C*VAC - Average number of person-days per vacation in freshwater fishing by a household on vacation trips, given that outdoor camping occurred on at least one vacation trip.

77. QS/C*VAC - Average number of person-days per vacation in swimming by a household on vacation trips, given that outdoor camping occurred on at least one vacation trip.

78. QB/F*VAC - Average number of person-days per vacation in boating by a household on vacation trips, given that freshwater fishing occurred on at least one vacation trip.

79. QC/F*VAC - Average number of person-days per vacation in outdoor camping by a household on vacation trips, given that freshwater fishing occurred on at least one vacation trip.

80. QP/F*VAC - Average number of person-days per vacation in picnicking by a household on vacation trips, given that freshwater fishing occurred on at least one vacation trip.

81. QC/H*VAC - Average number of person-days per vacation in outdoor camping by a household on vacation trips, given that hunting occurred on at least one vacation trip.

82. QB/P*VAC - Average number of person-days per vacation in boating by a household on vacation trips, given that picnicking occurred on at least one vacation trip.

83. QC/P*VAC - Average number of person-days per vacation in outdoor camping by a household on vacation trips, given that picnicking occurred on at least one vacation trip.

84. QF/P*VAC - Average number of person-days per vacation in freshwater fishing by a household on vacation trips, given that picnicking occurred on at least one vacation trip.

85. QS/P*VAC - Average number of person-days per vacation in swimming by a household on vacation trips, given that picnicking occurred on at least one vacation trip.

86. QB/S*VAC - Average number of person-days per vacation in boating by a household on vacation trips, given that swimming occurred on at least one vacation trip.

87. QC/S*VAC - Average number of person-days per vacation in outdoor camping by a household on vacation trips, given that swimming occurred on at least one vacation trip.

88. QF/S*VAC - Average number of person-days per vacation in freshwater fishing by a household on vacation trips, given that swimming occurred on at least one vacation trip.

89. QP/S*VAC - Average number of person-days per vacation in picnicking by a household on vacation trips, given that swimming occurred on at least one vacation trip.

90. NOTRIPON - Average number of overnight or longer trips taken by a household.

91. NOVACATN - Average number of vacation trips taken by a household.

92. QBTRIPON - Average number of person-days in boating on overnight or longer trips by a household.

93. QCTRIPON - Average number of person-days in camping on overnight or longer trips by a household.

94. QFTRIPON - Average number of person-days in fishing on overnight or longer trips by a household.

95. QHTRIPON - Average number of person-days in hunting on overnight or longer trips by a household.

96. QPTRIPON - Average number of person-days in picnicking on overnight or longer trips by a household.

97. QSTRIPON - Average number of person-days in swimming on overnight or longer trips by a household.

98. QBVACATN - Average number of person-days in boating on vacation trips by a household.

99. QCVACATN - Average number of person-days in camping on vacation trips by a household.

100. QFVACATN - Average number of person-days in fishing on vacation trips by a household.

101. QHVACATN - Average number of person-days in hunting on vacation trips by a household.

102. QPVACATN - Average number of person-days in picnicking on vacation trips by a household.

103. QSVACATN - Average number of person-days in swimming on vacation trips by a household.

As the household data for estimation of the model was prepared, a logical error was made in the specification of the identities that convert the conditioned participation quantities to unconditioned quantities. This error was evidenced in the mathematical formula used to compute the variables QB/TRIP, QC/TRIP, QF/TRIP, QH/TRIP, QP/TRIP, and QS/TRIP. The numbers of trips on which the activity in question occurred was used as a divisor for these variables rather than the correct quantity, the numbers of overnight

trips taken by the household. A correction was applied to the least squares structural estimates of the intercept parameters for the six trip quantity equations and their conditional probability equations to compensate for this problem. These corrections were based on the assumption that participation trips for a particular activity are proportional to total trips taken. They were computed by comparing participation totals for the gravity data to data for the econometric model and adjusting by the ratios of gravity data totals to econometric model data totals. The structural equations presented later contain these adjustments.

B. Exogenous Variables

The household variables below are on a per household basis. Policy variables are on a region of origin basis. Discrete household variables are indicator variables in arithmetic units. Continuous household variables are converted to natural logarithms after adding the constant 1.0. Policy variables are scaled by a table of scaling factors (below) and then their natural logarithms are produced.

1. CONSTANT - A value of 1.0 for all households.

2. OTHERTRP - Number of overnight or longer trips with nonrecreation purpose by a household, calculated as follows:

$$\text{OTHERTRP} = \sum_j O_{Tj}$$

$$O_{1j} = \begin{cases} 1 \text{ if trip had other than recreational purpose} \\ 0 \text{ otherwise} \end{cases}$$

where $j = 1, \ldots,$ NOTRIPON.

If NOTRIPON = 0, OTHERTRP = 0.

3. HHINCOME - household income in thousands of dollars.

ADJUSTED FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1980 MEDIUM

STATEWIDE TOTAL QBTRIPON = 0.13150D 08

STATEWIDE TOTAL QCTRIPON = 0.22761D 08

STATEWIDE TOTAL QFTRIPON = 0.26556D 08

STATEWIDE TOTAL QHTRIPON = 0.78681D 07

STATEWIDE TOTAL QPTRIPON = 0.15260D 08

STATEWIDE TOTAL QSTRIPON = 0.14482D 08

STATEWIDE TOTAL QBVACATN = 0.15994D 07

STATEWIDE TOTAL QCVACATN = 0.71730D 07

STATEWIDE TOTAL QFVACATN = 0.42703D 07

STATEWIDE TOTAL QHVACATN = 0.45698D 06

STATEWIDE TOTAL QPVACATN = 0.18109D 07

STATEWIDE TOTAL QSVACATN = 0.35365D 07

FORECASTED VALUES OF ENDOGENOUS VARIABLES FOR BY REGION FOR 1980 HIGH

NOTRIPON	0.20703D 05	0.16261D 05	0.89570D 05	0.29707D 06	0.16880D 06	0.20391D 06	0.14072D 06	0.17268D 06	0.75221D 04	0.21393D 07
	0.13742D 07	0.15663D 06	0.14029D 06	0.32498D 06	0.90607D 05	0.23096D 07	0.11010D 06	0.25405D 06	0.25852D 06	0.10958D 06
	0.39251D 06	0.28764D 05	0.46180D 06	0.22614D 06	0.21469D 07	0.32964D 05	0.14195D 06	0.25309D 06	0.19674D 06	0.88151D 05
	0.97678D 05	0.16221D 06	0.10688D 07	0.18680D 06	0.26956D 06	0.48271D 05	0.14215D 06			
NOVACATN	0.33119D 05	0.12761D 05	0.12085D 05	0.30072D 05	0.28701D 05	0.95000D 04	0.21089D 05	0.10979D 05	0.26381D 05	0.11886D 06
	0.25095D 06	0.56833D 05	0.31327D 05	0.67791D 05	0.27175D 05	0.14477D 06	0.14596D 05	0.26681D 05	0.30243D 05	0.31656D 05
	0.18722D 05	0.15427D 05	0.65628D 05	0.43001D 05	0.37674D 06	0.19562D 05	0.54916D 05	0.62145D 05	0.55618D 05	0.25956D 04
	0.23593D 05	0.13227D 05	0.53708D 05	0.41094D 05	0.14577D 05	0.11987D 05	0.18231D 05			
QBTRIPON	0.17989D 05	0.16124D 05	0.95904D 05	0.30582D 06	0.18334D 06	0.21451D 06	0.14709D 06	0.18820D 06	0.64921D 04	0.22310D 07
	0.14282D 07	0.15017D 06	0.15220D 06	0.35979D 06	0.94961D 05	0.24476D 07	0.11785D 06	0.25403D 06	0.28381D 06	0.12158D 06
	0.42387D 06	0.28847D 05	0.48266D 06	0.24405D 06	0.21296D 07	0.31472D 05	0.13333D 06	0.24398D 06	0.19323D 06	0.95534D 05
	0.99915D 05	0.16714D 06	0.10514D 07	0.18740D 06	0.28239D 06	0.47801D 05	0.15158D 06			
QCTRIPON	0.39010D 05	0.30713D 05	0.16476D 06	0.54568D 06	0.31806D 06	0.37682D 06	0.26372D 06	0.32741D 06	0.16031D 05	0.40040D 07
	0.25899D 07	0.30450D 06	0.26596D 06	0.62325D 06	0.17561D 06	0.43539D 07	0.20678D 06	0.46736D 06	0.48587D 06	0.21161D 06
	0.74739D 06	0.57271D 05	0.87454D 06	0.44184D 06	0.41190D 07	0.65464D 05	0.28781D 06	0.49047D 06	0.35894D 06	0.15827D 06
	0.18614D 06	0.31053D 06	0.20320D 07	0.35340D 06	0.50048D 06	0.88687D 05	0.27117D 06			
QFTRIPON	0.46673D 05	0.36023D 05	0.18822D 06	0.62039D 06	0.36165D 06	0.43030D 06	0.30123D 06	0.37158D 06	0.21366D 05	0.45872D 07
	0.29658D 07	0.34467D 06	0.30770D 06	0.71298D 06	0.20043D 06	0.48865D 07	0.23481D 06	0.52428D 06	0.55448D 06	0.24171D 06
	0.85343D 06	0.65366D 05	0.98133D 06	0.49029D 06	0.45494D 07	0.72736D 05	0.31080D 06	0.53156D 06	0.39913D 06	0.18066D 06
	0.21199D 06	0.34149D 06	0.22306D 07	0.38589D 06	0.55682D 06	0.99166D 05	0.30278D 06			
QHTRIPON	0.13992D 05	0.90387D 04	0.54837D 05	0.18804D 06	0.11040D 06	0.13230D 06	0.88809D 05	0.10531D 06	0.72603D 04	0.13377D 07
	0.86502D 06	0.87637D 05	0.95802D 05	0.22512D 06	0.56412D 05	0.15235D 07	0.69457D 05	0.17000D 06	0.16954D 06	0.69089D 05
	0.24592D 06	0.17207D 05	0.29425D 06	0.13533D 06	0.12852D 07	0.19585D 05	0.79949D 05	0.14294D 06	0.14353D 06	0.68188D 05
	0.58805D 05	0.10284D 06	0.67088D 06	0.12918D 06	0.19925D 06	0.35477D 05	0.88853D 05			
QPTRIPON	0.23391D 05	0.19151D 05	0.11250D 06	0.37404D 06	0.21258D 06	0.25957D 06	0.17650D 06	0.22217D 06	0.82162D 04	0.28063D 07
	0.17498D 07	0.19323D 06	0.17649D 06	0.41524D 06	0.11345D 06	0.30055D 07	0.13800D 06	0.31345D 06	0.33012D 06	0.13839D 06
	0.50212D 06	0.35751D 05	0.57256D 06	0.28282D 06	0.26849D 07	0.40048D 05	0.18259D 06	0.31061D 06	0.24298D 06	0.11528D 06
	0.12375D 06	0.20695D 06	0.13419D 07	0.23554D 06	0.36020D 06	0.60890D 05	0.18182D 06			
QSTRIPON	0.32954D 05	0.23468D 05	0.11942D 06	0.39230D 06	0.23014D 06	0.26279D 06	0.18848D 06	0.23004D 06	0.15831D 05	0.28072D 07
	0.18385D 07	0.21225D 06	0.19160D 06	0.44819D 06	0.12482D 06	0.30530D 07	0.14660D 06	0.33206D 06	0.35335D 06	0.15250D 06
	0.52787D 06	0.40003D 05	0.62590D 06	0.31414D 06	0.28971D 07	0.46747D 05	0.19720D 06	0.35582D 06	0.26442D 06	0.11689D 06
	0.13320D 06	0.21661D 06	0.14205D 07	0.25902D 06	0.35885D 06	0.66131D 05	0.19469D 06			
QBVACATN	0.53635D 05	0.22551D 05	0.27785D 05	0.61700D 05	0.46933D 05	0.18215D 05	0.43491D 05	0.23257D 05	0.80323D 05	0.17778D 06
	0.32549D 06	0.79481D 05	0.38921D 05	0.92200D 05	0.24061D 05	0.11458D 06	0.19116D 05	0.34696D 05	0.44453D 05	0.45913D 05
	0.24261D 05	0.12904D 05	0.59154D 05	0.34533D 05	0.22314D 06	0.15237D 05	0.33053D 05	0.28305D 05	0.46349D 05	0.26810D 04
	0.16658D 05	0.68267D 04	0.30951D 05	0.21430D 05	0.97387D 04	0.77933D 04	0.15629D 05			
QCVACATN	0.15190D 06	0.57181D 05	0.52137D 05	0.12164D 06	0.13513D 06	0.39828D 05	0.88179D 05	0.49506D 05	0.10748D 06	0.55261D 06
	0.12480D 07	0.26907D 06	0.17147D 06	0.37357D 06	0.16349D 06	0.86531D 06	0.75248D 05	0.12832D 06	0.15191D 06	0.17013D 06
	0.97409D 05	0.96706D 05	0.37561D 06	0.27581D 06	0.23320D 07	0.11818D 06	0.33028D 06	0.41413D 06	0.31398D 06	0.15216D 05
	0.15080D 06	0.91865D 05	0.32972D 06	0.27842D 06	0.94489D 05	0.74450D 05	0.10934D 06			
QFVACATN	0.15855D 06	0.64069D 05	0.65313D 05	0.15682D 06	0.13708D 06	0.48042D 05	0.11212D 06	0.59509D 05	0.16553D 06	0.50901D 06
	0.97126D 06	0.25446D 06	0.12524D 06	0.27005D 06	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.12308D 06
	[illegible]									

4. HRWRK/WK - hours worked per week by household head (discrete; 3 main effects: 1=35 or less, 2=36-51, 3=52+).

5. ERNDVACN - No. of days of vacation earned per year by head of household -Check Employment Status; if not employed by others (Code ≠ 1) recorded as actual days taken; if employed by other (Code = 1) recorded at reported value.

6. EMPLSTAT - Employee status of head of household (discrete:

$$E = \begin{cases} 1, & \text{if employed by others} \\ 0, & \text{otherwise).} \end{cases}$$

7. HHRACE - Race of household (discrete; 1=white, 0=other).

8. FAMLYSZE - Number living together in household.

9. HR/WKIND - Hours per week spent in indoor recreation, by a household.

10. HR/WKOUT - Hours per week spent in outdoor recreation by a household.

11. RECINVST - Total of valuation of boating, camping and hunting equipment owned by a household.

12. NACTNOW - Number of activities a household indicated that it participates in currently (computed by adding up the participation indicator variables over all classes, range 1-64).

13. NACTPAST - Number of activities the household indicated that it participated in five years ago (computed by adding up the participation indicator variables over all classes, range 1-64).

14. ONBOATED - Ownership of boating equipment (discrete: 1 = own eq; 0 = otherwise).

15. ONCAMPEQ - Ownership of camping equipment (discrete: 1 = ownequip; 0 = otherwise).

16. ONHUNTEQ - Ownership of hunting equipment (discrete: 1 = ownequip; 0 = otherwise).

17. PREFBOAT - Household preference ranking for boating.
18. PREFCAMP - Household preference ranking for all camping.
19. PREFFISH - Household preference ranking for all fishing.
20. PREFHUNT - Household preference ranking for hunting.
21. PREFPICC - Household preference ranking for picnicking.
22. PREFSWIM - Household preference ranking for swimming.
23. BOATNOW - Participation now in boating by a household (discrete: 1 = participant).
24. CAMPNOW - Participation now in all camping by a household (discrete: 1 = participant).
25. FISHNOW - Participation now in hunting by a household (discrete: 1 = participation).
26. HUNTNOW - Participation now in hunting by a household (discrete: 1 = participation).
27. PICNCNOW - Participation in picnicking by a household (discrete: 1 = participation).
28. SWIMNOW - Participation now in swimming by a household (discrete: 1 = participation).
29. AGEOHEAD - Age of head of household (range 1-15 as class indices).
30. QSTPHASE - Phase of survey (discrete: 0 = cool months, 1 = warm months).
31. OTHERVAC - Number of vacation trips with a nonrecreational purpose by a household, calculated as for OTHERTRP.
32. AVMIRIV1 - Availability of miles of rivers for overnight trips.
33. AVRELIF1 - Availability of divergent elevations (relief) for overnight trips.
34. AVRAINF1 - Availability of rainfall for overnight trips.
35. AVACHLC1 - Availability of acreage in the hill country for overnight trips.

36. AVACPWD1 - Availability of acreage in pine woods region for overnight trips.
37. AVACFWL1 - Availability of surface acres of freshwater lakes for overnight trips.
38. AVMABAY1 - Availability of miles of accessible bay frontage for overnight trips.
39. AVINCMP1 - Availability of inland camping facilities for overnight trips.
40. AVFSHQL1 - Availability of freshwater fishing quality for overnight trips.
41. AVYDFWF1 - Availability of freshwater fishing facilities for overnight trips.
42. AVACLSH1 - Availability of acreage leased for hunting for overnight trips.
43. AVACWMA1 - Availability of acreage in wildlife management areas for overnight trips.
44. AVINPIC1 - Availability of inland picnicking facilities for overnight trips.
45. AVSPOOL1 - Availability of area of swimming pools for overnight trips.
46. AVYDFWS1 - Availability of designated freshwater swimming areas for overnight trips.
47. AVPOPLN1 - Availability of population per unit land area for overnight trips.
48. AVNDEER1 - Availability of deer population for overnight trips.
49. AVWFOWL1 - Availability of waterfowl acre rating (region size multiplied by rating) for overnight trips.
50. AVSQURL1 - Availability of squirrel acre rating (region size multiplied by rating) for overnight trips.
51. AVJAVLA1 - Availability of javelina acre rating (region size multiplied by rating) for overnight trips.
52. AVMISHR1 - Availability of miles of Gulf shoreline for overnight trips.

53. AVFWBOT1 - Availability of freshwater boating facilities (ramps, slips, and stalls) for overnight trips.

54. AVSWBOT1 - Availability of saltwater boating facilities (ramps, slips, and stalls) for overnight trips.

55. AVMASHR1 - Availability of miles of accessible Gulf shoreline for overnight trips.

56. AVSWCMP1 - Availability of saltwater camping facilities for overnight trips.

57. AVSWPIC1 - Availability of saltwater picnicking facilities for overnight trips.

58. AVUBIRD1 - Availability of upland bird (dove, quail, turkey) acre rating region size multiplied by ratings for overnight trips.

59. - 85. - Identical with variables 32-58, except that availabilities are distance decayed for vacation trips.

Availability variables were computed by the following formula:

$$A_{ik}^{s} = \sum_{j=1}^{37} ((d_{ij})^{C_k}) X_j^s$$

for i = 1, 37, k = 1, 2, and s = 1, 27, where A_{iK}^{s} denotes the availability of the s^{th} type of recreational facility for the i^{th} origin region and k^{th} type of trip; C_k denotes the distance decay parameter for the k^{th} type of trip ($C_1 = 0.8$, $C_2 = 0.5$); d_{ij} denotes the map distance from origin region i to destination region j; and X_j^s denotes the level of s^{th} type of recreational facility in the j^{th} destination region.

Scaling Factors for Policy Variables

Policy Variable	Scale Divisor
AVMIRIV	100
AVRELIF	1,000
AVRAINF	100
AVACHLC	1,000,000
AVACPWD	1,000,000
AVACFWL	10,000
AVMABAY	10
AVINCMP	1,000
AVFSHQL	1
AVYDFWF	100
AVACLSH	1,000,000
AVACWMA	10,000
AVINPIC	1,000
AVSPOOL	1,000

AVYDFWS	10,000
AVPOPLN	100
AVNDEER	100,000,000
AVWFOWL	10,000,000
AVSQURL	10,000,000
AVJAVLA	10,000,000
AVMISHR	10
AVFWBOT	10
AVSWBOT	100
AVMASHR	10
AVSWCMP	10
AVSWPIC	10
AVUBIRD	100,000,000

Data on recreational facilities were obtained by Texas Parks and Wildlife Department staff from the 1969 statewide survey of recreational facilities.

The household variables (nos. 2. - 31.) were computed from data obtained in the 1968 household survey. The endogenous variables were also computed from the household survey data. A constant 1.0 was added to each continuous household variable before just prior to computing its natural logarithm. Constants were not added to availability variables. Complete documentation of the formulas used in the computation of all variables is spelled out on the computer programs employed in the computations.

C. The Structural Equation System

The structural model consists of a system of 28 stochastic equations and 75 probability identities. Among the stochastic equations, there are equations describing a decision process determining the probability that the household takes an overnight trip, a vacation, and the conditional probabilities that the household participates in each of the 6 activities given that it takes an overnight trip or a vacation. Companion to those 14 structural equations for probabilities, there are equations for the numbers of overnight trips and vacations, conditional that trips and vacations, respectively, will be taken; and there are equations for the quantities of each of the 6 activities per trip, conditional that the relevant type of trip was taken and the appropriate participation occurred on that type of trip. The 75 nonstochastic equations are either linear approximations to nonlinear relationships or exact linear relationships implied by the definitions of the data bases for the 28 structural equations. Without these identities, the model could not be stated consistently. The

last 14 of the identities, equations 90 - 103, are exact and allow the conversion of the highly conditioned quantities estimated by the stochastic equations to unconditioned quantities representing averages over all Texas households to be expanded into regional and state totals. Thus, the last 14 equations may be regarded as the most important identities in the system.

The trip probabilities were assumed to be jointly determined with each other and with the relevant trip quantities. The trip quantities are logically strongly related to the probabilities for each trip type from the definitions of the variables and data sets. Other variables specified to effect the trip and vacation probabilities include the economic variables HHINCOME, RECINVST; time allocation variables such as OTHERTRP, HRWRK/WK, ERNDVACN, OTHERVAC; recreation propensity variables NACTNOW and NACTPAST; and general environmental availability variables. Availability variables with strong policy capabilities were omitted in order to limit the number of parameters in each equation.

The conditional numbers of trips and vacations were assumed to be jointly determined with the activity probabilities conditional on the trip, or vacation in question, and depend on economic variables, time allocation variables, recreation propensity variables, social variables and selected availability policy variables representing diverse recreational types. The equation for numbers of vacations is stated similarly to the equation for numbers of trips.

The conditional probabilities of activities were jointly determined with the most closely related conditional probabilities and with the paired

conditional quantity. Important variables were assumed to be HHINCOME, and specific recreational activity propensity variables. Time allocation variables were assumed to be relatively unimportant to the probabilities. Availability variables are specific to the recreation activity and are chosen to be more environmental than policy in nature.

Conditional activity quantities per trip are jointly determined with conditional trip numbers and closely related quantities. Economic variables, time allocation variables, specific recreational propensity and preference variables, social variables and availability policy variables specific to the activity are included in the structural equations. Environmental availability variables and other availabilities not specific to the activity in question are omitted.

In order to reduce multicollinearity in the system, several rules were established. As there was no appreciable degree of multicollinearity amongst the household variables, no adjustments were required. Many of the related availability variables, such as freshwater boat ramps and freshwater ships and stalls are highly correlated. Those related directly to the same activity were pooled or added together. This would constrain their coefficients to be equal. All of the saltwater availability variables were highly correlated. Logically related saltwater variables, for example, miles of bay frontage and miles of ocean frontage were pooled. Structural equations were permitted to contain at most one saltwater variable in each equation. In cases in which more than one saltwater variable seemed appropriate to a quantity equation, a saltwater variable was then put in the companion probability equation if possible.

The above general rules employed in the specification of the equations to be statistically estimated have assured that the usual counting rules or necessary conditions for overidentification of each equation in the system are met. Counting rules, however, were developed for models that did not assume a possiblity for widespread errors in the data.

As discussed earlier, the structural equations reflect either first order conditions for utility optimization or partially reduced equations between the first order conditions and the fully reduced demand equations. From that point of view, it is not possible to state strong hypotheses about the algebraic signs or range of the coefficients. However, one would generally expect HHINCOME to have a positive effect on any recreation-related decision.

Increases in variables reflecting time substituted in other areas should register decreases in recreation. Increases in recreational facilities availability in the region of origin might increase or decrease participation on longer trips. It is expected that increased availability will increase participation on overnight trips, however. Increased facilities availability would be expected to significantly increase recreation on very short trips, but these could not be treated in the final model.

The 103 structural equations are listed below. The constant is the first coefficient presented, followed by the jointly endogenous variable coefficients and their exogenous variable coefficients. Under each coefficient is an estimate of its standard error in parenthesis. The coefficient of determination of R^2 indicating that fraction of the variation in the left-hand variable explained by the ordinary least squares estimation of the equation

(1) PROBTRIP = -0.1744D 01 + 0.6377D-02 PROBVACN + 0.9755D 00 NOTRIPON
(0.3598D-02) (0.6177D-02)

+ 0.5609D 00 OTHERTRP + 0.7895D-02 HHINCOME + 0.6156D-03 HRWRK/WK
(0.1443D-01) (0.5537D-02) (0.4621D-01)

+ 0.2400D-02 RECINVST + 0.4191D-01 NACTNOW + 0.2119D-01 NACTPAST
(0.1363D-02) (0.8339D-02) (0.7431D-02)

- 0.1344D-01 AGEOHEAD + 0.4826D-01 QSTPHASE + 0.1186D-01 AVRELIF1
(0.9943D-02) (0.6796D-02) (0.1418D-01)

+ 0.4630D-01 AVRAINF1 + 0.7961D-03 AVACHLC1 - 0.9719D-02 AVACPWD1
(0.2970D-01) (0.8026D-02) (0.1153D-01)

- 0.3420D-01 AVPOPLN1 - 0.3131D-01 AVMISHR1
(0.1624D-01) (0.7211D-02)

R^2 = 0.750

(2) NTRP/TRP = 0.1970D 01 + 0.5047D-01 PRB/TRIP + 0.3722D-01 PRC/TRIP
(0.1444D-01) (0.1435D-01)

+ 0.2269D 00 PRF/TRIP + 0.1428D 00 PRH/TRIP + 0.4863D-01 PRP/TRIP
(0.1528D-01) (0.1476D-01) (0.1380D-01)

+ 0.3267D-01 PRS/TRIP + 0.6436D-01 OTHERTRP + 0.8212D-01 HHINCOME
(0.1444D-01) (0.2087D-01) (0.2151D-01)

+ 0.9234D-01 HRWRK/WK + 0.2085D-01 EMPLSTAT - 0.2512D-02 HHRACE
(0.2661D-01) (0.2530D-01) (0.3497D-01)

- 0.1662D 00 FAMLYSZE - 0.3768D-01 HR/WKIND + 0.6169D-01 HR/WKOUT
(0.3548D-01) (0.1273D-01) (0.1246D-01)

+ 0.2926D-01 RECINVST + 0.4980D-01 QSTPHASE - 0.3788D 00 AVMIRIV1
(0.4065D-02) (0.2457D-01) (0.1532D 00)

+ 0.5247D-01 AVACFWL1 + 0.1932D 00 AVFSHQL1 + 0.1040D 00 AVNDEER1
(0.7350D-01) (0.7360D-01) (0.5862D-01)

+ 0.1517D 00 AVMASHR1
(0.2770D-01)

R^2 = 0.175

(3) PROBVACN =-0.1611D 01 + 0.4599D-02 PROBTRIP + 0.1779D 01 NOVACATN
(0.2792D-02) (0.6923D-02)

-0.2526D-02 HHINCOME + 0.1529D-01 ERNDVACN + 0.6155D-03 RECINVST
(0.3635D-02) (0.1954D-02) (0.8674D-03)

+ 0.1305D-01 NACTNOW - 0.2613D-02 NACTPAST - 0.3789D-01 AGEOHEAD
(0.5345D-02) (0.4644D-02) (0.6336D-02)

+ 0.4826D-01 OTHERVAC - 0.3535D-02 AVRELIF2 - 0.8140D-02 AVRA1NF2
(0.6954D-02) (0.1951D-01) (0.4330D-01)

- 0.3671D-02 AVACHLC2 + 0.8707D-02 AVACPWD2 - 0.1267D-03 AVPOPLN2
(0.1026D-01) (0.1413D-01) (0.2210D-01)

- 0.1023D-02 AVMISHR2
(0.8405D-02)

R^2 = 0.893

(4) NVAC/VAC = 0.9745D 00 + 0.1471D-01 PRB/VACN + 0.2227D-01 PRC/VACN
(0.4447D-02) (0.4492D-02)

+ 0.2580D-01 PRF/VACN + 0.5032D-01 PRH/VACN - 0.1737D-02
(0.4653D-02) (0.4386D-02) (0.4241D-02)

+ 0.1172D-01 PRS/VACN + 0.6738D-01 HHINCOME + 0.5747D-01 ERNDVACN
(0.4490D-02) (0.6638D-02) (0.4000D-02)

- 0.6516D-01 EMPLSTAT - 0.1304D-02 HHRACE - 0.8533D-01 FAMLYSZE
(0.7359D-02) (0.1121D-01) (0.1130D-01)

- 0.3576D-02 HR/WKIND + 0.1016D-01 HR/WKOUT + 0.2604D-02 RECINVST
(0.3951D-02) (0.3749D-02) (0.1245D-02)

+ 0.7248D-01 OTHERVAC - 0.3239D-01 AVMTRIV2 - 0.1805D-01 AVACFWL2
(0.6132D-02) (0.1253D-01) (0.5093D-01)

+ 0.4590D-01 AVFSHQL2 - 0.1445D-01 AVNPEER2 - 0.3862D-01 AVMASHR2
(0.6040D-01) (0.4410D-01) (0.1706D-01)

R^2 = 0.190

(5) PRB/TRIP = - 0.2317D 01 + 0.8959D-02 NTRP/TRP + 0.1135D-02 PRC/TRIP
(0.7099D-02) (0.6165D-04)

+ 0.2588D-01 PRF/TRIP + 0.1003D 01 QB/TRP*P + 0.2374D-01 OTHERTRP
(0.6740D-02) (0.7114D-02) (0.8147D-02)

- 0.2027D-01 HHINCOME + 0.2297D-01 HRWRK/WK - 0.8203D-02 ONBOATEQ
(0.8766D-02) (0.1032D-01) (0.1195D-01)

+ 0.8294D-01 BOATNOW + 0.2174D-01 QSTPHASE + 0.2605D-01 AVMIRIV1
(0.1064D-01) (0.9713D-02) (0.3676D-01)

- 0.1287D-01 AVACFWL1 + 0.7910D-02 AVMABAY1
(0.2108D-01) (0.9555D-02)

R^2 = 0.888

(6) PRC/TRIP =-0.1550D 01 + 0.6276D-02 NTRP/TRP - 0.7149D-02 PRB/TRIP
(0.6896D-02) (0.6003D-02)

+ 0.9815D-02 PRF/TRIP - 0.1530D-01 PRS/TRIP + 0.8010D 00 QC/TRP*P
(0.6550D-02) (0.6017D-02) (0.6022D-02)

- 0.1128D-01 OTHERTRP - 0.1079D-01 HHINCOME - 0.1626D-01 HRWRK/WK
(0.8202D-02) (0.8466D-02) (0.1067D-01)

- 0.1492D 00 FAMLYSZE - 0.1778D-01 ONCAMPEQ + 0.1275D 00 CAMPNOW
(0.1366D-01) (0.1111D-01) (0.1073D-01)

- 0.1463D-01 AGEOHEAD + 0.3398D-01 QSTPHASE - 0.3997D-01 AVMIRIV1
(0.1369D-01) (0.9604D-02) (0.3556D-01)

+ 0.2548D-01 AVACFWL1 + 0.2350D-02 AVMASHR1
(0.2040D-01) (0.9090D-02)

R^2 = 0.892

(7) PRF/TRIP = - 0.1428D 01 + 0.4939D-01 NTRP/TRP + 0.1178D-01 PRB/TRIP
(0.7615D-02) (0.6686D-02)

+ 0.7768D-02 PRC/TRIP - 0.7482D-02 PRP/TRIP - 0.3596D-01 PRS/TRIP
(0.6746D-02) (0.6391D-02) (0.6658D-02)

+ 0.7286D 00 QF/TRP*P + 0.1690D-01 OTHERTRP - 0.2040D-01 HHINCOME
(0.6447D-02) (0.8886D-02) (0.9762D-01)

+ 0.2849D-01 HRWRK/WK + 0.3559D-01 HHRACE - 0.9769D-02 RECINVST
(0.1126D-01) (0.1535D-01) (0.1888D-02)

- 0.7244D-01 PREFFISH + 0.1251D 00 FISHNOW + 0.5654D-01 QSTPHASE
(0.1803D-01) (0.1298D-01) (0.1070D-01)

- 0.1110D 00 AVMIRIV1 + 0.9336D-01 AVACFWL1 - 0.4425D-01 AVFSHQL1
(0.3104D-01) (0.2304D-01) (0.2790D-01)

R^2 = 0.852

(8) PRH/TRIP = -0.1905D 01 + 0.2836D-01 NTRP/TRP - 0.3078D-01 PRC/TRIP
(0.7633D-02) (0.6688D-02)

+ 0.1163D 01 QH/TRP*P - 0.1063D-01 OTHERTRP - 0.2140D-01 HHINCOME
(0.9763D-02) (0.9311D-02) (0.9675D-02)

- 0.1194D-01 HRWRK/WK + 0.8046D-02 ONHUNTEQ + 0.1122D 00 HUNTNOW
(0.1205D-01) (0.1284D-01) (0.1267D-01)

- 0.7333D-01 AGEOHEAD - 0.7589D-01 QSTPHASE - 0.3184D-01 AVMIRIV1
(0.1513D-01) (0.1122D-01) (0.7447D-01)

+ 0.1289D-01 AVACFWL1 + 0.3709D-01 AVMABAY1 + 0.1647D-01 AVACLSH1
(0.3549D-02) (0.1779D-01) (0.3295D-01)

- 0.5463D-01 AVACWMA1 + 0.1818D-01 AVPOPLN1
(0.3271D-01) (0.1671D-01)

R^2 = 0.865

(9) PRP/TRIP = -0.1867D 01 + 0.1325D-01 NTRP/TRP + 0.8696D-02 PRB/TRIP
(0.7392D-02) (0.6415D-02)

- 0.9815D-02 PRF/TRIP - 0.1312D-01 PRS/TRIP + 0.9862D 00 QP/TRP*P
(0.6865D-02) (0.6378D-02) (0.6740D-02)

+ 0.4459D-01 OTHERTRP - 0.1891D-01 HHINCOME + 0.5755D-01 HRWRK/WK
(0.8375D-02) (0.9163D-02) (0.1064D-01)

- 0.9578D-02 RECINVST - 0.8665D-01 PREFPICC + 0.5888D-01 PICNCNOW
(0.1758D-02) (0.3344D-02) (0.1059D-01)

+ 0.1180D-01 QSTPHASE - 0.5930D-01 AVMIRIV1 + 0.2171D-01 AVACFWL1
(0.1022D-01) (0.3787D-01) (0.2165D-01)

+ 0.5130D-02 AVMASHR1
(0.9682D-02)

$R^2 = 0.883$

(10) PRS/TRIP = -0.1969D 01 + 0.1923D-01 NTRP/TRP + 0.2547D-01 PRB/TRIP
(0.7107D-02) (0.6157D-02)

+ 0.1028D-01 PRC/TRIP - 0.2482D-02 PRF/TRIP + 0.1388D-01 PRP/TRIP
(0.6215D-02) (0.6693D-02) (0.5899D-02)

+ 0.9661D 00 QS/TRP*P - 0.7915D-02 OTHERTRP - 0.2037D-02 HHINCOME
(0.6591D-02) (0.8394D-02) (0.8965D-02)

- 0.1600D-01 HRWRK/WK - 0.1257D 00 FAMLYSZE - 0.5262D-02 RECINVST
(0.1093D-01) (0.1466D-01) (0.1702D-02)

+ 0.8858D-01 SWIMNOW - 0.1861D-01 AGEOHEAD + 0.3465D-01 QSTPHASE
(0.1111D-01) (0.1426D-01) (0.9857D-02)

+ 0.1690D-01 AVMIRIV1 - 0.5279D-02 AVACFWL1 - 0.2834D-02 AVMASHR1
(0.3640D-01) (0.2082D-01) (0.9296D-02)

R^2 = 0.891

(11) QB/B*TRP= 0.8229D 00 - 0.5786D-01 NTRP/B*T + 0.5239D-01 QC/B*TRP
(0.3018D-01) (0.2298D-01)

+ 0.1286D 01 QF/B*TRP + 0.5684D-01 QP/B*TRP + 0.1417D 00 QS/B*TRP
(0.2608D 00) (0.2439D-01) (0.2381D-01)

+ 0.1129D 00 HHINCOME + 0.5258D-01 HRWRK/WK + 0.5486D 00 FAMLYSZE
(0.4702D-01) (0.2585D-01) (0.8133D-01)

+ 0.1136D-01 HR/WKIND + 0.7933D-02 HR/WKOUT + 0.9175D-01 ONBOATEQ
(0.2765D-01) (0.2878D-01) (0.4973D-01)

- 0.3106D 00 PREFBOAT - 0.2010D-01 QSTPHASE - 0.6855D-01 AVFWBOT1
(0.8669D-01) (0.6018D-01) (0.4917D-01)

- 0.6507D-01 AVSWBOT1
(0.3575D-01)

R^2 = 0.364

(12) QC/C*TRP= 0.9131D 00 - 0.6289D-01 NTRP/C*T + 0.5353D-01 QB/C*TRP
(0.2141D-01) (0.1739D-01)

+ 0.1566D 00 QF/C*TRP + 0.8547D-01 QS/C*TRP - 0.3772D-01 HHINCOME
(0.1638D-01) (0.1754D-01) (0.3006D-01)

- 0.6200D-02 HRWRK/WK + 0.6261D 00 FAMLYSZE - 0.1273D-01 HR/WKIND
(0.1793D-03) (0.5005D-01 (0.1855D-01)

+ 0.3738D-01 HR/WKOUT + 0.1145D 00 ONCAMPEQ - 0.2499D 00 PREFCAMP
(0.1793D-01) (0.3081D-01) (0.5902D-01)

+ 0.1636D-01 AGEOHEAD - 0.1546D-02 QSTPHASE + 0.5924D-02 AVINCMP1
(0.4820D-01) (0.3554D-1) (0.4378D-02)

+ 0.3369D-01 AVSWCMP1
(0.2424D-01)

R^2 = 0.346

(13) QF/F*TRP = 0.1042D 01 - 0.3324D-01 NTRP/F*T + 0.8876D-01 QB/F*TRP
(0.1736D-01) (0.1560D-01)

+ 0.1116D 00 QC/F*TRP + 0.1041D 00 QS/F*TRP + 0.2282D-01 HHINCOME
(0.1372D-01) (0.1659D-01) (0.2696D-01)

- 0.4907D-03 HRWRK/WK - 0.3337D-01 HHRACE + 0.4785D 00 FAMLYSZE
(0.1561D-02) (0.4657D-01) (0.4518D-01)

- 0.3145D-04 HR/WKIND + 0.2017D-01 HR/WKOUT + 0.1636D-01 RECINVST
(0.1584D-02) (0.1553D-01) (0.5011D-02)

- 0.2563D 00 PREFFISH - 0.1186D 00 QSTPHASE + 0.8612D-01 AVFSHQL1
(0.4578D-01) (0.2952D-01) (0.7225D-01)

- 0.8563D-02 AVYDFWF1
(0.4301D-01)

R^2 = 0.275

(14) QH/H*TRP = 0.7850D 00 - 0.4626D-01 NTRP/H*T + 0.1323D 00 QC/H*TRP
(0.2680D-01) (0.2778D-01)

+ 0.4252D-01 HHINCOME + 0.3685D-01 HRWRK/WK + 0.3766D 00 FAMLYSZE
(0.3549D-01) (0.2285D-01) (0.6574D-01)

- 0.2633D-01 HR/WKIND + 0.4930D-02 HR/WKOUT + 0.2888D-01 ONHUNTEQ
(0.2111D-01) (0.2091D-01) (0.6790D 00)

- 0.3931D 00 PREFHUNT + 0.3073D 00 AGEOHEAD - 0.1421D 00 QSTPHASE
(0.9221D-01) (0.5863D-01) (0.4618D-01)

+ 0.1357D 00 AVNDEER1 + 0.3567D 00 AVWFOWL1 - 0.4189D 00 AVSQURL1
(0.1198D 00) (0.2519D 00) (0.2137D 00)

- 0.1765D 00 AVJAVLA1 + 0.1462D 00 AVUBIRD1
(0.1867D 00) (0.2117D 00)

$R^2 = 0.135$

(15) QP/P*TRP = 0.2781D 00 - 0.5955D-01 NTRP/P*T + 0.3842D-01 QB/P*TRP
(0.2460D-01) (0.1869D-01)

+ 0.1374D 00 QF/P*TRP + 0.9011D-01 QS/P*TRP + 0.3671D-01 HHINCOME
(0.1846D-01) (0.1818D-01) (0.3343D-01)

+ 0.1251D-01 HRWRK/WK + 0.9053D-01 EMPLSTAT + 0.7050D 00 FAMLYSZE
(0.1886D-01) (0.3615D-01) (0.5199D-01)

- 0.2457D-01 HR/WKIND + 0.6340D-01 HR/WKOUT + 0.2021D-01 RECINVST
(0.2072D-01) (0.2054D-01) (0.6044D-02)

- 0.1184D 00 PREFPICC + 0.1131D 00 QSTPHASE - 0.7806D-02 AVINPIC1
(0.9801D-01) (0.4047D-01) (0.4833D-01)

+ 0.7252D-02 AVSWPIC1
(0.2648D-01)

$R^2 = 0.489$

(16) QS/S*TRP = 0.8421D 00 - 0.1367D 01 NTRP/S*T + 0.7635D-01 QB/S*TRP
(0.3298D 00) (0.2139D-01)

+ 0.3394D-01 QC/S*TRP + 0.7804D-01 QF/S*TRP + 0.4936D-01 QP/S*TRP
(0.2158D-01) (0.2379D-01) (0.2227D-01)

- 0.1178D-01 HHINCOME + 0.3081D-01 HRWRK/WK + 0.7635D 00 FAMLYSZE
(0.4754D-01) (0.2731D-01) (0.7899D-01)

- 0.5310D-01 HR/WKIND + 0.5856D-01 HR/WKOUT + 0.1890D-01 RECINVST
(0.2875D-01) (0.2878D-01) (0.8919D-02)

- 0.3644D 00 PREFSWIM - 0.1582D-02 AGEOHEAD + 0.1406D 00 QSTPHASE
(0.1008D-01) (0.7476D-01) (0.6673D-01)

- 0.5890D-01 AVSPOOL1 - 0.2962D-01 AVYDFWS1 + 0.5386D-01 AVMASHR1
(0.1045D 00) (0.5917D-01) (0.2959D-01)

$R^2 = 0.298$

(17) NTRP/B*T - 5.1130 NTRP/TRP + 0.2577 PRB/TRIP = - 5.3297

(18) NTRP/C*T - 2.9856 NTRP/TRP + 0.1802 PRC/TRIP = - 2.5434

(19) NTRP/F*T - 1.9525 NTRP/TRP + 0.3422 PRF/TRP = - 1.2594

(20) NTRP/H*T - 4.1356 NTRP/TRP + 0.2058 PRH/TRIP = - 4.0316

(21) NTRP/P*T - 4.3402 NTRP/TRP + 0.1286 PRP/TRIP = - 4.2302

(22) NTRP/S*T - 4.8759 NTRP/TRP + 0.1722 PRS/TRIP = - 4.9445

(23) -PRB/TRIP - QB/B*TRP + QB/TRP*P = 0

(24) -PRC/TRIP - QC/C*TRP + QC/TRP*P = 0

(25) -PRF/TRIP - QF/F*TRP + QF/TRP*P = 0

(26) -PRH/TRIP - QH/H*TRP + QH/TRP*P = 0

(27) -PRP/TRIP - QP/P*TRP + QP/TRP*P = 0

(28) -PRS/TRIP - QS/S*TRP + QS/TRP*P = 0

(29) QC/B*TRP - 4.4725 QC/TRP*P + 0.3733 PRB/TRIP = -2.2001

(30) QF/B*TRP - 3.7620 QF/TRP*P + 0.5014 PRB/TRIP = -2.2645

(31) QP/B*TRP - 4.7743 QP/TRP*P + 0.3188 PRB/TRIP = -1.6504

(32) QS/B*TRP - 3.9365 QS/TRP*P + 0.4699 PRB/TRIP = -1.3518

(33) QB/C*TRP - 2.8200 QB/TRP*P + 0.2487 PRC/TRIP = -0.6421

(34) QF/C*TRP - 2.2978 QF/TRP*P + 0.4642 PRC/TRIP = -1.0542

(35) QS/C*TRP - 2.8394 QS/TRP*P + 0.2406 PRC/TRIP = -0.7212

(36) QB/F*TRP - 1.9943 QB/TRP*P + 0.3134 PRF/TRIP = -0.3649

(37) QC/F*TRP - 1.8309 QC/TRP*P + 0.4262 PRF/TRIP = -0.5407

(38) QS/F*TRP - 2.1707 QS/TRP*P + 0.1914 PRF/TRIP = -0.4407

(39) QC/H*TRP - 6.3555 QC/TRP*P - 0.3566 PRH/TRIP = -2.5779

(40) QB/P*TRP - 3.8431 QB/TRP*P + 0.2583 PRP/TRIP = -1.0051

(41) QF/P*TRP - 3.7975 QF/TRP*P + 0.2701 PRP/TRIP = -2.0843

(42) QS/P*TRP - 3.6683 QS/TRP*P + 0.3038 PRP/TRIP = -1.0906

(43) QB/S*TRP - 3.4730 QB/TRP*P + 0.4717 PRS/TRIP = -1.0467

(44) QC/S*TRP - 3.9141 QC/TRP*P + 0.3775 PRS/TRIP = -1.8599

(45) QF/S*TRP - 3.9959 QF/TRP*P + 0.3600 PRS/TRIP = -2.3082

(46) QP/S*TRP - 3.9059 QP/TRP*P + 0.3794 PRS/TRIP = -1.3364

(47) PRB/VACN = -0.2124D 01 + 0.7603D-01 NVAC/VAC - 0.1147D-01 PRC/VACN
(0.1962D-01) (0.5887D-02)

+ 0.3556D-02 PRF/VACN + 0.7683D 00 QB/VAC*P - 0.2900D-01 HHINCOME
(0.6331D-02) (0.4902D-02) (0.8395D-02)

- 0.1509D-01 ERNDVACN - 0.6655D-01 ONBOATEQ + 0.8303D-01 BOATNOW
(0.5531D-02) (0.1228D-01) (0.1029D-01)

+ 0.1500D-01 OTHERVAC - 0.6770D-01 AVMIRIV2 + 0.4479D-01 AVACFWL2
(0.8414D-02) (0.6657D-01) (0.3870D-01)

+ 0.2628D-01 AVMABAY2
(0.1627D-01)

R^2 = 0.860

(48) PRC/VACN = -0.1566D 01 + 0.9579D-01 NVAC/VAC - 0.9137D-02 PRB/VACN
(0.1552D-01) (0.4732D-02)

+ 0.1137D-01 PRF/VACN - 0.1600D-02 PRS/VACN + 0.6077D 00 QC/VAC*P
(0.4937D-02) (0.4642D-02) (0.3467D-02)

- 0.6726D-02 HHINCOME - 0.3091D-01 ERNDVACN - 0.1118D 00 FAMLYSZE
(0.6747D-02) (0.4358D-02) (0.1126D-01)

+ 0.1095D-02 ONCAMPEQ + 0.7989D-01 CAMPNOW - 0.4691D-01 AGEOHEAD
(0.9379D-02) (0.8385D-02) (0.1120D-01)

+ 0.3251D-03 OTHERVAC - 0.1201D 00 AVMIRIV2 + 0.8574D-01 AVACFWL2
(0.6611D-02) (0.5124D-01) (0.3000D-01)

+ 0.5716D-02 AVMASHR2
(0.1238D-01)

R^2 = 0.916

(49) PRF/VACN = - 0.1328D 01 + 0.1207D 00 NVAC/VAC + 0.5537D-02 PRB/VACN
(0.2038D-01) (0.1404D-01)

- 0.2462D-03 PRC/VACN + 0.1061D-01 PRP/VACN - 0.2289D-01 PRS/VACN
(0.6384D-03) (0.6003D-02) (0.6277D-02)

+ 0.5324D 00 QF/VAC*P - 0.1977D-01 HHINCOME - 0.2050D-01 ERNDVACN
(0.4353D-02) (0.9060D-02) (0.5781D-02)

- 0.3503D-02 HHRACE - 0.6644D-02 RECINVST - 0.5899D-01 PREFFISH
(0.1511D-01) (0.1780D-02) (0.1767D-01)

+ 0.1243D 00 FISHNOW + 0.3758D-01 OTHERVAC - 0.2096D 00 AVMIRIV2
(0.1209D-01) (0.8829D-02) (0.6281D-01)

+ 0.5408D-01 AVACFWL2 + 0.1334D 00 AVFSHQL2
(0.4170D-01) (0.6705D-01)

R^2 = 0.831

(50) PRH/VACN = - 0.2550D 01 + 0.7875D-01 NVAC/VAC - 0.8081D-02 PRC/VACN
(0.1905D-01) (0.5498D-02)

+ 0.1154D 01 QH/VAC*P - 0.2612D-01 HHINCOME - 0.7635D-02 ERNDVACN
(0.7614D-02) (0.8206D-02) (0.5325D-02)

+ 0.3352D-02 ONHUNTEQ + 0.7754D-01 HUNTNOW - 0.3483D-01 AGEOHEAD
(0.1061D-01) (0.1065D-01) (0.1286D-01)

+ 0.2891D-01 OTHERVAC - 0.4475D-01 AVMIRIV2 - 0.4915D-02 AVACFWL2
(0.8093D-02) (0.1665D 00) (0.8061D-01)

- 0.1746D-01 AVMABAY2 - 0.2802D-01 AVACLSH2 - 0.3034D-01 AVACWMA2
(0.3594D-02) (0.7514D-01) (0.7751D-01)

+ 0.7488D-01 AVPOPLN2
(0.3436D-01)

R^2 = 0.857

(51) PRP/VACN = -0.1368D 01 + 0.3792D-01 NVAC/VAC - 0.7733D-02 PRB/VACN
(0.2076D-01) (0.6415D-02)

- 0.2520D-01 PRF/VACN - 0.2962D-02 PRS/VACN + 0.7140D 00 QP/VAC*P
(0.6639D-02) (0.6328D-02) (0.4927D-02)

- 0.2423D-01 HHINCOME - 0.1219D-01 ERNDVACN - 0.5683D-02 RECINVST
(0.9052D-02) (0.5864D-02) (0.1711D-02)

- 0.1016D 00 PREFPICC + 0.6260D-01 PICNCNOW + 0.5843D-01 OTHERVAC
(0.3249D-01) (0.1074D-01) (0.8832D-02)

- 0.1310D 00 AVMIRIV2 - 0.1316D-01 AVACFWL2 + 0.9691D-02 AVMASHR2
(0.6950D-01) (0.4061D-02) (0.1679D-01)

R^2 = 0.844

(52) PRS/VACN = -0.1602D 01 + 0.5015D-01 NVAC/VAC + 0.5474D-02 PRB/VACN
(0.1921D-01) (0.5892D-02)

+ 0.5177D-02 PRC/VACN - 0.8804D-02 PRF/VACN + 0.4239D-01 PRP/VACN
(0.5926D-02) (0.6132D-02) (0.5549D-02)

+ 0.6479D 00 QS/VAC*P + 0.6957D-02 HHINCOME - 0.1880D-01 ERNDVACN
(0.4294D-02) (0.8634D-02) (0.5386D-02)

- 0.1182D 00 FAMLYSZE - 0.2569D-02 RECINVST + 0.9630D-01 SWIMNOW
(0.1475D-01) (0.1607D-2) (0.1097D 01)

- 0.2948D-01 AGEOHEAD + 0.2810D-01 OTHERVAC - 0.2544D-01 AVMIRIV2
(0.1423D-01) (0.8217D-02) (0.6344D-01)

+ 0.1851D-01 AVACFWL2 - 0.7917D-03 AVMASHR2
(0.3709D-03) (0.1531D-01)

R^2 = 0.871

(53) QB/B*VAC = 0.2022D 01 - 0.1418D 00 NVAC/B*V + 0.3125D-01 QC/B*VAC
(0.9450D-01) (0.1889D-01)

+ 0.2212D 00 QF/B*VAC + 0.6289D-01 QP/B*VAC + 0.1447D 00 QS/B*VAC
(0.1996D-01) (0.2058D-01) (0.1875D-01)

+ 0.1463D 00 HHINCOME + 0.7995D-01 ERNDVACN + 0.4723D 00 FAMLYSZE
(0.5473D-01) (0.3366D-01) (0.9559D-01)

- 0.5604D-02 HR/WKIND - 0.1759D-02 HR/WKOUT + 0.2041D 00 ONBOATEQ
(0.3086D-03) (0.3129D-01) (0.5998D-01)

- 0.7308D 00 PREFBOAT - 0.1043D 00 OTHERVAC - 0.9680D-01 AVFWBOT2
(0.9944D-01) (0.5300D-01) (0.1080D 00)

- 0.3589D-01 AVSWBOT2
(0.7139D-01)

R^2 = 0.499

(54) QC/C*VAC= 0.8045D 00 - 0.4805D 00 NVAC/C*V + 0.3570D-01 QB/C*VAC
(0.8262D-01) (0.1821D-01)

+ 0.1085D 00 QF/C*VAC + 0.6283D-01 QS/C*VAC + 0.2509D-01 HHINCOME
(0.1544D-01) (0.1671D-01) (0.4767D-01)

+ 0.1811D 00 ERNDVACN + 0.9092D 00 FAMLYSZE - 0.3838D-01 HR/WKIND
(0.2643D-01) (0.7906D-01) (0.2567D-01)

+ 0.5482D-01 HR/WKOUT + 0.2012D 00 ONCAMPEQ - 0.2949D 00 PREFCAMP
(0.2483D-01) (0.4618D-01) (0.7644D-01)

+ 0.1950D 00 AGEOHEAD - 0.1817D 00 OTHERVAC - 0.1548D 00 AVINCMP2
(0.7420D-01) (0.4749D-01) (0.1186D 00)

+ 0.1053D 00 AVSWCMP2
(0.6136D-01)

$R^2 = 0.365$

(55) QF/F*VAC = 0.1695D 01 - 0.2057D 00 NVAC/F*V + 0.1365D 00 QB/F*VAC
(0.7269D-01) (0.1512D-01)

+ 0.8281D-01 QC/F*VAC + 0.3887D-01 QP/F*VAC - 0.1811D-01 HHINCOME
(0.1397D-01) (0.1592D-01) (0.3960D-01)

+ 0.9434D-01 ERNDVACN + 0.2372D 00 HHRACE + 0.5857D 00 FAMLYSZE
(0.2340D-01) (0.7085D-01) (0.6750D-01)

- 0.5297D-01 HR/WKIND + 0.1115D 00 HR/WKOUT + 0.8993D-02 RECINVST
(0.2171D-01) (0.2134D-01) (0.7126D-02)

- 0.4470D 00 PREFFISH - 0.2588D 00 OTHERVAC - 0.2683D 00 AVFSHQL2
(0.6769D-01) (0.3690D-01) (0.2370D 00)

+ 0.1297D 00 AVYDFWF2
(0.1226D 00)

$R^2 = 0.258$

(56) QH/H*VAC = 0.6843D 00 - 0.6214D-01 NVAC/H*V + 0.1045D 00 QC/H*VAC
(0.1405D 00) (0.2857D-01)

+ 0.2290D 00 HHINCOME + 0.5813D-01 ERNDVACN + 0.2300D 00 FAMLYSZE
(0.8029D-01) (0.4632D-01) (0.1402D 00)

- 0.9280D-02 HR/WKIND - 0.2692D-01 HR/WKOUT + 0.1895D 00 ONHUNTEQ
(0.4134D-02) (0.4074D-01) (0.1301D 00)

- 0.4777D 00 PREFHUNT + 0.1092D 00 AGEOHEAD - 0.2288D 00 OTHERVAC
(0.1565D 00) (0.1185D 00) (0.6919D-01)

+ 0.5141D 00 AVNDEER2 + 0.4112D 00 AVWFOWL2 - 0.2713D 00 AVSQURL2
(0.5552D 00) (0.1122D 01) (0.8651D 00)

+ 0.1080D 00 AVJAVLA2 - 0.1069D 01 AVUBIRD2
(0.7119D 00) (0.3938D 00)

$R^2 = 0.165$

(57) QP/P*VAC = 0.4139D 00 - 0.1401D 00 NVAC/P*V + 0.7275D-01 QB/P*VAC
(0.8280D-01) (0.1959D-01)

+ 0.1530D 00 QC/P*VAC + 0.1307D 00 QF/P*VAC + 0.6152D-01 QS/P*VAC
(0.1567D-01) (0.1677D-01) (0.1735D-01)

+ 0.5050D-01 HHINCOME + 0.7563D-01 ERNDVACN + 0.3368D-01 EMPLSTAT
(0.3986D-01) (0.2405D-01) (0.4561D-01)

+ 0.7902D 00 FAMLYSZE - 0.2890D-01 HR/WKIND + 0.1884D-01 HR/WKOUT
(0.6652D-01) (0.2455D-01) (0.2327D-01)

+ 0.1068D-02 RECINVST - 0.9125D-01 PREFPICC - 0.1066D 00 OTHERVAC
(0.7532D-02) (0.1229D-00) (0.3228D-01)

+ 0.1530D 00 AVINPICS + 0.6434D-01 AVSWPIC2
(0.1151D 00) (0.5865D-01)

$R^2 = 0.435$

(58) QS/S*VAC = 0.1189D 01 - 0.1911D 00 NVAC/S*V + 0.1292D 00 QB/S*VAC
(0.9676D-01) (0.1776D-01)

+ 0.5557D-01 QC/S*VAC + 0.1135D 00 QF/S*VAC - 0.4100D-02 QP/S*VAC
(0.1713D 01) (0.1789D-01) (0.1860D-01)

- 0.4062D-01 HHINCOME + 0.9246D-01 ERNDVACN + 0.1025D 01 FAMLYSZE
(0.5173D-01) (0.2952D-01) (0.8492D 00)

- 0.6773D-01 HR/WKIND + 0.4980D-01 HR/WKOUT - 0.5397D-03 RECINVST
(0.2950D-01) (0.2887D-01) (0.8983D-02)

- 0.4497D 00 PREFSWIM - 0.4135D-01 AGEOHEAD - 0.2480D 00 OTHERVAC
(0.1019D 00) (0.8154D-01) (0.4461D-01)

- 0.4912D-01 AVSPOOL2 + 0.1005D 00 AVYDFWS2 + 0.1769D 00 AVMASHR2
(0.2111D 00) (0.1170D 00) (0.5705D-01)

$R^2 = 0.334$

(59) NVAC/B*V - 6.1637 NVAC/VAC + 0.0637 PRB/VACN = -4.3736

(60) NVAC/C*V - 4.4037 NVAC/VAC + 0.0528 PRC/VACN = -2.8789

(61) NVAC/F*V - 2.5425 NVAC/VAC + 0.0626 PRF/VACN = -1.3086

(62) NVAC/H*V - 9.5522 NVAC/VAC + 0.1364 PRH/VACN = -7.3311

(63) NVAC/P*V - 4.1417 NVAC/VAC + 0.0122 PRP/VACN = -2.6301

(64) NVAC/S*V - 4.3620 NVAC/VAC + 0.0218 PRS/VACN = -2.8215

(65) -PRB/VACN - QB/B*VAC + QB/VAC*P = 0

(66) -PRC/VACN - QC/C*VAC + QC/VAC*P = 0

(67) -PRF/VACN - QF/F*VAC + QF/VAC*P = 0

(68) -PRH/VACN - QH/H*VAC + QH/VAC*P = 0

(69) -PRP/VACN - QP/P*VAC + QP/VAC*P = 0

(70) -PRS/VACN - QS/S*VAC + QS/VAC*P = 0

(71) QC/B*VAC - 4.2483 QC/VAC*P + 0.4110 PRB/VACN = -2.3663

(72) QF/B*VAC - 2.8314 QF/VAC*P + 0.6679 PRB/VACN = -2.0252

(73) QP/B*VAC - 4.6982 QP/VAC*P + 0.3293 PRB/VACN = -2.2226

(74) QS/B*VAC - 2.6890 QS/VAC*P + 0.6937 PRB/VACN = -1.3819

(75) QB/C*VAC - 3.4315 QB/VAC*P + 0.3234 PRC/VACN = -1.1149

(76) QF/C*VAC - 2.2882 QF/VAC*P + 0.6415 PRC/VACN = -1.4241

(77) QS/C*VAC - 3.1778 QS/VAC*P + 0.3939 PRC/VACN = -1.4786

(78) QB/F*VAC - 1.8941 QB/VAC*P + 0.4566 PRF/VACN = -0.4460

(79) QC/F*VAC - 1.7617 QC/VAC*P + 0.5371 PRF/VACN = -0.5904

(80) QP/F*VAC - 2.1735 QP/VAC*P + 0.2868 PRF/VACN = -0.6956

(81) QC/H*VAC - 8.8960 QC/VAC*P + 0.2028 PRH/VACN = -5.2001

(82) QB/P*VAC - 3.4511 QB/VAC*P + 0.2294 PRP/VACN = -1.0571

(83) QC/P*VAC - 3.1662 QC/VAC*P + 0.3189 PRP/VACN = -1.5278

(84) QF/P*VAC - 3.2952 QF/VAC*P + 0.2783 PRP/VACN = -2.1965

(85) QS/P*VAC - 3.1620 QS/VAC*P + 0.3202 PRP/VACN = -1.4163

(86) QB/S*VAC - 2.4413 QB/VAC*P + 0.5807 PRS/VACN = -0.8093

(87) QC/S*VAC - 2.9734 QC/VAC*P + 0.4258 PRS/VACN = -1.4636

(88) QF/S*VAC - 2.7413 QF/VAC*P + 0.4933 PRS/VACN = -1.7984

(89) QP/S*VAC - 3.0338 QP/VAC*P + 0.4082 PRS/VACN = -1.2908

(90) -PROBTRIP - NTRP/TRP + NOTRIPON = 0

(91) -PROBVACN - NVAC/VAC + NOVACATN = 0

(92) -PROBTRIP - NTRP/TRP - PRB/TRIP - QB/B*TRP
+ QBTRIPON = 0

(93) -PROBTRIP - NTRP/TRP - PRC/TRIP - QC/C*TRP
+ QCTRIPON = 0

(94) -PROBTRIP - NTRP/TRP - PRF/TRIP
- QF/F*TRP + QFTRIPON = 0

(95) -PROBTRIP - NTRP/TRP - PRH/TRIP
-QH/H*TRP + QHTRIPON = 0

(96) -PROBTRIP - NTRP/TRP - PRP/TRIP
-QP/P*TRP + QPTRIPON = 0

(97) -PROBTRIP - NTRP/TRP - PRS/TRIP
- QS/S*TRP + QSTRIPON = 0

(98) -PROBVACN - NVAC/VAC - PRB/VACN
- QB/B*VAC + QBVACATN = 0

(99) -PROBVACN - NVAC/VAC - PRC/VACN
- QC/C*VAC + QCVACATN = 0

(100) -PROBVACN - NVAC/VAC - PRF/VACN
- QF/F*VAC + QFVACATN = 0

(101) -PROBVACN - NVAC/VAC - PRH/VACN
- QH/H*VAC + QHVACATN = 0

(102) -PROBVACN - NVAC/VAC - PRP/VACN
- QP/P*VAC + QPVACATN = 0

(103) -PROBVACN - NVAC/VAC - PRS/VACN
- QS/S*VAC + QSVACATN = 0

appears beneath each equation.

Parameter estimates were obtained using the method of ordinary least squares. Such least squares estimates for parameters in a system of simultaneous equations are expected to be biased. In the probability equations standard errors are also expected to be biased because of the heteroskedasticity mentioned earlier.

Structural parameters in 49 of the identities and 16 of the stochastic equations have been adjusted in accordance with methods agreed to by Dr. Stanley Johnson and myself (Appendix A). These changes have been incorporated into the equations in this report.

As an example, an interpretation of the structural parameters in equation (2) for NTRP/TRP will be given. The parameter estimates in each of the other stochastic equations can be interpreted accordingly. The interpretations of the identities depend upon whether they are linear approximations to exact linear relations or themselves exact linear relations. The normalization rule commonly employed in econometric investigations is applied to obtain a coefficient of 1.0 for NTRP/TRP. The coefficients 1.0, .050, .037, .227, .143, .049, and .033 represent estimates of the joint degree of influence among the endogenous variables NTRP/TRP, PRC/TRIP, PRF/TRIP, PRH/TRIP, PRP/TRIP, and PRS/TRIP, respectively. The constant, 1.97, represents the estimated value of the logarithm of NTRP/TRP if all other variables were set to 0.0. The parameter estimates for OTHERTRP, HHINCOME, HRWRK/WK, EMPLSTAT, HR/WKOUT, RECINVST, QSTPHASE, AVACFWL1, AVFSHQL1, AVNDEER1, and AVMASHR1 indicate that a 1.0 unit increase of these variables would result in an increase in NTRP/TRP of .064, .082, .092, .021,

.062, .029, .050, .052, .193, .104, and .152, respectively. Similarly an increase of 1.0 unit in HHRACE, FAMLYSEE, HR/WKIND and AVM/RIV1 would reduce NTRP/TRP by .003, .166, .038, and .379 units respectively if the model is correct. It should be noted that in the case of discrete exogenous variables, the influences indicated cover the maximum range of the variable. The algebraic signs on HRWRK/WK, EMPLSTAT, HHRACE and AVMIRIV1 may be questionable in terms of a priori expectations. The estimated parameters for EMPLSTAT and AVACFWL are smaller than their standard errors, which makes them suspect according to the views of some econometricians.

D. The Reduced Form Equation System

1. The System. The reduced form system represents a system of demand relationships as derived from the utility theory described earlier. It was obtained from the structural system by solving for the endogenous variables as linear functions of the exogenous variables. The algebraic process can be expressed by writing the structural form in compact notation as $\hat{\beta}Y + \hat{\Gamma}X = 0$, where Y is the matrix of logarithms of observations on each of the endogenous for each of the households, $\hat{\beta}$ is the estimated coefficient matrix for the logarithms of endogenous variables, X is the matrix of logs of observations on the exogenous variables, and $\hat{\Gamma}$ is the estimated coefficient matrix for the logs of exogenous variables. If the structural model is specified correctly, then matrix $\hat{\beta}$ will be nonsingular, or its inverse will exist. In that event, the system of equations may be solved as follows:

$$Y + \hat{\beta}^{-1}\hat{\Gamma}X = 0$$

or

$$Y = -\hat{\beta}^{-1}\hat{\Gamma}X$$

or

$$Y = \hat{P}X.$$

This equation says that each of the logged endogenous variables may be obtained as a linear function of the logarithm of all of the exogenous variables.

In the interest of saving space, the entire reduced form system will not be presented. They are in an accompanying folder of computer printouts. It would not be possible to discuss or attempt to explain the signs of all coefficients in 103 equations. One finds a great many coefficients with signs other than that expected and at the same time finds a great many that appear logical. Most reduced form coefficients are quite large, being larger than 0.01 in absolute value. This would imply a forecasting system that is extremely responsive to the data. It appears that the economic variables, HHINCOME and RECINVST usually exert a positive influence, from a cursory inspection. Time substitution variables appear to usually depress activity, while time expanding variables tend to increase it. The social variables such as race, size of family, etc., tend to move in the proper directions. Availability of recreational facilities appears to have a stimulating effect on overnight trip recreation and a depressing effect on vacations to some extent. For some activities, of course, these relationships do not hold.

The reduced form equations for probability variables would appear to be the least useful for planning. From them it would be possible to forecast the proportion of households participating in a particular trip or activity.

Another list of equations of dubious utility in the reduced form are those created by the extra identities required to adjust the endogenous variables for disparities in data. Many of these quantities are conditioned

in unusual ways, such as the number of overnight trips given that swimming occurred on an overnight trip. Many such quantities could be aggregated to meaningful planning figures, however.

Equations for the variables originally conditioned for estimation of the 14 structural equations would appear to make little sense if aggregated to regional or state levels. Thus, they, by themselves would appear to have limited use for planning.

Finally, we are left with the set of reduced form relationships for unconditioned quantities. These 14 equations give the numbers of overnight trips and vacations and the person days of participation in each of the 6 recreation activities on both types of trips. Forecasts from these equations can be converted from logarithmic units to decimal units and aggregated to regional and state totals. These equations represent logged demand relationships for average consumers prior to exponentiation and aggregation. The regional and state totals to be obtained from them represent aggregated recreational demands. It should be noted that the signs of estimated reduced form parameters for the unconditioned equations (90 to 103) appear to fit most closely a priori expectations.

The calibrated reduced form equations for the unconditional quantities are presented below. The 14 equation system subject to its calibration, is performing extremely well as will be presented later.

2. The Calibration Procedure. It is well known that the log-linear form of estimating a multiplicative model introduces biases in addition to the biases from errors already mentioned. These biases will be registered in

the forecasts obtained from the model and might be expressed largely in terms of scale. If the scale turns out to be biased relatively more than the parameters, themselves, then the bias adjustments might be regarded as a simple scale adjustment. A procedure adopted by Dr. Freund for the gravity model and continued for the econometric model is to compute the ratio of the expanded statewide totals from the sample data to the expanded statewide forecasts, using the sample data employed in estimation and adjust each equation by that ratio. Statisticians usually term this type of estimator as a ratio estimator. Under this method the bias is assumed to be expressed as a factor of proportionality in the exponentiated, aggregated forecast. An adjustment of this type was accomplished by an alteration of the constant in each reduced form equation. An adjustment of the simple ratio type did not appear to account for all the sources of bias in the reduced form system, however.

The nature of the performance of the model suggests three distinct bias effects within the system. There appears to be the usual type of bias (type 1) correctable using the ratio estimator. There also appears to be a bias (type 2) such that all response parameters seem too large. That is, the model appears to be overly responsive from an overall viewpoint to changes in the data. Errors in data can thus produce responses of unusual types. The third type of bias (type 3) that appears to be present is a disporportionality between the intercept parameter and other parameters in an equation.

The question of identifiability of the structural parameters (and

reduced forms in this case) is so complicated that there does not appear to be much in the literature as yet that could be directly applied to our econometric problem. For this reason, we have assumed that the econometric model, including both the structural and reduced form systems, is identifiable and is a usable but, prior to calibration, a biased representation of reality.

We have assumed that the types of bias indicated by the performance of the uncalibrated model are actually present. Adjustments for these biases are now described. Since the model appeared to be overly responsive to changes in the exogenous variables after a ratio calibration an adjustment for scale (type 2) in the logarithmic units of the variables was implemented. I experimented with factors of 0.2 and 0.1 with which to multiply all parameters in the 14 equation system. Of the two, 0.2 tended to perform the poorest on the 1968 data but worked best for projections. The 0.1 bias adjustment factor tended to damp the system more than seemed desirable over the 30 years of projections. The results using the 0.1 bias adjustment are not included in this report, but are provided in Appendix B and on an accompanying computer printout.

Disproportionalities among the coefficients in several of the equations seemed to persist after adjustments for biases of types 1 and 2 were made. In the type 3 bias adjustment, I assumed that a disproportionality bias lay between the intercept and the other parameters taken as a group. With that assumption I added a constant (1.0) to the intercept of the five equations exhibiting this difficulty. This adjustment seems to work well. After adjustments of type 2 and type 3 were made, the ratio adjustment was recalculated to align the forecasted statewide totals with statewide totals from the sample survey. Exact formulas applied in this calibration are

contained in the accompanying computer program printouts.

The calibrated reduced form equations for the 14 relevant planning variables are presented below. Next are listed regional totals from the expanded sample survey for 1967-68. Next is given the forecasted regional totals calibrated with the type 2 bias adjustment at 0.2. The statewide totals from the expanded sample and the forecasted statewide totals using the type 2 bias adjustment are presented last.

A comparison of the forecasted regional totals with the sample expansions for 1967-68 indicates that the forecasting model is performing rather well on the original data. Most of the forecasted regional totals appear to lie between the gravity forecasts and the original sample expansions. Furthermore, most of the very low and very high values in the original data seem to be picked up a bit better with the econometric forecast than the gravity. The econometric forecasts, while predicting 200 to 400 percent increases to the year 2000 in certain types of recreation and declines in others is quite conservative, however, as compared to the gravity model projections. It would appear that the econometric model as it now stands is a highly refined and highly useful mechanism for statewide recreation planning.

However, I would expect and wish to continue to make small refinements in the model over the next several years. During the next two to three weeks we will re-examine the structural model for sources of bias, hoping to find ways of correcting some biases at their origins, rather than at the symptoms. In this investigation we are confident that we can find ways to reduce the number of assumptions and ad hoc judgments made in the bias adjustments, replacing them with more desirable statistical procedures, such

as ratio estimators. Such refinements may not contribute materially to the forecasting accuracy of the model as it is calibrated, but will enhance the image of the model under the scrutiny of experts. These later investigations will be forwarded as supplements to this report.

REDUCED FORM COEFFICIENT MATRIX

	CONSTANT	OTHERTRP	HHINCOME	HRWRK/WK	ERNDVACN	EMPLSTAT
NOTRIPON	-0.39509D 01	0.59186D 01	0.16681D 01	0.18788D 01	-0.11487D-01	0.10816D 01

	HHRACE	FAMLYSZE	HR/WKIND	HR/WKOUT	RECINVST	NACTNOW
NOTRIPON	0.98096D-02	-0.42612D 01	-0.21406D 00	0.58062D 00	0.40398D 00	0.34072D 00

	NACTPAST	OWNBOATE	OWNCAMPE	OWNHUNTE	PREFBOAT	PREFCAMP
NOTRIPON	0.17289D 00	0.30194D-01	-0.16385D 01	-0.20358D 00	-0.10989D 00	0.41906D 01

	PREFFISH	PREFHUNT	PREFPICC	PREFSWIM	BOATNOW	CAMPNOW
NOTRIPON	-0.75018D 00	0.26176D 01	-0.18887D 01	-0.22112D 00	0.98400D-01	-0.18775D 01

	FFISHNOW	HUNTNOW	PICNCNOW	SWIMNOW	AGEOHEAD	QSTPHASE
NOTRIPON	0.47088D 00	-0.65412D 00	0.53590D 00	0.75134D-01	-0.18212D 01	0.31088D 01

	OTHERVAC	AVMIRIV1	AVRELIF1	AVRAINF1	AVACHLC1	AVACPWD1
NOTRIPON	-0.77276D-01	-0.37720D 01	0.96668D-01	0.37738D 00	0.64888D-02	-0.79218D-01

	AVACFWL1	AVMABAY1	AVINCMP1	AVFSHQL1	AVYDFWF1	AVACLSH1
NOTRIPON	0.58974D 00	-0.21122D 00	-0.10113D 00	0.18587D 01	-0.18142D-01	-0.98324D-01

	AVACWMA1	AVINPIC1	AVSPOOL1	AVYDFWS1	AVPOPLN1	AVNDEER1
NOTRIPON	0.32614D 00	-0.73202D-01	-0.39008D-01	-0.19617D-01	-0.38728D 00	0.53228D-01

	AVWFOWL1	AVSQURL1	AVJAVLA1	AVMISHR1	AVFWBOT1	AVSWBOT1
NOTRIPON	-0.24766D 01	0.29084D 01	0.12254D 01	-0.25520D 00	-0.44626D-01	-0.42360D-01

	AVMASHR1	AVSWCMP1	AVSWPIC1	AVUBIRD1	AVMIRIV2	AVRELIF2
NOTRIPON	0.14973D 01	-0.57514D 00	0.68006D-01	-0.10151D 01	0.32800D-01	0.23586D-03

	AVRAINF2	AVACHLC2	AVACPWD2	AVACFWL2	AVMABAY2	AVINCMP2
NOTRIPON	0.54312D-03	0.24494D-03	-0.58096D-03	0.16274D-01	-0.62292D-02	-0.39710D-01

	AVFSHQL2	AVYDFWF2	AVACLSH2	AVACWMA2	AVINPIC2	AVSPOOL2
NOTRIPON	-0.45752D-02	-0.19549D-01	-0.56754D-02	-0.61454D-02	-0.15775D-01	0.22072D-02

	AVYDFWS2	AVPOPLN2	AVNDEER2	AVWFOWL2	AVSQURL2	AVJAVLA2
NOTRIPON	-0.45160D-02	0.15175D-01	0.12827D 00	0.96114D-01	-0.63414D-01	0.25244D-01

	AVMISHR2	AVFWBOT2	AVSWBOT2	AVMASHR2	AVSWCMP2	AVSWPIC2
NOTRIPON	0.69258D-04	0.12228D-01	0.45336D-02	0.14115D-01	0.27012D-01	-0.66336D-02

	AVUBIRD2	J	O	B
NOTRIPON	-0.24986D 00	0.11520D 05	0.65778D 04	0.95366D 05	0.38351D 06	0.17293D 06

	CONSTANT	OTHERTRP	HHINCOME	HRWRK/WK	ERNDVACN	EMPLSTAT
NOVACATN	-0.14242D 01	-0.34748D-01	-0.22040D-03	-0.10821D-01	-0.26496D-01	0.65294D-01

	HHRACE	FAMLYSZE	HR/WKIND	HR/WKOUT	RECINVST	NACTNOW
NOVACATN	-0.74740D-[illegible]	[illegible]	-0.11411D-01	-0.43770D-01	-0.53138D-02	-0.53620D-02

	NACTPAST	OWNBOATE	OWNCAMPE	OWNHUNTE	PREFBOAT	PREFCAMP
NOVACATN	-0.34982D-03	[illegible]	[illegible]	0.98438D-01	0.20028D 00	-0.18774D 00

	PREFFISH	PREFHUNT	PREFPICC	PREFSWIM	BOATNOW	CAMPNOW
NOVACATN	0.16847D 00	-0.25650D 00	0.51640D-01	0.44978D-01	-0.18967D-01	0.49296D-01
	FFISHNOW	HUNTNOW	PICNCNOW	SWIMNOW	AGEOHEAD	QSTPHASE
NOVACATN	-0.41554D-01	0.37734D-01	-0.15666D-01	-0.90956D-02	0.15243D 00	-0.17960D-01
	OTHERVAC	AVMIRIV1	AVRELIF1	AVRAINF1	AVACHLC1	AVACPWD1
NOVACATN	-0.17211D 00	0.21722D-01	-0.57070D-03	-0.22280D-02	-0.38308D-04	0.46768D-03
	AVACFWL1	AVMABAY1	AVINCMP1	AVFSHQL1	AVYDFWF1	AVACLSH1
NOVACATN	-0.33962D-02	0.12164D-02	0.58240D-03	-0.10704D-01	0.10448D-03	0.56624D-03
	AVACWMA1	AVINPIC1	AVSPOOL1	AVYDFWS1	AVPOPLN1	AVNDEER1
NOVACATN	-0.18782D-02	0.42156D-03	0.22464D-03	0.11297D-03	0.22708D-02	-0.30654D-03
	AVWFOWL1	AVSQURL1	AVJAVLA1	AVMISHR1	AVFWBOT1	AVSWBOT1
NOVACATN	0.14262D-01	-0.16749D-01	-0.70572D-02	0.15066D-02	0.25700D-03	0.24394D-03
	AVMASHR1	AVSWCMP1	AVSWPIC1	AVUBIRD1	AVMIRIV2	AVRELIF2
NOVACATN	-0.86230D-02	0.33122D-02	-0.39164D-03	0.58456D-02	0.70752D-01	0.90618D-03
	AVRAINF2	AVACHLC2	AVACPWD2	AVACFWL2	AVMABAY2	AVINCMP2
NOVACATN	0.20866D-02	0.94104D-03	-0.22320D-02	0.35104D-01	-0.13437D-01	-0.85654D-01
	AVFSHQL2	AVYDFWF2	AVACLSH2	AVACWMA2	AVINPIC2	AVSPOOL2
NOVACATN	-0.98688D-02	-0.42168D-01	-0.12242D-01	-0.13256D-01	-0.34026D-01	0.47610D-02
	AVYDFWS2	AVPOPLN2	AVNDEER2	AVWFOWL2	AVSQURL2	AVJAVLA2
NOVACATN	-0.97410D-02	0.32748D-01	0.27668D 00	0.20732D 00	-0.13678D 00	0.54452D-01
	AVMISHR2	AVFWBOT2	AVSWBOT2	AVMASHR2	AVSWCMP2	AVSWPIC2
NOVACATN	0.26224D-03	0.26376D-01	0.97790D-02	0.30446D-01	0.58264D-01	-0.14309D-01
	AVUBIRD2				J & J O B	
NOVACATN	-0.53898D 00	0.55462D 05	0.12986D 05	0.15984D 05	0.55413D 05	0.33399D 05
	CONSTANT	OTHERTRP	HHINCOME	HRWRK/WK	ERNDVACN	EMPLSTAT
QBTRIPON	-0.36758D 01	0.59490D 01	0.17321D 01	0.19216D 01	-0.11487D-01	0.10999D 01
	HHRACE	FAMLYSZE	HR/WKIND	HR/WKOUT	RECINVST	NACTNOW
QBTRIPON	0.11123D-01	-0.47224D 01	-0.19869D 00	0.56204D 00	0.40582D 00	0.34072D 00
	NACTPAST	OWNBOATE	OWNCAMPE	OWNHUNTE	PREFBOAT	PREFCAMP
QBTRIPON	0.17289D 00	0.46346D-01	-0.16972D 01	-0.20908D 00	-0.16929D 00	0.43390D 01
	PREFFISH	PREFHUNT	PREFPICC	PREFSWIM	BOATNOW	CAMPNOW
QBTRIPON	-0.67028D 00	0.26790D 01	-0.19199D 01	-0.12976D 00	0.11250D 00	-0.19449D 01
	FFISHNOW	HUNTNOW	PICNCNOW	SWIMNOW	AGEOHEAD	QSTPHASE
QBTRIPON	0.44709D 00	-0.66894D 00	0.54482D 00	0.56284D-01	-0.18563D 01	0.31302D 01
	OTHERVAC	AVMIRIV1	AVRELIF1	AVRAINF1	AVACHLC1	AVACPWD1
QBTRIPON	-0.77276D 01	-0.38138D 01	0.96668D-01	0.37738D 00	0.64888D-02	-0.79218D-01
	AVACFWL1	AVMABAY1	AVINCMP1	AVFSHQL1	AVYDFWF1	AVACLSH1
QBTRIPON	0.57014D 00	-0.21478D 00	-0.10465D 00	0.18858D 01	-0.15933D-01	-0.13050D 00
	AVACWMA1	AVINPIC1	AVSPOOL1	AVYDFWS1	AVPOPLN1	AVNDEER1
QBTRIPON	0.33334D 00	-0.74398D-01	-0.24240D-01	0.12190D-01	-0.35980D 00	0.54406D-01
	AVWFOWL1	AVSQURL1	AVJAVLA1	AVMISHR1	AVFWBOT1	AVSWBOT1

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QBTRIPON          -0.25314D-01 0.29724D-01 0.12525D-01-0.25520D-02-0.57736D-01-0.54806D-01

                    AVMASHR1     AVSWCMP1     AVSWPIC1     AVUBIRD1     AVMIRIV2     AVRELIF2
QBTRIPON          0.15161D-01-0.59516D-02 0.69118D-01-0.10375D-01 0.32800D-01 0.23586D-03

                    AVRAINF2     AVACHLC2     AVACPWD2     AVACFWL2     AVMABAY2     AVINCMP2
QBTRIPON          0.54312D-03 0.24494D-03-0.58096D-03 0.16274D-01-0.62292D-02-0.39710D-01

                    AVFSHOL2     AVYDFWF2     AVACLSH2     AVACWMA2     AVINPIC2     AVSPOOL2
QBTRIPON          -0.45752D-02-0.19549D-01-0.56754D-02-0.61454D-02-0.15775D-01 0.22072D-02

                    AVYDFWS2     AVPOPLN2     AVNDEER2     AVWFOWL2     AVSQURL2     AVJAVLA2
QBTRIPON          -0.45160D-02 0.15175D-01 0.12827D 00 0.96114D-01-0.63414D-01 0.25244D-01

                    AVMISHR2     AVFWBOT2     AVSWBOT2     AVMASHR2     AVSWCMP2     AVSWPIC2
QBTRIPON          0.68258D-04 0.12228D-01 0.45336D-02 0.14115D-01 0.27012D-01-0.66336D-02

                    AVUBIRD2                                                  J     &     J  O  B
QBTRIPON          -0.24986D 00 0.55674D 04 0.46927D 04 0.92866D 05 0.38058D 06 0.16677D 06

                    CONSTANT     OTHERTRP     HHINCOME     HRWRK/WK     ERNDVACN     EMPLSTAT
QCTRIPON          -0.30503D 01 0.59050D 01 0.16400D 01 0.18483D 01-0.11487D-01 0.10549D 01

                    HHRACE       FAMLYSZE     HR/WKIND     HR/WKOUT     RECINVST     NACTNOW
QCTRIPON          0.10418D-01-0.43558D 01-0.20960D 00 0.57706D 00 0.40060D 00 0.34072D 00

                    NACTPAST     OWNBOATE     OWNCAMPE     OWNHUNTE     PREFBOAT     PREFCAMP
QCTRIPON          0.17289D 00 0.27314D-01-0.15897D 01-0.20520D 00-0.99194D-01 0.40662D 01

                    PREFFISH     PREFHUNT     PREFPICC     PREFSWIM     BOATNOW      CAMPNOW
QCTRIPON          -0.74044D 00 0.26354D 01-0.18273D 01-0.18864D 00 0.95582D-01-0.18198D 01

                    FFISHNOW     HUNTNOW      PICNCNOW     SWIMNOW      AGEOHEAD     QSTPHASE
QCTRIPON          0.46948D 00-0.65850D 00 0.51904D 00 0.67742D-01-0.18291D 01 0.30856D 01

                    OTHERVAC     AVMIRIV1     AVRELIF1     AVRAINF1     AVACHLC1     AVACPWD1
QCTRIPON          -0.77276D-01-0.37966D 01 0.96668D-01 0.37738D 00 0.64888D-02-0.79218D-01

                    AVACFWL1     AVMABAY1     AVINCMP1     AVFSHOL1     AVYDFWF1     AVACLSH1
QCTRIPON          0.59766D 00-0.21294D 00-0.98186D-01 0.18683D 01-0.17844D-01-0.98966D-01

                    AVACWMA1     AVINPIC1     AVSPOOL1     AVYDFWS1     AVPOPLN1     AVNDEER1
QCTRIPON          0.32826D 00-0.76790D-01-0.33756D-01-0.16976D-01-0.38800D 00 0.53576D-01

                    AVWFOWL1     AVSQURL1     AVJAVLA1     AVMISHR1     AVFWBOT1     AVSWBOT1
QCTRIPON          -0.24928D 01 0.29274D 01 0.12334D 01-0.25520D 00-0.42266D-01-0.40120D-01

                    AVMASHR1     AVSWCMP1     AVSWPIC1     AVUBIRD1     AVMIRIV2     AVRELIF2
QCTRIPON          0.15019D-01-0.55838D 00 0.65766D-01-0.10217D 01 0.32800D-01 0.23586D-03

                    AVRAINF2     AVACHLC2     AVACPWD2     AVACFWL2     AVMABAY2     AVINCMP2
QCTRIPON          0.54312D-03 0.24494D-03-0.58096D-03 0.16274D-01-0.62292D-02-0.39710D-01

                    AVFSHOL2     AVYDFWF2     AVACLSH2     AVACWMA2     AVINPIC2     AVSPOOL2
QCTRIPON          -0.45752D-02-0.19549D-01-0.56754D-02-0.61454D-02-0.15775D-01 0.22072D-02

                    AVYDFWS2     AVPOPLN2     AVNDEER2     AVWFOWL2     AVSQURL2     AVJAVLA2
QCTRIPON          -0.45160D-02 0.15175D-01 0.12827D 00 0.96114D-01-0.63414D-01 0.25244D-01
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QFTRIPON	-0.30474D 01	0.59264D 01	0.16766D 01	0.18844D 01	-0.11487D-01	0.10694D 01
	HHRACE	FAMLYSZE	HR/WKIND	HR/WKOUT	RECINVST	NACTNOW
QFTRIPON	0.10269D-01	-0.43732D 01	-0.20716D 00	0.57552D 00	0.40666D 00	0.34072D 00
	NACTPAST	OWNBOATE	OWNCAMPE	OWNHUNTE	PREFBOAT	PREFCAMP
QFTRIPON	0.17289D 00	0.31298D-01	-0.16445D 01	-0.20646D 00	-0.11044D 00	0.42054D 01
	PREFFISH	PREFHUNT	PREFPICC	PREFSWIM	BOATNOW	CAMPNOW
QFTRIPON	-0.83988D 00	0.26494D 01	-0.18570D 01	-0.19193D 00	0.99016D-01	-0.18833D 01
	FFISHNOW	HUNTNOW	PICNCNOW	SWIMNOW	AGEOHEAD	QSTPHASE
QFTRIPON	0.50536D 00	-0.66193D 00	0.52724D 00	0.68224D-01	-0.18396D 01	0.30792D 01
	OTHERVAC	AVMIRIV1	AVRELIF1	AVRAINF1	AVACHLC1	AVACPWD1
QFTRIPON	-0.77276D-01	-0.38330D 01	0.96668D-01	0.37738D 00	0.64888D-02	-0.79218D-01
	AVACFWL1	AVMABAY1	AVINCMP1	AVFSHQL1	AVYDFWF1	AVACLSH1
QFTRIPON	0.61636D 00	-0.21374D 00	-0.10148D 00	0.18914D 01	-0.20472D-01	-0.99466D-01
	AVACWMA1	AVINPIC1	AVSPOOL1	AVYDFWS1	AVPOPLN1	AVNDEER1
QFTRIPON	0.32992D 00	-0.71954D-01	-0.34288D-01	-0.17243D-01	-0.38854D 00	0.53846D-01
	AVWFOWL1	AVSQURL1	AVJAVLA1	AVMISHR1	AVFWBOT1	AVSWBOT1
QFTRIPON	-0.25054D 01	0.29422D 01	0.12397D 01	-0.25520D 00	-0.44750D-01	-0.42478D-01
	AVMASHR1	AVSWCMP1	AVSWPIC1	AVUBIRD1	AVMIRIV2	AVRELIF2
QFTRIPON	0.15092D 01	-0.57714D 00	0.66846D-01	-0.10269D 01	0.32800D-01	0.23586D-03
	AVRAINF2	AVACHLC2	AVACPWD2	AVACFWL2	AVMABAY2	AVINCMP2
QFTRIPON	0.54312D-03	0.24494D-03	-0.58096D-03	0.16274D-01	-0.62292D-02	-0.39710D-01
	AVFSHQL2	AVYDFWF2	AVACLSH2	AVACWMA2	AVINPIC2	AVSPOOL2
QFTRIPON	-0.45752D-02	-0.19549D-01	-0.56754D-02	-0.61454D-02	-0.15775D-01	0.22072D-02
	AVYDFWS2	AVPOPLN2	AVNDEER2	AVWFOWL2	AVSQURL2	AVJAVLA2
QFTRIPON	-0.45160D-02	0.15175D-01	0.12827D 00	0.96114D-01	-0.63414D-01	0.25244D-01
	AVMISHR2	AVFWBOT2	AVSWBOT2	AVMASHR2	AVSWCMP2	AVSWPIC2
QFTRIPON	0.68258D-04	0.12228D-01	0.45336D-02	0.14115D-01	0.27012D-01	-0.66336D-02
	AVUBIRD2				J & J O B	
QFTRIPON	-0.24986D 00	0.20562D 05	0.11571D 05	0.18105D 06	0.73171D 06	0.30413D 06
	CONSTANT	OTHERTRP	HHINCOME	HRWRK/WK	ERNDVACN	EMPLSTAT
QHTRIPON	-0.50041D 01	0.60006D 01	0.17779D 01	0.19983D 01	-0.11487D-01	0.11946D 01
	HHRACE	FAMLYSZE	HR/WKIND	HR/WKOUT	RECINVST	NACTNOW
QHTRIPON	0.84206D-02	-0.43314D 01	-0.21664D 00	0.59940D 00	0.42268D 00	0.34072D 00
	NACTPAST	OWNBOATE	OWNCAMPE	OWNHUNTE	PREFBOAT	PREFCAMP
QHTRIPON	0.17289D 00	0.41310D-01	-0.18472D 01	-0.23476D 00	-0.15150D 00	0.47064D 01
	PREFFISH	PREFHUNT	PREFPICC	PREFSWIM	BOATNOW	CAMPNOW
QHTRIPON	-0.79958D 00	0.29448D 01	-0.21402D 01	-0.34388D 00	0.11027D 00	-0.21118D 01
	FFISHNOW	HUNTNOW	PICNCNOW	SWIMNOW	AGEOHEAD	QSTPHASE

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QHTRIPON        0.48449D 00-0.753720 00 0.60526D 00 0.10276D 00-0.20252D 01 0.34332D 01

                 OTHERVAC    AVMIRIV1    AVRELIF1    AVRAINF1    AVACHLC1    AVACPWD1
QHTRIPON        -0.77276D-01-0.38214D 01 0.96668D-01 0.37738D 00 0.64888D-02-0.79218D-01

                 AVACFWL1    AVMABAY1    AVINCMP1    AVFSHQL1    AVYDFWF1    AVACLSH1
QHTRIPON         0.56072D 00-0.24302D 00-0.11336D 00 0.18569D 01-0.19529D-01-0.11295D 00

                 AVACWMA1    AVINPIC1    AVSPOOL1    AVYDFWS1    AVPOPLN1    AVNDEER1
QHTRIPON         0.37464D 00-0.83548D-01-0.56364D-01-0.29350D-01-0.40342D 00-0.65632D-01

                 AVWFOWL1    AVSQURL1    AVJAVLA1    AVMISHR1    AVFWBOT1    AVSWBOT1
QHTRIPON        -0.27736D 01 0.32572D 01 0.13724D 01-0.25520D 00-0.53810D-01-0.51078D-01

                 AVMASHR1    AVSWCMP1    AVSWPIC1    AVUBIRD1    AVMIRIV2    AVRELIF2
QHTRIPON         0.15073D 01-0.64468D 00 0.77154D-01-0.11368D 01 0.32800D-01 0.23586D-03

                 AVRAINF2    AVACHLC2    AVACPWD2    AVACFWL2    AVMABAY2    AVINCMP2
QHTRIPON         0.54312D-03 0.24494D-03-0.58096D-03 0.16274D-01-0.62292D-02-0.39710D-01

                 AVFSHQL2    AVYDFWF2    AVACLSH2    AVACWMA2    AVINPIC2    AVSPOOL2
QHTRIPON        -0.45752D-02-0.19549D-01-0.56754D-02-0.61454D-02-0.15775D-01 0.22072D-02

                 AVYDFWS2    AVPOPLN2    AVNDEER2    AVWFOWL2    AVSQURL2    AVJAVLA2
QHTRIPON        -0.45160D-02 0.15175D-01 0.12827D 00 0.96114D-01-0.63414D-01 0.25244D-01

                 AVMISHR2    AVFWBOT2    AVSWBOT2    AVMASHR2    AVSWCMP2    AVSWPIC2
QHTRIPON         0.68258D-04 0.12228D-01 0.45336D-02 0.14115D-01 0.27012D-01-0.66336D-02

                 AVUBIRD2                                                J  &  J  0  8
QHTRIPON        -0.24986D 00 0.55887D 04 0.26308D 04 0.39493D 05 0.18734D 06 0.84720D 05

                 CONSTANT    OTHERTRP    HHINCOME    HRWRK/WK    ERNDVACN    EMPLSTAT
QPTRIPON        -0.42203D 01 0.59798D 01 0.17146D 01 0.19507D 01-0.11487D-01 0.11719D 01

                 HHRACE      FAMLYSZE    HR/WKIND    HR/WKOUT    RECINVST    NACTNOW
QPTRIPON         0.10227D-01-0.44200D 01-0.21864D 00 0.60352D 00 0.41636D 00 0.34072D 00

                 NACTPAST    OWNBOATE    OWNCAMPE    OWNHUNTE    PREFBOAT    PREFCAMP
QPTRIPON         0.17289D 00 0.67688D-02-0.17182D 01-0.20898D 00-0.24610D-01 0.43924D 01

                 PREFFISH    PREFHUNT    PREFPICC    PREFSWIM    BOATNOW     CAMPNOW
QPTRIPON        -0.75258D 00 0.26770D 01-0.20784D 01-0.11519D 00 0.80542D-01-0.19695D 01
20
19
                 FFISHNOW    HUNTNOW     PICNCNOW    SWIMNOW     AGEOHEAD    QSTPHASE
QPTRIPON         0.47436D 00-0.66868D 00 0.58844D 00 0.51694D-01-0.18553D 01 0.31972D 01
17
16
                 OTHERVAC    AVMIRIV1    AVRELIF1    AVRAINF1    AVACHLC1    AVACPWD1
QPTRIPON        -0.77276D-01-0.38838D 01 0.96668D-01 0.37738D 00 0.64888D-02-0.79218D-01
14
13
                 AVACFWL1    AVMABAY1    AVINCMP1    AVFSHQL1    AVYDFWF1    AVACLSH1
QPTRIPON         0.56720D 00-0.21774D 00-0.10592D 00 0.18978D 01-0.18155D-01-0.10046D 00
11
10
                 AVACWMA1    AVINPIC1    AVSPOOL1    AVYDFWS1    AVPOPLN1    AVNDEER1
QPTRIPON         0.38322D 00-0.80612D-01-0.21886D-01-0.11006D-01-0.38964D 00 0.54386D-01
8
7
                 AVSQURL1    AVJAVLA1    AVMISHR1    AVFWBOT1    AVSWBOT1
QPTRIPON        -0.25545D 01 0.29715D 01 0.12521D 01-0.25529D 00-0.25806D-01-0.24496D-01
5
4
                 AVMASHR1    AVSWCMP1    AVSWPIC1    AVUBIRD1    AVMIRIV2    AVRELIF2
QPTRIPON         0.15107D 01-0.67236D 00 0.74892D-01-0.11371D 01 0.32860D-01 0.23586D-03
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QPTRIPON          -0.45752D-02-0.19549D-01-0.56754D-02-0.61454D-02-0.15775D-01 0.22072D-02

                    AVYDFWS2    AVPOPLN2    AVNDEER2    AVWFOWL2    AVSQURL2    AVJAVLA2
QPTRIPON          -0.45160D-02 0.15175D-01 0.12827D 00 0.96114D-01-0.63414D-01 0.25244D-01

                    AVMISHR2    AVFWBOT2    AVSWBOT2    AVMASHR2    AVSWCMP2    AVSWPIC2
QPTRIPON           0.68258D-04 0.12228D-01 0.45336D-02 0.14115D-01 0.27012D-01-0.66336D-02

                    AVUBIRD2                                                J     &     J  O  B
QPTRIPON          -0.24986D 00 0.91864D 04 0.61664D 04 0.94493D 05 0.41857D 06 0.15547D 06

                    CONSTANT    OTHERTRP    HHINCOME    HRWRK/WK    ERNDVACN    EMPLSTAT
QSTRIPON          -0.34726D 01 0.59066D 01 0.16530D 01 0.18610D 01-0.11487D-01 0.10780D 01

                    HHRACE      FAMLYSZE    HR/WKIND    HR/WKOUT    RECINVST    NACTNOW
QSTRIPON           0.95746D-02-0.44198D 01-0.22256D 00 0.57524D 00 0.40296D 00 0.34072D 00

                    NACTPAST    OWNBOATE    OWNCAMPE    OWNHUNTE    PREFBOAT    PREFCAMP
QSTRIPON           0.17289D 00 0.17275D-01-0.16523D 01-0.20230D 00-0.62574D-01 0.42256D 01

                    PREFFISH    PREFHUNT    PREFPICC    PREFSWIM    BOATNOW     CAMPNOW
QSTRIPON          -0.66088D 00 0.26038D 01-0.18833D 01-0.29088D 00 0.87702D-01-0.18941D 01

                    FFISHNOW    HUNTNOW     PICNCNOW    SWIMNOW     AGEOHEAD    QSTPHASE
QSTRIPON           0.43758D 00-0.65070D 00 0.53448D 00 0.91780D-01-0.18167D 01 0.31424D 01

                    OTHERVAC    AVMIRIV1    AVRELIF1    AVRAINF1    AVACHLC1    AVACPWD1
QSTRIPON          -0.77276D-01-0.37184D 01 0.96668D-01 0.37738D 00 0.64888D-02-0.79218D-01

                    AVACFWL1    AVMABAY1    AVINCMP1    AVFSHOL1    AVYDFWF1    AVACLSH1
QSTRIPON           0.56954D 00-0.21112D 00-0.10196D 00 0.18375D 01-0.15803D-01-0.97822D-01

                    AVACWMA1    AVINPIC1    AVSPOOL1    AVYDFWS1    AVPOPLN1    AVNDEER1
QSTRIPON           0.32448D 00-0.72982D-01-0.50284D-01-0.25288D-01-0.38674D 00 0.52958D-01

                    AVWFOWL1    AVSQURL1    AVJAVLA1    AVMISHR1    AVFWBOT1    AVSWBOT1
QSTRIPON          -0.24643D 01 0.28936D 01 0.12192D 01-0.25520D 00-0.34184D-01-0.32448D-01

                    AVMASHR1    AVSWCMP1    AVSWPIC1    AVUBIRD1    AVMIRIV2    AVRELIF2
QSTRIPON           0.14993D 01-0.57988D 00 0.67804D-01-0.10099D 01 0.32800D-01 0.23586D-03

                    AVRAINF2    AVACHLC2    AVACPWD2    AVACFWL2    AVMABAY2    AVINCMP2
QSTRIPON           0.54312D-03 0.24494D-03-0.58096D-03 0.16274D-01-0.62292D-02-0.39710D-01

                    AVFSHOL2    AVYDFWF2    AVACLSH2    AVACWMA2    AVINPIC2    AVSPOOL2
QSTRIPON          -0.45752D-02-0.19549D-01-0.56754D-02-0.61454D-02-0.15775D-01 0.22072D-02

                    AVYDFWS2    AVPOPLN2    AVNDEER2    AVWFOWL2    AVSQURL2    AVJAVLA2
QSTRIPON          -0.45160D-02 0.15175D-01 0.12827D 00 0.96114D-01-0.63414D-01 0.25244D-01

                    AVMISHR2    AVFWBOT2    AVSWBOT2    AVMASHR2    AVSWCMP2    AVSWPIC2
QSTRIPON           0.68258D-04 0.12228D-01 0.45336D-02 0.14115D-01 0.27012D-01-0.66336D-02

                    AVUBIRD2                                                J     &     J  O  B
QSTRIPON          -0.24988D 00 0.19037D 05 0.52371D 04 0.63935D 05 0.42588D 06 0.17722D 06

                    CONSTANT    OTHERTRP    HHINCOME    HRWRK/WK    ERNDVACN    EMPLSTAT
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QBVACATN          0.35378D 01-0.34748D-01-0.25578D-01-0.10821D-01-0.49832D-01-0.19461D 00

                    HHRACE      FAMLYSZE    HR/WKIND    HR/WKOUT    RECINVST    NACTNOW
QBVACATN          0.97240D-01-0.97794D 00 0.25610D-01 0.26636D-01 0.44980D-02-0.53620D-02

                    NACTPAST    OWNBOATE    OWNCAMPE    OWNHUNTE    PREFBOAT    PREFCAMP
QBVACATN         -0.34982D-03 0.95876D-01-0.34566D 00-0.25190D 00-0.46886D 00 0.49388D 00

                    PREFFISH    PREFHUNT    PREFPICC    PREFSWIM    BOATNOW     CAMPNOW
QBVACATN         -0.21580D 00 0.61324D 00-0.81782D-01-0.15764D-01 0.43194D-01-0.11233D 00

                    FFISHNOW    HUNTNOW     PICNCNOW    SWIMNOW     AGEOHEAD    QSTPHASE
QBVACATN          0.52266D-01-0.84612D-01 0.25212D-01 0.53680D-02-0.35726D 00-0.17960D-01

                    OTHERVAC    AVMIRIV1    AVRELIF1    AVRAINF1    AVACHLC1    AVACPWD1
QBVACATN          0.61274D 00 0.21722D-01-0.57070D-03-0.22280D-02-0.38308D-04 0.46768D-03

                    AVACFWL1    AVMABAY1    AVINCMP1    AVFSHQL1    AVYDFWF1    AVACLSH1
QBVACATN         -0.33962D-02 0.12164D-02 0.58240D-03-0.10704D-01 0.10448D-03 0.56624D-03

                    AVACWMA1    AVINPIC1    AVSPOOL1    AVYDFWS1    AVPOPLN1    AVNDEER1
QBVACATN         -0.18782D-02 0.42156D-03 0.22464D-03 0.11297D-03 0.22708D-02-0.30654D-03

                    AVWFOWL1    AVSQUPL1    AVJAVLA1    AVMISHR1    AVFWBOT1    AVSWBOT1
QBVACATN          0.14262D-01-0.16749D-01-0.70572D-02 0.15066D-02 0.25700D-03 0.24394D-03

                    AVMASHR1    AVSWCMP1    AVSWPIC1    AVUBIRD1    AVMIRIV2    AVRELIF2
QBVACATN         -0.86230D-02 0.33122D-02-0.39164D-03 0.58456D-02-0.55412D-01 0.90618D-03

                    AVRAINF2    AVACHLC2    AVACPWD2    AVACFWL2    AVMABAY2    AVINCMP2
QBVACATN          0.20866D-02 0.94104D-03-0.22320D-02-0.14093D 00 0.33788D-01 0.27214D 00

                    AVFSHQL2    AVYDFWF2    AVACLSH2    AVACWMA2    AVINPIC2    AVSPOOL2
QBVACATN          0.87420D-01 0.56410D-01 0.31970D-01 0.34616D-01 0.78444D-01-0.18737D-02

                    AVYDFWS2    AVPOPLN2    AVNDEER2    AVWFOWL2    AVSQURL2    AVJAVLA2
QBVACATN          0.38336D-02-0.95432D-01-0.72254D 00-0.54140D 00 0.35720D 00-0.14220D 00

                    AVMISHR2    AVFWBOT2    AVSWBOT2    AVMASHR2    AVSWCMP2    AVSWPIC2
QBVACATN          0.26224D-03-0.62260D-01-0.23084D-01-0.11973D 00-0.18512D 00 0.32988D-01

                    AVUBIRD2                                        J     &     J  O B
QBVACATN          0.14075D 01 0.34819D 05 0.67268D 04 0.18715D 05 0.60341D 05 0.24376D 05

                    CONSTANT    OTHERTRP    HHINCOME    HRWRK/WK    ERNDVACN    EMPLSTAT
QCVACATN         -0.10719D 01-0.34748D-01 0.10119D-02-0.10821D-01-0.45310D-01 0.13209D 00

                    HHRACE      FAMLYSZE    HR/WKIND    HR/WKOUT    RECINVST    NACTNOW
QCVACATN         -0.18477D 00 0.95672D-01 0.28100D-01-0.92690D-01-0.80404D-02-0.53620D-02

                    NACTPAST    OWNBOATE    OWNCAMPE    OWNHUNTE    PREFBOAT    PREFCAMP
QCVACATN         -0.34982D-03-0.10131D 00 0.27828D 00 0.19412D 00 0.49022D 00-0.41630D 00

                    PREFFISH    PREFHUNT    PREFPICC    PREFSWIM    BOATNOW     CAMPNOW
QCVACATN          0.40784D 00-0.49412D 00 0.11115D 00 0.11065D 00-0.44976D-01 0.10407D 00

                    FFISHNOW    HUNTNOW     PICNCNOW    SWIMNOW     AGEOHEAD    QSTPHASE
QCVACATN         -0.99567D-01 0.71143D-01-0.34054D-01-0.21460D-01 0.32052D 00-0.17960D-01
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QCVACATN -0.33962D-02 0.12164D-02 0.58240D-03-0.10704D-01 0.10448D-03 0.56624D-03

	AVACWMA1	AVINPIC1	AVSPOOL1	AVYDFWS1	AVPOPLN1	AVNDEER1
QCVACATN	-0.18782D-02	0.42156D-03	0.22464D-03	0.11297D-03	0.22708D-02	-0.30654D-03

	AVWFOWL1	AVSQURL1	AVJAVLA1	AVMISHR1	AVFWBOT1	AVSWBOT1
QCVACATN	0.14262D-01	-0.16749D-01	-0.70572D-02	0.15066D-02	0.25700D-03	0.24394D-03

	AVMASHR1	AVSWCMP1	AVSWPIC1	AVUBIRD1	AVMIRIV2	AVRELIF2
QCVACATN	-0.86230D-02	0.33122D-02	-0.39164D-03	0.58456D-02	0.16348D 00	0.90618D-03

	AVRAINF2	AVACHLC2	AVACPWD2	AVACFWL2	AVMABAY2	AVINCMP2
QCVACATN	0.20866D-02	0.94104D-03	-0.22320D-02	0.76832D-01	-0.29192D-01	-0.20564D 00

	AVFSHQL2	AVYDFWF2	AVACLSH2	AVACWMA2	AVINPIC2	AVSPOOL2
QCVACATN	0.43376D-02	-0.10405D 00	-0.24316D-01	-0.26330D-01	-0.83772D-01	0.11935D-01

	AVYDFWS2	AVPOPLN2	AVNDEER2	AVWFOWL2	AVSQURL2	AVJAVLA2
QCVACATN	-0.24418D-01	0.65016D-01	0.54958D 00	0.41180D 00	-0.27170D 00	0.10816D 00

	AVMISHR2	AVFWBOT2	AVSWBOT2	AVMASHR2	AVSWCMP2	AVSWPIC2
QCVACATN	0.26224D-03	0.64780D-01	0.24018D-01	0.51866D-01	0.13988D 00	-0.35228D-01

	AVUBIRD2				J & J	O B
QCVACATN	-0.19706D 01	0.14768D 06	0.22063D 05	0.41875D 05	0.89183D 05	0.70943D 05

	CONSTANT	OTHERTRP	HHINCOME	HRWRK/WK	ERNDVACN	EMPLSTAT
QFVACATN	0.23284D 01	-0.34748D-01	-0.24966D-01	-0.10821D-01	-0.16412D-01	-0.37620D-01

	HHRACE	FAMLYSZE	HR/WKIND	HR/WKOUT	RECINVST	NACTNOW
QFVACATN	0.61838D-01	-0.20206D 00	0.42086D-02	0.15871D-01	-0.31960D-03	-0.53620D-02

	NACTPAST	OWNBOATE	OWNCAMPE	OWNHUNTE	PREFBOAT	PREFCAMP
QFVACATN	-0.34982D-03	0.57600D-02	-0.54726D-01	-0.38856D-01	-0.30548D-01	0.69462D-01

	PREFFISH	PREFHUNT	PREFPICC	PREFSWIM	BOATNOW	CAMPNOW
QFVACATN	-0.12388D 00	0.84306D-01	0.49662D-02	0.41266D-01	0.28944D-02	-0.11571D-01

	FFISHNOW	HUNTNOW	PICNCNOW	SWIMNOW	AGEOHEAD	QSTPHASE
QFVACATN	0.28249D-01	-0.10212D-01	-0.13371D-02	-0.76728D-02	-0.39060D-01	-0.17960D-01

	OTHERVAC	AVMIRIV1	AVRELIF1	AVRAINF1	AVACHLC1	AVACPWD1
QFVACATN	0.78529D-01	0.21722D-01	-0.57070D-03	-0.22280D-02	-0.38308D-04	0.46768D-03

	AVACFWL1	AVMABAY1	AVINCMP1	AVFSHQL1	AVYDFWF1	AVACLSH1
QFVACATN	-0.33962D-02	0.12164D-02	0.58240D-03	-0.10704D-01	0.10448D-03	0.56624D-03

	AVACWMA1	AVINPIC1	AVSPOOL1	AVYDFWS1	AVPOPLN1	AVNDEER1
QFVACATN	-0.18782D-02	0.42156D-03	0.22464D-03	0.11297D-03	0.22708D-02	-0.30654D-03

	AVWFOWL1	AVSQURL1	AVJAVLA1	AVMISHR1	AVFWBOT1	AVSWBOT1
QFVACATN	0.14262D-01	-0.16749D-01	-0.70572D-02	0.15066D-02	0.25700D-03	0.24394D-03

	AVMASHR1	AVSWCMP1	AVSWPIC1	AVUBIRD1	AVMIRIV2	AVRELIF2
QFVACATN	-0.86230D-02	0.33122D-02	-0.39164D-03	0.58456D-02	-0.31414D-01	0.90618D-03

	AVRAINF2	AVACHLC2	AVACPWD2	AVACFWL2	AVMABAY2	AVINCMP2
QFVACATN	0.20866D-02	0.94104D-03	-0.22320D-02	-0.18662D-01	0.42790D-02	0.49356D-01

	AVFSHQL2	AVYDFWF2	AVACLSH2	AVACWMA2	AVINPIC2	AVSPOOL2

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QFVACATN      -0.15570D-01 0.34790D-01 0.50842D-02 0.59950D-02 0.52410D-02 0.43556D-02

                AVYDFWS2     AVPOPLN2     AVNDEER2     AVWFOWL2     AVSQURL2     AVJAVLA2
QFVACATN      -0.39118D-02-0.13554D-01-0.11491D 00-0.86100D-01 0.56806D-01-0.22614D-01

                AVMISHR2     AVFWBOT2     AVSWBOT2     AVMASHR2     AVSWCMP2     AVSWPIC2
QFVACATN       0.26224D-03-0.42004D-02-0.15574D-02-0.36362D-01-0.33576D-01 0.22040D-02

                AVUBIRD2                                            J     &      J  O B
QFVACATN       0.22384D 00 0.71938D 05 0.16043D 05 0.40752D 05 0.10274D 06 0.56810D 05

                CONSTANT     OTHERTRP     HHINCOME     HRWRK/WK     ERNDVACN     EMPLSTAT
QHVACATN       0.10334D 02-0.34748D-01-0.32544D 00-0.10821D-01 0.90800D-01-0.58458D 00

                HHRACE       FAMLYSZE     HR/WKIND     HR/WKOUT     RECINVST     NACTNOW
QHVACATN       0.87144D 00-0.37416D 00-0.11545D 00 0.43634D 00 0.20946D-01-0.53620D-02

                NACTPAST     OWNBOATE     OWNCAMPE     OWNHUNTE     PREFBOAT     PREFCAMP
QHVACATN      -0.34982D-03 0.47634D 00-0.12423D 01-0.10943D 01-0.23006D 01 0.18017D 01

                PREFFISH     PREFHUNT     PREFPICC     PREFSWIM     BOATNOW      CAMPNOW
QHVACATN      -0.18945D 01 0.27032D 01-0.46108D 00-0.51716D 00 0.20678D 00-0.42448D 00

                FFISHNOW     HUNTNOW      PICNCNOW     SWIMNOW      AGEOHEAD     QSTPHASE
QHVACATN       0.43576D 00-0.39202D 00 0.14271D 00 0.97982D-01-0.14529D 01-0.17960D-01

                OTHERVAC     AVMIRIV1     AVRELIF1     AVRAINF1     AVACHLC1     AVACPWD1
QHVACATN       0.14723D 01 0.21722D-01-0.57070D-03-0.22280D-02-0.38308D-04 0.46768D-03

                AVACFWL1     AVMABAY1     AVINCMP1     AVFSHQL1     AVYDFWF1     AVACLSH1
QHVACATN      -0.33962D-02 0.12164D-02 0.58240D-03-0.10704D-01 0.10448D-03 0.56624D-03

                AVACWMA1     AVINPIC1     AVSPOOL1     AVYDFWS1     AVPOPLN1     AVNDEER1
QHVACATN      -0.18782D-02 0.42156D-03 0.22464D-03 0.11297D-03 0.22708D-02-0.30654D-03

                AVWFOWL1     AVSQURL1     AVJAVLA1     AVMISHR1     AVFWBOT1     AVSWBOT1
QHVACATN       0.14262D-01-0.16749D-01-0.70572D-02 0.15066D-02 0.25700D-03 0.24394D-03

                AVMASHR1     AVSWCMP1     AVSWPIC1     AVUBIRD1     AVMIRIV2     AVRELIF2
QHVACATN      -0.86230D-02 0.33122D-02-0.39164D-03 0.58456D-02-0.68762D 00 0.90618D-03

                AVRAINF2     AVACHLC2     AVACPWD2     AVACFWL2     AVMABAY2     AVINCMP2
QHVACATN       0.23866D-02 0.94104D-03-0.22320D-02-0.33554D 00 0.15479D 00 0.95868D 00

                AVFSHQL2     AVYDFWF2     AVACLSH2     AVACWMA2     AVINPIC2     AVSPOOL2
QHVACATN      -0.75610D-01 0.49068D 00 0.14306D 00 0.15490D 00 0.39468D 00-0.56640D-01

                AVYDFWS2     AVPOPLN2     AVNDEER2     AVWFOWL2     AVSQURL2     AVJAVLA2
QHVACATN       0.11589D 00-0.38228D 00-0.30738D 01-0.23404D 01 0.15442D 01-0.61472D 00

                AVMISHR2     AVFWBOT2     AVSWBOT2     AVMASHR2     AVSWCMP2     AVSWPIC2
QHVACATN       0.26224D-03-0.30490D 00-0.11305D 00-0.19980D 00-0.65212D 00 0.16597D 00

                AVUBIRD2                                            J     &      J  O B
QHVACATN       0.60846D 01 0.13123D 04 0.54925D 03 0.33024D 04 0.16630D 05 0.11288D 04

                CONSTANT     OTHERTRP     HHINCOME     HRWRK/WK     ERNDVACN     EMPLSTAT
QPVACATN       0.13674D 01-0.34748D-01-0.37626D-01-0.10821D-01-0.53570D-01-0.10598D 00

                HHRACE       FAMLYSZE     HR/WKIND     HR/WKOUT     RECINVST     NACTNOW
QPVACATN       [illegible]D-02-0.[illegible]     0.[illegible]D-01-0.[illegible]D-0[illegible] 0.22315D-03-0.53620D-02
```

	NACTPAST	OWNBOATE	OWNCAMPE	OWNHUNTE	PREFBOAT	PREFCAMP
QPVACATN	-0.34982D-03	0.38854D-02	-0.18178D 00	-0.14488D 00	-0.27906D-01	0.25480D 00
	PREFFISH	PREFHUNT	PREFPICC	PREFSWIM	BOATNOW	CAMPNOW
QPVACATN	-0.66380D-02	0.34754D 00	-0.89984D-01	0.52720D-01	0.43130D-02	-0.55090D-01
	FFISHNOW	HUNTNOW	PICNCNOW	SWIMNOW	AGEOHEAD	QSTPHASE
QPVACATN	0.26390D-02	-0.47236D-01	0.27482D-01	-0.78614D-02	-0.17849D 00	-0.17960D-01
	OTHERVAC	AVMIRIV1	AVRELIF1	AVRAINF1	AVACHLC1	AVACPWD1
QPVACATN	0.43474D 00	0.21722D-01	-0.57070D-03	-0.22280D-02	-0.38308D-04	0.46768D-03
	AVACFWL1	AVMABAY1	AVINCMP1	AVFSHQL1	AVYDFWF1	AVACLSH1
QPVACATN	-0.33962D-02	0.12164D-02	0.58240D-03	-0.10704D-01	0.10448D-03	0.56624D-03
	AVACWMA1	AVINPIC1	AVSPOOL1	AVYDFWS1	AVPOPLN1	AVNDEER1
QPVACATN	-0.18782D-02	0.42156D-03	0.22464D-03	0.11297D-03	0.22708D-02	-0.30654D-03
	AVWFOWL1	AVSQURL1	AVJAVLA1	AVMISHR1	AVFWBOT1	AVSWBOT1
QPVACATN	0.14262D-01	-0.16749D-01	-0.70572D-02	0.15066D-02	0.25700D-03	0.24394D-03
	AVMASHR1	AVSWCMP1	AVSWPIC1	AVUBIRD1	AVMIRIV2	AVRELIF2
QPVACATN	-0.86230D-02	0.33122D-02	-0.39164D-03	0.58456D-02	-0.56784D-02	0.90618D-03
	AVRAINF2	AVACHLC2	AVACPWD2	AVACFWL2	AVMABAY2	AVINCMP2
QPVACATN	0.20866D-02	0.94104D-03	-0.22320D-02	-0.10336D 00	0.13065D-01	0.14665D 00
	AVFSHQL2	AVYDFWF2	AVACLSH2	AVACWMA2	AVINPIC2	AVSPOOL2
QPVACATN	0.84310D-01	0.25554D-02	0.18463D-01	0.19992D-01	0.86018D-01	0.56068D-02
	AVYDFWS2	AVPOPLN2	AVNDEER2	AVWFOWL2	AVSQURL2	AVJAVLA2
QPVACATN	-0.11471D-01	-0.49308D-01	-0.41730D 00	-0.31268D 00	0.20630D 00	-0.82124D-01
	AVMISHR2	AVFWBOT2	AVSWBOT2	AVMASHR2	AVSWCMP2	AVSWPIC2
QPVACATN	0.26224D-03	-0.38506D-02	-0.14276D-02	-0.90576D-01	-0.99756D-01	0.36172D-01
	AVUBIRD2				J & J O B	
QPVACATN	0.81288D 00	0.34261D 05	0.79360D 04	0.17625D 05	0.55276D 05	0.17971D 05
	CONSTANT	OTHERTRP	HHINCOME	HRWRK/WK	ERNDVACN	EMPLSTAT
QSVACATN	0.26462D 01	-0.34748D-01	-0.39662D-01	-0.10821D-01	-0.41192D-01	-0.71698D-01
	HHRACE	FAMLYSZE	HR/WKIND	HR/WKOUT	RECINVST	NACTNOW
QSVACATN	-0.48904D-03	-0.37690D 00	0.70838D-02	-0.35050D-02	-0.94380D-03	-0.53620D-02
	NACTPAST	OWNBOATE	OWNCAMPE	OWNHUNTE	PREFBOAT	PREFCAMP
QSVACATN	-0.34982D-03	0.10742D-01	-0.12745D 00	-0.82320D-01	-0.57354D-01	0.17554D 00
	PREFFISH	PREFHUNT	PREFPICC	PREFSWIM	BOATNOW	CAMPNOW
QSVACATN	0.12466D-02	0.19222D 00	-0.26996D-02	-0.11650D 00	0.60198D-02	-0.36806D-01
	FFISHNOW	HUNTNOW	PICNCNOW	SWIMNOW	AGEOHEAD	QSTPHASE
QSVACATN	-0.19098D-03	-0.25390D-01	0.13190D-02	0.22236D-01	-0.13590D 00	-0.17960D-01
	OTHERVAC	AVMIRIV1	AVRELIF1	AVRAINF1	AVACHLC1	AVACPWD1
QSVACATN	0.20564D 00	0.21722D-01	-0.57070D-03	-0.22280D-02	-0.38308D-04	0.46768D-03
	AVACFWL1	AVMABAY1	AVINCMP1	AVFSHQL1	AVYDFWF1	AVACLSH1
QSVACATN	-0.33962D-02	0.12164D-02	0.58240D-03	-0.10704D-01	0.10448D-03	0.56624D-03
	AVACWMA1	AVINPIC1	AVSPOOL1	AVYDFWS1	AVPOPLN1	AVNDEER1

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QSVACATN          -0.18782D-02 0.42154D-03 0.22464D-03 0.11297D-03 0.22708D-02-0.30654D-03

                    AVWFOWL1     AVSQURL1     AVJAVLA1     AVMISHR1     AVFWBOT1     AVSWBOT1
QSVACATN          0.14262D-01-0.14749D-01-0.70572D-02 0.15066D-02 0.25700D-03 0.24394D-03

                    AVMASHR1     AVSWCMP1     AVSWPIC1     AVUBIRD1     AVMIRIV2     AVRELIF2
QSVACATN          -0.86230D-02 0.33122D-02-0.39164D-03 0.58456D-02 0.29672D-01 0.90618D-03

                    AVRAINF2     AVACHLC2     AVACPWD2     AVACFWL2     AVMABAY2     AVINCMP2
QSVACATN          0.20866D-02 0.94104D-03-0.22320D-02-0.60062D-01 0.86862D-02 0.10504D 00

                    AVFSHQL2     AVYDFWF2     AVACLSH2     AVACWMA2     AVINPIC2     AVSPOOL2
QSVACATN          0.49394D-01 0.65728D-03 0.10569D-01 0.11444D-01 0.10867D-01-0.12876D-01

                    AVYDFWS2     AVPOPLN2     AVNDEER2     AVWFOWL2     AVSQURL2     AVJAVLA2
QSVACATN          0.26346D-01-0.28212D-01-0.23878D 00-0.17899D 00 0.11809D 00-0.47012D-01

                    AVMISHR2     AVFWBOT2     AVSWBOT2     AVMASHR2     AVSWCMP2     AVSWPIC2
QSVACATN          0.26224D-03-0.77512D-02-0.28738D-02 0.31246D-02-0.71454D-01 0.45696D-02

                    AVUBIRD2                                                  J     &     J  O B
QSVACATN          0.46532D 00 0.48835D 05 0.10174D 05 0.30960D 05 0.11217D 06 0.37239D 05
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REGIONAL HOUSEHOLD QUANTITY TOTALS - 1960 SURVEY DATA

REGION=	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31	32	33	34	35	36	37			

NOTRIPON 0.14275E 06 0.70529E 05 0.44223E 05 0.91251E 05 0.10928E 06 0.47863E 05 0.97226E 05 0.68713E 05 0.70196E 05 0.38788E 06
0.94430E 06 0.29675E 06 0.44267E 05 0.15156E 06 0.46758E 05 0.42161E 06 0.43334E 05 0.15323E 06 0.70139E 05 0.49856E 05
0.46833E 05 0.37134E 05 0.20595E 06 0.97958E 05 0.10571E 07 0.41283E 05 0.33047E 06 0.13139E 06 0.12450E 06 0.82572E 04
0.44186E 05 0.37101E 05 0.32155E 06 0.86382E 05 0.69128E 04 0.11068E 05 0.37097E 05

QBTRIPON 0.24497E 06 0.98461E 05 0.55727E 05 0.11667E 06 0.11077E 06 0.94729E 05 0.66322E 05 0.84227E 05 0.12254E 06 0.55299E 06
0.15336E 07 0.37003E 06 0.0 0.17325E 06 0.14690E 06 0.29768E 06 0.11145E 05 0.19637E 06 0.19820E 05 0.30420E 05
0.14090E 06 0.23486E 05 0.11307E 05 0.18687E 06 0.98332E 06 0.46033E 05 0.23771E 06 0.97467E 05 0.81711E 05 0.74262E 04
0.81542E 05 0.32561E 05 0.17974E 06 0.77365E 05 0.0 0.11440E 05 0.91137E 04

QCTRIPON 0.36654E 06 0.17680E 06 0.11419E 06 0.23651E 06 0.21514E 06 0.16730E 06 0.17465E 06 0.17375E 06 0.30858E 06 0.11108E 07
0.21039E 07 0.10055E 07 0.43348E 05 0.42138E 06 0.11969E 06 0.81306E 06 0.59396E 05 0.44719E 06 0.10438E 06 0.84214E 05
0.17190E 05 0.93357E 05 0.35866E 06 0.20762E 06 0.24488E 07 0.12379E 06 0.13000E 07 0.21121E 06 0.59666E 06 0.24864E 05
0.80174E 05 0.84169E 05 0.10575E 07 0.30961E 06 0.0 0.26550E 05 0.64592E 05

QFTRIPON 0.31100E 06 0.15901E 06 0.82555E 05 0.21926E 06 0.24731E 06 0.14447E 06 0.25944E 06 0.13647E 06 0.23131E 06 0.11671E 07
0.29397E 07 0.66720E 06 0.59096E 05 0.52622E 06 0.10865E 06 0.10605E 07 0.63129E 05 0.33805E 06 0.10114E 06 0.55112E 05
0.21785E 06 0.71255E 05 0.39456E 06 0.23414E 06 0.25753E 07 0.12387E 06 0.67430E 06 0.23691E 06 0.30928E 06 0.25589E 05
0.13328E 06 0.58679E 05 0.59382E 06 0.33170E 06 0.11769E 05 0.21013E 05 0.15180E 06

QHTRIPON 0.38302E 05 0.46388E 05 0.18470E 05 0.40110E 05 0.10029E 06 0.16761E 05 0.71030E 05 0.21291E 05 0.68037E 05 0.37159E 06
0.10009E 07 0.74602E 05 0.12815E 05 0.11107E 06 0.17062E 05 0.34619E 06 0.27314E 05 0.96213E 05 0.72906E 05 0.38471E 05
0.12252E 05 0.13387E 05 0.24736E 06 0.23426E 05 0.96007E 06 0.39994E 05 0.31240E 06 0.20336E 06 0.42214E 05 0.79845E 04
0.33186E 05 0.37222E 05 0.37391E 06 0.66871E 05 0.23144E 04 0.61363E 04 0.30974E 05

QPTRIPON 0.18734E 06 0.61383E 05 0.84583E 05 0.16862E 06 0.12593E 06 0.10658E 06 0.10616E 06 0.11830E 06 0.61650E 05 0.56754E 06
0.89942E 06 0.41687E 06 0.1128.5 05 0.27221E 06 0.25601E 05 0.43239E 06 0.26068E 05 0.20771E 06 0.17842E 05 0.85450E 04
0.55291E 05 0.34233E 05 0.53691E 05 0.14862E 06 0.11862E 07 0.46780E 05 0.25521E 06 0.10682E 06 0.30581E 06 0.64630E 04
0.0 0.70118E 05 0.49527E 06 0.83133E 05 0.13404E 05 0.16204E 04 0.23158E 05

QSTRIPON 0.17354E 06 0.82330E 05 0.41057E 05 0.71819E 05 0.11276E 06 0.67465E 05 0.86899E 05 0.27752E 05 0.57088E 05 0.61447E 06
0.16142E 07 0.48091E 06 0.49994E 04 0.18595E 06 0.55643E 05 0.81176E 06 0.23614E 05 0.15083E 06 0.23087E 05 0.12743E 05
0.12513E 06 0.29769E 04 0.11046E 06 0.10489E 06 0.13596E 07 0.75802E 05 0.82346E 06 0.13508E 06 0.53938E 05 0.41347E 04
0.11847E 06 0.54327E 05 0.51620E 06 0.17817E 06 0.13348E 05 0.10393E 05 0.44801E 05

QOTRIPON 0.94170E 06 0.55930E 06 0.87995E 05 0.35328E 06 0.43753E 06 0.31525E 06 0.19680E 06 0.74029E 05 0.16528E 06 0.25381E 07
0.55564E 07 0.99816E 06 0.25799E 06 0.32572E 06 0.99440E 05 0.27098E 07 0.25251E 06 0.13459E 07 0.60482E 05 0.11374E 06
0.13881E 06 0.75111E 05 0.37734E 06 0.15032E 06 0.54793E 07 0.17161E 06 0.12117E 07 0.42449E 06 0.18934E 07 0.31134E 05
0.34546E 06 0.32965E 05 0.36636E 07 0.39643E 06 0.47351E 05 0.52498E 05 0.17854E 06

QCOTRPON 0.30450E 06 0.17255E 06 0.65775E 05 0.20120E 06 0.13006E 06 0.13687E 06 0.13769E 06 0.10942E 06 0.22363E 06 0.85144E 06
0.13611E 07 0.96527E 06 0.30814E 05 0.38217E 06 0.10189E 06 0.55603E 06 0.47273E 05 0.27163E 06 0.95131E 05 0.64566E 05
0.17190E 05 0.69762E 05 0.34735E 06 0.14659E 06 0.15656E 07 0.10739E 06 0.69807E 06 0.18283E 06 0.53428E 06 0.22028E 05
0.80174E 05 0.65099E 05 0.86965E 06 0.23325E 06 0.0 0.26550E 05 0.51266E 05

QFFTRPON 0.30855E 06 0.15627E 06 0.81922E 05 0.21597E 06 0.24342E 06 0.14281E 06 0.25944E 06 0.13647E 06 0.23131E 06 0.10962E 07
0.28488E 07 0.67451E 06 0.59096E 05 0.49754E 06 0.10336E 06 0.59299E 06 0.61939E 05 0.32808E 06 0.10114E 06 0.38496E 05
0.18998E 06 0.65383E 05 0.27397E 06 0.17294E 06 0.19059E 07 0.11629E 06 0.51709E 06 0.15843E 06 0.30828E 06 0.25589E 05
0.65225E 05 0.26427E 05 0.41529E 06 0.19727E 06 0.42365E 03 0.17062E 05 0.11928E 06

QFSTRPON 0.24507E 04 0.92409E 04 0.25345E 04 0.32914E 04 0.38917E 04 0.95583E 04 0.0 0.0 0.33886E 04 0.10320E 06
0.11165E 06 0.73424E 04 0.0 0.28672E 05 0.52850E 04 0.54986E 06 0.11889E 04 0.20804E 05 0.36993E 04 0.16615E 05
0.52677E 05 0.58718E 04 0.13763E 06 0.61192E 05 0.94679E 06 0.15817E 05 0.24590E 06 0.89440E 05 0.33458E 05 0.0
0.11234E 06 0.35662E 05 0.19164E 06 0.15655E 06 0.10845E 05 0.39512E 04 0.38804E 05

NCVACATN 0.54611E 05 0.28237E 05 0.30288E 05 0.41618E 05 0.36959E 05 0.21080E 05 0.34332E 05 0.90971E 04 0.20998E 05 0.73307E 05
0.16464E 06 0.56031E 05 0.14935E 05 0.37219E 05 0.10118E 05 0.58123E 05 0.10375E 05 0.44113E 05 0.16199E 05 0.18195E 05
0.90776E 04 0.46225E 04 0.31211E 05 0.14545E 05 0.19803E 06 0.90904E 04 0.38052E 05 0.22300E 05 0.47160E 05 0.25482E 04
0.59227E 04 0.77982E 04 0.53290E 05 0.15714E 05 0.16327E 04 0.44832E 04 0.70405E 04

QBVACATN 0.14798E 06 0.13430E 06 0.66437E 05 0.14090E 06 0.14225E 06 0.10534E 06 0.97342E 05 0.10301E 05 0.37164E 05 0.15099E 06
0.36931E 06 0.42768E 05 0.30677E 05 0.97813E 05 0.68875E 04 0.14384E 06 0.31645E 05 0.14760E 06 0.84516E 04 0.19130E 05
0.36773E 05 0.45112E 04 0.59743E 05 0.72515E 04 0.49830E 06 0.20758E 05 0.12569E 06 0.66822E 05 0.62909E 05 0.20103E 04
0.43592E 05 0.13362E 05 0.11864E 06 0.0 0.0 0.41327E 04 0.21942E 04

QCVACATN 0.36665E 06 0.22658E 06 0.18964E 06 0.33188E 06 0.22484E 06 0.20226E 06 0.19266E 06 0.50458E 05 0.86644E 05 0.47233E 06
0.10635E 07 0.46107E 06 0.93350E 05 0.17845E 06 0.51571E 05 0.32101E 06 0.57693E 05 0.35557E 06 0.60257E 05 0.62081E 05
0.17918E 05 0.25245E 05 0.22178E 06 0.13918E 06 0.15119E 07 0.66059E 05 0.44500E 06 0.11637E 06 0.33787E 06 0.40017E 04
0.23777E 05 0.83834E 05 0.25053E 06 0.14454E 05 0.0 0.41572E 05 0.18392E 05

QFVACATN 0.35411E 06 0.25723E 06 0.16832E 06 0.31978E 06 0.26701E 06 0.20158E 06 0.23893E 06 0.54850E 05 0.75569E 05 0.42705E 06
0.95063E 06 0.34669E 06 0.23464E 05 0.16483E 06 0.57205E 05 0.31337E 06 0.43851E 05 0.32175E 06 0.45092E 05 0.63811E 05
0.40944E 05 0.19802E 05 0.21352E 06 0.83064E 05 0.14380E 07 0.50929E 05 0.29080E 06 0.15497E 06 0.30299E 06 0.79192E 04
0.35792E 05 0.20315E 05 0.19856E 06 0.79256E 05 0.21729E 04 0.18169E 05 0.26528E 05

QHVACATN 0.39088E 05 0.10567E 05 0.13163E 05 0.10214E 05 0.35685E 05 0.15956E 05 0.19498E 05 0.27329E 04 0.15838E 05 0.51177E 05
0.11819E 06 0.99237E 05 0.90356E 04 0.17303E 05 0.17993E 05 0.34858E 05 0.82175E 04 0.36274E 05 0.63412E 04 0.20411E 04
0.0 0.27435E 04 0.37995E 05 0.0 0.28581E 06 0.48749E 04 0.40752E 05 0.56762E 05 0.44170E 05 0.0
0.23413E 04 0.19979E 05 0.26906E 05 0.13415E 05 0.0 0.26470E 04 0.0

QPVACATN 0.18916E 06 0.90351E 05 0.91826E 05 0.15676E 06 0.12361E 06 0.10555E 06 0.67478E 05 0.14158E 05 0.18266E 05 0.24730E 06
0.38342E 06 0.43727E 05 0.23097E 05 0.10746E 06 0.0 0.20177E 06 0.12720E 05 0.20005E 06 0.16124E 05 0.80329E 04
0.39374E 05 0.90039E 04 0.18737E 05 0.0 0.65313E 06 0.19110E 05 0.61085E 05 0.10070E 06 0.14958E 06 0.24411E 04
0.12138E 05 0.51731E 05 0.13916E 06 0.11965E 05 0.10315E 04 0.16616E 05 0.43470E 04

QSVACATN 0.16110E 06 0.11160E 06 0.56929E 05 0.12025E 06 0.22734E 06 0.85786E 05 0.14243E 06 0.35746E 05 0.77757E 05 0.25753E 06
0.73188E 06 0.19351E 06 0.31992E 05 0.15889E 06 0.78305E 04 0.28978E 06 0.28153E 05 0.17926E 06 0.40909E 05 0.22376E 05
0.25203E 05 0.81617E 04 0.11563E 06 0.94314E 05 0.11175E 07 0.45710E 05 0.32566E 06 0.75002E 05 0.13607E 06 0.82768E 04
0.43985E 05 0.55861E 05 0.25689E 06 0.60287E 05 0.42690E 04 0.32125E 05 0.16653E 05

QOVACATN 0.10664E 07 0.68810E 06 0.23783E 06 0.46260E 06 0.86258E 06 0.34811E 06 0.37984E 06 0.73738E 05 0.21623E 06 0.12429E 07
0.22133E 07 0.86230E 06 0.21763E 06 0.40063E 06 0.78073E 05 0.93438E 06 0.12273E 06 0.12069E 07 0.15011E 06 0.17233E 06
0.14299E 06 0.25297E 05 0.44702E 06 0.30756E 06 0.27450E 07 0.86756E 05 0.54860E 06 0.42083E 06 0.85436E 06 0.25296E 05
0.66946E 05 0.12503E 06 0.86185E 06 0.25285E 06 0.92466E 04 0.11801E 06 0.14032E 06

QCOVACAN 0.27149E 06 0.16966E 06 0.96892E 05 0.26023E 06 0.15903E 06 0.12372E 06 0.13744E 06 0.18455E 05 0.50255E 05 0.36893E 06
0.70190E 06 0.44828E 06 0.79149E 05 0.15281E 06 0.33156E 05 0.26218E 06 0.47797E 05 0.24619E 06 0.39577E 05 0.41835E 05
0.88769E 04 0.25245E 05 0.21390E 06 0.10768E 06 0.12153E 07 0.52035E 05 0.28699E 06 0.83542E 05 0.30025E 06 0.24639E 04
0.23777E 05 0.67282E 05 0.12895E 06 0.99104E 04 0.0 0.41572E 05 0.17558E 05

QFFVACAN 0.33508E 06 0.24030E 06 0.16338E 06 0.31086E 06 0.22978E 06 0.17688E 06 0.23346E 06 0.51592E 05 0.63779E 05 0.36448E 06
0.84713E 06 0.33897E 06 0.17255E 05 0.13101E 06 0.44261E 05 0.17985E 06 0.37538E 05 0.28493E 06 0.37976E 05 0.44425E 05
0.37153E 05 0.15136E 05 0.17262E 06 0.74188E 05 0.10984E 07 0.40567E 05 0.17149E 06 0.15035E 06 0.28727E 06 0.72591E 04
0.24249E 05 0.17084E 05 0.18946E 06 0.49819E 05 0.71711E 03 0.17460E 05 0.19028E 05

QFSVACAN 0.24707E 05 0.25816E 05 0.98465E 04 0.10309E 05 0.40254E 05 0.24888E 05 0.54731E 04 0.32554E 04 0.11790E 05 0.64467E 05
0.12041E 06 0.28045E 05 0.62086E 04 0.34253E 05 0.12945E 05 0.15442E 06 0.65481E 04 0.44732E 05 0.71152E 04 0.19387E 05
0.37911E 04 0.46659E 04 0.53283E 05 0.20017E 05 0.35354E 06 0.11453E 05 0.13089E 06 0.46240E 04 0.27857E 05 0.66000E 03
0.17806E 05 0.33035E 04 0.90541E 04 0.29772E 05 0.14558E 04 0.70918E 03 0.67000E 04

FORECASTED VALUES OF ENDOGENOUS VARIABLES FOR BY REGION FOR 1968

NOTRIPON	0.85832D 05	0.56090D 05	0.10955D 06	0.21065D 06	0.91688D 05	0.14116D 06	0.12966D 06	0.14425D 06	0.14794D 05	0.62155D 06
	0.63963D 06	0.27162D 06	0.29233D 05	0.12051D 06	0.43083D 05	0.33708D 06	0.47367D 05	0.17017D 06	0.73656D 05	0.41244D 05
	0.25850D 06	0.10607D 05	0.17511D 06	0.58378D 05	0.10423D 07	0.23054D 05	0.18398D 06	0.94224D 05	0.12860D 06	0.48553D 05
	0.61562D 05	0.41347D 05	0.36452D 06	0.41193D 05	0.28306D 05	0.54547D 04	0.32194D 05			
NOVACATN	0.24121D 05	0.12779D 05	0.11800D 05	0.20195D 05	0.25324D 05	0.89433D 04	0.22282D 05	0.10064D 05	0.18450D 05	0.63476D 05
	0.13120D 06	0.38309D 05	0.24229D 05	0.49603D 05	0.18076D 05	0.91172D 05	0.10973D 05	0.23138D 05	0.20000D 05	0.28750D 05
	0.14045D 05	0.12223D 05	0.40023D 05	0.35822D 05	0.19884D 06	0.11304D 05	0.43442D 05	0.42773D 05	0.34283D 05	0.21220D 04
	0.23000D 05	0.13406D 05	0.54144D 05	0.40555D 05	0.10557D 05	0.93446D 04	0.14118D 05			
QBTRIPON	0.95267D 05	0.61712D 05	0.12700D 06	0.23427D 06	0.10645D 06	0.15845D 06	0.14636D 06	0.17109D 06	0.17238D 05	0.69138D 06
	0.70860D 06	0.29850D 06	0.32536D 05	0.14158D 06	0.48143D 05	0.36183D 06	0.54322D 05	0.18220D 06	0.85160D 05	0.48335D 05
	0.30362D 06	0.11242D 05	0.19516D 06	0.65830D 05	0.10962D 07	0.24590D 05	0.19299D 06	0.93130D 05	0.13428D 06	0.56509D 05
	0.67510D 05	0.43698D 05	0.36801D 06	0.40854D 05	0.29128D 05	0.49997D 04	0.36159D 05			
QCTRIPON	0.15774D 06	0.10260D 06	0.20251D 06	0.38663D 06	0.17348D 06	0.25985D 06	0.24208D 06	0.27623D 06	0.30130D 05	0.11635D 07
	0.11985D 07	0.51256D 06	0.56918D 05	0.23245D 06	0.83173D 05	0.63193D 06	0.88586D 05	0.31020D 06	0.14016D 06	0.81945D 05
	0.48112D 06	0.21153D 05	0.32989D 06	0.11379D 06	0.19764D 07	0.44199D 05	0.35122D 06	0.18263D 06	0.23110D 06	0.85868D 05
	0.11452D 06	0.78157D 05	0.68362D 06	0.78206D 05	0.52844D 05	0.10044D 05	0.60532D 05			
QFTRIPON	0.18161D 06	0.11948D 06	0.23169D 06	0.44204D 06	0.19883D 06	0.29828D 06	0.27905D 06	0.31590D 06	0.36808D 05	0.13343D 07
	0.13787D 07	0.58819D 06	0.67703D 05	0.27058D 06	0.97118D 05	0.70929D 06	0.10151D 06	0.35181D 06	0.15985D 06	0.94191D 05
	0.56001D 06	0.25038D 05	0.37474D 06	0.12912D 06	0.22076D 07	0.50205D 05	0.39057D 06	0.19969D 06	0.25936D 06	0.99015D 05
	0.13371D 06	0.86827D 05	0.75504D 06	0.87294D 05	0.58467D 05	0.11708D 05	0.68707D 05			
QHTRIPON	0.75457D 05	0.47321D 05	0.96111D 05	0.18968D 06	0.80985D 05	0.12293D 06	0.11223D 06	0.11168D 06	0.15725D 05	0.52023D 06
	0.55380D 06	0.21666D 06	0.28391D 05	0.11017D 06	0.35209D 05	0.28156D 06	0.40009D 05	0.15321D 06	0.64239D 05	0.36792D 05
	0.20735D 06	0.96077D 04	0.14195D 06	0.46887D 05	0.81226D 06	0.18536D 05	0.15303D 06	0.67934D 05	0.13052D 06	0.48101D 05
	0.49501D 05	0.33377D 05	0.28912D 06	0.42608D 05	0.26730D 05	0.65853D 04	0.26226D 05			
QPTRIPON	0.94529D 05	0.61597D 05	0.12616D 06	0.24233D 06	0.10397D 06	0.16412D 06	0.14873D 06	0.17648D 06	0.15628D 05	0.73002D 06
	0.73317D 06	0.31259D 06	0.31598D 05	0.13859D 06	0.48031D 05	0.38441D 06	0.53666D 05	0.19277D 06	0.84282D 05	0.45578D 05
	0.30249D 06	0.10892D 05	0.19928D 06	0.63731D 05	0.11746D 07	0.25035D 05	0.20598D 06	0.10476D 06	0.14344D 06	0.58450D 05
	0.70397D 05	0.46386D 05	0.40912D 06	0.44215D 05	0.32852D 05	0.54858D 04	0.36383D 05			
QSTRIPON	0.12104D 06	0.76915D 05	0.15121D 06	0.28841D 06	0.13309D 06	0.18872D 06	0.18142D 06	0.19661D 06	0.25193D 05	0.85606D 06
	0.90084D 06	0.37338D 06	0.45536D 05	0.17962D 06	0.62843D 05	0.48160D 06	0.66671D 05	0.22919D 06	0.10812D 06	0.64396D 05
	0.36339D 06	0.16846D 05	0.25113D 06	0.90666D 05	0.14606D 07	0.34058D 05	0.27069D 06	0.14217D 06	0.17957D 06	0.66573D 05
	0.89532D 05	0.59365D 05	0.51069D 06	0.64900D 05	0.41047D 05	0.92608D 04	0.48445D 05			
QBVACATN	0.94034D 05	0.45487D 05	0.64712D 05	0.91594D 05	0.90886D 05	0.35709D 05	0.95605D 05	0.47035D 05	0.10165D 06	0.20978D 06
	0.39744D 06	0.11076D 06	0.70542D 05	0.15703D 06	0.39113D 05	0.16190D 06	0.30567D 05	0.60569D 05	0.60950D 05	0.89962D 05
	0.37136D 05	0.24277D 05	0.82353D 05	0.66646D 05	0.29160D 06	0.18706D 05	0.63670D 05	0.45505D 05	0.67390D 05	0.47820D 04
	0.37175D 05	0.16645D 05	0.78455D 05	0.52376D 05	0.16952D 05	0.13011D 05	0.25945D 05			
QCVACATN	0.93773D 05	0.48907D 05	0.41321D 05	0.70499D 05	0.10663D 06	0.33330D 05	0.82733D 05	0.38914D 05	0.71553D 05	0.26065D 06
	0.57158D 06	0.16835D 06	0.11572D 06	0.23855D 06	0.95154D 05	0.50470D 06	0.51274D 05	0.10356D 06	0.91435D 05	0.14090D 06
	0.67929D 05	0.69960D 05	0.20480D 06	0.20936D 06	0.10961D 07	0.64029D 05	0.24893D 06	0.26524D 06	0.17202D 06	0.11204D 05
	0.13081D 06	0.84951D 05	0.29411D 06	0.24976D 06	0.61578D 05	0.54707D 05	0.79190D 05			
QFVACATN	0.17551D 06	0.89087D 05	0.10153D 06	0.15587D 06	0.18024D 06	0.65860D 05	0.17156D 06	0.82511D 05	0.15331D 06	0.40209D 05
	0.78181D 06	0.23697D 06	0.15256D 06	0.30971D 06	0.96569D 05	0.38280D 06	0.65444D 05	0.13044D 06	0.11932D 06	0.17701D 06
	0.79660D 05	0.59343D 05	0.19633D 06	0.16907D 06	0.78180D 06	0.49975D 05	0.17585D 06	0.14626D 06	0.16329D 06	0.10636D 05
	0.10604D 06	0.46602D 05	0.20461D 06	0.14423D 06	0.42685D 05	0.34551D 05	0.65174D 05			

```
QHVACATN  0.53550D 05 0.26232D 05 0.46656D 05 0.74144D 05 0.40361D 05 0.23297D 05 0.62557D 05 0.27368D 05 0.59926D 05 0.10156D 06
          0.16386D 06 0.43111D 05 0.21297D 05 0.44329D 05 0.78437D 04 0.32753D 05 0.98110D 04 0.24580D 05 0.21565D 05 0.24547D 05
          0.87797D 04 0.37079D 04 0.19229D 05 0.10078D 05 0.62238D 05 0.30182D 04 0.11543D 05 0.72103D 04 0.19544D 05 0.87828D 03
          0.56066D 04 0.19984D 04 0.20479D 05 0.81212D 04 0.36490D 04 0.22943D 04 0.40734D 04

QPVACATN  0.93239D 05 0.44736D 05 0.61118D 05 0.89101D 05 0.93131D 05 0.35393D 05 0.94318D 05 0.46817D 05 0.10067D 06 0.22230D 06
          0.43176D 06 0.11873D 06 0.77806D 05 0.17295D 06 0.46021D 05 0.21300D 06 0.33319D 05 0.67072D 05 0.67473D 05 0.10015D 06
          0.40508D 05 0.30642D 05 0.98310D 05 0.84543D 05 0.38501D 06 0.23981D 05 0.83152D 05 0.67967D 05 0.81307D 05 0.56527D 04
          0.48386D 05 0.24132D 05 0.10502D 06 0.76161D 05 0.23590D 05 0.18129D 05 0.33106D 05

QSVACATN  0.13718D 06 0.65133D 05 0.91092D 05 0.13789D 06 0.14533D 06 0.53325D 05 0.15086D 06 0.74105D 05 0.16637D 06 0.35554D 06
          0.70024D 06 0.18322D 06 0.12776D 06 0.28275D 06 0.72576D 05 0.32452D 06 0.51389D 05 0.96583D 05 0.11031D 06 0.16364D 06
          0.66415D 05 0.49316D 05 0.15540D 06 0.13568D 06 0.57815D 06 0.36794D 05 0.13128D 06 0.10131D 06 0.10883D 06 0.79275D 04
          0.72895D 05 0.35439D 05 0.16067D 06 0.11045D 06 0.35145D 05 0.27398D 05 0.51336D 05
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ADJUSTED FORECASTED VALUES OF ENDOGENOUS VARIABLES BY REGION FOR 1968

QBTRIPON 0.64083D 05 0.48412D 05 0.11077D 06 0.21646D 06 0.90197D 05 0.14640D 06 0.13524D 06 0.15809D 06 0.15928D 05 0.63309D 06
0.65475D 06 0.27582D 06 0.30063D 05 0.13082D 06 0.44484D 05 0.33433D 06 0.50193D 05 0.16768D 06 0.78687D 05 0.44662D 05
0.28054D 06 0.10388D 05 0.18933D 06 0.60827D 05 0.10008D 07 0.22721D 05 0.14694D 06 0.86052D 05 0.78168D 04 0.52214D 05
0.62379D 05 0.40877D 05 0.34064D 06 0.37749D 05 0.26914D 05 0.46197D 04 0.33411D 05

QCTRIPON 0.13937D 06 0.82519D 05 0.14643D 06 0.33440D 06 0.15230D 06 0.23832D 06 0.22586D 06 0.25772D 06 0.28112D 05 0.98244D 06
0.10779D 07 0.47152D 06 0.13966D 05 0.21688D 06 0.77601D 05 0.58959D 06 0.82651D 05 0.28131D 06 0.12776D 06 0.75615D 05
0.44889D 06 0.19736D 05 0.30440D 06 0.10617D 06 0.18329D 07 0.41237D 05 0.32769D 06 0.17039D 06 0.18759D 05 0.80115D 05
0.10684D 06 0.72920D 05 0.63782D 06 0.72966D 05 0.49303D 05 0.93708D 04 0.56477D 05

QFTRIPON 0.13181D 06 0.94208D 05 0.21196D 06 0.40776D 06 0.16528D 06 0.28337D 06 0.26245D 06 0.28210D 06 0.34967D 05 0.12232D 07
0.13066D 07 0.54425D 06 0.44379D 04 0.25499D 06 0.92262D 05 0.67383D 06 0.96432D 05 0.33388D 06 0.15185D 06 0.89482D 05
0.53201D 06 0.23786D 05 0.35458D 06 0.12267D 06 0.20805D 07 0.47027D 05 0.35991D 06 0.18837D 06 0.24146D 05 0.94064D 05
0.12702D 06 0.82486D 05 0.71728D 06 0.82929D 05 0.55543D 05 0.11122D 05 0.65271D 05

QHTRIPON 0.46064D 05 0.32975D 05 0.71963D 05 0.16218D 06 0.67165D 05 0.10511D 06 0.95953D 05 0.95489D 05 0.13445D 05 0.42078D 06
0.46640D 06 0.15876D 06 0.16191D 05 0.94193D 05 0.30104D 05 0.24073D 06 0.34207D 05 0.13034D 06 0.54924D 05 0.31457D 05
0.17729D 06 0.82146D 04 0.12137D 06 0.40089D 05 0.69171D 06 0.15849D 05 0.13084D 06 0.58083D 05 0.27898D 05 0.41126D 05
0.42324D 05 0.28538D 05 0.24729D 06 0.36429D 05 0.22854D 05 0.56305D 04 0.22423D 05

QPTRIPON 0.78550D 05 0.53269D 05 0.99257D 05 0.21048D 06 0.73886D 05 0.15319D 06 0.13519D 06 0.15776D 06 0.14691D 05 0.60525D 06
0.66781D 06 0.29031D 06 0.14851D 05 0.13028D 06 0.45149D 05 0.35846D 06 0.50446D 05 0.16961D 06 0.79225D 05 0.42843D 05
0.28434D 06 0.10238D 05 0.18732D 06 0.59907D 05 0.10544D 07 0.23533D 05 0.18994D 06 0.93252D 05 0.12405D 05 0.36647D 05
0.66173D 05 0.43602D 05 0.38457D 06 0.41562D 05 0.30881D 05 0.51566D 04 0.34200D 05

QSTRIPON 0.91810D 05 0.37269D 05 0.73759D 05 0.23448D 06 0.97491D 05 0.15343D 06 0.14380D 06 0.15985D 06 0.20482D 05 0.62081D 06
0.71480D 06 0.29324D 06 0.37021D 05 0.14603D 06 0.51091D 05 0.39154D 06 0.54203D 05 0.18055D 06 0.87904D 05 0.52354D 05
0.29543D 06 0.13695D 05 0.19825D 06 0.73663D 05 0.11685D 07 0.27689D 05 0.22007D 06 0.11558D 06 0.13869D 05 0.36101D 05
0.72789D 05 0.46236D 05 0.41519D 06 0.52764D 05 0.33371D 05 0.75291D 04 0.39386D 05

QBVACATN 0.66880D 05 0.29529D 05 0.57996D 05 0.88613D 05 0.75815D 05 0.37214D 05 0.61956D 05 0.54043D 05 0.83395D 05 0.17861D 06
0.32240D 06 0.75215D 05 0.40527D 05 0.13478D 06 0.44941D 05 0.16389D 06 0.22197D 05 0.50664D 05 0.11055D 05 0.94373D 05
0.42669D 05 0.27894D 05 0.56112D 05 0.38288D 05 0.23722D 06 0.21493D 05 0.46235D 05 0.50560D 05 0.82077D 04 0.45770D 05
0.39297D 05 0.11475D 05 0.31100D 05 0.60180D 05 0.19477D 05 0.14950D 05 0.29811D 05

QCVACATN 0.40937D 05 0.13764D 05 0.18588D 05 0.20231D 05 0.36862D 05 0.27513D 05 0.50876D 05 0.26517D 05 0.62632D 05 0.11754D 06
0.31032D 06 0.66965D 05 0.37182D 05 0.80086D 05 0.56827D 05 0.42947D 06 0.42609D 05 0.55767D 05 0.53795D 05 0.10023D 06
0.37633D 05 0.77516D 05 0.63764D 05 0.10369D 06 0.78574D 06 0.66829D 05 0.20107D 06 0.25010D 06 0.34118D 05 0.12414D 05
0.14494D 06 0.47063D 05 0.27960D 06 0.10377D 06 0.68229D 05 0.35642D 05 0.54839D 05

QFVACATN 0.70381D 05 0.36421D 05 0.71563D 05 0.84964D 05 0.96839D 05 0.62531D 05 0.11325D 06 0.60276D 05 0.14539D 06 0.24790D 06
0.57287D 06 0.11276D 06 0.39364D 05 0.24355D 06 0.85647D 05 0.35789D 06 0.46711D 05 0.99368D 05 0.94895D 05 0.13168D 06
0.68604D 05 0.54620D 05 0.14452D 06 0.13786D 06 0.52659D 06 0.52082D 05 0.16539D 06 0.79561D 05 0.89375D 04 0.11881D 06
0.11844D 06 0.23685D 05 0.16387D 06 0.33672D 05 0.47679D 05 0.16093D 05 0.59768D 05

QHVACATN 0.10512D 05 0.10552D 05 0.53600D 05 0.10605D 06 0.14417D 05 0.14431D 05 0.54253D 05 0.44035D 05 0.61613D 05 0.12992D 06
0.18060D 06 0.39053D 05 0.19043D 05 0.65619D 05 0.66132D 04 0.37048D 05 0.10529D 05 0.33024D 05 0.22310D 05 0.39495D 05
0.14127D 05 0.59660D 04 0.21813D 05 0.16216D 05 0.86923D 05 0.48562D 04 0.18350D 05 0.11219D 05 0.34905D 04 0.14132D 05
0.90200D 04 0.26966D 04 0.32948D 05 0.38155D 04 0.58712D 04 0.36916D 04 0.65541D 04

QPVACATN 0.38535D 05 0.20288D 05 0.33247D 05 0.49763D 05 0.33705D 05 0.30995D 05 0.51939D 05 0.22434D 05 0.18779D 05 0.80950D 05
0.32987D 06 0.44162D 05 0.56491D 05 0.13079D 06 0.51405D 05 0.18225D 06 0.33831D 05 0.39632D 05 0.94209D 04 0.18682D 05
0.86422D 04 0.34227D 05 0.51721D 05 0.94434D 05 0.23266D 06 0.26787D 05 0.15232D 05 0.24446D 05 0.19526D 05 0.63141D 04
0.54047D 05 0.16173D 05 0.88568D 05 0.18886D 05 0.26350D 05 0.10793D 05 0.18490D 05

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 COVARIN  0.89823D 05 0.48602D 05 0.82570D 05 0.15089D 06 0.11772D 06 0.57349D 05 0.13712D 06 0.92780D 05 0.19934D 06 0.30581D 06
          0.62684D 06 0.99703D 05 0.45493D 05 0.22833D 06 0.21626D 05 0.34210D 06 0.38025D 05 0.92989D 05 0.11629D 06 0.19504D 06
          0.81489D 05 0.38590D 05 0.10376D 06 0.13686D 06 0.52985D 06 0.44039D 05 0.13494D 06 0.13096D 06 0.53823D 05 0.49626D 04
          0.79583D 05 0.18103D 05 0.14645D 06 0.11699D 06 0.22001D 05 0.12692D 05 0.64273D 05
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FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1982

STATEWIDE TOTAL NOTRIPON = 0.59767D 07

STATEWIDE TOTAL NOVACATN = 0.12529D 07

STATEWIDE TOTAL OBTRIPON = 0.65344D 07

STATEWIDE TOTAL OCTRIPON = 0.11226D 08

STATEWIDE TOTAL OFTRIPON = 0.12754D 08

STATEWIDE TOTAL OHTRIPON = 0.50027D 07

STATEWIDE TOTAL OPTRIPON = 0.68217D 07

STATEWIDE TOTAL OSTRIPON = 0.84298D 07

STATEWIDE TOTAL OBVACATN = 0.29980D 07

STATEWIDE TOTAL OCVACATN = 0.62942D 07

STATEWIDE TOTAL OFVACATN = 0.65063D 07

STATEWIDE TOTAL OHVACATN = 0.11018D 07

STATEWIDE TOTAL OPVACATN = 0.34387D 07

STATEWIDE TOTAL OSVACATN = 0.53542D 07

FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1968

STATEWIDE TOTAL NOTRIPON = 0.59767D 07

STATEWIDE TOTAL NOVACATN = 0.12529D 07

STATEWIDE TOTAL QBTRIPON = 0.65344D 07

STATEWIDE TOTAL QCTRIPON = 0.11226D 08

STATEWIDE TOTAL QFTRIPON = 0.12754D 08

STATEWIDE TOTAL QHTRIPON = 0.50027D 07

STATEWIDE TOTAL QPTRIPON = 0.68217D 07

STATEWIDE TOTAL QSTRIPON = 0.84298D 07

STATEWIDE TOTAL QBVACATN = 0.29980D 07

STATEWIDE TOTAL QCVACATN = 0.62942D 07

STATEWIDE TOTAL QFVACATN = 0.65063D 07

STATEWIDE TOTAL QHVACATN = 0.11018D 07

STATEWIDE TOTAL QPVACATN = 0.34387D 07

STATEWIDE TOTAL QSVACATN = 0.53542D 07

DJUSTED FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1968

STATEWIDE TOTAL QBTRIPON = 0.582420 07

STATEWIDE TOTAL QCTRIPON = 0.995830 07

STATEWIDE TOTAL QFTRIPON = 0.116080 08

STATEWIDE TOTAL QHTRIPON = 0.408620 07

STATEWIDE TOTAL QPTRIPON = 0.599870 07

STATEWIDE TOTAL QSTRIPON = 0.647200 07

STATEWIDE TOTAL QBVACATN = 0.243360 07

STATEWIDE TOTAL QCVACATN = 0.401570 07

STATEWIDE TOTAL QFVACATN = 0.448680 07

STATEWIDE TOTAL QHVACATN = 0.120170 07

STATEWIDE TOTAL QPVACATN = 0.202450 07

STATEWIDE TOTAL QSVACATN = 0.476180 07

V. The Policy Simulations

As mentioned before, the most useful portion of the reduced form system consists in the last 14 equations, the unconditioned quantity forecasting relationships. These equations were calibrated as described in the last section.

Policy simulations for 1975, 1980, 1990, and 2000 were completed for the low, medium and high levels of recreational development using the data provided by Texas Parks and Wildlife Department. The original 1968 data were used instead of 1970 projections since 1970 is also in the past. The 1968 projections have already been presented. These simulations point out basic consistencies in the model. As income and population increase along with other household factors over time, the demand for recreation is expected to increase. The demand for all types of recreation, 2-3 day trips and overnight trips increases from 200 to 400 percent from 1968 to 2000 high. The demand for recreation on short trips increases substantially with increased availability of facilities. However, for given levels of household characteristics, increases in available recreational facilities have a tendency to reduce the demand for some types of recreation on more than 3-day trips and vacations.

Policy simulations for the demand for overnight trips, vacations, and boating, camping, freshwater fishing, hunting, picnicking, and swimming on overnight trips and vacations follow for regional and state totals for 1975, 1980, 1990 and 2000, and for low, medium and high levels of development. Along with these projections appear their values adjusted to be conformable for the cascade with the gravity model. The adjustments to allow cascading are discussed in the next section. Forecasts in logarithmic units and decimal

FORECAST VALUES OF ENDOGENOUS VARIABLES FOR SIMULATION FOR 1975 LOW

NOTRIPON	0.399180 05	0.159440 05	0.993720 05	0.240320 06	0.166060 06	0.163310 06	0.138240 06	0.163570 06	0.212010 05	0.171090 07
	0.108620 07	0.136110 06	0.110570 06	0.262220 06	0.919430 05	0.184480 07	0.941540 05	0.227210 06	0.220810 06	0.101860 06
	0.374370 06	0.259650 05	0.428920 06	0.219590 06	0.221890 07	0.465230 05	0.263530 06	0.245780 06	0.176010 06	0.796960 05
	0.114800 06	0.129150 06	0.852300 06	0.998980 05	0.191840 06	0.385110 05	0.124530 06			
NOVACATN	0.298090 05	0.136110 05	0.115860 05	0.269070 05	0.290300 05	0.902700 04	0.223620 05	0.116400 05	0.261440 05	0.103690 06
	0.214160 06	0.568930 05	0.312700 05	0.675420 05	0.261070 05	0.128150 06	0.149810 05	0.261660 05	0.291110 05	0.335660 05
	0.189430 05	0.149650 05	0.612800 05	0.412850 05	0.320810 06	0.183970 05	0.521320 05	0.577840 05	0.497230 05	0.258830 04
	0.245780 05	0.129620 05	0.493330 05	0.443480 05	0.134910 05	0.113240 05	0.179560 05			
QBTRIPON	0.413860 05	0.160400 05	0.103150 06	0.262780 06	0.190370 06	0.180760 06	0.152600 06	0.187710 06	0.243200 05	0.187360 07
	0.119220 07	0.139450 06	0.125920 06	0.306900 06	0.101520 06	0.204770 07	0.106020 06	0.240740 06	0.254630 06	0.118880 06
	0.424190 06	0.273700 05	0.469710 06	0.250090 06	0.232790 07	0.480000 05	0.275730 06	0.246200 06	0.182290 06	0.912120 05
	0.124230 06	0.139730 06	0.877910 06	0.103140 06	0.209280 06	0.400450 05	0.139760 06			
QCTRIPON	0.699170 05	0.278770 05	0.159880 06	0.421340 06	0.298160 06	0.289110 06	0.247230 06	0.299900 06	0.385380 05	0.305040 07
	0.194140 07	0.249050 06	0.200580 06	0.477040 06	0.169400 06	0.331900 07	0.168830 06	0.400200 06	0.397700 06	0.187090 06
	0.679960 06	0.489950 05	0.779010 06	0.406510 06	0.405970 07	0.870550 05	0.487930 06	0.459040 06	0.304480 06	0.137070 06
	0.208460 06	0.235980 06	0.154800 07	0.180260 06	0.340780 06	0.673830 05	0.226500 06			
QFTRIPON	0.836120 05	0.339570 05	0.187150 06	0.491720 06	0.347430 06	0.337600 06	0.289580 06	0.348750 06	0.479890 05	0.357640 07
	0.228100 07	0.289900 06	0.238070 06	0.559470 06	0.198920 06	0.381380 07	0.196480 06	0.460500 06	0.462060 06	0.219320 06
	0.795210 06	0.576430 05	0.895970 06	0.464600 06	0.460460 07	0.992780 05	0.549510 06	0.508870 06	0.348130 06	0.160260 06
	0.243350 06	0.266110 06	0.174160 07	0.202180 06	0.388140 06	0.774720 05	0.259080 06			
QHTRIPON	0.321470 05	0.123280 05	0.699150 05	0.191640 06	0.136520 06	0.130320 06	0.109220 06	0.117580 06	0.223430 05	0.134100 07
	0.864680 06	0.990020 05	0.928740 05	0.229790 06	0.706030 05	0.151610 07	0.735020 05	0.186520 06	0.180820 06	0.809020 05
	0.291950 06	0.194400 05	0.333300 06	0.166100 06	0.162920 07	0.344480 05	0.197900 06	0.162870 06	0.162670 06	0.754710 05
	0.875460 05	0.102250 06	0.659070 06	0.891440 05	0.174160 06	0.352620 05	0.975950 05			
QPTRIPON	0.450320 05	0.175900 05	0.110910 06	0.291700 06	0.202600 06	0.201780 06	0.167960 06	0.208900 06	0.229310 05	0.215470 07
	0.132490 07	0.159860 06	0.133970 06	0.318270 06	0.109830 06	0.231870 07	0.114240 06	0.274370 06	0.271480 06	0.123160 06
	0.460780 06	0.303610 05	0.521180 06	0.265880 06	0.267110 07	0.545090 05	0.322020 06	0.295590 06	0.209380 06	0.101690 06
	0.141050 06	0.159360 06	0.104250 07	0.119310 06	0.247310 06	0.469530 05	0.153930 06			
QSTRIPON	0.580460 05	0.230110 05	0.121770 06	0.320810 06	0.228530 06	0.212240 06	0.187210 06	0.216670 06	0.355550 05	0.227980 07
	0.147740 07	0.189120 06	0.153300 06	0.369610 06	0.127200 06	0.247160 07	0.126980 06	0.297940 06	0.306730 06	0.144560 06
	0.510020 06	0.366590 05	0.585270 06	0.309030 06	0.300030 07	0.651700 05	0.370050 06	0.345900 06	0.239480 06	0.106080 06
	0.158050 06	0.174530 06	0.114420 07	0.143020 06	0.257650 06	0.534470 05	0.173000 06			
QBVACATN	0.595470 05	0.246040 05	0.324750 05	0.646940 05	0.559750 05	0.208540 05	0.547480 05	0.303240 05	0.913270 05	0.182710 06
	0.320750 06	0.836170 05	0.453190 05	0.103790 06	0.275910 05	0.129280 06	0.238420 05	0.431510 05	0.501560 05	0.567740 05
	0.277460 05	0.153400 05	0.690180 05	0.413980 05	0.230740 06	0.167620 05	0.387320 05	0.296120 05	0.502860 05	0.340930 04
	0.220450 05	0.874940 04	0.381410 05	0.270840 05	0.110370 05	0.919970 04	0.197550 05			
QCVACATN	0.140940 06	0.642350 05	0.513220 05	0.116390 06	0.143730 06	0.394450 05	0.979900 05	0.531350 05	0.118210 06	0.510860 06
	0.113800 07	0.295270 06	0.178160 06	0.396550 06	0.162860 06	0.779670 06	0.796340 05	0.127990 06	0.153710 06	0.189310 06
	0.105470 06	0.960490 05	0.356850 06	0.271150 06	0.205280 07	0.116430 06	0.334950 06	0.403070 06	0.292820 06	0.153750 05
	0.159920 06	0.920940 05	0.303970 06	0.318930 06	0.905630 05	0.724980 05	0.109240 06			
QFVACATN	0.152520 06	0.662540 05	0.676540 05	0.146240 06	0.145960 06	0.491270 05	0.126620 06	0.694000 05	0.166980 06	0.465910 06
	0.358520 06	0.246070 06	0.130920 06	0.274570 06	0.912750 05	0.384260 06	0.648860 05	0.116320 06	0.123200 06	0.143420 06
	0.766620 05	0.510520 05	0.208730 06	0.132020 06	0.830520 06	0.586550 05	0.144420 06	0.130390 06	0.164360 06	0.940780 04
	0.777270 05	0.299730 05	0.127040 06	0.997380 05	0.346270 05	0.299320 05	0.614440 05			

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QHVACATN  0.17970D 05 0.74597D 04 0.11040D 05 0.27166D 05 0.13838D 05 0.83018D 04 0.21661D 05 0.10473D 05 0.36697D 05 0.47629D 05
          0.61246D 05 0.18971D 05 0.61751D 04 0.13211D 05 0.26862D 04 0.15560D 05 0.46767D 04 0.12816D 05 0.10139D 05 0.83686D 04
          0.43681D 04 0.13977D 04 [illegible] 05 0.35489D 04 0.25551D 05 0.18828D 04 0.42159D 04 0.27135D 04 0.76368D 04 0.40049D 03
          0.2[illegible digit]125D 04 0.57681D 03 0.55754D 04 0.19160D 04 0.10310D 04 0.99742D 03 0.22392D 04

QPVACATN  0.71018D 05 0.29372D 05 0.36639D 05 0.74409D 05 0.68364D 05 0.24120D 05 0.63288D 05 0.35653D 05 0.10168D 06 0.23152D 06
          0.42627D 06 0.11062D 06 0.61313D 05 0.14080D 06 0.40868D 05 0.20211D 06 0.30863D 05 0.54853D 05 0.65414D 05 0.75410D 05
          0.36681D 05 0.23734D 05 0.15031D 06 0.64253D 05 0.38772D 06 0.26434D 05 0.63350D 05 0.57316D 05 0.74682D 05 0.48117D 04
          0.35672D 05 0.15903D 05 0.63315D 05 0.51243D 05 0.19094D 05 0.15378D 05 0.29879D 05

QSVACATN  0.96479D 05 0.33954D 05 0.52018D 05 0.10752D 06 0.96095D 05 0.33582D 05 0.94767D 05 0.52570D 05 0.16359D 06 0.32973D 06
          0.60742D 06 0.15293D 06 0.87376D 05 0.20796D 06 0.56026D 05 0.26448D 06 0.43065D 05 0.71634D 05 0.97840D 05 0.11388D 06
          0.56346D 05 0.34197D 05 0.14194D 06 0.93040D 05 0.47356D 06 0.36500D 05 0.85379D 05 0.67050D 05 0.81098D 05 0.60573D 04
          0.49419D 05 0.19999D 05 0.80642D 05 0.60342D 05 0.23570D 05 0.19767D 05 0.42146D 05
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FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1975 LOW

58

STATEWIDE TOTAL QOTRIPON = 0.12556D 08

STATEWIDE TOTAL QOVACATN = 0.17228D 07

STATEWIDE TOTAL QRTRIPON = 0.13643D 08

STATEWIDE TOTAL QCTRIPON = 0.22670D 08

STATEWIDE TOTAL QFTRIPON = 0.26126D 08

STATEWIDE TOTAL QHTRIPON = 0.98763D 07

STATEWIDE TOTAL QPTRIPON = 0.15416D 08

STATEWIDE TOTAL QSTRIPON = 0.17020D 08

STATEWIDE TOTAL QBVACATN = 0.21606D 07

STATEWIDE TOTAL QCVACATN = 0.10C30D 08

STATEWIDE TOTAL QFVACATN = 0.61574D 07

STATEWIDE TOTAL QHVACATN = 0.43225D 06

STATEWIDE TOTAL QPVACATN = 0.30138D 07

STATEWIDE TOTAL QSVACATN = 0.41390D 07

ADJUSTED FORECASTED VALUES OF ENDOGENOUS VARIABLES BY REGION FOR 1975 LOW

QBTRIPON 0.278390 05 0.125830 05 0.899720 05 0.24291D 06 0.16130D 06 0.16702D 06 0.14100D 06 0.17345D 06 0.22472D 05 0.17156D 06
0.11C16D 07 0.129850 06 0.116350 06 0.28357D 06 0.93809D 05 0.18921D 07 0.97961D 05 0.22155D 06 0.25523D 06 0.10956D 06
0.391950 06 0.252900 05 0.434020 06 0.23108D 06 0.21251D 07 0.44352D 05 0.20994D 06 0.22749D 06 0.10611D 05 0.84233D 05
0.114790 06 0.129110 06 0.811190 06 0.95302D 05 0.19338D 06 0.37001D 05 0.12914D 06

QCTRIPON 0.617750 05 0.224200 05 0.115600 06 0.36441D 06 0.26177D 06 0.26515D 06 0.23066D 06 0.27981D 06 0.35956D 05 0.25756D 07
0.17461D 07 0.229110 06 0.492180 05 0.44508D 06 0.15805D 06 0.30967D 07 0.15752D 05 0.36293D 06 0.36252D 06 0.17456D 06
0.634400 06 0.457130 05 0.718820 06 0.37927D 06 0.37649D 07 0.81222D 05 0.45523D 06 0.42329D 06 0.24715D 05 0.12709D 06
0.194500 06 0.220170 06 0.144430 07 0.16818D 06 0.31795D 06 0.62868D 05 0.21133D 06

QETRIPON 0.606860 05 0.267750 05 0.171220 06 0.45358D 06 0.28880D 06 0.32072D 06 0.27235D 06 0.31143D 06 0.45560D 05 0.32757D 07
0.215180 07 0.268240 06 0.156050 05 0.52725D 06 0.18897D 06 0.36231D 07 0.18666D 06 0.43704D 06 0.43896D 06 0.20836D 06
0.755450 06 0.547610 05 0.847770 06 0.44137D 06 0.43394D 07 0.92994D 05 0.50638D 06 0.48005D 06 0.32411D 05 0.15224D 06
0.231180 06 0.252810 06 0.165460 07 0.19207D 06 0.36873D 06 0.73598D 05 0.24613D 06

QHTRIPON 0.196250 05 0.859060 04 0.523050 05 0.16386D 06 0.11322D 06 0.11142D 06 0.93387D 05 0.10053D 06 0.19103D 05 0.10847D 07
0.728210 06 0.725430 05 0.529650 05 0.19647D 06 0.60366D 05 0.12963D 07 0.62844D 05 0.15868D 06 0.15460D 06 0.69171D 05
0.249610 06 0.166210 05 0.284980 06 0.14201D 06 0.13874D 07 0.29453D 05 0.16920D 06 0.13925D 06 0.34772D 05 0.84526D 05
0.748520 05 0.874220 05 0.563500 06 0.76218D 05 0.14890D 06 0.30149D 05 0.83443D 05

QPTRIPON 0.374200 05 0.152120 05 0.872610 05 0.25336D 06 0.14398D 06 0.18835D 06 0.15267D 06 0.18675D 06 0.21555D 05 0.17864D 07
0.120680 07 0.148460 06 0.629640 05 0.29918D 06 0.10324D 06 0.21621D 07 0.10739D 06 0.24140D 06 0.25519D 06 0.11577D 06
0.433140 06 0.285390 05 0.489910 06 0.24993D 06 0.23979D 07 0.51239D 05 0.29695D 06 0.26313D 06 0.18107D 05 0.63757D 05
0.132580 06 0.149800 06 0.979980 06 0.11215D 06 0.23247D 06 0.44136D 05 0.14469D 06

QSTRIPON 0.440290 05 0.111500 05 0.594000 05 0.26082D 06 0.16740D 06 0.17255D 06 0.14840D 06 0.17615D 06 0.28906D 05 0.16533D 07
0.117230 07 0.148520 06 0.124630 06 0.30049D 06 0.10341D 06 0.20094D 07 0.10323D 06 0.23472D 06 0.24937D 06 0.11752D 06
0.414640 06 0.298040 05 0.462030 06 0.25124D 06 0.24002D 07 0.52984D 05 0.30085D 06 0.28121D 06 0.18496D 05 0.57525D 05
0.128490 06 0.135940 06 0.930220 06 0.11627D 06 0.20947D 06 0.43453D 05 0.14065D 06

QBVACATN 0.423520 05 0.159720 05 0.291040 05 0.62589D 05 0.46693D 05 0.21733D 05 0.35478D 05 0.34842D 05 0.74923D 05 0.15556D 06
0.260190 06 0.567810 05 0.260360 05 0.89081D 05 0.31702D 05 0.13087D 06 0.17313D 05 0.36094D 05 0.91954D 04 0.59558D 05
0.318800 05 0.176250 05 0.470260 05 0.23783D 05 0.18771D 06 0.19260D 05 0.28126D 05 0.32902D 05 0.61246D 04 0.32631D 04
0.233040 05 0.603180 04 0.151190 05 0.31119D 05 0.12682D 05 0.10570D 05 0.22698D 05

QCVACATN 0.615270 05 0.180780 05 0.230870 05 0.33400D 05 0.49688D 05 0.32561D 05 0.60258D 05 0.36208D 05 0.10347D 06 0.23037D 06
0.617830 06 0.117450 06 0.572460 05 0.13313D 06 0.97260D 05 0.66345D 06 0.66176D 05 0.68921D 05 0.90436D 05 0.13481D 06
0.584310 05 0.106420 06 0.111100 06 0.13429D 06 0.14716D 07 0.12152D 06 0.27055D 06 0.38006D 06 0.58076D 05 0.17036D 05
0.177190 06 0.510200 05 0.288970 06 0.13251D 06 0.10034D 06 0.47233D 05 0.75648D 05

QFVACATN 0.611590 05 0.270860 05 0.476850 05 0.79713D 05 0.78419D 05 0.46643D 05 0.83587D 05 0.50698D 05 0.15836D 06 0.28623D 06
0.629080 06 0.117380 06 0.337810 05 0.21591D 06 0.80951D 05 0.35925D 06 0.46313D 05 0.88615D 05 0.97934D 05 0.10685D 06
0.660220 05 0.469890 05 0.153650 06 0.10765D 06 0.55940D 06 0.61128D 05 0.13583D 06 0.70931D 05 0.89960D 04 0.10509D 05
0.868210 05 0.152330 05 0.101740 06 0.23284D 05 0.38678D 05 0.13942D 05 0.56348D 05

QHVACATN 0.352740 04 0.300070 04 0.126830 05 0.38858D 05 0.49429D 04 0.51427D 04 0.18785D 05 0.16851D 05 0.37730D 05 0.60925D 05
0.674960 05 0.171850 05 0.552430 04 0.19556D 05 0.22647D 04 0.17600D 05 0.50191D 04 0.17219D 05 0.10490D 05 0.13455D 05
0.702830 04 0.224890 04 0.113540 05 0.57101D 04 0.35685D 05 0.30294D 04 0.67020D 04 0.42220D 04 0.13639D 04 0.64439D 03
0.323810 04 0.781450 03 0.913240 04 0.90019D 03 0.16589D 04 0.16049D 04 0.36029D 04

QPVACATN 0.293510 05 0.133200 05 0.199310 05 0.41557D 05 0.24742D 05 0.21123D 05 0.34851D 05 0.17085D 05 0.18968D 05 0.84307D 05
0.325680 06 0.409220 05 0.445160 05 0.10644D 06 0.45649D 05 0.17293D 06 0.31336D 05 0.32412D 05 0.91334D 04 0.14067D 05
0.782580 04 0.245110 05 0.527730 05 0.71770D 05 0.23430D 06 0.29526D 05 0.11605D 05 0.20615D 05 0.17935D 05 0.53747D 04
0.398460 05 0.106580 05 0.533960 05 0.12707D 05 0.21328D 05 0.91556D 04 0.16688D 05

QSVACATN 0.63174D 05 0.29967D 05 0.47151D 05 0.11765D 06 0.77841D 05 0.36117D 05 0.86139D 05 0.65818D 05 0.19601D 06 0.28361D 06
0.54375D 06 0.83288D 05 0.24286D 05 0.16794D 06 0.16694D 05 0.27881D 06 0.31865D 05 0.68968D 05 0.10314D 06 0.13573D 06
0.69136D 05 0.26759D 05 0.94719D 05 0.89694D 05 0.43400D 06 0.43687D 05 0.87761D 05 0.66821D 05 0.40106D 05 0.37918D 04
0.53953D 05 0.10216D 05 0.73501D 05 0.63914D 05 0.14755D 05 0.91569D 04 0.52767D 05

DJUSTED FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1975 LOW

(91)

STATEWIDE TOTAL QBTRIPON = 0.12329D 08

STATEWIDE TOTAL QCTRIPON = 0.20275D 08

STATEWIDE TOTAL QFTRIPON = 0.23998D 08

STATEWIDE TOTAL QHTRIPON = 0.82012D 07

STATEWIDE TOTAL QPTRIPON = 0.13664D 08

STATEWIDE TOTAL QSTRIPON = 0.13259D 08

STATEWIDE TOTAL QBVACATN = 0.17552D 07

STATEWIDE TOTAL QCVACATN = 0.62973D 07

STATEWIDE TOTAL QFVACATN = 0.42528D 07

STATEWIDE TOTAL QHVACATN = 0.47717D 06

STATEWIDE TOTAL QPVACATN = 0.17704D 07

STATEWIDE TOTAL QSVACATN = 0.36918D 07

FORECASTED VALUES OF ENDOGENOUS VARIABLES FOR BY REGION FOR 1975 MEDIUM

NOTRIPON	0.35172D 05	0.14061D 05	0.84214D 05	0.21813D 06	0.14872D 06	0.14787D 06	0.12389D 06	0.15362D 06	0.17293D 05	0.15030D 07
	0.92464D 06	0.11524D 06	0.10702D 06	0.23277D 06	0.76347D 05	0.17393D 07	0.85798D 05	0.20291D 06	0.19951D 06	0.89708D 05
	0.32863D 06	0.20999D 05	0.39472D 06	0.19644D 06	0.18798D 07	0.38261D 05	0.13757D 06	0.22570D 06	0.15951D 06	0.72319D 05
	0.10811D 06	0.12873D 06	0.98259D 06	0.10721D 06	0.18223D 06	0.34602D 05	0.11866D 06			
NOVACATN	0.28843D 05	0.13195D 05	0.11057D 05	0.25871D 05	0.28131D 05	0.86728D 04	0.21728D 05	0.11304D 05	0.25521D 05	0.10128D 06
	0.20949D 06	0.54651D 05	0.29965D 05	0.65766D 05	0.25650D 05	0.12555D 06	0.14579D 05	0.25054D 05	0.28458D 05	0.32927D 05
	0.18486D 05	0.14837D 05	0.59938D 05	0.40446D 05	0.31393D 06	0.18049D 05	0.51859D 05	0.55386D 05	0.48055D 05	0.24920D 04
	0.24043D 05	0.12552D 05	0.47115D 05	0.42821D 05	0.13043D 05	0.11040D 05	0.17685D 05			
QBTRIPON	0.34998D 05	0.13463D 05	0.92895D 05	0.23226D 06	0.16635D 06	0.15972D 06	0.13326D 06	0.17180D 06	0.19009D 05	0.16111D 07
	0.98794D 06	0.11468D 06	0.11771D 06	0.26502D 06	0.82190D 05	0.18858D 07	0.94184D 05	0.20929D 06	0.22468D 06	0.10217D 06
	0.36412D 06	0.21435D 05	0.42231D 06	0.21761D 06	0.19198D 07	0.38258D 05	0.13685D 06	0.22070D 06	0.16053D 06	0.80799D 05
	0.11393D 06	0.13575D 06	0.98409D 06	0.10787D 06	0.19431D 06	0.35038D 05	0.12997D 06			
QCTRIPON	0.63245D 05	0.25138D 05	0.15150D 06	0.39057D 06	0.27262D 06	0.26703D 06	0.22610D 06	0.26724D 06	0.32502D 05	0.27310D 07
	0.16883D 07	0.21565D 06	0.19911D 06	0.43301D 06	0.14366D 06	0.31939D 07	0.15704D 06	0.36512D 06	0.36678D 06	0.16833D 06
	0.60908D 06	0.40577D 05	0.73211D 06	0.37262D 06	0.35129D 07	0.73299D 05	0.26397D 06	0.43109D 06	0.28199D 06	0.12689D 06
	0.20075D 06	0.24031D 06	0.18261D 07	0.19794D 06	0.33014D 06	0.61814D 05	0.22020D 06			
QETRIPON	0.75086D 05	0.30426D 05	0.17589D 06	0.45180D 06	0.31486D 06	0.30908D 06	0.26251D 06	0.33135D 06	0.40428D 05	0.31701D 07
	0.19631D 07	0.24882D 06	0.23443D 06	0.50320D 06	0.16704D 06	0.36395D 07	0.18116D 06	0.41632D 06	0.42232D 06	0.19562D 06
	0.70501D 06	0.47356D 05	0.83481D 06	0.42138D 06	0.39425D 07	0.82756D 05	0.29124D 06	0.47446D 06	0.31960D 06	0.14702D 06
	0.23237D 06	0.26922D 06	0.20510D 07	0.22022D 06	0.37311D 06	0.70438D 05	0.24985D 06			
QHTRIPON	0.26527D 05	0.10162D 05	0.59624D 05	0.16081D 06	0.11381D 06	0.10925D 06	0.91074D 05	0.10234D 06	0.17748D 05	0.10955D 07
	0.68505D 06	0.78750D 05	0.81962D 05	0.18924D 06	0.54925D 05	0.13202D 07	0.62139D 05	0.15386D 06	0.15150D 06	0.66623D 05
	0.23689D 06	0.14922D 05	0.28363D 06	0.13602D 06	0.12783D 07	0.26530D 05	0.94410D 05	0.13784D 06	0.13683D 06	0.63297D 05
	0.75925D 05	0.93719D 05	0.69331D 06	0.87287D 05	0.15325D 06	0.29517D 05	0.86181D 05			
QPTRIPON	0.40321D 05	0.15647D 05	0.10458D 06	0.26887D 06	0.18435D 06	0.18526D 06	0.15248D 06	0.19893D 06	0.18859D 05	0.19192D 07
	0.11468D 07	0.13680D 06	0.13290D 06	0.28756D 06	0.92681D 05	0.22239D 07	0.10561D 06	0.24842D 06	0.24908D 06	0.10999D 06
	0.41045D 06	0.24913D 05	0.48772D 06	0.24142D 06	0.22992D 07	0.45493D 05	0.16725D 06	0.27685D 06	0.19281D 06	0.93610D 05
	0.13520D 06	0.16195D 06	0.12359D 07	0.13129D 06	0.23935D 06	0.42819D 05	0.14913D 06			
QSTRIPON	0.51313D 05	0.20303D 05	0.11186D 06	0.28908D 06	0.20379D 06	0.19069D 06	0.16691D 06	0.20182D 06	0.29848D 05	0.19916D 07
	0.12567D 07	0.16038D 06	0.14672D 06	0.32679D 06	0.10580D 06	0.23072D 07	0.11495D 06	0.26414D 06	0.27520D 06	0.12700D 06
	0.44451D 06	0.29940D 05	0.53369D 06	0.27398D 06	0.25314D 07	0.53777D 05	0.19530D 06	0.31418D 06	0.21579D 06	0.95484D 05
	0.14733D 06	0.17166D 06	0.12909D 07	0.15113D 06	0.24257D 06	0.47799D 05	0.16342D 06			
QBVACATN	0.59025D 05	0.24329D 05	0.32866D 05	0.64800D 05	0.55537D 05	0.20992D 05	0.54011D 05	0.29920D 05	0.89407D 05	0.17847D 06
	0.31291D 06	0.82375D 05	0.45859D 05	0.10212D 06	0.26709D 05	0.12428D 06	0.23465D 05	0.43883D 05	0.48810D 05	0.55067D 05
	0.27117D 05	0.14593D 05	0.66914D 05	0.39773D 05	0.22490D 06	0.16248D 05	0.36457D 05	0.30821D 05	0.50219D 05	0.34391D 04
	0.21261D 05	0.86211D 04	0.38248D 05	0.26882D 05	0.10978D 05	0.90160D 04	0.18777D 05			
QCVACATN	0.12676D 06	0.58101D 05	0.44079D 05	0.10207D 06	0.13021D 06	0.34547D 05	0.88796D 05	0.48211D 05	0.10873D 06	0.47278D 06
	0.10604D 07	0.27222D 06	0.15790D 06	0.36654D 06	0.15426D 06	0.73265D 06	0.73230D 05	0.11200D 06	0.14298D 06	0.17832D 06
	0.97828D 05	0.93239D 05	0.33356D 06	0.25497D 06	0.19256D 07	0.10987D 06	0.32535D 06	0.36105D 06	0.26563D 06	0.13817D 05
	0.14997D 06	0.84519D 05	0.26848D 06	0.29090D 06	0.82647D 05	0.67420D 05	0.10403D 06			
QFVACATN	0.15575D 06	0.67562D 05	0.69589D 05	0.14985D 06	0.14905D 06	0.50402D 05	0.12879D 06	0.70582D 05	0.16884D 06	0.47320D 06
	0.87307D 06	0.25118D 06	0.13637D 06	0.28061D 06	0.92682D 05	0.38966D 06	0.66030D 05	0.12001D 06	0.12465D 06	0.14463D 06
	0.77907D 05	0.51149D 05	0.21097D 06	0.13377D 06	0.84641D 06	0.59601D 05	0.14609D 06	0.13631D 06	0.16912D 06	0.96969D 04
	[illegible]									

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[illegible]VACATN 0.2[illegible]D 05 [illegible]D 04 0.15844D 05 0.27167D 05 0.18160D 05 0.11412D 05 0.27700D 05 0.13442D 05 0.45455D 05 0.59267D 05
          0.75975D 05 0.24155D 05 0.89177D 04 0.17016D 05 0.32634D 04 0.19258D 05 0.60006D 04 0.18284D 05 0.12589D 05 0.10179D 05
          0.55281D 04 0.15744D 04 0.12498D 05 0.44465D 04 0.32199D 05 0.23187D 04 0.48173D 04 0.40645D 04 0.10406D 05 0.55992D 03
          0.25309D 04 0.79786D 03 0.84537D 04 0.27125D 04 0.14235D 04 0.12887D 04 0.26607D 04

[illegible]VACATN 0.71615D 05 0.29586D 05 0.37380D 05 0.75492D 05 0.68957D 05 0.24564D 05 0.63639D 05 0.35803D 05 0.10159D 06 0.23124D 06
          0.47686D 06 0.11050D 06 0.62564D 05 0.14148D 06 0.40780D 05 0.19976D 06 0.30999D 05 0.56261D 05 0.65163D 05 0.74983D 05
          0.35641D 05 0.23525D 05 0.99684D 05 0.63535D 05 0.38924D 06 0.26437D 05 0.63262D 05 0.59546D 05 0.75688D 05 0.49064D 04
          0.35324D 05 0.15912D 05 0.63515D 05 0.51416D 05 0.19222D 05 0.15413D 05 0.29352D 05

GSVACATN  0.97218D 05 0.39181D 05 0.53319D 05 0.10935D 06 0.97001D 05 0.34246D 05 0.94813D 05 0.52529D 05 0.16347D 06 0.32837D 06
          0.60650D 06 0.15287D 06 0.88988D 05 0.20828D 06 0.55618D 05 0.25960D 06 0.43113D 05 0.74011D 05 0.97491D 05 0.11321D 06
          0.56321D 05 0.33683D 05 0.14146D 06 0.91435D 05 0.47515D 06 0.36204D 05 0.80757D 05 0.72069D 05 0.82861D 05 0.62157D 04
          0.48715D 05 0.19930D 05 0.80740D 05 0.61161D 05 0.23914D 05 0.19770D 05 0.40953D 05
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FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1975 MEDIAN

STATEWIDE TOTAL NOTRIPON = 0.11335D 08

STATEWIDE TOTAL NOVACATN = 0.16795D 07

STATEWIDE TOTAL QBTRIPON = 0.12002D 08

STATEWIDE TOTAL QCTRIPON = 0.20899D 08

STATEWIDE TOTAL QFTRIPON = 0.23865D 08

STATEWIDE TOTAL QHTRIPON = 0.82539D 07

STATEWIDE TOTAL QPTRIPON = 0.14158D 08

STATEWIDE TOTAL QSTRIPON = 0.15245D 08

STATEWIDE TOTAL QBVACATN = 0.21191D 07

STATEWIDE TOTAL QCVACATN = 0.92937D 07

STATEWIDE TOTAL QFVACATN = 0.62789D 07

STATEWIDE TOTAL QHVACATN = 0.55591D 06

STATEWIDE TOTAL QPVACATN = 0.30218D 07

STATEWIDE TOTAL QSVACATN = 0.41405D 07

ADJUSTED FORECASTED VALUES OF ENDOGENOUS VARIABLES BY REGION FOR 1975 MEDIUM

QBTRIPON 0.23542D 05 0.10561D 05 0.81028D 05 0.21461D 06 0.14095D 06 0.14758D 06 0.12314D 06 0.15875D 06 0.17564D 05 0.14752D 07
0.91286D 06 0.10596D 06 0.10877D 06 0.24488D 06 0.75943D 05 0.17425D 07 0.87026D 05 0.19261D 06 0.20760D 06 0.94403D 05
0.33645D 06 0.19806D 05 0.39021D 06 0.20107D 06 0.17526D 07 0.35350D 05 0.10420D 06 0.20393D 06 0.93448D 04 0.74658D 05
0.10527D 06 0.12544D 06 0.90930D 06 0.99670D 05 0.17954D 06 0.32376D 05 0.12009D 06

QCTRIPON 0.55880D 05 0.20217D 05 0.10955D 06 0.33780D 06 0.23935D 06 0.24490D 06 0.21095D 06 0.26799D 06 0.30324D 05 0.23060D 07
0.15182D 07 0.19839D 06 0.48857D 05 0.40400D 06 0.13404D 06 0.29799D 07 0.14651D 06 0.33112D 06 0.33433D 06 0.15705D 06
0.56827D 06 0.37859D 05 0.67554D 06 0.34765D 06 0.32579D 07 0.68388D 05 0.24628D 06 0.40221D 06 0.22890D 05 0.11838D 06
0.18730D 06 0.22421D 06 0.17037D 07 0.18468D 06 0.30802D 06 0.57672D 05 0.20545D 06

QETRIPON 0.54498D 05 0.23991D 05 0.16091D 06 0.41677D 06 0.26173D 06 0.29363D 06 0.24689D 06 0.29589D 06 0.38407D 05 0.29062D 07
0.18519D 07 0.23023D 06 0.15367D 05 0.47422D 06 0.15869D 06 0.34576D 07 0.17210D 06 0.39511D 06 0.40120D 06 0.18584D 06
0.66976D 06 0.44988D 05 0.78989D 06 0.40031D 06 0.37154D 07 0.77518D 05 0.26837D 06 0.44758D 06 0.29755D 05 0.13967D 06
0.22075D 06 0.25576D 06 0.19485D 07 0.20921D 06 0.35446D 06 0.66916D 05 0.23736D 06

QHTRIPON 0.16194D 05 0.70815D 04 0.44606D 05 0.13749D 06 0.94386D 05 0.93407D 05 0.77869D 05 0.87499D 05 0.15175D 05 0.88605D 06
0.57693D 06 0.57703D 05 0.46742D 05 0.16180D 06 0.46961D 05 0.11287D 07 0.53129D 05 0.13090D 06 0.12953D 06 0.56963D 05
0.20254D 06 0.12758D 05 0.24250D 06 0.11630D 06 0.10886D 07 0.22683D 05 0.80720D 05 0.11785D 06 0.29248D 05 0.54119D 05
0.64916D 05 0.80130D 05 0.59278D 06 0.74630D 05 0.13103D 06 0.25237D 05 0.73685D 05

QPTRIPON 0.33505D 05 0.13532D 05 0.82278D 05 0.23353D 06 0.13100D 06 0.17292D 06 0.13860D 06 0.17783D 06 0.17727D 05 0.15912D 07
0.10445D 07 0.12705D 06 0.62463D 05 0.27031D 06 0.87120D 05 0.20738D 07 0.99275D 05 0.21857D 06 0.23413D 06 0.10339D 06
0.38582D 06 0.23418D 05 0.45846D 06 0.22693D 06 0.20640D 07 0.42764D 05 0.15423D 06 0.24644D 06 0.16674D 05 0.58691D 05
0.12709D 06 0.15223D 06 0.11618D 07 0.12341D 06 0.22499D 06 0.40250D 05 0.14019D 06

QSTRIPON 0.38922D 05 0.98376D 04 0.54567D 05 0.23503D 06 0.14928D 06 0.15503D 06 0.13231D 06 0.16408D 06 0.24266D 05 0.14443D 07
0.99716D 06 0.12596D 06 0.11928D 06 0.26568D 06 0.86013D 05 0.18757D 07 0.93456D 05 0.20809D 06 0.22373D 06 0.10325D 06
0.36139D 06 0.24341D 05 0.42130D 06 0.22274D 06 0.20251D 07 0.43721D 05 0.15878D 06 0.25543D 06 0.16666D 05 0.51778D 05
0.11978D 06 0.13370D 06 0.10495D 07 0.12287D 06 0.19721D 06 0.38861D 05 0.13286D 06

QBVACATN 0.41980D 05 0.15794D 05 0.29455D 05 0.62691D 05 0.46328D 05 0.21877D 05 0.35001D 05 0.34379D 05 0.73348D 05 0.15195D 06
0.25383D 06 0.55937D 05 0.26346D 05 0.87647D 05 0.30689D 05 0.12580D 06 0.17040D 05 0.36707D 05 0.88611D 04 0.57767D 05
0.31157D 05 0.16767D 05 0.45592D 05 0.22850D 05 0.18296D 06 0.18669D 05 0.26474D 05 0.34245D 05 0.61164D 04 0.32916D 04
0.22475D 05 0.59434D 04 0.15162D 05 0.30887D 05 0.12614D 05 0.10359D 05 0.21574D 05

QCVACATN 0.55339D 05 0.16352D 05 0.19829D 05 0.29292D 05 0.45013D 05 0.28517D 05 0.54604D 05 0.32852D 05 0.95174D 05 0.21320D 06
0.57573D 06 0.10828D 06 0.50736D 05 0.12306D 06 0.92124D 05 0.62345D 06 0.60854D 05 0.60312D 05 0.84120D 05 0.12684D 06
0.54197D 05 0.10331D 06 0.10385D 06 0.12628D 06 0.13804D 07 0.11468D 06 0.26279D 06 0.34044D 06 0.52683D 05 0.15309D 05
0.16616D 06 0.46823D 05 0.25523D 06 0.12087D 06 0.91573D 05 0.43924D 05 0.72044D 05

QEVACATN 0.62458D 05 0.27621D 05 0.49048D 05 0.81684D 05 0.80082D 05 0.47854D 05 0.85020D 05 0.51561D 05 0.16011D 06 0.29071D 06
0.63974D 06 0.11952D 06 0.35188D 05 0.22067D 06 0.82199D 05 0.36431D 06 0.47130D 05 0.91425D 05 0.99132D 05 0.10775D 06
0.67094D 05 0.47078D 05 0.15530D 06 0.10908D 06 0.57010D 06 0.62114D 05 0.13740D 06 0.74151D 05 0.92565D 04 0.10831D 05
0.88037D 05 0.15768D 05 0.10722D 06 0.24121D 05 0.40038D 05 0.14252D 05 0.56730D 05

QHVACATN 0.46681D 04 0.39243D 04 0.18201D 05 0.53164D 05 0.64866D 04 0.70691D 04 0.24023D 05 0.21629D 05 0.46735D 05 0.75812D 05
0.83741D 05 0.21881D 05 0.79778D 04 0.25188D 05 0.27514D 04 0.21783D 05 0.64398D 04 0.24565D 05 0.13025D 05 0.16378D 05
0.88947D 04 0.25332D 04 0.14177D 05 0.71545D 04 0.44970D 05 0.37308D 04 0.76581D 04 0.63240D 04 0.18585D 04 0.90091D 03
0.40865D 04 0.10809D 04 0.13602D 05 0.12744D 04 0.22904D 04 0.20735D 04 0.42811D 04

QPVACATN 0.29598D 05 0.13417D 05 0.20334D 05 0.42162D 05 0.24956D 05 0.21511D 05 0.35045D 05 0.17157D 05 0.18951D 05 0.84205D 05
0.32613D 06 0.41100D 05 0.45425D 05 0.10699D 06 0.45551D 05 0.17092D 06 0.31475D 05 0.33244D 05 0.90985D 04 0.13987D 05
0.78173D 04 0.26277D 05 0.52445D 05 0.70968D 05 0.23522D 06 0.29530D 05 0.11589D 05 0.21417D 05 0.18177D 05 0.54804D 04

0.483310 05 0.119060 06 0.785750 05 0.368300 05 0.861800 05 0.657660 05 0.195870 06 0.282440 06
0.247340 05 0.168190 06 0.165730 05 0.273670 06 0.319010 05 0.712570 05 0.102770 06 0.134930 06
0.943970 05 0.881470 05 0.435450 06 0.433330 05 0.830090 05 0.718230 05 0.409780 05 0.389100 04
0.735910 05 0.647810 05 0.149700 05 0.915840 04 0.512730 05

STED FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1975 MEDIUM

97

TEWIDE TOTAL QBTRIPON = 0.108650 08

TEWIDE TOTAL QCTRIPON = 0.18692D 08

TEWIDE TOTAL QFTRIPON = 0.219170 08

TEWIDE TOTAL QHTRIPON = 0.685380 07

TEWIDE TOTAL QPTRIPON = 0.12560D 08

TEWIDE TOTAL QSTRIPON = 0.11882D 08

TEWIDE TOTAL QBVACATN = 0.172060 07

TEWIDE TOTAL QCVACATN = 0.584630 07

TEWIDE TOTAL QFVACATN = 0.433180 07

TEWIDE TOTAL QHVACATN = 0.612330 06

TEWIDE TOTAL QPVACATN = 0.177370 07

TEWIDE TOTAL QSVACATN = 0.369040 07

FORECASTED VALUES OF ENDOGENOUS VARIABLES FOR BY REGION FOR 1975 HIGH

NOTRIPON	0.417540D 05	0.166520D 05	0.973220D 05	0.249400D 06	0.169270D 06	0.168340D 06	0.139550D 06	0.169080D 06	0.203700D 05	0.166080D 07
	0.102180D 07	0.130390D 06	0.126810D 06	0.260430D 06	0.789450D 05	0.208440D 07	0.980320D 05	0.233360D 06	0.224640D 06	0.100720D 06
	0.360160D 06	0.208300D 05	0.448790D 06	0.242350D 06	0.199510D 07	0.398850D 05	0.111590D 06	0.257370D 06	0.189390D 06	0.844790D 05
	0.126900D 06	0.180580D 06	0.161940D 07	0.172450D 06	0.239660D 06	0.410910D 05	0.140200D 06			
NOVACATN	0.285660D 05	0.130800D 05	0.108720D 05	0.255300D 05	0.278980D 05	0.855120D 04	0.215850D 05	0.112490D 05	0.253310D 05	0.100550D 06
	0.207450D 06	0.543950D 05	0.296590D 05	0.653010D 05	0.255230D 05	0.125290D 06	0.144770D 05	0.246600D 05	0.283070D 05	0.327670D 05
	0.182910D 05	0.148260D 05	0.597560D 05	0.403390D 05	0.311070D 06	0.179060D 05	0.518100D 05	0.543330D 05	0.475420D 05	0.245990D 04
	0.238730D 05	0.124840D 05	0.468320D 05	0.422320D 05	0.129310D 05	0.109810D 05	0.176870D 05			
QSTRIPON	0.406750D 05	0.156980D 05	0.104810D 06	0.259630D 06	0.185290D 06	0.177910D 06	0.146900D 06	0.185280D 06	0.217780D 05	0.174540D 07
	0.107160D 07	0.127070D 06	0.136140D 06	0.239680D 06	0.831210D 05	0.221140D 07	0.105320D 06	0.235370D 06	0.247600D 06	0.112180D 06
	0.390460D 06	0.207440D 05	0.470480D 06	0.261900D 06	0.198900D 07	0.389700D 05	0.106950D 06	0.247000D 06	0.186600D 06	0.923120D 05
	0.130680D 06	0.185590D 06	0.157470D 07	0.170860D 06	0.249800D 06	0.407620D 05	0.150380D 06			
QCTRIPON	0.769230D 05	0.306370D 05	0.178720D 06	0.455540D 06	0.316330D 06	0.309900D 06	0.259620D 06	0.321570D 06	0.392630D 05	0.307340D 07
	0.190170D 07	0.249040D 06	0.241120D 06	0.494320D 06	0.151450D 06	0.390340D 07	0.102900D 06	0.428560D 06	0.420800D 06	0.192660D 06
	0.680270D 06	0.410720D 05	0.847920D 06	0.469910D 06	0.379980D 07	0.779880D 05	0.220250D 06	0.500960D 06	0.342040D 06	0.151170D 06
	0.240240D 06	0.344890D 06	0.308990D 07	0.324810D 06	0.443230D 06	0.749280D 05	0.265100D 06			
QFTRIPON	0.898830D 05	0.364230D 05	0.206000D 06	0.523170D 06	0.362490D 06	0.356410D 06	0.298960D 06	0.368250D 06	0.476640D 05	0.354300D 07
	0.219360D 07	0.284400D 06	0.281650D 06	0.569660D 06	0.174450D 06	0.442390D 07	0.209390D 06	0.485260D 06	0.481040D 06	0.221870D 06
	0.782190D 06	0.474230D 05	0.960090D 06	0.528000D 06	0.423650D 07	0.872640D 05	0.240270D 06	0.549020D 06	0.384550D 06	0.174200D 06
	0.276150D 06	0.385520D 06	0.347820D 07	0.360080D 06	0.499100D 06	0.846770D 05	0.298820D 06			
QITRIPON	0.230370D 05	0.107380D 05	0.630840D 05	0.169850D 06	0.119060D 06	0.114650D 06	0.943750D 05	0.104710D 06	0.182300D 05	0.112050D 07
	0.697160D 06	0.811180D 05	0.880350D 05	0.193950D 06	0.524910D 05	0.145490D 07	0.653180D 05	0.162170D 06	0.157310D 06	0.668830D 05
	0.239200D 06	0.137450D 05	0.297600D 06	0.152040D 06	0.125490D 07	0.254410D 05	0.705470D 05	0.144670D 06	0.147830D 06	0.680800D 05
	0.814630D 05	0.118900D 06	0.102020D 07	0.125190D 06	0.184330D 06	0.319670D 05	0.937400D 05			
QPTRIPON	0.491770D 05	0.191390D 05	0.123060D 06	0.312730D 06	0.213570D 06	0.214300D 06	0.174460D 06	0.221510D 06	0.230480D 05	0.215250D 07
	0.128450D 07	0.158020D 06	0.161710D 06	0.328410D 06	0.977270D 05	0.271090D 07	0.122600D 06	0.290630D 06	0.284810D 06	0.125610D 06
	0.457240D 06	0.251710D 05	0.562610D 06	0.303640D 06	0.246910D 07	0.483600D 05	0.137940D 06	0.322200D 06	0.233450D 06	0.111210D 06
	0.161300D 06	0.232100D 06	0.209320D 07	0.217560D 06	0.320910D 06	0.517310D 05	0.178950D 06			
QSTRIPON	0.591920D 05	0.234390D 05	0.127470D 06	0.326250D 06	0.228880D 06	0.214570D 06	0.185650D 06	0.220270D 06	0.336600D 05	0.217700D 07
	0.136880D 07	0.178290D 06	0.170520D 06	0.360380D 06	0.108500D 06	0.272540D 07	0.129640D 06	0.299580D 06	0.305940D 06	0.140400D 06
	0.481810D 06	0.295690D 05	0.599070D 06	0.331010D 06	0.265830D 07	0.553890D 05	0.158020D 06	0.351670D 06	0.251640D 06	0.110150D 06
	0.169860D 06	0.235170D 06	0.206070D 07	0.234720D 06	0.313480D 06	0.557870D 05	0.190400D 06			
QSVACATN	0.555200D 05	0.228240D 05	0.313690D 05	0.614230D 05	0.521310D 05	0.199390D 05	0.506600D 05	0.280990D 05	0.843660D 05	0.167030D 06
	0.294020D 06	0.766060D 05	0.429290D 05	0.955510D 05	0.248870D 05	0.113160D 06	0.219470D 05	0.417020D 05	0.455500D 05	0.514370D 05
	0.255740D 05	0.135510D 05	0.617650D 05	0.360750D 05	0.209720D 06	0.152300D 05	0.335610D 05	0.293510D 05	0.468660D 05	0.324080D 04
	0.196500D 05	0.769980D 04	0.334650D 05	0.245780D 05	0.100370D 05	0.827450D 04	0.171000D 05			
QCVACATN	0.121320D 06	0.557600D 05	0.411150D 05	0.962490D 05	0.125280D 06	0.325040D 05	0.855660D 05	0.467510D 05	0.104610D 06	0.456450D 06
	0.101840D 07	0.264980D 06	0.151630D 06	0.355230D 06	0.150490D 06	0.719180D 06	0.708450D 05	0.105350D 06	0.138940D 06	0.173730D 06
	0.938500D 05	0.919790D 05	0.326630D 06	0.249990D 06	0.186010D 07	0.106430D 06	0.320110D 06	0.340950D 06	0.254940D 06	0.131840D 05
	0.145550D 06	0.823830D 05	0.260610D 06	0.278380D 06	0.799000D 05	0.657070D 05	0.102710D 06			
QFVACATN	0.154280D 06	0.668310D 05	0.693520D 05	0.148830D 06	0.147460D 06	0.500740D 05	0.127180D 06	0.695740D 05	0.167040D 06	0.467410D 06
	0.862940D 06	0.247920D 06	0.136000D 06	0.278340D 06	0.920350D 05	0.380960D 06	0.651680D 05	0.119370D 06	0.122820D 06	0.142620D 06
	0.774470D 05	0.504770D 05	0.206940D 06	0.131010D 06	0.841660D 06	0.592200D 05	0.145380D 06	0.136840D 06	0.167360D 06	0.961720D 04
	0.777900D 05	0.303080D 05	0.130400D 06	0.191790D 06	0.352360D 05	0.300250D 05	0.604310D 05			

QHVACATN 0.26992D 05 0.11014D 05 0.18778D 05 0.43084D 05 0.20435D 05 0.13301D 05 0.30775D 05 0.14762D 05 0.50719D 05 0.66197D 05
0.86670D 05 0.26556D 05 0.10210D 05 0.19061D 05 0.36130D 04 0.20871D 05 0.67072D 04 0.21664D 05 0.13897D 05 0.11213D 05
0.63477D 04 0.16864D 04 0.13608D 05 0.48584D 04 0.36807D 05 0.26247D 04 0.52333D 04 0.50292D 04 0.11985D 05 0.65488D 03
0.28646D 04 0.89280D 03 0.94543D 04 0.32205D 04 0.16247D 04 0.14322D 04 0.28346D 04

QPVACATN 0.69612D 05 0.28707D 05 0.36649D 05 0.73701D 05 0.66901D 05 0.24004D 05 0.61700D 05 0.34728D 05 0.98791D 05 0.22394D 06
0.41413D 06 0.10688D 06 0.60610D 05 0.13723D 06 0.39597D 05 0.19053D 06 0.30031D 05 0.55067D 05 0.63005D 05 0.72559D 05
0.35666D 05 0.22873D 05 0.95905D 05 0.60455D 05 0.37901D 06 0.25797D 05 0.61819D 05 0.58562D 05 0.73329D 05 0.47773D 04
0.33996D 05 0.15001D 05 0.58669D 05 0.48964D 05 0.18343D 05 0.14813D 05 0.28017D 05

QSVACATN 0.92756D 05 0.37214D 05 0.51641D 05 0.10529D 06 0.92776D 05 0.32973D 05 0.90798D 05 0.50559D 05 0.15829D 06 0.31222D 06
0.57778D 06 0.14423D 06 0.84610D 05 0.19876D 06 0.52664D 05 0.23876D 06 0.40972D 05 0.70948D 05 0.92844D 05 0.10820D 06
0.53949D 05 0.32095D 05 0.13255D 06 0.84063D 05 0.44335D 06 0.34289D 05 0.73341D 05 0.67995D 05 0.77142D 05 0.59109D 04
0.45485D 05 0.17644D 05 0.68267D 05 0.55765D 05 0.21943D 05 0.19292D 05 0.37941D 05

FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1975 HIGH

100

STATEWIDE TOTAL NOTRIPCN = 0.13362D 08

STATEWIDE TOTAL NOVACATN = 0.16664D 07

STATEWIDE TOTAL QBTRIPCN = 0.13813D 08

STATEWIDE TOTAL QCTRIPCN = 0.25142D 08

STATEWIDE TOTAL QFTRIPCN = 0.28529D 08

STATEWIDE TOTAL QHTRIPCN = 0.89338D 07

STATEWIDE TOTAL QPTRIPCN = 0.17015D 08

STATEWIDE TOTAL QSTRIPCN = 0.17671D 08

STATEWIDE TOTAL QBVACATN = 0.19769D 07

STATEWIDE TOTAL QCVACATN = 0.89878D 07

STATEWIDE TOTAL QFVACATN = 0.62081D 07

STATEWIDE TOTAL QHVACATN = 0.62768D 06

STATEWIDE TOTAL QPVACATN = 0.29244D 07

STATEWIDE TOTAL QSVACATN = 0.39043D 07

ADJUSTED FORECASTED VALUES OF ENDOGENOUS VARIABLES BY REGION FOR 1975 HIGH

QBTRIPON 0.27361D 05 0.12314D 05 0.91417D 05 0.23990D 06 0.15700D 06 0.16439D 06 0.13573D 06 0.17120D 06 0.20123D 05 0.15983D 07
0.99013D 06 0.11741D 06 0.12579D 06 0.26766D 06 0.76804D 05 0.20433D 07 0.97318D 05 0.21661D 06 0.22878D 06 0.10366D 06
0.36079D 06 0.19167D 05 0.43473D 06 0.24206D 06 0.18158D 07 0.36008D 05 0.81426D 05 0.22822D 06 0.10862D 05 0.85297D 05
0.12075D 06 0.17149D 06 0.14550D 07 0.15787D 06 0.23081D 06 0.37664D 05 0.13895D 06

QCTRIPON 0.67966D 05 0.24639D 05 0.12923D 06 0.39399D 06 0.27772D 06 0.28422D 06 0.24223D 06 0.30002D 06 0.36633D 05 0.25951D 07
0.17104D 07 0.22910D 06 0.59165D 05 0.46120D 06 0.14130D 06 0.36418D 07 0.17064D 06 0.38865D 06 0.38357D 06 0.17975D 06
0.63469D 06 0.38320D 05 0.78241D 06 0.43843D 06 0.35239D 07 0.72763D 05 0.20549D 06 0.46739D 06 0.27763D 05 0.14104D 06
0.22414D 06 0.32179D 06 0.28829D 07 0.30305D 06 0.41353D 06 0.69908D 05 0.24734D 06

QETRIPON 0.65241D 05 0.23719D 05 0.18846D 06 0.48259D 06 0.30132D 06 0.33858D 06 0.28117D 06 0.32885D 06 0.45281D 05 0.32480D 07
0.20693D 07 0.26316D 06 0.18462D 05 0.53685D 06 0.16573D 06 0.42027D 07 0.19892D 06 0.46054D 06 0.45699D 06 0.21077D 06
0.74308D 06 0.45052D 05 0.90844D 06 0.50160D 06 0.39925D 07 0.81741D 05 0.22141D 06 0.51791D 06 0.35801D 05 0.16549D 06
0.26235D 06 0.36624D 06 0.33043D 07 0.34207D 06 0.47415D 06 0.80443D 05 0.28388D 06

QHTRIPON 0.17116D 05 0.74827D 04 0.47195D 05 0.14437D 06 0.98746D 05 0.98024D 05 0.80691D 05 0.89528D 05 0.15587D 05 0.90631D 06
0.58714D 06 0.59438D 05 0.50205D 05 0.16583D 06 0.44880D 05 0.12439D 07 0.55847D 05 0.13796D 06 0.13450D 06 0.58639D 05
0.20511D 06 0.11752D 05 0.25445D 06 0.12999D 06 0.10686D 07 0.21752D 05 0.60317D 05 0.12369D 06 0.31599D 05 0.58208D 05
0.69650D 05 0.10166D 06 0.87228D 06 0.10703D 06 0.15760D 06 0.27332D 05 0.80147D 05

QPTRIPON 0.40864D 05 0.16552D 05 0.96820D 05 0.27162D 06 0.15177D 06 0.20003D 06 0.15858D 06 0.19801D 06 0.21665D 05 0.17846D 07
0.11700D 07 0.14676D 06 0.76002D 05 0.30871D 06 0.91864D 05 0.25278D 07 0.11524D 06 0.25571D 06 0.26772D 06 0.11808D 06
0.42980D 06 0.23660D 05 0.52886D 06 0.28542D 06 0.22344D 07 0.45458D 05 0.12720D 06 0.28681D 06 0.20189D 05 0.69724D 05
0.15162D 06 0.21817D 06 0.19676D 07 0.20451D 06 0.30165D 06 0.48627D 05 0.16821D 06

QSTRIPON 0.44899D 05 0.11357D 05 0.62179D 05 0.26524D 06 0.16766D 06 0.17444D 06 0.14716D 06 0.17908D 06 0.27366D 05 0.15787D 07
0.10861D 07 0.14002D 06 0.13863D 06 0.29299D 06 0.88210D 05 0.22158D 07 0.10540D 06 0.23601D 06 0.24873D 06 0.11415D 06
0.39171D 06 0.24039D 05 0.47292D 06 0.26911D 06 0.21266D 07 0.45031D 05 0.12847D 06 0.28591D 06 0.19435D 05 0.59732D 05
0.13810D 06 0.18316D 06 0.16754D 07 0.19083D 06 0.25486D 06 0.45355D 05 0.15479D 06

QBVACATN 0.39488D 05 0.14817D 05 0.28113D 05 0.59424D 05 0.43487D 05 0.20779D 05 0.32829D 05 0.32286D 05 0.69212D 05 0.14221D 06
0.23850D 06 0.52020D 05 0.24663D 05 0.82012D 05 0.28595D 05 0.11455D 06 0.15937D 05 0.34882D 05 0.82692D 04 0.53959D 05
0.29384D 05 0.15571D 05 0.42084D 05 0.20725D 05 0.17061D 06 0.17500D 05 0.24371D 05 0.32611D 05 0.57080D 04 0.31018D 04
0.20771D 05 0.53082D 04 0.13266D 05 0.28240D 05 0.11533D 05 0.95074D 04 0.19648D 05

QCVACATN 0.52965D 05 0.15693D 05 0.18496D 05 0.27621D 05 0.43310D 05 0.26831D 05 0.52618D 05 0.31857D 05 0.91568D 05 0.20584D 06
0.55292D 06 0.10540D 06 0.48722D 05 0.11926D 06 0.89872D 05 0.61198D 06 0.58872D 05 0.56729D 05 0.81748D 05 0.12358D 06
0.51993D 05 0.10191D 06 0.10170D 06 0.12381D 06 0.13335D 07 0.11108D 06 0.25856D 06 0.32149D 06 0.50564D 05 0.14607D 05
0.16127D 06 0.45640D 05 0.24775D 06 0.11567D 06 0.88529D 05 0.42808D 05 0.71130D 05

QFVACATN 0.61865D 05 0.27322D 05 0.48881D 05 0.81125D 05 0.79227D 05 0.47543D 05 0.83955D 05 0.50825D 05 0.15841D 06 0.28715D 06
0.63232D 06 0.11797D 06 0.35092D 05 0.21888D 06 0.81625D 05 0.35617D 06 0.46515D 05 0.90937D 05 0.97679D 05 0.10626D 06
0.66698D 05 0.46460D 05 0.15233D 06 0.10683D 06 0.56690D 06 0.61717D 05 0.13674D 06 0.74438D 05 0.91599D 04 0.10742D 05
0.96892D 05 0.15404D 05 0.10444D 06 0.23764D 05 0.39358D 05 0.13985D 05 0.55419D 05

QHVACATN 0.52995D 04 0.44305D 04 0.21572D 05 0.61627D 05 0.72995D 04 0.82394D 04 0.26689D 05 0.23753D 05 0.52147D 05 0.84676D 05
0.95524D 05 0.24056D 05 0.91340D 04 0.28216D 05 0.30462D 04 0.23608D 05 0.71982D 04 0.29106D 05 0.14377D 05 0.18041D 05
0.10213D 05 0.27134D 04 0.15437D 05 0.78171D 04 0.51405D 05 0.42232D 04 0.83193D 04 0.78250D 04 0.21404D 04 0.10537D 04
0.46091D 04 0.12095D 04 0.15212D 05 0.15131D 04 0.26141D 04 0.23045D 04 0.45608D 04

QFVACATN 0.23770D 05 0.13018D 05 0.19936D 05 0.41162D 05 0.24212D 05 0.21021D 05 0.33977D 05 0.16642D 05 0.18428D 05 0.81547D 05
0.31641D 06 0.39757D 05 0.44006D 05 0.10377D 06 0.44230D 05 0.16302D 06 0.30492D 05 0.32539D 05 0.87971D 04 0.13535D 05
0.76093D 04 0.25549D 05 0.50456D 05 0.67529D 05 0.22903D 06 0.28816D 05 0.11324D 05 0.21063D 05 0.17610D 05 0.53363D 04

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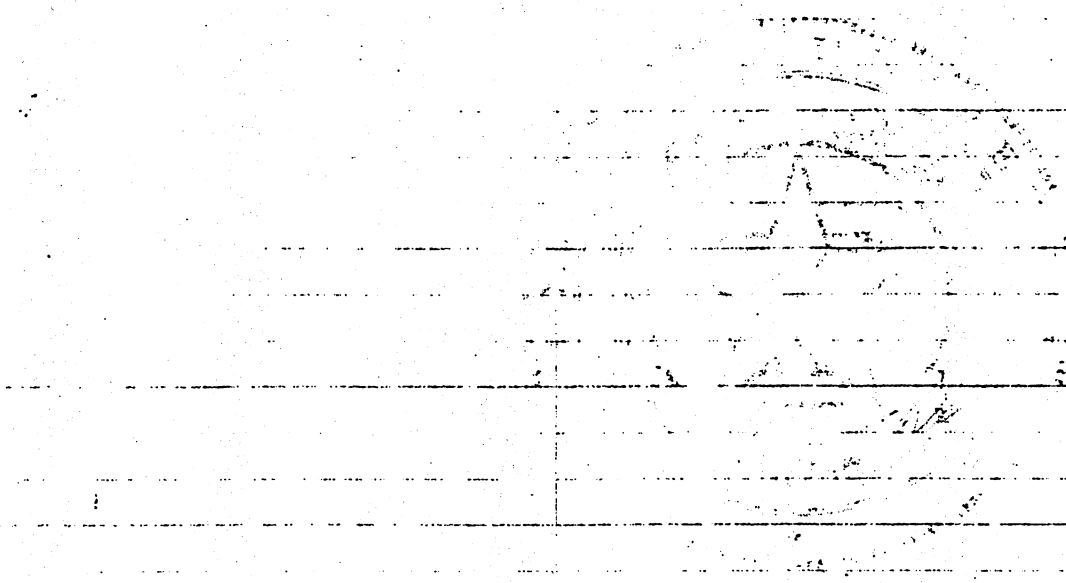
QSVACATN 0.60736D 05 0.27769D 05 0.46810D 05 0.11521D 06 0.75152D 05 0.35462D 05 0.82531D 05 0.63299D 05 0.18966D 06 0.26855D 06
0.51722D 06 0.78550D 05 0.23517D 05 0.16051D 06 0.15693D 05 0.25169D 06 0.30317D 05 0.68307D 05 0.97875D 05 0.12896D 06
0.66193D 05 0.25114D 05 0.88452D 05 0.81040D 05 0.40631D 06 0.41041D 05 0.75387D 05 0.67764D 05 0.38150D 05 0.37002D 04
0.49658D 05 0.90130D 04 0.62223D 05 0.59066D 05 0.13736D 05 0.84736D 04 0.17503D 05



ADJUSTED FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1975 HIGH

STATEWIDE TOTAL QBTRIPON = 0.12512D 08

STATEWIDE TOTAL QCTRIPON = 0.22512D 08

STATEWIDE TOTAL QFTRIPON = 0.26218D 08

STATEWIDE TOTAL QHTRIPON = 0.74246D 07

STATEWIDE TOTAL QPTRIPON = 0.15130D 08

STATEWIDE TOTAL QSTRIPON = 0.13790D 08

STATEWIDE TOTAL QBVACATN = 0.16060D 07

STATEWIDE TOTAL QCVACATN = 0.56579D 07

STATEWIDE TOTAL QFVACATN = 0.42810D 07

STATEWIDE TOTAL QHVACATN = 0.69121D 06

STATEWIDE TOTAL QPVACATN = 0.17142D 07

STATEWIDE TOTAL QSVACATN = 0.34806D 07

FORECASTED VALUES OF ENDOGENOUS VARIABLES FOR BY REGION FOR 1980 LOW

NOTRIPON	0.16264D 05	0.13272D 05	0.79606D 05	0.27110D 06	0.14790D 06	0.17810D 06	0.12411D 06	0.14881D 06	0.65753D 04	0.18855D 07
	0.12211D 07	0.12768D 06	0.12281D 06	0.30023D 06	0.92051D 05	0.20124D 07	0.93958D 05	0.22029D 06	0.23219D 06	0.97034D 05
	0.36559D 06	0.28214D 05	0.41243D 06	0.20797D 06	0.21271D 07	0.33684D 05	0.16498D 06	0.24389D 06	0.16757D 06	0.75485D 05
	0.89713D 05	0.14153D 06	0.94470D 06	0.10537D 06	0.22790D 06	0.41985D 05	0.12130D 06			
NOVACATN	0.35499D 05	0.13818D 05	0.12990D 05	0.32339D 05	0.30856D 05	0.10233D 05	0.22793D 05	0.11814D 05	0.27595D 05	0.12781D 06
	0.27019D 06	0.62754D 05	0.33726D 05	0.71638D 05	0.28641D 05	0.15277D 06	0.15627D 05	0.28577D 05	0.31998D 05	0.33550D 05
	0.20023D 05	0.16203D 05	0.69642D 05	0.45530D 05	0.40155D 06	0.20894D 05	0.60069D 05	0.66743D 05	0.59048D 05	0.27606D 04
	0.25025D 05	0.13984D 05	0.56436D 05	0.43896D 05	0.15439D 05	0.12722D 05	0.19232D 05			
QBTRIPON	0.14776D 05	0.13805D 05	0.88706D 05	0.29002D 06	0.16721D 06	0.19488D 06	0.13521D 06	0.16874D 06	0.61958D 04	0.20399D 07
	0.13247D 07	0.12810D 06	0.13888D 06	0.34493D 06	0.10027D 06	0.22161D 07	0.10473D 06	0.22917D 06	0.26484D 06	0.11226D 06
	0.41032D 06	0.29552D 05	0.44824D 06	0.23420D 06	0.21997D 07	0.33687D 05	0.16623D 06	0.24395D 06	0.17054D 06	0.84972D 05
	0.95593D 05	0.15180D 06	0.96691D 06	0.10796D 06	0.24767D 06	0.43270D 05	0.13457D 06			
QCTRIPON	0.28648D 05	0.23709D 05	0.14053D 06	0.47836D 06	0.26735D 06	0.31630D 06	0.22283D 06	0.27092D 06	0.12979D 05	0.33891D 07
	0.22055D 07	0.23604D 06	0.22305D 06	0.55400D 06	0.17153D 06	0.36468D 07	0.16921D 06	0.38898D 06	0.42246D 06	0.18005D 06
	0.67019D 06	0.53799D 05	0.75059D 06	0.38932D 06	0.39379D 07	0.63976D 05	0.31444D 06	0.45548D 06	0.29239D 06	0.13031D 06
	0.16417D 06	0.25983D 06	0.17213D 07	0.19206D 06	0.40735D 06	0.73980D 05	0.22242D 06			
QFTRIPON	0.36125D 05	0.28716D 05	0.16352D 06	0.55398D 06	0.30957D 06	0.36711D 06	0.25919D 06	0.31236D 06	0.18635D 05	0.39436D 07
	0.25709D 07	0.27252D 06	0.26267D 06	0.64529D 06	0.19966D 06	0.41620D 07	0.19549D 06	0.44392D 06	0.48752D 06	0.20960D 06
	0.77786D 06	0.62673D 05	0.85718D 06	0.44068D 06	0.44185D 07	0.72510D 05	0.34563D 06	0.50109D 06	0.33158D 06	0.15110D 06
	0.19052D 06	0.29106D 06	0.19268D 07	0.21354D 06	0.46140D 06	0.84358D 05	0.25267D 06			
QHTRIPON	0.14566D 05	0.93195D 04	0.57763D 05	0.20252D 06	0.11497D 06	0.13638D 06	0.93511D 05	0.10751D 06	0.83207D 04	0.13940D 07
	0.91589D 06	0.88594D 05	0.10015D 06	0.24371D 06	0.66831D 05	0.15652D 07	0.70615D 05	0.17478D 06	0.17874D 06	0.72334D 05
	0.26798D 06	0.19953D 05	0.31001D 06	0.14840D 06	0.14685D 07	0.23594D 05	0.11560D 06	0.16004D 06	0.14687D 06	0.68785D 05
	0.63802D 05	0.10691D 06	0.70900D 06	0.88462D 05	0.19793D 06	0.36698D 05	0.89592D 05			
QPTRIPON	0.16695D 05	0.14623D 05	0.96060D 05	0.32835D 06	0.17870D 06	0.21830D 06	0.14937D 06	0.18390D 06	0.63613D 04	0.23736D 07
	0.14900D 07	0.14862D 06	0.14774D 06	0.36968D 06	0.11048D 06	0.25264D 07	0.11296D 06	0.26126D 06	0.28543D 06	0.11794D 06
	0.45078D 06	0.33268D 05	0.49285D 06	0.25090D 06	0.25499D 07	0.39091D 05	0.19703D 06	0.28740D 06	0.19719D 06	0.95036D 05
	0.10976D 06	0.17484D 06	0.11519D 07	0.12621D 06	0.29536D 06	0.51056D 05	0.14980D 06			
QSTRIPON	0.27917D 05	0.20103D 05	0.10827D 06	0.36427D 06	0.20615D 06	0.23395D 06	0.17022D 06	0.20258D 06	0.14850D 05	0.25305D 07
	0.16714D 07	0.18028D 06	0.17209D 06	0.42203D 06	0.12834D 06	0.27109D 07	0.12805D 06	0.29395D 06	0.32325D 06	0.13807D 06
	0.50007D 06	0.39911D 05	0.57001D 06	0.29470D 06	0.29041D 07	0.48545D 05	0.23574D 06	0.34924D 06	0.23140D 06	0.10197D 06
	0.12475D 06	0.19268D 06	0.12797D 07	0.15117D 06	0.30781D 06	0.58754D 05	0.16951D 06			
QBVACATN	0.53632D 05	0.22190D 05	0.27699D 05	0.61465D 05	0.46477D 05	0.18083D 05	0.42878D 05	0.23105D 05	0.83373D 05	0.17619D 06
	0.32050D 06	0.74503D 05	0.38142D 05	0.93751D 05	0.24472D 05	0.11793D 06	0.19069D 05	0.34674D 05	0.45444D 05	0.46517D 05
	0.24090D 05	0.13247D 05	0.59788D 05	0.35060D 05	0.21828D 06	0.14869D 05	0.30490D 05	0.26904D 05	0.47205D 05	0.27093D 04
	0.16736D 05	0.69736D 04	0.32510D 05	0.21666D 05	0.98902D 04	0.78583D 04	0.16094D 05			
QCVACATN	0.18805D 06	0.72907D 05	0.65551D 05	0.15430D 06	0.16811D 06	0.50502D 05	0.11285D 06	0.62053D 05	0.12611D 06	0.68895D 06
	0.15496D 07	0.35804D 06	0.21097D 06	0.43900D 06	0.18982D 06	0.10090D 07	0.91846D 05	0.15782D 06	0.18036D 06	0.20170D 06
	0.11840D 06	0.11109D 06	0.44491D 06	0.32316D 06	0.27728D 07	0.14157D 06	0.42866D 06	0.49885D 06	0.37282D 06	0.18102D 05
	0.17727D 06	0.10687D 06	0.38073D 06	0.33123D 06	0.11067D 06	0.87794D 05	0.12735D 06			
QFVACATN	0.15479D 06	0.62183D 05	0.63705D 05	0.15278D 06	0.13343D 06	0.46702D 05	0.10883D 06	0.57985D 05	0.16592D 06	0.49319D 06
	0.93924D 06	0.24099D 06	0.12090D 06	0.26579D 06	0.88723D 05	0.38251D 06	0.56838D 05	0.10395D 06	0.11873D 06	0.12673D 06
	0.71759D 05	0.48504D 05	0.19655D 06	0.12328D 06	0.87231D 06	0.57723D 05	0.13355D 06	0.12598D 06	0.16676D 06	0.82361D 04
	0.66022D 05	0.26680D 05	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			

QHVACATN 0.11444D 05 0.43270D 04 0.63177D 04 0.19847D 05 0.82717D 04 0.49537D 04 0.11663D 05 0.50721D 04 0.30962D 05 0.33964D 05
0.46500D 05 0.12967D 05 0.35407D 04 0.10124D 05 0.18793D 04 0.10148D 05 0.25835D 04 0.68316D 04 0.73009D 04 0.53666D 04
0.30298D 04 0.92107D 03 0.60279D 04 0.21828D 04 0.17795D 05 0.12712D 04 0.22092D 04 0.17804D 04 0.54377D 04 0.21246D 03
0.10396D 04 0.32926D 03 0.34286D 04 0.12353D 04 0.68807D 03 0.62426D 03 0.12847D 04

QPVACATN 0.70650D 05 0.28146D 05 0.34346D 05 0.76736D 05 0.61846D 05 0.22882D 05 0.54184D 05 0.29716D 05 0.98871D 05 0.24446D 06
0.46615D 06 0.19710D 06 0.56700D 05 0.13707D 06 0.39786D 05 0.20546D 06 0.27167D 05 0.49090D 05 0.64029D 05 0.66861D 05
0.34413D 05 0.22634D 05 0.96227D 05 0.60689D 05 0.41609D 06 0.26136D 05 0.59445D 05 0.58670D 05 0.77351D 05 0.42776D 04
0.30536D 05 0.14419D 05 0.60988D 05 0.45428D 05 0.18980D 05 0.14718D 05 0.27126D 05

QSVACATN 0.38704D 05 0.35865D 05 0.45745D 05 0.10388D 06 0.81281D 05 0.29737D 05 0.76964D 05 0.42360D 05 0.15408D 06 0.32320D 06
0.61358D 06 0.13757D 06 0.73631D 05 0.19013D 06 0.49924D 05 0.24145D 06 0.35103D 05 0.58321D 05 0.90700D 05 0.95718D 05
0.49902D 05 0.29764D 05 0.12459D 06 0.80778D 05 0.43334D 06 0.32788D 05 0.63871D 05 0.59859D 05 0.74800D 05 0.49141D 04
0.38321D 05 0.15769D 05 0.67595D 05 0.47559D 05 0.21060D 05 0.16824D 05 0.35024D 05

FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1980 LOW

STATEWIDE TOTAL NOTRIPON = 0.12890D 08

STATEWIDE TOTAL NOVACATN = 0.20044D 07

STATEWIDE TOTAL QBTRIPON = 0.13853D 08

STATEWIDE TOTAL QCTRIPON = 0.23448D 08

STATEWIDE TOTAL QFTRIPON = 0.26822D 08

STATEWIDE TOTAL QHTRIPON = 0.96379D 07

STATEWIDE TOTAL QPTRIPON = 0.15789D 08

STATEWIDE TOTAL QSTRIPON = 0.17607D 08

STATEWIDE TOTAL QBVACATN = 0.19545D 07

STATEWIDE TOTAL QCVACATN = 0.12630D 08

STATEWIDE TOTAL QFVACATN = 0.61036D 07

STATEWIDE TOTAL QHVACATN = 0.29356D 06

STATEWIDE TOTAL QPVACATN = 0.30094D 07

STATEWIDE TOTAL QSVACATN = 0.37647D 07

ADJUSTED FORECASTED VALUES OF ENDOGENOUS VARIABLES BY REGION FOR 1980 LOW

QBTRIPON	0.99397D 04	0.10830D 05	0.77375D 05	0.26798D 06	0.14168D 06	0.18007D 06	0.12493D 06	0.15592D 06	0.57249D 04	0.18679D 07
	0.12240D 07	0.11837D 06	0.12833D 06	0.31872D 06	0.92648D 05	0.20477D 07	0.96768D 05	0.21090D 06	0.24471D 06	0.10373D 06
	0.37913D 06	0.27306D 05	0.41418D 06	0.21640D 06	0.20081D 07	0.31127D 05	0.12656D 06	0.22541D 06	0.99277D 04	0.78514D 05
	0.88328D 05	0.14026D 06	0.89343D 06	0.99758D 05	0.22885D 06	0.39982D 05	0.12434D 06			
QCTRIPON	0.25312D 05	0.19068D 05	0.10161D 06	0.41373D 06	0.23472D 06	0.29009D 06	0.20790D 06	0.25277D 06	0.12109D 05	0.28616D 07
	0.18836D 07	0.21714D 06	0.54731D 05	0.51688D 06	0.16004D 06	0.34025D 07	0.15788D 06	0.35276D 06	0.38509D 06	0.16799D 06
	0.62529D 06	0.50194D 05	0.69260D 06	0.36323D 06	0.36520D 07	0.59690D 05	0.29337D 06	0.42496D 06	0.23734D 05	0.12158D 06
	0.15317D 06	0.24242D 06	0.16059D 07	0.17919D 06	0.38005D 06	0.69023D 05	0.20752D 06			
QFTRIPON	0.26219D 05	0.22643D 05	0.14959D 06	0.51102D 06	0.25733D 06	0.34876D 06	0.24377D 06	0.27894D 06	0.17703D 05	0.36153D 07
	0.24252D 07	0.25216D 06	0.17218D 05	0.60812D 06	0.18968D 06	0.39539D 07	0.18572D 06	0.42130D 06	0.46315D 06	0.19912D 06
	0.73896D 06	0.59539D 05	0.81107D 06	0.41864D 06	0.41640D 07	0.67920D 05	0.31850D 06	0.47270D 06	0.30870D 05	0.14355D 06
	0.18100D 06	0.27651D 06	0.18305D 07	0.20287D 06	0.43833D 06	0.80141D 05	0.24004D 06			
QHTRIPON	0.86921D 04	0.64940D 04	0.43214D 05	0.17316D 06	0.95352D 05	0.11661D 06	0.79952D 05	0.91918D 05	0.71142D 04	0.11275D 07
	0.77134D 06	0.64916D 05	0.57115D 05	0.20837D 06	0.57140D 05	0.13383D 07	0.60376D 05	0.14869D 06	0.15283D 06	0.61845D 05
	0.22912D 06	0.17060D 05	0.26505D 06	0.12688D 06	0.12506D 07	0.20173D 05	0.98841D 05	0.13684D 06	0.31392D 05	0.58811D 05
	0.54550D 05	0.91405D 05	0.60619D 06	0.75584D 05	0.16923D 06	0.31377D 05	0.76601D 05			
QPTRIPON	0.13873D 05	0.12646D 05	0.75578D 05	0.28519D 06	0.12699D 06	0.20377D 06	0.13577D 06	0.16439D 06	0.59796D 04	0.19679D 07
	0.13572D 07	0.13802D 06	0.69438D 05	0.34750D 06	0.10385D 06	0.23558D 07	0.10618D 06	0.22987D 06	0.26830D 06	0.11087D 06
	0.42374D 06	0.31272D 05	0.46327D 06	0.23584D 06	0.22890D 07	0.36745D 05	0.18169D 06	0.25584D 06	0.17053D 05	0.59586D 05
	0.10318D 06	0.16435D 06	0.10828D 07	0.11864D 06	0.27764D 06	0.47992D 05	0.14081D 06			
QSTRIPON	0.21176D 05	0.97408D 04	0.52814D 05	0.29615D 06	0.15101D 06	0.19020D 06	0.13493D 06	0.16470D 06	0.12073D 05	0.18351D 07
	0.13262D 07	0.14158D 06	0.13991D 06	0.34311D 06	0.10434D 06	0.22039D 07	0.10410D 06	0.23158D 06	0.26281D 06	0.11225D 06
	0.40655D 06	0.32448D 05	0.44998D 06	0.23959D 06	0.23232D 07	0.39467D 05	0.19165D 06	0.28393D 06	0.17872D 05	0.55297D 05
	0.10142D 06	0.15007D 06	0.10404D 07	0.12290D 06	0.25025D 06	0.47767D 05	0.13781D 06			
QBVACATN	0.38144D 05	0.14406D 05	0.24824D 05	0.59465D 05	0.38770D 05	0.18846D 05	0.27786D 05	0.26548D 05	0.68398D 05	0.15001D 06
	0.25998D 06	0.50592D 05	0.21912D 05	0.80467D 05	0.28118D 05	0.11938D 06	0.13847D 05	0.29004D 05	0.82500D 04	0.48798D 05
	0.27680D 05	0.15221D 05	0.40737D 05	0.20142D 05	0.17757D 06	0.17084D 05	0.22141D 05	0.29892D 05	0.57493D 04	0.25931D 04
	0.17692D 05	0.48076D 04	0.12887D 05	0.24894D 05	0.11364D 05	0.90292D 04	0.18492D 05			
QCVACATN	0.82096D 05	0.20518D 05	0.29488D 05	0.44280D 05	0.58116D 05	0.41687D 05	0.69397D 05	0.42284D 05	0.11039D 06	0.31068D 06
	0.84131D 06	0.14242D 06	0.67788D 05	0.14738D 06	0.11336D 06	0.85862D 06	0.76324D 05	0.84982D 05	0.10612D 06	0.14348D 06
	0.65595D 05	0.12309D 06	0.13852D 06	0.16006D 06	0.19878D 07	0.14776D 06	0.34624D 06	0.47037D 06	0.73942D 05	0.20057D 05
	0.19641D 06	0.59205D 05	0.36195D 06	0.13763D 06	0.12262D 06	0.57198D 05	0.88191D 05			
QFVACATN	0.62071D 05	0.25422D 05	0.44901D 05	0.83277D 05	0.71688D 05	0.44341D 05	0.71842D 05	0.42359D 05	0.15735D 06	0.30299D 06
	0.68823D 06	0.11467D 06	0.31196D 05	0.20901D 06	0.78688D 05	0.35762D 06	0.40569D 05	0.79191D 05	0.94429D 05	0.94422D 05
	0.61799D 05	0.44644D 05	0.14468D 06	0.10053D 06	0.58755D 06	0.60157D 05	0.12560D 06	0.68533D 05	0.91272D 04	0.91998D 04
	0.73747D 05	0.13564D 05	0.95485D 05	0.20043D 05	0.37588D 05	0.13121D 05	0.50836D 05			
QHVACATN	0.22464D 04	0.17406D 04	0.72580D 04	0.28389D 05	0.29546D 04	0.30686D 04	0.10115D 05	0.81610D 04	0.31833D 05	0.43445D 05
	0.51250D 05	0.11746D 05	0.31676D 04	0.14986D 05	0.15845D 04	0.11479D 05	0.27726D 04	0.91784D 04	0.75534D 04	0.86348D 04
	0.48749D 04	0.14820D 04	0.68377D 04	0.35122D 04	0.24853D 05	0.20454D 04	0.35120D 04	0.27701D 04	0.97117D 03	0.34185D 03
	0.16726D 04	0.44607D 03	0.55169D 04	0.58037D 03	0.11071D 04	0.10044D 04	0.20672D 04			
QPVACATN	0.29199D 05	0.12762D 05	0.18680D 05	0.42857D 05	0.22383D 05	0.20038D 05	0.29838D 05	0.14240D 05	0.18443D 05	0.89018D 05
	0.35616D 06	0.39838D 05	0.41167D 05	0.10365D 06	0.44441D 05	0.17580D 06	0.27584D 05	0.29007D 05	0.89401D 04	0.12472D 05
	0.73413D 04	0.25282D 05	0.50626D 05	0.67789D 05	0.25144D 06	0.29194D 05	0.10890D 05	0.21102D 05	0.18576D 05	0.47781D 04
	0.34109D 06	0.86638D 04	0.51433D 05	0.11265D 06						

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[illegible] STRAIN [illegible] 0.267620 05 0.414[illegible] [illegible] 0.113[illegible] 06 0.[illegible]8410 05 0.319820 05 0.699570 05 0.538340 05 0.1[illegible] 06 0.2[illegible] 06
0.[illegible] 06 0.7[illegible] 05 0.204650 05 0.15[illegible] 06 0.148740 05 0.254540 06 0.259740 05 0.561510 05 0.956150 05 0.114090 06
0.412290 05 0.232910 05 0.531410 05 0.478730 05 0.397140 06 0.392450 05 0.656530 05 0.596550 05 0.369920 05 0.307630 04
0.418370 05 0.805490 04 0.616109 05 0.503740 05 0.131840 05 0.779370 04 0.438500 05
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ADJUSTED FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1980 LOW

STATEWIDE TOTAL QBTRIPON = 0.12560D 08

STATEWIDE TOTAL QCTRIPON = 0.20962D 08

STATEWIDE TOTAL QFTRIPON = 0.24662D 08

STATEWIDE TOTAL QHTRIPON = 0.80108D 07

STATEWIDE TOTAL QPTRIPON = 0.14009D 08

STATEWIDE TOTAL QSTRIPON = 0.13723D 08

STATEWIDE TOTAL QBVACATN = 0.15855D 07

STATEWIDE TOTAL QCVACATN = 0.79473D 07

STATEWIDE TOTAL QFVACATN = 0.42105D 07

STATEWIDE TOTAL QHVACATN = 0.32516D 06

STATEWIDE TOTAL QPVACATN = 0.17751D 07

STATEWIDE TOTAL QSVACATN = 0.33568D 07

FORECASTED VALUES OF ENDOGENOUS VARIABLES FOR BY REGION FOR 1980 MEDIUM

NOTRIPON	0.18600D 05	0.14698D 05	0.84053D 05	0.27836D 06	0.15988D 06	0.19142D 06	0.13430D 06	0.16208D 06	0.73341D 04	0.20358D 07
	0.13047D 07	0.14392D 06	0.13258D 06	0.31402D 06	0.91802D 05	0.21651D 07	0.10244D 06	0.23739D 06	0.24716D 06	0.10449D 06
	0.38111D 06	0.28747D 05	0.43952D 06	0.21500D 06	0.21819D 07	0.34144D 05	0.16249D 06	0.24268D 06	0.18332D 06	0.82328D 05
	0.93981D 05	0.15201D 06	0.10341D 07	0.14543D 06	0.25044D 06	0.45266D 05	0.13185D 06			
NOVACATN	0.34144D 05	0.13204D 05	0.12460D 05	0.31002D 05	0.29629D 05	0.97936D 04	0.21785D 05	0.11328D 05	0.26917D 05	0.12265D 06
	0.25921D 06	0.59367D 05	0.32358D 05	0.69456D 05	0.27757D 05	0.14871D 06	0.15016D 05	0.27468D 05	0.31007D 05	0.32483D 05
	0.19275D 05	0.15681D 05	0.67455D 05	0.44080D 05	0.38652D 06	0.20154D 05	0.56220D 05	0.64155D 05	0.57139D 05	0.26642D 04
	0.24230D 05	0.13513D 05	0.54724D 05	0.42342D 05	0.14921D 05	0.12311D 05	0.18800D 05			
QBTRIPON	0.16614D 05	0.14986D 05	0.92061D 05	0.29299D 06	0.17759D 06	0.20582D 06	0.14362D 06	0.18053D 06	0.67000D 04	0.21662D 07
	0.13887D 07	0.14160D 06	0.14726D 06	0.35526D 06	0.98351D 05	0.23450D 07	0.11210D 06	0.24263D 06	0.27706D 06	0.11865D 06
	0.42020D 06	0.29568D 05	0.46940D 06	0.23722D 06	0.22154D 07	0.33485D 05	0.15946D 06	0.23850D 06	0.18381D 06	0.91136D 05
	0.98300D 05	0.16008D 06	0.10402D 07	0.14797D 06	0.26793D 06	0.45849D 05	0.14391D 06			
QCTRIPON	0.33918D 05	0.27028D 05	0.15143D 06	0.50098D 06	0.29569D 06	0.34677D 06	0.24649D 06	0.30116D 06	0.15013D 05	0.37328D 07
	0.24075D 07	0.27319D 06	0.24605D 06	0.59058D 06	0.17446D 06	0.39994D 07	0.18843D 06	0.42784D 06	0.45836D 06	0.19774D 06
	0.71202D 06	0.56089D 05	0.81572D 06	0.41135D 06	0.41087D 07	0.66262D 05	0.31973D 06	0.46186D 06	0.32712D 06	0.14493D 06
	0.17543D 06	0.28490D 06	0.19240D 07	0.27018D 06	0.45607D 06	0.81419D 05	0.24635D 06			
QFTRIPON	0.41537D 05	0.32182D 05	0.17452D 06	0.57441D 06	0.33856D 06	0.39916D 06	0.28413D 06	0.34451D 06	0.20602D 05	0.43106D 07
	0.27814D 07	0.31224D 06	0.28721D 06	0.68173D 06	0.20108D 06	0.45250D 07	0.21579D 06	0.48396D 06	0.52434D 06	0.22800D 06
	0.81971D 06	0.64676D 05	0.92325D 06	0.46066D 06	0.45766D 07	0.74377D 05	0.34903D 06	0.50418D 06	0.36719D 06	0.16672D 06
	0.20163D 06	0.31605D 06	0.21327D 07	0.29737D 06	0.51181D 06	0.91901D 05	0.27737D 06			
QHTRIPON	0.14390D 05	0.91642D 04	0.56085D 05	0.19177D 06	0.11392D 06	0.13493D 06	0.92364D 05	0.10753D 06	0.79498D 04	0.13857D 07
	0.89595D 06	0.89150D 05	0.98835D 05	0.23569D 06	0.61719D 05	0.15541D 07	0.70473D 05	0.17300D 06	0.17572D 06	0.71644D 05
	0.25832D 06	0.18600D 05	0.30444D 06	0.14033D 06	0.14065D 07	0.22020D 05	0.10120D 06	0.14781D 06	0.14651D 06	0.69140D 05
	0.61579D 05	0.10525D 06	0.71002D 06	0.11012D 06	0.20085D 06	0.36319D 05	0.89902D 05			
QPTRIPON	0.20190D 05	0.16830D 05	0.10371D 06	0.34439D 06	0.19786D 06	0.23963D 06	0.16561D 06	0.20489D 06	0.76658D 04	0.26188D 07
	0.16301D 07	0.17322D 06	0.16364D 06	0.39499D 06	0.11310D 06	0.27712D 07	0.12605D 06	0.28778D 06	0.31047D 06	0.12974D 06
	0.47982D 06	0.35123D 05	0.53609D 06	0.26431D 06	0.26854D 07	0.40745D 05	0.20379D 06	0.29280D 06	0.22176D 06	0.10588D 06
	0.11717D 06	0.19092D 06	0.12821D 07	0.17923D 06	0.33010D 06	0.56147D 05	0.16584D 06			
QSTRIPON	0.30620D 05	0.21711D 05	0.11331D 06	0.37151D 06	0.22035D 06	0.24915D 06	0.18184D 06	0.21825D 06	0.15733D 05	0.27023D 07
	0.17649D 07	0.19847D 06	0.18326D 06	0.43715D 06	0.12724D 06	0.28922D 07	0.13799D 06	0.31365D 06	0.34111D 06	0.14698D 06
	0.51699D 06	0.40230D 05	0.60183D 06	0.30190D 06	0.29636D 07	0.48737D 05	0.22724D 06	0.34469D 06	0.24975D 06	0.11023D 06
	0.12949D 06	0.20520D 06	0.13884D 07	0.20471D 06	0.33612D 06	0.62722D 05	0.18260D 06			
QBVACATN	0.53923D 05	0.22540D 05	0.27969D 05	0.62168D 05	0.46908D 05	0.18343D 05	0.43498D 05	0.23337D 05	0.81845D 05	0.17771D 06
	0.32443D 06	0.77407D 05	0.38720D 05	0.93282D 05	0.24467D 05	0.11592D 06	0.19273D 05	0.34987D 05	0.45095D 05	0.49371D 05
	0.24336D 05	0.13268D 05	0.59606D 05	0.35057D 05	0.22396D 06	0.15111D 05	0.33699D 05	0.27867D 05	0.46952D 05	0.27160D 04
	0.16796D 05	0.70322D 04	0.32159D 05	0.21629D 05	0.99427D 04	0.78717D 04	0.15656D 05			
QCVACATN	0.16742D 06	0.63737D 05	0.57712D 05	0.13507D 06	0.14926D 06	0.44130D 05	0.98261D 05	0.54744D 05	0.11577D 06	0.61015D 06
	0.13765D 07	0.30645D 06	0.18832D 06	0.40196D 06	0.17414D 06	0.93503D 06	0.82037D 05	0.14060D 06	0.16433D 06	0.18391D 06
	0.10634D 06	0.10169D 06	0.40695D 06	0.29602D 06	0.25081D 07	0.12853D 06	0.36268D 06	0.45078D 06	0.34000D 06	0.16422D 05
	0.16254D 06	0.97672D 05	0.34945D 06	0.30171D 06	0.10104D 06	0.80311D 05	0.11924D 06			
QFVACATN	0.15629D 06	0.62973D 05	0.64456D 05	0.15476D 06	0.13494D 06	0.47378D 05	0.11034D 06	0.58657D 05	0.16505D 06	0.49937D 05
	0.95235D 06	0.24723D 06	0.12280D 06	0.26741D 06	0.89959D 05	0.38237D 06	0.57599D 05	0.10528D 06	0.11938D 06	0.12734D 05
	0.72906D 05	0.49064D 05	0.19803D 06	0.12437D 06	0.89492D 06	0.58880D 05	0.14408D 06	0.13005D 06	0.16811D 06	0.83200D 04
	0.66737D 05	0.26992D 05	0.11953D 06	0.86175D 05	0.33959D 05	0.28429D 05	0.55037D 05			

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QLVACATN 0.15990D 05 0.63287D 04 0.89243D 04 0.28036D 05 0.11716D 05 0.70843D 04 0.16875D 05 0.72085D 04 0.38745D 05 0.48318D 05
0.67053D 05 0.26465D 05 0.51571D 04 0.13540D 05 0.25630D 04 0.13376D 05 0.36815D 04 0.96349D 04 0.97168D 04 0.72390D 04
0.42591D 04 0.12753D 04 0.82680D 04 0.30449D 04 0.25770D 05 0.18015D 04 0.40722D 04 0.26728D 04 0.74415D 04 0.29752D 03
0.14500D 04 0.47956D 03 0.46944D 04 0.17984D 04 0.97234D 03 0.87059D 03 0.16390D 04

QPVACATN 0.72008D 05 0.28856D 05 0.35051D 05 0.78436D 05 0.63124D 05 0.23411D 05 0.55437D 05 0.30301D 05 0.99162D 05 0.24917D 06
0.47704D 06 0.11141D 06 0.58070D 05 0.13854D 06 0.40421D 05 0.20639D 06 0.27728D 05 0.50091D 05 0.64548D 05 0.67624D 05
0.35093D 05 0.22206D 05 0.97442D 05 0.61671D 05 0.42965D 06 0.26850D 05 0.64641D 05 0.60783D 05 0.78355D 05 0.43446D 04
0.31033D 05 0.14708D 05 0.61486D 05 0.45724D 05 0.19288D 05 0.14968D 05 0.27113D 05

QSVACATN 0.92785D 05 0.37926D 05 0.47728D 05 0.10908D 06 0.85249D 05 0.31283D 05 0.80575D 05 0.44080D 05 0.15671D 06 0.33725D 06
0.64513D 06 0.14757D 06 0.77364D 05 0.19592D 06 0.52260D 05 0.25020D 06 0.36945D 05 0.61582D 05 0.93626D 05 0.98827D 05
0.52123D 05 0.31587D 05 0.13010D 06 0.84441D 05 0.47579D 06 0.34712D 05 0.72051D 05 0.66221D 05 0.78778D 05 0.51671D 04
0.40221D 05 0.16924D 05 0.71504D 05 0.51257D 05 0.22471D 05 0.17786D 05 0.35736D 05

FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1980 MEDIUM

STATEWIDE TOTAL NOTRIPON = 0.13734D 08

STATEWIDE TOTAL NOVACATN = 0.19299D 07

STATEWIDE TOTAL OBTRIPON = 0.14506D 08

STATEWIDE TOTAL OCTRIPON = 0.25476D 08

STATEWIDE TOTAL OFTRIPON = 0.28896D 08

STATEWIDE TOTAL OHTRIPON = 0.94691D 07

STATEWIDE TOTAL OPTRIPON = 0.17207D 08

STATEWIDE TOTAL OSTRIPON = 0.18582D 08

STATEWIDE TOTAL OBVACATN = 0.19719D 07

STATEWIDE TOTAL OCVACATN = 0.11379D 08

STATEWIDE TOTAL OFVACATN = 0.61915D 07

STATEWIDE TOTAL OHVACATN = 0.41250D 06

STATEWIDE TOTAL OPVACATN = 0.30730D 07

STATEWIDE TOTAL OSVACATN = 0.39690D 07

ADJUSTED FORECASTED VALUES OF ENDOGENOUS VARIABLES BY REGION FOR 1980 MEDIUM

QBTRIPON 0.11175D 05 0.11756D 05 0.87361D 05 0.27072D 06 0.15047D 06 0.19018D 06 0.13271D 06 0.16681D 06 0.61908D 04 0.19836D 07
0.12832D 07 0.13083D 06 0.13607D 06 0.32826D 06 0.90877D 05 0.21667D 07 0.10358D 06 0.22334D 06 0.25600D 06 0.10964D 06
0.38827D 06 0.27321D 05 0.43373D 06 0.21919D 06 0.20224D 07 0.30940D 05 0.12141D 06 0.22038D 06 0.10700D 05 0.84209D 05
0.90829D 05 0.14792D 06 0.96113D 06 0.13673D 06 0.24757D 06 0.42365D 05 0.13297D 06

QCTRIPON 0.29968D 05 0.21737D 05 0.10950D 06 0.43329D 06 0.25907D 06 0.31804D 06 0.22998D 06 0.28098D 06 0.14007D 05 0.31518D 07
0.21653D 07 0.25131D 06 0.60375D 05 0.55101D 06 0.16278D 06 0.37315D 07 0.17581D 06 0.38800D 06 0.41781D 06 0.18449D 06
0.66432D 06 0.52331D 05 0.75270D 06 0.38379D 06 0.38104D 07 0.61823D 05 0.29831D 06 0.43092D 06 0.26552D 05 0.13522D 06
0.16368D 06 0.26582D 06 0.17951D 07 0.25208D 06 0.42551D 06 0.75964D 05 0.22984D 06

QFTRIPON 0.30147D 05 0.25376D 05 0.15966D 06 0.52986D 06 0.28143D 06 0.37921D 06 0.26723D 06 0.30764D 06 0.19572D 05 0.39517D 07
0.26239D 07 0.28892D 06 0.18826D 05 0.64246D 06 0.19103D 06 0.42987D 07 0.20500D 06 0.45930D 06 0.49812D 06 0.21660D 06
0.77873D 06 0.61442D 05 0.87358D 06 0.43763D 06 0.43130D 07 0.69669D 05 0.32163D 06 0.47562D 06 0.34185D 05 0.15939D 06
0.19155D 06 0.30024D 06 0.20261D 07 0.28250D 06 0.48622D 06 0.87306D 05 0.26350D 06

QHTRIPON 0.87847D 04 0.63858D 04 0.41959D 05 0.16396D 06 0.94476D 05 0.11537D 06 0.78971D 05 0.91939D 05 0.67970D 04 0.11208D 07
0.75455D 06 0.65323D 05 0.56364D 05 0.20151D 06 0.52770D 05 0.13288D 07 0.60254D 05 0.14718D 06 0.15024D 06 0.61256D 05
0.22086D 06 0.15903D 05 0.26030D 06 0.11999D 06 0.11977D 07 0.18827D 05 0.86522D 05 0.12638D 06 0.31317D 05 0.59115D 05
0.52650D 05 0.89993D 05 0.60707D 06 0.94150D 05 0.17173D 06 0.31052D 05 0.76866D 05

QPTRIPON 0.16777D 05 0.14555D 05 0.81593D 05 0.29912D 06 0.14061D 06 0.22368D 06 0.15053D 06 0.18316D 06 0.72059D 04 0.21712D 07
0.14843D 07 0.16087D 06 0.76911D 05 0.37129D 06 0.10631D 06 0.25841D 07 0.11848D 06 0.25320D 06 0.29184D 06 0.12196D 06
0.45103D 06 0.33015D 05 0.50392D 06 0.24845D 06 0.24107D 07 0.38300D 05 0.18793D 06 0.26065D 06 0.19177D 05 0.66382D 05
0.11014D 06 0.17946D 06 0.12052D 07 0.16848D 06 0.31030D 06 0.52778D 05 0.15589D 06

QSTRIPON 0.23226D 05 0.10520D 05 0.55270D 05 0.30203D 06 0.16141D 06 0.20256D 06 0.14414D 06 0.17744D 06 0.12791D 05 0.19597D 07
0.14004D 07 0.15587D 06 0.14899D 06 0.35540D 06 0.10345D 06 0.23514D 07 0.11219D 06 0.24709D 06 0.27732D 06 0.11949D 06
0.42031D 06 0.32707D 05 0.47510D 06 0.24544D 06 0.23708D 07 0.39623D 05 0.18475D 06 0.28023D 06 0.19289D 05 0.59775D 05
0.10527D 06 0.15982D 06 0.11287D 07 0.16643D 06 0.27327D 06 0.50993D 05 0.14846D 06

QBVACATN 0.38351D 05 0.14633D 05 0.25066D 05 0.60145D 05 0.39129D 05 0.19116D 05 0.28189D 05 0.26814D 05 0.67144D 05 0.15131D 06
0.26318D 06 0.52564D 05 0.22245D 05 0.80064D 05 0.28113D 05 0.11734D 06 0.13995D 05 0.29266D 05 0.81866D 04 0.48645D 05
0.27962D 05 0.15245D 05 0.40613D 05 0.20140D 05 0.18219D 06 0.17363D 05 0.24471D 05 0.30963D 05 0.57185D 04 0.25996D 04
0.17755D 05 0.48480D 04 0.12748D 05 0.24852D 05 0.11424D 05 0.90446D 04 0.17989D 05

QCVACATN 0.73089D 05 0.17938D 05 0.25962D 05 0.38760D 05 0.51599D 05 0.36427D 05 0.60424D 05 0.37304D 05 0.10134D 06 0.27515D 06
0.74733D 06 0.12190D 06 0.60511D 05 0.13495D 06 0.10400D 06 0.79566D 06 0.68173D 05 0.75710D 05 0.96684D 05 0.13082D 06
0.58911D 05 0.11268D 06 0.12670D 06 0.14661D 06 0.17980D 07 0.13415D 06 0.29294D 06 0.42505D 06 0.67434D 05 0.18196D 06
0.18009D 06 0.54110D 05 0.33221D 06 0.12536D 06 0.11195D 06 0.52323D 05 0.82571D 05

QFVACATN 0.62672D 05 0.25745D 05 0.45430D 05 0.84360D 05 0.72502D 05 0.44983D 05 0.72840D 05 0.42850D 05 0.15652D 06 0.30697D 06
0.69784D 06 0.11764D 06 0.31685D 05 0.21005D 06 0.79784D 05 0.35749D 06 0.41105D 05 0.80204D 05 0.94941D 05 0.94877D 05
0.62787D 05 0.45159D 05 0.14577D 06 0.10141D 06 0.60277D 06 0.61362D 05 0.13551D 06 0.70743D 05 0.92014D 04 0.92925D 04
0.74545D 05 0.13718D 05 0.95730D 05 0.20118D 05 0.37932D 05 0.13242D 05 0.50472D 05

QHVACATN 0.31387D 04 0.25461D 04 0.10229D 05 0.40102D 05 0.41850D 04 0.43885D 04 0.14635D 05 0.11599D 05 0.39836D 05 0.61806D 05
0.73848D 05 0.18697D 05 0.46135D 04 0.20044D 05 0.21609D 04 0.15130D 05 0.39510D 04 0.12945D 05 0.10053D 05 0.11647D 05
0.68528D 04 0.20520D 04 0.93107D 04 0.48992D 04 0.35991D 05 0.28986D 04 0.64735D 04 0.41586D 04 0.13290D 04 0.47871D 03
0.23331D 04 0.64970D 03 0.75533D 04 0.84494D 03 0.15645D 04 0.14008D 04 0.26372D 04

QPVACATN 0.29760D 05 0.13086D 05 0.19067D 05 0.43806D 05 0.22845D 05 0.20502D 05 0.30528D 05 0.14520D 05 0.18498D 05 0.90734D 05
0.36447D 06 0.41441D 05 0.42161D 05 0.10477D 06 0.45151D 05 0.17659D 06 0.28154D 05 0.29599D 05 0.90125D 04 0.12615D 05
0.74871D 04 0.25684D 05 0.51265D 05 0.68886D 05 0.25963D 06 0.29991D 05 0.11841D 05 0.21862D 05 0.18817D 05 0.48530D 04
0.34664D 05 0.98570D 04 0.51853D 05 0.11339D 05 0.21544D 05 0.89114D 04 0.15143D 05

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. OSVACATN  0.60755D 05 0.28300D 05 0.43263D 05 0.11936D 06 0.49056D 05 0.33644D 05 0.73239D 05 0.55189D 05 0.18777D 06 0.29008D 06
            0.57751D 05 0.39387D 05 0.21503D 05 0.19821D 06 0.19572D 05 0.26376D 06 0.27337D 05 0.59290D 05 0.98699D 05 0.11779D 06
            0.63952D 05 0.24717D 05 0.86322D 05 0.81404D 05 0.43665D 06 0.41547D 05 0.74061D 05 0.65995D 05 0.38959D 05 0.32346D 04
            0.43911D 05 0.86452D 04 0.65173D 05 0.54291D 05 0.14067D 05 0.82392D 04 0.44741D 05
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ADJUSTED FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1980 MEDIUM

STATEWIDE TOTAL QBTRIPON = 0.13150D 08

STATEWIDE TOTAL QCTRIPON = 0.22761D 08

STATEWIDE TOTAL QFTRIPON = 0.26556D 08

STATEWIDE TOTAL QHTRIPON = 0.78681D 07

STATEWIDE TOTAL QPTRIPON = 0.15260D 08

STATEWIDE TOTAL QSTRIPON = 0.14482D 08

STATEWIDE TOTAL QBVACATN = 0.15994D 07

STATEWIDE TOTAL QCVACATN = 0.71730D 07

STATEWIDE TOTAL QFVACATN = 0.42703D 07

STATEWIDE TOTAL QHVACATN = 0.45698D 06

STATEWIDE TOTAL QPVACATN = 0.18109D 07

STATEWIDE TOTAL QSVACATN = 0.35365D 07

FORECASTED VALUES OF ENDOGENOUS VARIABLES FOR BY REGION FOR 1980 HIGH

NOTRIPON 0.207030 05 0.162610 05 0.895790 05 0.297070 06 0.168800 06 0.203910 06 0.140720 06 0.172680 06 0.752210 04 0.213930 07
0.137420 07 0.156630 06 0.140290 06 0.324980 06 0.906070 05 0.230960 07 0.110100 06 0.254050 06 0.258520 06 0.109580 06
0.392510 06 0.287640 05 0.461800 06 0.226140 06 0.214690 07 0.329640 05 0.141950 06 0.253090 06 0.196740 06 0.881510 05
0.976780 05 0.162210 06 0.106880 07 0.186800 06 0.269560 06 0.482710 05 0.142150 06

NOVACATN 0.331190 05 0.127610 05 0.120850 05 0.300720 05 0.287010 05 0.950000 04 0.210890 05 0.109790 05 0.263810 05 0.118860 06
0.250950 06 0.568330 05 0.313270 05 0.677910 05 0.271750 05 0.144770 06 0.145960 05 0.266810 05 0.302430 05 0.316560 05
0.187220 05 0.154270 05 0.656280 05 0.430010 05 0.376740 06 0.195620 05 0.549160 05 0.621450 05 0.556180 05 0.259560 04
0.235930 05 0.132270 05 0.537080 05 0.410940 05 0.145770 05 0.119870 05 0.182310 05

QBTRIPON 0.179890 05 0.161240 05 0.959040 05 0.305820 06 0.183340 06 0.214510 06 0.147090 06 0.188200 06 0.649210 04 0.223100 07
0.142820 07 0.150170 06 0.152200 06 0.359790 06 0.949610 05 0.244760 07 0.117850 06 0.254030 06 0.283810 06 0.121580 06
0.423870 06 0.288470 05 0.482660 06 0.244050 06 0.212960 07 0.314720 05 0.133330 06 0.243980 06 0.149230 06 0.955340 05
0.999150 05 0.167140 06 0.105140 07 0.187400 06 0.282390 06 0.478010 05 0.151580 06

QCTRIPON 0.390100 05 0.307130 05 0.164760 06 0.545680 06 0.318060 06 0.376820 06 0.263720 06 0.327410 06 0.160310 05 0.400490 07
0.258990 07 0.304500 06 0.265960 06 0.623250 06 0.175610 06 0.435390 07 0.206780 06 0.467360 06 0.486870 06 0.211610 06
0.747390 06 0.572710 05 0.874540 06 0.441840 06 0.411900 07 0.654640 05 0.287810 06 0.490470 06 0.358340 06 0.158270 06
0.186140 06 0.310530 06 0.203200 07 0.353400 06 0.500480 06 0.886870 05 0.271170 06

QFTRIPON 0.466730 05 0.360230 05 0.188220 06 0.620390 06 0.361650 06 0.430300 06 0.301230 06 0.371580 06 0.213660 05 0.458720 07
0.296580 07 0.344670 06 0.307700 06 0.712980 06 0.200430 06 0.488650 07 0.234810 06 0.524280 06 0.554480 06 0.241710 06
0.853430 06 0.653660 05 0.981330 06 0.490290 06 0.454940 07 0.727360 05 0.310800 06 0.531560 06 0.399150 06 0.160660 06
0.211990 06 0.341490 06 0.223060 07 0.385890 06 0.556820 06 0.991660 05 0.302780 06

QHTRIPON 0.139920 05 0.903870 04 0.546370 05 0.188040 06 0.110400 06 0.132300 06 0.888090 05 0.105310 06 0.726050 04 0.133770 07
0.865020 06 0.876370 05 0.958020 05 0.225120 06 0.564120 05 0.152350 07 0.694570 05 0.170000 06 0.169540 06 0.690890 05
0.245920 06 0.172070 05 0.294250 06 0.135330 06 0.128520 07 0.195850 05 0.799490 05 0.142940 06 0.143530 06 0.681880 05
0.588050 05 0.102840 06 0.670880 06 0.129180 06 0.199250 06 0.354770 05 0.888530 05

QPTRIPON 0.233910 05 0.191510 05 0.112500 06 0.374040 06 0.212580 06 0.259570 06 0.176500 06 0.222170 06 0.821620 04 0.280660 07
0.174980 07 0.193030 06 0.176490 06 0.415240 06 0.113450 06 0.300550 07 0.136000 06 0.313450 06 0.330120 06 0.138200 06
0.502120 06 0.357510 05 0.572560 06 0.282820 06 0.268490 07 0.400480 05 0.182590 06 0.310610 06 0.242980 06 0.115250 06
0.123750 06 0.206950 06 0.134190 07 0.235540 06 0.360200 06 0.608900 05 0.181820 06

QSTRIPON 0.329540 05 0.234680 05 0.119420 06 0.392300 06 0.230140 06 0.262790 06 0.188480 06 0.230040 06 0.158310 05 0.280720 07
0.183850 07 0.212250 06 0.191600 06 0.448190 06 0.124820 06 0.305300 07 0.146600 06 0.332060 06 0.393350 06 0.152500 06
0.527870 06 0.400030 05 0.625900 06 0.314140 06 0.289710 07 0.467470 05 0.197200 06 0.355820 06 0.264420 06 0.116890 06
0.133200 06 0.216610 06 0.142050 07 0.259020 06 0.358850 06 0.661310 05 0.194690 06

QBVACATN 0.536350 05 0.225510 05 0.277850 05 0.617000 05 0.469330 05 0.182150 05 0.434910 05 0.232570 05 0.803230 05 0.177780 06
0.325490 06 0.794810 05 0.389210 05 0.922000 05 0.240610 05 0.114580 06 0.191160 05 0.346960 05 0.444530 05 0.459130 05
0.242610 05 0.129040 05 0.591540 05 0.345330 05 0.223140 06 0.152370 05 0.330530 05 0.283050 05 0.463490 05 0.268100 04
0.166580 05 0.682670 04 0.309510 05 0.214300 05 0.973870 04 0.779330 04 0.156290 05

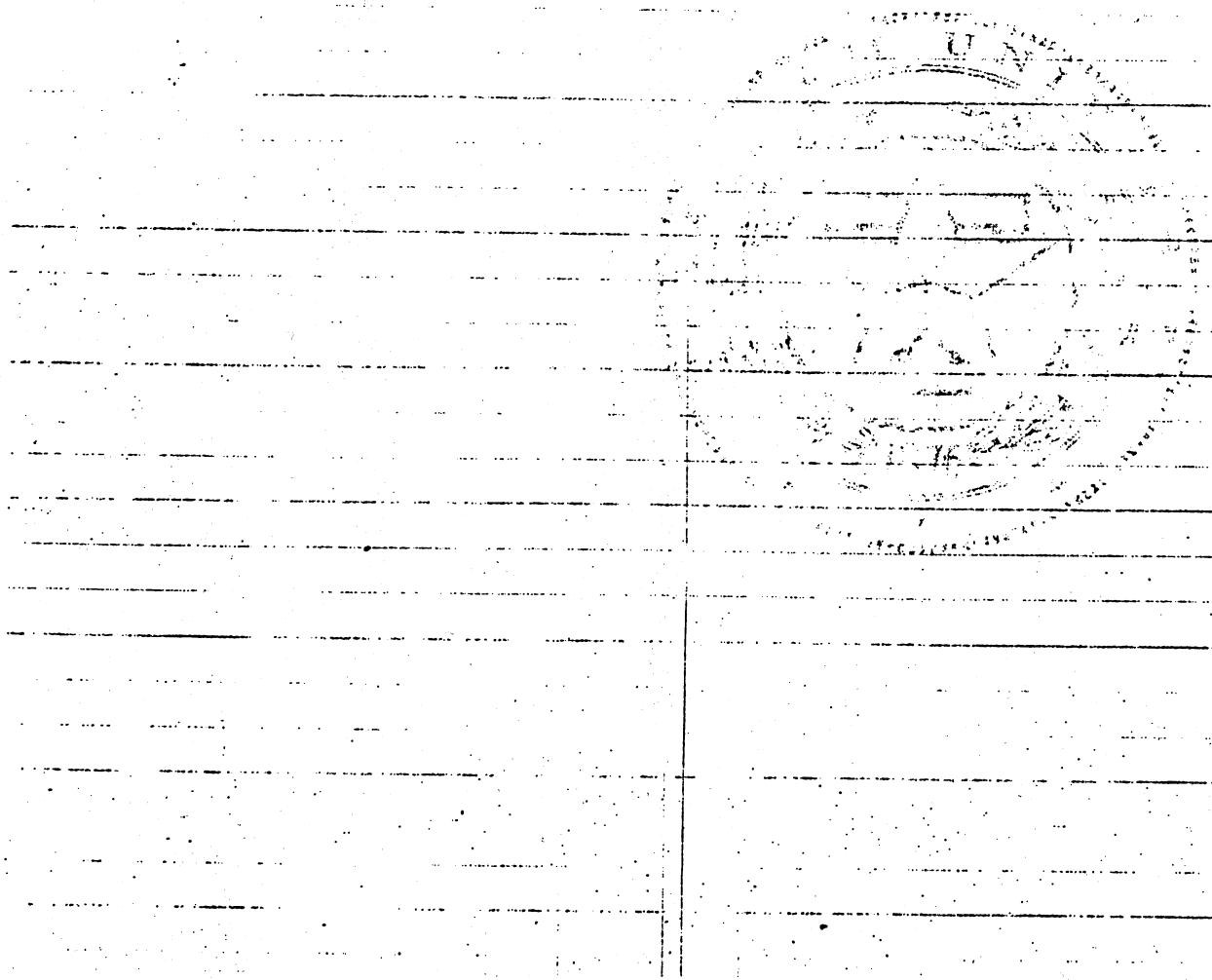
QCVACATN 0.151900 06 0.571810 05 0.521370 05 0.121640 06 0.135130 06 0.398280 05 0.881790 05 0.495060 05 0.107440 06 0.552610 06
0.124800 07 0.269070 06 0.171470 06 0.373570 06 0.163490 06 0.865310 06 0.752480 05 0.128320 06 0.151910 06 0.170130 06
0.974090 05 0.967060 05 0.375610 06 0.275810 06 0.233200 07 0.118180 06 0.336280 06 0.414130 06 0.313980 06 0.152160 06
0.150800 06 0.918650 05 0.329720 06 0.278420 06 0.944890 05 0.744500 05 0.109340 06

QFVACATN 0.158650 06 0.640690 05 0.653130 05 0.156820 06 0.137080 06 0.480420 05 0.112120 06 0.595090 05 0.165530 06 0.509010 06
0.[illegible]

QHVACATN 0.20959D 05 0.84974D 04 0.11591D 05 0.36383D 05 0.15515D 05 0.92104D 04 0.22268D 05 0.94660D 04 0.46899D 05 0.63771D 05
0.89637D 05 0.29809D 05 0.69623D 04 0.17163D 05 0.32122D 04 0.17525D 05 0.47964D 04 0.12550D 05 0.12305D 05 0.92683D 04
0.55818D 04 0.15407D 04 0.10744D 05 0.39537D 04 0.33562D 05 0.24172D 04 0.52647D 04 0.36948D 04 0.96875D 04 0.38510D 03
0.19157D 04 0.61619D 03 0.58149D 04 0.24493D 04 0.12493D 04 0.11457D 04 0.221.2D 04

QPVACATN 0.73000D 05 0.29365D 05 0.35447D 05 0.79278D 05 0.64132D 05 0.23667D 05 0.56277D 05 0.30685D 05 0.99517D 05 0.25316D 06
0.48595D 06 0.11485D 06 0.59144D 05 0.13975D 06 0.40791D 05 0.20853D 06 0.28027D 05 0.50652D 05 0.65014D 05 0.68282D 05
0.35610D 05 0.23098D 05 0.98712D 05 0.62281D 05 0.43766D 06 0.27562D 05 0.66247D 05 0.62380D 05 0.79129D 05 0.43822D 04
0.31485D 05 0.14760D 05 0.61356D 05 0.46091D 05 0.19411D 05 0.15144D 05 0.27504D 05

QSVACATN 0.92723D 05 0.38002D 05 0.47679D 05 0.10893D 06 0.85856D 05 0.31250D 05 0.80948D 05 0.44150D 05 0.15609D 06 0.33913D 06
0.65171D 06 0.15223D 06 0.78138D 05 0.19497D 06 0.51616D 05 0.24873D 06 0.36834D 05 0.61393D 05 0.92991D 05 0.98641D 05
0.52168D 05 0.30913D 05 0.12973D 06 0.83540D 05 0.47679D 06 0.35054D 05 0.68423D 05 0.67408D 05 0.78306D 05 0.51304D 04
0.39966D 05 0.16422D 05 0.68863D 05 0.51384D 05 0.22020D 05 0.17700D 05 0.35922D 05



FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1980 REGION

STATEWIDE TOTAL NOTRIPCN = 0.14329D 08

STATEWIDE TOTAL NOVACATN = 0.18763D 07

STATEWIDE TOTAL QBTRIPON = 0.14811D 08

STATEWIDE TOTAL QCTRIPON = 0.27117D 08

STATEWIDE TOTAL QFTRIPON = 0.30501D 08

STATEWIDE TOTAL QHTRIPON = 0.90967D 07

STATEWIDE TOTAL QPTRIPON = 0.18269D 08

STATEWIDE TOTAL QSTRIPON = 0.19191D 08

STATEWIDE TOTAL QBVACATN = 0.19632D 07

STATEWIDE TOTAL QCVACATN = 0.10479D 08

STATEWIDE TOTAL QFVACATN = 0.62977D 07

STATEWIDE TOTAL QHVACATN = 0.54008D 06

STATEWIDE TOTAL QPVACATN = 0.31183D 07

STATEWIDE TOTAL QSVACATN = 0.39717D 07

ADJUSTED FORECASTED VALUES OF ENDOGENOUS VARIABLES BY REGION FOR 1980 HIGH

QBTRIPON 0.12101D 05 0.12649D 05 0.83653D 05 0.28258D 06 0.15535D 06 0.19820D 06 0.13592D 06 0.17390D 06 0.59987D 04 0.20429D 07
0.13197D 07 0.13875D 06 0.14064D 06 0.33245D 06 0.87744D 05 0.22616D 07 0.10889D 06 0.23378D 06 0.26224D 06 0.11234D 06
0.39165D 06 0.26654D 05 0.44598D 06 0.22550D 06 0.19441D 07 0.29080D 05 0.10152D 06 0.22544D 06 0.11248D 05 0.88274D 05
0.92321D 05 0.15444D 06 0.97145D 06 0.17315D 06 0.26093D 06 0.44168D 05 0.14006D 06

QCTRIPON 0.34467D 05 0.24701D 05 0.11913D 06 0.47195D 06 0.27924D 06 0.34559D 06 0.24605D 06 0.30547D 06 0.14957D 05 0.33808D 07
0.23293D 07 0.28012D 06 0.65260D 05 0.58149D 06 0.16384D 06 0.40621D 07 0.19293D 06 0.42384D 06 0.44563D 06 0.19743D 06
0.69732D 06 0.53434D 05 0.80697D 06 0.41224D 06 0.38200D 07 0.61078D 05 0.26853D 06 0.45761D 06 0.29135D 05 0.14767D 06
0.17367D 06 0.28972D 06 0.18959D 07 0.32972D 06 0.46695D 06 0.82745D 05 0.25300D 06

QFTRIPON 0.33875D 05 0.28404D 05 0.17219D 06 0.57228D 06 0.30062D 06 0.40879D 06 0.28331D 06 0.33182D 06 0.20298D 05 0.42053D 07
0.27978D 07 0.31892D 06 0.20170D 05 0.67191D 06 0.19041D 06 0.46421D 07 0.22307D 06 0.49756D 06 0.52675D 06 0.22963D 06
0.81076D 06 0.62098D 05 0.92854D 06 0.46578D 06 0.42873D-07 0.68132D 05 0.28640D 06 0.50144D 06 0.37159D 05 0.17163D 06
0.20140D 06 0.32442D 06 0.21191D 07 0.36660D 06 0.52898D 06 0.94208D 05 0.28764D 06

QHTRIPON 0.85415D 04 0.62984D 04 0.41025D 05 0.16078D 06 0.91564D 05 0.11312D 06 0.75932D 05 0.90043D 05 0.62076D 04 0.10820D 07
0.72850D 06 0.64214D 05 0.54635D 05 0.19248D 06 0.48232D 05 0.13026D 07 0.59386D 05 0.14462D 06 0.14496D 06 0.59071D 05
0.21026D 06 0.14712D 05 0.25159D 06 0.11570D 06 0.10945D 07 0.16745D 05 0.68357D 05 0.12221D 06 0.30680D 05 0.58301D 05
0.50279D 05 0.87925D 05 0.57360D 06 0.11045D 06 0.17036D 06 0.30333D 05 0.75969D 05

QPTRIPON 0.19437D 05 0.16562D 05 0.88516D 05 0.32488D 06 0.15107D 06 0.24229D 06 0.16043D 06 0.19861D 06 0.77233D 04 0.23267D 07
0.15938D 07 0.17927D 06 0.82952D 05 0.39061D 06 0.10664D 06 0.28025D 07 0.12972D 06 0.27581D 06 0.31031D 06 0.13000D 06
0.47199D 06 0.33606D 05 0.53820D 06 0.26585D 06 0.24102D 07 0.37645D 05 0.16837D 06 0.27650D 06 0.21013D 05 0.72276D 05
0.11633D 06 0.19453D 06 0.12614D 07 0.22141D 06 0.33859D 06 0.57236D 05 0.17091D 06

QSTRIPON 0.24997D 05 0.11371D 05 0.58255D 05 0.31894D 06 0.16858D 06 0.21365D 06 0.14941D 06 0.18702D 06 0.12870D 05 0.20358D 07
0.14588D 07 0.16669D 06 0.15577D 06 0.36438D 06 0.10148D 06 0.24821D 07 0.11919D 06 0.26160D 06 0.28728D 06 0.12398D 06
0.42916D 06 0.32523D 05 0.49410D 06 0.25539D 06 0.23176D 07 0.38006D 05 0.16032D 06 0.28929D 06 0.20423D 05 0.63388D 05
0.10829D 06 0.16871D 06 0.11549D 07 0.21058D 06 0.29175D 06 0.53765D 05 0.15828D 06

QBVACATN 0.38147D 05 0.14640D 05 0.24901D 05 0.59692D 05 0.39151D 05 0.18982D 05 0.28184D 05 0.26723D 05 0.65896D 05 0.15136D 06
0.26403D 06 0.53972D 05 0.22360D 05 0.79135D 05 0.27646D 05 0.11599D 06 0.13881D 05 0.29022D 05 0.80701D 04 0.48164D 05
0.27875D 05 0.14826D 05 0.40305D 05 0.19839D 05 0.18152D 06 0.17507D 05 0.24002D 05 0.31445D 05 0.56450D 04 0.25660D 04
0.17609D 05 0.47064D 04 0.12269D 05 0.24623D 05 0.11190D 05 0.89545D 04 0.17958D 05

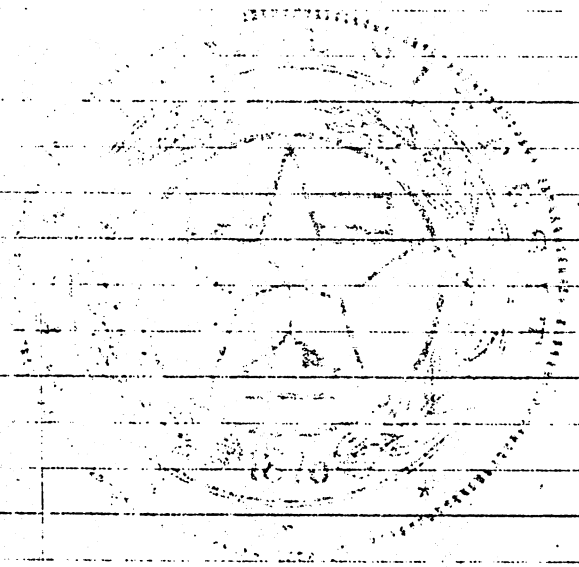
QCVACATN 0.66313D 05 0.16092D 05 0.23454D 05 0.34908D 05 0.46713D 05 0.32877D 05 0.54225D 05 0.33735D 05 0.94076D 05 0.24920D 06
0.67755D 06 0.10703D 06 0.55096D 05 0.12542D 06 0.97641D 05 0.73633D 06 0.62531D 05 0.69099D 05 0.39376D 05 0.12102D 06
0.53964D 05 0.10715D 06 0.11694D 06 0.13660D 06 0.16718D 07 0.12335D 06 0.27324D 06 0.39049D 06 0.62273D 05 0.16859D 05
0.16709D 06 0.50893D 05 0.31346D 06 0.11568D 06 0.10469D 06 0.48504D 05 0.75719D 05

QFVACATN 0.63581D 05 0.26193D 05 0.46034D 05 0.85483D 05 0.73651D 05 0.45614D 05 0.74014D 05 0.43472D 05 0.15698D 06 0.31271D 06
0.71154D 06 0.12118D 06 0.32316D 05 0.21236D 06 0.80671D 05 0.36304D 06 0.41709D 05 0.81408D 05 0.95923D 05 0.95863D 05
0.63807D 05 0.45407D 05 0.14804D 06 0.10266D 06 0.61526D 06 0.62639D 05 0.13902D 06 0.72871D 05 0.93241D 04 0.94181D 04
0.75660D 05 0.13863D 05 0.96345D 05 0.20425D 05 0.38427D 05 0.13477D 05 0.51403D 05

QHVACATN 0.41143D 04 0.34181D 04 0.13317D 05 0.52042D 05 0.55418D 04 0.57055D 04 0.19312D 05 0.15231D 05 0.48219D 05 0.81573D 05
0.98850D 05 0.27003D 05 0.62285D 04 0.25413D 05 0.27083D 04 0.19823D 05 0.51475D 04 0.16861D 05 0.12731D 05 0.14913D 04
0.89812D 04 0.24789D 04 0.12188D 05 0.63615D 04 0.46873D 05 0.38893D 04 0.83693D 04 0.57487D 04 0.17302D 04 0.61963D 03
0.30823D 04 0.83480D 03 0.93562D 04 0.11508D 04 0.20102D 04 0.18434D 04 0.35642D 04

QPVACATN 0.30170D 05 0.13317D 05 0.19283D 05 0.44277D 05 0.23210D 05 0.20726D 05 0.30991D 05 0.14704D 05 0.18564D 05 0.92186D 05
0.37128D 06 0.42720D 05 0.42941D 05 0.10568D 06 0.45563D 05 0.17842D 06 0.28457D 05 0.29930D 05 0.90775D 04 0.12737D 05
0.75973D 04 0.25801D 05 0.51933D 05 0.69567D 05 0.26448D 06 0.30787D 05 0.12136D 05 0.22436D 05 0.19003D 05 0.48949D 04
0.35168D 05 0.98919D 04 0.51744D 05 0.11429D 05 0.21682D 05 0.90163D 04 0.15361D 05

QSVACATN 0.6C715D 05 0.28357D C5 0.43218D 05 0.11920D 06 0.69547D 05 0.33608D 05 0.73578D 05 0.55276D 05 0.18702D 06 0.29169D 06
0.58340D 06 0.829C8D 05 0.21718D 05 0.15745D 06 0.15380D 05 0.26220D 06 0.27255D 05 0.59108D 05 0.98030D 05 0.11757D 06
0.64C08D 05 0.24189D 05 0.86571D 05 0.80536D 05 0.43696D 05 0.41957D 05 0.70332D 05 0.67178D 05 0.38726D 05 0.32116D 04
0.43633D C5 0.838C8D 04 0.62765D 05 0.54426D 05 0.13785D 05 0.81993D 04 0.44875D 05



D FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1980 HIGH

WIDE TOTAL QBTRIPON = 0.13427D 08

WIDE TOTAL QCTRIPON = 0.24210D 08

WIDE TOTAL QFTRIPON = 0.28017D 08

WIDE TOTAL QHTRIPON = 0.75561D 07

TEWIDE TOTAL QPTRIPON = 0.16194D 08

STATEWIDE TOTAL QSTRIPON = 0.14949D 08

STATEWIDE TOTAL QBVACATN = 0.15928D 07

STATEWIDE TOTAL QCVACATN = 0.66214D 07

STATEWIDE TOTAL QFVACATN = 0.43418D 07

STATEWIDE TOTAL QHVACATN = 0.59723D 06

STATEWIDE TOTAL QPVACATN = 0.18372D 07

STATEWIDE TOTAL QSVACATN = 0.35371D 07

FORECASTED VALUES OF ENDOGENOUS VARIABLES FOR BY REGION FOR 1990 LOW

NOTRIPON 0.369160 04 0.288160 04 0.547680 05 0.191230 06 0.910990 05 0.159890 06 0.903880 05 0.116580 06 0.842320 04 0.150610 07
0.953490 06 0.432290 05 0.721420 05 0.182440 06 0.553130 05 0.239160 07 0.650720 05 0.175260 06 0.146190 06 0.470090 05
0.364430 06 0.113260 05 0.454310 06 0.165560 06 0.230670 07 0.294570 05 0.106760 06 0.283610 06 0.187600 06 0.579910 05
0.967990 05 0.148120 06 0.881010 06 0.108980 06 0.319630 06 0.496640 05 0.136100 06

NOVACATN 0.478940 05 0.145530 05 0.153920 05 0.468830 05 0.345200 05 0.122370 05 0.241450 05 0.112690 05 0.313960 05 0.188680 06
0.421310 06 0.791830 05 0.375020 05 0.847730 05 0.345950 05 0.209870 06 0.158360 05 0.337450 05 0.391550 05 0.320700 05
0.208710 05 0.195040 05 0.647840 05 0.536990 05 0.589360 06 0.262770 05 0.707870 05 0.840360 05 0.807320 05 0.293590 04
0.237830 05 0.159780 05 0.693800 05 0.367050 05 0.196280 05 0.158120 05 0.220580 05

QBTRIPON 0.898490 03 0.207870 04 0.614630 05 0.206140 06 0.103580 06 0.178120 06 0.998650 05 0.135050 06 0.855900 04 0.164020 07
0.103620 07 0.410470 05 0.821660 05 0.210240 06 0.595930 05 0.265010 07 0.737040 05 0.185180 06 0.166460 06 0.544150 05
0.414190 06 0.113960 05 0.498300 06 0.180600 06 0.239210 07 0.293870 05 0.106400 06 0.284530 06 0.194390 06 0.663170 05
0.982210 05 0.161170 06 0.904830 06 0.114400 06 0.352790 06 0.521480 05 0.153360 06

QCTRIPON 0.647560 04 0.493700 04 0.970920 05 0.338950 06 0.165090 06 0.284540 06 0.162430 06 0.215340 06 0.167420 05 0.271540 07
0.172600 07 0.903570 05 0.131260 06 0.338060 06 0.103620 06 0.433590 07 0.117540 06 0.312040 06 0.267290 06 0.876960 05
0.670520 06 0.216160 05 0.835390 06 0.303720 06 0.428610 07 0.563680 05 0.201820 06 0.533820 06 0.331200 06 0.100980 06
0.167540 06 0.274730 06 0.163090 07 0.200510 06 0.576730 06 0.880960 05 0.250030 06

QFTRIPON 0.112430 05 0.693890 04 0.112060 06 0.389160 06 0.190250 06 0.327310 06 0.187340 06 0.246490 06 0.228250 05 0.312750 07
0.200350 07 0.946130 05 0.154800 06 0.393210 06 0.120470 06 0.490150 07 0.134570 06 0.352380 06 0.306760 06 0.102220 06
0.772930 06 0.256370 05 0.945980 06 0.339940 06 0.478230 07 0.635510 05 0.220280 06 0.584890 06 0.371020 06 0.115690 06
0.192630 06 0.304010 06 0.179320 07 0.220290 06 0.647000 06 0.993000 05 0.280910 06

QHTRIPON 0.661800 04 0.286720 04 0.359080 05 0.129290 06 0.637800 05 0.110870 06 0.627420 05 0.735390 05 0.850720 04 0.992290 06
0.654150 06 0.323270 05 0.526420 05 0.133310 06 0.367870 05 0.169770 07 0.445700 05 0.124560 06 0.984350 05 0.319170 05
0.247990 06 0.832450 04 0.308550 06 0.103480 06 0.146440 07 0.195030 05 0.754530 05 0.169230 06 0.150150 06 0.474870 05
0.596430 05 0.103460 06 0.593700 06 0.819390 05 0.255910 06 0.401370 05 0.953880 05

QPTRIPON 0.142720 04 0.229110 04 0.658750 05 0.229310 06 0.109610 06 0.197620 06 0.108450 06 0.148730 06 0.886600 04 0.189100 07
0.115030 07 0.457880 05 0.864160 05 0.224030 06 0.659150 05 0.300220 07 0.783230 05 0.209610 06 0.180090 06 0.567410 05
0.453520 06 0.124650 05 0.552830 06 0.193370 06 0.279660 07 0.341040 05 0.123570 06 0.342960 06 0.223250 06 0.736580 05
0.112890 06 0.183070 06 0.106840 07 0.132890 06 0.419170 06 0.608340 05 0.168230 06

QSTRIPON 0.130760 05 0.620610 04 0.765540 05 0.265450 06 0.130990 06 0.212730 06 0.127010 06 0.157830 06 0.177950 05 0.206430 07
0.135630 07 0.716360 05 0.104170 06 0.265230 06 0.807200 05 0.325460 07 0.904680 05 0.236940 06 0.208680 06 0.700000 05
0.504550 06 0.183050 05 0.632630 06 0.232780 06 0.321590 07 0.440600 05 0.162970 06 0.409380 06 0.262550 06 0.790580 05
0.126900 06 0.203950 06 0.120840 07 0.156390 06 0.435300 06 0.703260 05 0.193510 06

QBVACATN 0.483670 05 0.129150 05 0.220940 05 0.587090 05 0.332920 05 0.143260 05 0.299460 05 0.158290 05 0.705470 05 0.167460 06
0.315960 06 0.584050 05 0.278370 05 0.705390 05 0.189560 05 0.978880 05 0.123680 05 0.269530 05 0.356580 05 0.283990 05
0.217080 05 0.954600 04 0.490830 05 0.266510 05 0.213580 06 0.120010 05 0.241710 05 0.220730 05 0.421860 05 0.184060 04
0.102650 05 0.476760 04 0.242880 05 0.118640 05 0.773510 04 0.563310 04 0.996670 04

QCVACATN 0.298620 06 0.913780 05 0.926480 05 0.272390 06 0.222570 06 0.725580 05 0.144550 06 0.681210 05 0.165700 06 0.119370 07
0.283730 07 0.542080 06 0.268250 06 0.603870 06 0.261390 06 0.160070 07 0.109870 06 0.218660 06 0.257570 06 0.224410 06
0.131850 06 0.157260 06 0.607740 06 0.431190 06 0.450070 07 0.201500 06 0.566010 06 0.684000 06 0.583140 06 0.223150 05
0.190690 06 0.138650 06 0.531610 06 0.304440 06 0.159220 06 0.126660 06 0.176590 06

QFVACATN 0.164800 06 0.460200 05 0.587800 05 0.168720 06 0.114300 06 0.429590 05 0.886120 05 0.454380 05 0.155610 06 0.553430 06
0.110030 07 0.224370 06 0.104960 06 0.239900 06 0.839270 05 0.390380 06 0.437120 05 0.952200 05 0.111360 06 0.926330 05
0.674660 05 0.427470 05 0.191860 06 0.113270 06 0.102690 07 0.568630 05 0.126530 06 0.131190 06 0.174380 06 0.661490 04
0.485850 05 0.225470 05 0.108820 06 0.562100 05 0.319170 05 0.252220 05 0.439420 05

QHVACATN 0.56813D 04 0.13995D 04 0.26053D 04 0.93203D 04 0.29149D 04 0.20020D 04 0.40403D 04 0.20112D 04 0.15692D 05 0.16234D 05
0.22208D 05 0.45984D 04 0.12756D 04 0.35539D 04 0.72193D 03 0.42199D 04 0.81546D 03 0.28474D 04 0.29049D 04 0.15661D 04
0.21787D 04 0.25248D 03 0.29131D 04 0.86960D 03 0.10337D 05 0.53692D 03 0.90897D 03 0.92951D 03 0.26688D 04 0.70320D 02
0.32240D 03 0.99335D 02 0.14883D 04 0.40390D 03 0.27730D 03 0.20966D 03 0.30911D 03

QPVACATN 0.73564D 05 0.19775D 05 0.31347D 05 0.84807D 05 0.51698D 05 0.20895D 05 0.43626D 05 0.22985D 05 0.92583D 05 0.27216D 06
0.54307D 06 0.99760D 05 0.48264D 05 0.12151D 06 0.36829D 05 0.20861D 06 0.20754D 05 0.44585D 05 0.58852D 05 0.47859D 05
0.33122D 05 0.20138D 05 0.92562D 05 0.55409D 05 0.48985D 06 0.25403D 05 0.56925D 05 0.59259D 05 0.82587D 05 0.34739D 04
0.22689D 05 0.12514D 05 0.57073D 05 0.30157D 05 0.18287D 05 0.13349D 05 0.21393D 05

QSVACATN 0.77124D 05 0.18703D 05 0.36521D 05 0.98846D 05 0.55847D 05 0.22181D 05 0.52860D 05 0.28548D 05 0.13608D 06 0.29576D 06
0.58151D 06 0.10449D 06 0.51910D 05 0.14316D 06 0.36549D 05 0.17299D 06 0.21228D 05 0.40264D 05 0.70981D 05 0.59235D 05
0.43744D 05 0.21185D 05 0.93083D 05 0.59160D 05 0.34593D 06 0.24410D 05 0.40678D 05 0.37349D 05 0.53825D 05 0.30094D 04
0.21837D 05 0.87734D 04 0.41026D 05 0.22288D 05 0.14091D 05 0.99249D 04 0.20179D 05

FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1990 LOW

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STATEWIDE TOTAL NOTRIPON = 0.12044D 08

STATEWIDE TOTAL NOVACATN = 0.265130 07

STATEWIDE TOTAL OBTRIPON = 0.130100 08

STATEWIDE TOTAL OCTRIPON = 0.220370 08

STATEWIDE TOTAL OFTRIPON = 0.24945D 08

STATEWIDE TOTAL OHTRIPON = 0.821760 07

STATEWIDE TOTAL OPTRIPON = 0.148140 08

STATEWIDE TOTAL OSTRIPON = 0.167590 08

STATEWIDE TOTAL OBVACATN = 0.166380 07

STATEWIDE TOTAL OCVACATN = 0.190660 08

STATEWIDE TOTAL OFVACATN = 0.61995D 07

STATEWIDE TOTAL OHVACATN = 0.131390 06

STATEWIDE TOTAL OPVACATN = 0.303770 07

STATEWIDE TOTAL OSVACATN = 0.296530 07

ADJUSTED FORECASTED VALUES OF ENDOGENOUS VARIABLES BY REGION FOR 1990: LOW

QBTRIPON	0.66439D 03	0.14307D 04	0.53559D 05	0.19048D 06	0.87765D 05	0.16458D 06	0.92275D 05	0.12479D 06	0.79085D 04	0.15019D 07
	0.95746D 06	0.37927D 05	0.75921D 05	0.19426D 06	0.55064D 05	0.24487D 07	0.68102D 05	0.17043D 06	0.15381D 06	0.50279D 05
	0.38271D 06	0.10525D 05	0.46043D 06	0.16687D 06	0.21838D 07	0.27153D 05	0.81009D 05	0.26291D 06	0.11316D 05	0.61277D 05
	0.90756D 05	0.14892D 06	0.83606D 06	0.10571D 06	0.32597D 06	0.48184D 05	0.14170D 06			
QCTRIPON	0.57215D 04	0.39706D 04	0.70265D 05	0.29315D 06	0.14494D 06	0.26097D 06	0.15154D 06	0.20092D 06	0.15620D 05	0.22928D 07
	0.15524D 07	0.73923D 05	0.32269D 05	0.31541D 06	0.96680D 05	0.40454D 07	0.10967D 06	0.28298D 06	0.24364D 06	0.81820D 05
	0.62560D 06	0.20168D 05	0.77085D 06	0.28337D 06	0.39749D 07	0.52591D 05	0.18830D 06	0.49805D 06	0.26884D 05	0.94214D 05
	0.15631D 06	0.25633D 06	0.15216D 07	0.18707D 06	0.53809D 06	0.82194D 05	0.23327D 06			
QFTRIPON	0.81601D 04	0.54713D 04	0.10251D 06	0.35898D 06	0.15814D 06	0.31094D 06	0.17619D 06	0.22012D 06	0.21684D 05	0.28671D 07
	0.18903D 07	0.87545D 05	0.10147D 05	0.37056D 06	0.11445D 06	0.46564D 07	0.12784D 06	0.33442D 06	0.29142D 06	0.97109D 05
	0.73428D 06	0.24355D 05	0.89508D 05	0.32294D 06	0.45068D 07	0.59528D 05	0.20299D 06	0.55175D 06	0.34542D 05	0.10991D 06
	0.18300D 06	0.28881D 06	0.17036D 07	0.20927D 06	0.61465D 06	0.94335D 05	0.26686D 06			
QHTRIPON	0.40401D 04	0.19980D 04	0.26863D 05	0.11054D 06	0.52896D 05	0.94791D 05	0.53644D 05	0.62876D 05	0.72737D 04	0.80259D 06
	0.55091D 06	0.23687D 05	0.30021D 05	0.11398D 06	0.31453D 05	0.14515D 07	0.38107D 05	0.10597D 06	0.84162D 05	0.27289D 05
	0.21204D 06	0.71174D 04	0.26381D 06	0.88478D 05	0.12471D 07	0.16675D 05	0.64512D 05	0.14469D 06	0.32095D 05	0.40601D 05
	0.50995D 05	0.88457D 05	0.50762D 06	0.70058D 05	0.21881D 06	0.34317D 05	0.81557D 05			
QPTRIPON	0.11859D 04	0.19813D 04	0.51829D 05	0.19917D 06	0.77894D 05	0.18446D 06	0.98582D 05	0.13296D 06	0.83340D 04	0.15678D 07
	0.10477D 07	0.42525D 05	0.40615D 05	0.21059D 06	0.61960D 05	0.27995D 07	0.73624D 05	0.18443D 06	0.16929D 06	0.53337D 05
	0.42631D 06	0.11736D 05	0.51966D 06	0.18177D 06	0.25105D 07	0.32058D 05	0.11395D 06	0.30530D 06	0.19306D 05	0.46182D 05
	0.10612D 06	0.17209D 06	0.10043D 07	0.12492D 06	0.39402D 06	0.57184D 05	0.15814D 06			
QSTRIPON	0.99187D 04	0.30072D 04	0.37343D 05	0.21581D 06	0.95951D 05	0.17295D 06	0.10068D 06	0.12832D 06	0.14467D 05	0.14970D 07
	0.10762D 07	0.56260D 05	0.84687D 05	0.21564D 06	0.65625D 05	0.26460D 07	0.73550D 05	0.18666D 06	0.16965D 06	0.56910D 05
	0.41020D 06	0.14882D 05	0.49942D 06	0.18925D 06	0.25727D 07	0.35837D 05	0.13249D 06	0.33223D 06	0.20278D 05	0.42871D 05
	0.10317D 06	0.15885D 06	0.98245D 06	0.12714D 06	0.35390D 06	0.57175D 05	0.15732D 06			
QBVACATN	0.34400D 05	0.83842D 04	0.19801D 05	0.56798D 05	0.27771D 05	0.14930D 05	0.19406D 05	0.18187D 05	0.57876D 05	0.14258D 06
	0.25631D 06	0.39661D 05	0.15992D 05	0.60543D 05	0.21780D 05	0.99089D 05	0.89816D 04	0.22545D 05	0.64734D 04	0.29792D 05
	0.24943D 05	0.10968D 05	0.33443D 05	0.15311D 05	0.17374D 06	0.13789D 05	0.17552D 05	0.24525D 05	0.51380D 04	0.17617D 04
	0.10851D 05	0.32868D 04	0.96278D 04	0.13632D 05	0.88876D 04	0.64725D 04	0.11452D 05			
QCVACATN	0.13036D 06	0.25717D 05	0.41678D 05	0.78169D 05	0.76942D 05	0.59894D 05	0.88887D 05	0.46419D 05	0.14504D 06	0.54102D 06
	0.15404D 07	0.21562D 06	0.86194D 05	0.20273D 06	0.15610D 06	0.13621D 07	0.91301D 05	0.11774D 06	0.15154D 06	0.15963D 06
	0.73047D 05	0.17425D 06	0.18922D 06	0.21356D 06	0.32264D 07	0.21031D 06	0.45718D 06	0.64495D 06	0.11566D 06	0.24725D 05
	0.21128D 06	0.76815D 05	0.50539D 06	0.12649D 06	0.17641D 06	0.82518D 05	0.12229D 06			
QFVACATN	0.66085D 05	0.18814D 05	0.41430D 05	0.91970D 05	0.61412D 05	0.40787D 05	0.58497D 05	0.33193D 05	0.14757D 06	0.34000D 06
	0.80621D 06	0.10677D 06	0.26850D 05	0.18865D 06	0.74435D 05	0.36498D 06	0.31200D 05	0.72538D 05	0.88567D 05	0.69015D 05
	0.58102D 05	0.39345D 05	0.14123D 06	0.92363D 05	0.69164D 06	0.59260D 05	0.11900D 06	0.71363D 05	0.95442D 04	0.73889D 04
	0.54270D 05	0.11459D 05	0.87152D 05	0.13122D 05	0.35651D 05	0.11748D 05	0.40297D 05			
QHVACATN	0.11152D 04	0.56297D 03	0.29931D 04	0.13332D 05	0.10412D 04	0.12402D 04	0.35040D 04	0.32361D 04	0.16134D 05	0.20765D 05
	0.24477D 05	0.41656D 04	0.11412D 04	0.52607D 04	0.60867D 03	0.47732D 04	0.87515D 03	0.38255D 04	0.30054D 04	0.25199D 04
	0.35056D 04	0.40624D 03	0.33044D 04	0.13992D 04	0.14437D 05	0.86390D 03	0.14450D 04	0.14462D 04	0.47665D 03	0.11315D 03
	0.51874D 03	0.13458D 03	0.23947D 04	0.18976D 03	0.44617D 03	0.33735D 03	0.49736D 03			
QPVACATN	0.30403D 05	0.89682D 04	0.17052D 05	0.47365D 05	0.18710D 05	0.18298D 05	0.24024D 05	0.11014D 05	0.17270D 05	0.99100D 05
	0.41492D 06	0.37107D 05	0.35042D 05	0.91889D 05	0.41138D 05	0.17849D 06	0.21073D 05	0.26345D 05	0.82172D 04	0.89276D 04
	0.70664D 04	0.22495D 05	0.48697D 05	0.61892D 05	0.29601D 06	0.28376D 05	0.10428D 05	0.21314D 05	0.19834D 05	0.38803D 04
	0.25343D 05	0.83870D 04	0.48132D 05	0.74782D 04	0.20427D 05	0.79475D 04	0.11948D 05			

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QSVACATN 0.50501D 05 0.13956D 05 0.33104D 05 0.10816D 06 0.45238D 05 0.23855D 05 0.48047D 05 0.35743D 05 0.16305D 06 0.25439D 06
0.52056D 06 0.56907D 05 0.14428D 05 0.11560D 06 0.10891D 05 0.18236D 06 0.15707D 05 0.38766D 05 0.74827D 05 0.70603D 05
0.53673D 05 0.16577D 05 0.62116D 05 0.57033D 05 0.31704D 06 0.29217D 05 0.41812D 05 0.37222D 05 0.26619D 05 0.18839D 04
0.23840D 05 0.44816D 04 0.37393D 05 0.23608D 05 0.88210D 04 0.45976D 04 0.25264D 05

ADJUSTED FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1990 LOW

STATEWIDE TOTAL QBTRIPON = 0.11783D 08

STATEWIDE TOTAL QCTRIPON = 0.19784D 08

STATEWIDE TOTAL QFTRIPON = 0.23012D 08

STATEWIDE TOTAL QHTRIPON = 0.68435D 07

STATEWIDE TOTAL QPTRIPON = 0.13191D 08

STATEWIDE TOTAL QSTRIPON = 0.13098D 08

STATEWIDE TOTAL QBVACATN = 0.13467D 07

STATEWIDE TOTAL QCVACATN = 0.11948D 08

STATEWIDE TOTAL QFVACATN = 0.42719D 07

STATEWIDE TOTAL QHVACATN = 0.14649D 06

STATEWIDE TOTAL QPVACATN = 0.18050D 07

STATEWIDE TOTAL QSVACATN = 0.26479D 07

FORECASTED VALUES OF ENDOGENOUS VARIABLES FOR BY REGION FOR 1990 MEDIUM

NOTRIPON	0.75636D 04	0.39382D 04	0.63730D 05	0.22029D 06	0.99888D 05	0.18470D 06	0.10020D 06	0.12944D 06	0.91249D 04	0.15962D 07			
	0.98592D 06	0.47093D 05	0.75093D 05	0.19119D 06	0.53750D 05	0.26489D 07	0.73209D 05	0.20020D 06	0.15737D 06	0.50209D 05			
	0.37694D 06	0.10326D 05	0.48490D 06	0.17626D 06	0.21318D 07	0.28416D 05	0.85369D 05	0.24849D 06	0.21723D 06	0.66411D 05			
	0.94687D 05	0.17574D 06	0.11208D 07	0.14020D 06	0.37790D 06	0.57599D 05	0.15104D 06						
NOVACATN	0.44155D 05	0.13448D 05	0.14180D 05	0.43282D 05	0.32249D 05	0.11242D 05	0.22344D 05	0.10536D 05	0.29753D 05	0.17683D 06			
	0.39371D 06	0.73915D 05	0.35333D 05	0.79846D 05	0.32346D 05	0.19315D 06	0.14698D 05	0.31154D 05	0.36260D 05	0.29783D 05			
	0.18561D 05	0.18213D 05	0.78001D 05	0.49318D 05	0.54531D 06	0.23444D 05	0.66680D 05	0.78326D 05	0.75203D 05	0.27285D 04			
	0.21413D 05	0.14710D 05	0.63652D 05	0.34025D 05	0.18132D 05	0.14657D 05	0.20279D 05						
QBTRIPON	0.44426D 04	0.30094D 04	0.70092D 05	0.23324D 06	0.11165D 06	0.20180D 06	0.10875D 06	0.14731D 06	0.90088D 04	0.17146D 07			
	0.10626D 07	0.43883D 05	0.84069D 05	0.21648D 06	0.56786D 05	0.29058D 07	0.81463D 05	0.20753D 06	0.17622D 06	0.56983D 05			
	0.41933D 06	0.10569D 05	0.52396D 06	0.19529D 06	0.21581D 07	0.27413D 05	0.81558D 05	0.24420D 06	0.22177D 06	0.74611D 05			
	0.10077D 06	0.18892D 06	0.11398D 07	0.14571D 06	0.41183D 06	0.59471D 05	0.16769D 06						
QCTRIPON	0.14346D 05	0.71146D 04	0.11538D 06	0.39834D 06	0.18436D 06	0.33509D 06	0.18340D 06	0.24277D 06	0.18664D 05	0.29295D 07			
	0.18376D 07	0.89790D 05	0.13929D 06	0.36096D 06	0.10285D 06	0.49124D 07	0.13467D 06	0.36321D 06	0.29315D 06	0.95557D 05			
	0.70973D 06	0.21250D 05	0.90870D 06	0.33988D 06	0.40466D 07	0.56186D 05	0.16639D 06	0.47807D 06	0.39129D 06	0.11765D 06			
	0.17886D 06	0.33140D 06	0.21054D 07	0.26248D 06	0.69294D 06	0.10410D 06	0.28280D 06						
QFTRIPON	0.19748D 05	0.92880D 04	0.13214D 06	0.45395D 06	0.21055D 06	0.38331D 06	0.20981D 06	0.27605D 06	0.24633D 05	0.33481D 07			
	0.21125D 07	0.10393D 06	0.16260D 06	0.41587D 06	0.11834D 06	0.55190D 07	0.15305D 06	0.40737D 06	0.33373D 06	0.11023D 06			
	0.81198D 06	0.24902D 05	0.10214D 07	0.37746D 06	0.44722D 07	0.62694D 05	0.17912D 06	0.51834D 06	0.43481D 06	0.13405D 06			
	0.20404D 06	0.36499D 06	0.23088D 07	0.28625D 06	0.77345D 06	0.11650D 06	0.31566D 06						
QHTRIPON	0.75295D 04	0.30473D 04	0.38165D 05	0.13667D 06	0.64624D 05	0.11810D 06	0.64279D 05	0.76470D 05	0.81528D 04	0.97678D 06			
	0.63101D 06	0.31608D 05	0.50821D 05	0.12934D 06	0.33107D 05	0.17482D 07	0.46347D 05	0.13126D 06	0.97949D 05	0.31323D 05			
	0.23352D 06	0.73378D 04	0.30437D 06	0.10461D 06	0.12496D 07	0.16818D 05	0.55846D 05	0.13697D 06	0.15921D 06	0.50583D 05			
	0.56583D 05	0.11429D 06	0.70836D 06	0.96635D 05	0.28241D 06	0.42898D 05	0.97696D 05						
QPTRIPON	0.66977D 04	0.37248D 04	0.78835D 05	0.27111D 06	0.12280D 06	0.23391D 06	0.12284D 06	0.16775D 06	0.10109D 05	0.20475D 07			
	0.12269D 07	0.51801D 05	0.91898D 05	0.23939D 06	0.65331D 05	0.34182D 07	0.90065D 05	0.24505D 06	0.19787D 06	0.61869D 05			
	0.47983D 06	0.12228D 05	0.60197D 06	0.21737D 06	0.26275D 07	0.33845D 05	0.10044D 06	0.30346D 06	0.26572D 06	0.86164D 05			
	0.12073D 06	0.22252D 06	0.13958D 07	0.17554D 06	0.50674D 06	0.72262D 05	0.19099D 06						
QSTRIPON	0.17851D 05	0.74924D 04	0.87610D 05	0.30134D 06	0.14203D 06	0.24283D 06	0.13923D 06	0.17418D 06	0.18640D 05	0.21679D 07			
	0.14032D 07	0.76194D 05	0.10764D 06	0.27524D 06	0.78030D 05	0.35803D 07	0.10063D 06	0.26760D 06	0.22211D 06	0.73782D 05			
	0.51465D 06	0.17461D 05	0.66758D 06	0.25221D 06	0.29533D 07	0.41900D 05	0.13158D 06	0.35698D 06	0.29917D 06	0.89775D 05			
	0.13021D 06	0.23942D 06	0.15218D 07	0.19813D 06	0.51033D 06	0.80517D 05	0.21216D 06						
QBVACATN	0.54124D 05	0.14539D 05	0.24546D 05	0.65264D 05	0.36720D 05	0.16113D 05	0.33374D 05	0.17237D 05	0.74673D 05	0.18431D 06			
	0.35259D 06	0.65366D 05	0.30483D 05	0.77124D 05	0.21500D 05	0.11659D 06	0.13934D 05	0.30544D 05	0.40359D 05	0.32074D 05			
	0.26692D 05	0.10936D 05	0.57972D 05	0.31930D 05	0.25776D 06	0.15688D 05	0.27516D 05	0.26867D 05	0.47630D 05	0.20792D 04			
	0.13172D 05	0.58747D 04	0.29803D 05	0.14014D 05	0.91802D 04	0.66512D 04	0.11942D 05						
QCVACATN	0.24134D 06	0.74358D 05	0.74462D 05	0.21940D 06	0.18656D 06	0.57822D 05	0.11754D 06	0.56948D 05	0.14198D 06	0.10126D 07			
	0.23864D 07	0.45523D 06	0.23092D 06	0.51938D 06	0.22147D 06	0.13082D 07	0.91082D 05	0.17797D 06	0.21154D 06	0.18639D 06			
	0.97219D 05	0.13322D 06	0.49421D 06	0.35165D 06	0.37210D 07	0.15278D 06	0.48818D 06	0.57684D 06	0.48881D 06	0.18658D 05			
	0.14836D 06	0.11420D 06	0.43198D 06	0.25410D 06	0.13175D 06	0.10553D 06	0.14432D 06						
QFVACATN	0.17483D 06	0.48896D 05	0.62156D 05	0.17857D 06	0.11998D 06	0.45667D 05	0.93555D 05	0.47365D 05	0.15980D 06	0.58314D 05			
	0.11457D 07	0.23746D 06	0.10930D 06	0.25156D 06	0.82439D 05	0.42715D 06	0.46404D 05	0.10154D 06	0.11875D 06	0.98285D 05			
	0.74935D 05	0.45803D 05	0.20761D 06	0.12331D 06	0.11316D 07	0.64856D 05	0.13589D 06	0.14298D 06	0.18589D 06	0.70614D 04			
	0.54358D 05	0.25006D 05	0.12062D 06	0.61105D 05	0.34962D 05	0.27571D 05	0.47865D 05						

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          0.401410 05 0.335710 04 0.221750 04 0.61212D 04 0.13914D 04 0.92453D 04 0.15526D 04 0.54963D 04 0.55198D 04 0.29894D 04
          0.547730 04 0.518470 03 0.611640 04 0.19947D 04 0.22178D 05 0.15363D 04 0.17474D 04 0.19902D 04 0.50748D 04 0.13932D 03
          0.961090 03 0.261420 03 0.129980 04 0.89911D 03 0.61293D 03 0.45468D 03 0.71562D 03

QPVACATN  0.791460 05 0.213540 05 0.335770 05 0.90877D 05 0.55230D 05 0.22507D 05 0.46862D 05 0.24357D 05 0.96795D 05 0.29029D 06
          0.583890 06 0.187370 06 0.513190 05 0.12907D 06 0.39881D 05 0.23053D 06 0.22372D 05 0.48189D 05 0.63731D 05 0.51774D 05
          0.376320 05 0.218370 05 0.102480 06 0.61563D 05 0.54566D 06 0.29790D 05 0.62116D 05 0.65820D 05 0.88886D 05 0.37386D 04
          0.261180 05 0.139220 05 0.634580 05 0.32754D 05 0.20070D 05 0.14595D 05 0.23751D 05

QSVACATN  0.909990 05 0.227100 05 0.418000 05 0.11460D 06 0.64473D 05 0.26397D 05 0.60698D 05 0.31734D 05 0.14533D 06 0.34010D 06
          0.682230 06 0.123030 06 0.591120 05 0.16031D 06 0.43632D 05 0.22894D 06 0.25401D 05 0.49962D 05 0.82489D 05 0.68193D 05
          0.541140 05 0.251480 05 0.117500 06 0.74289D 05 0.48499D 06 0.33304D 05 0.51759D 05 0.54508D 05 0.70691D 05 0.37065D 04
          0.298880 05 0.125320 05 0.595910 05 0.30087D 05 0.18673D 05 0.13364D 05 0.25979D 05
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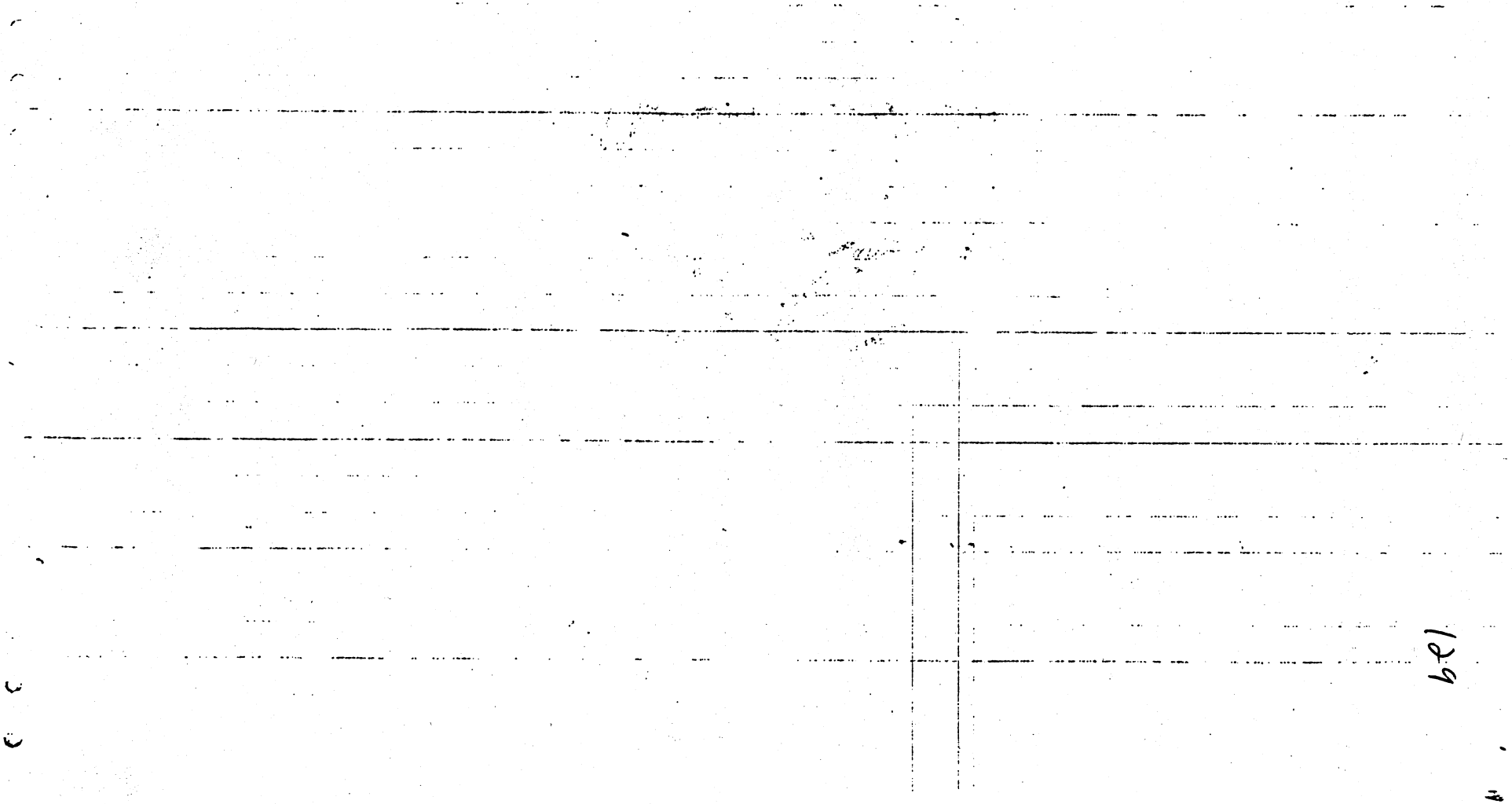

FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1990 MEDIUM

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STATEWIDE TOTAL NOTRIPON = 0.12853D 08

STATEWIDE TOTAL NOVACATN = 0.24609D 07

STATEWIDE TOTAL OBTRIPON = 0.13667D 08

STATEWIDE TOTAL OCTRIPON = 0.23952D 08

STATEWIDE TOTAL OFTRIPON = 0.26911D 08

STATEWIDE TOTAL OHTRIPON = 0.81425D 07

STATEWIDE TOTAL OPTRIPON = 0.16167D 08

STATEWIDE TOTAL OSTRIPON = 0.17701D 08

STATEWIDE TOTAL OBVACATN = 0.18972D 07

STATEWIDE TOTAL OCVACATN = 0.15824D 08

STATEWIDE TOTAL OFVACATN = 0.66510D 07

STATEWIDE TOTAL OHVACATN = 0.24463D 06

STATEWIDE TOTAL OPVACATN = 0.33034D 07

STATEWIDE TOTAL OSVACATN = 0.36216D 07

ADJUSTED FORECASTED VALUES OF ENDOGENOUS VARIABLES BY REGION, FOR 1990 MEDIUM

QBTRIPON	0.25864D 04	0.23638D 04	0.61138D 05	0.21551D 06	0.94605D 05	0.18647D 06	0.10048D 06	0.13611D 06	0.83241D 04	0.15700D 07
	0.98183D 04	0.40548D 05	0.77499D 05	0.25002D 06	0.52479D 05	0.26850D 07	0.75272D 05	0.19099D 06	0.16283D 06	0.52652D 05
	0.38746D 06	0.97657D 04	0.42413D 06	0.13044D 06	0.19701D 07	0.25329D 05	0.62096D 05	0.22565D 06	0.12910D 05	0.68941D 05
	0.93108D 05	0.17436D 06	0.13532D 07	0.13463D 06	0.38053D 06	0.54951D 05	0.15494D 06			
QCTRIPON	0.12675D 05	0.57219D 04	0.83427D 05	0.34452D 06	0.16186D 06	0.30733D 06	0.17111D 06	0.22651D 06	0.17414D 05	0.24736D 07
	0.16528D 07	0.82601D 05	0.34178D 05	0.33677D 06	0.95958D 05	0.45833D 07	0.12565D 06	0.32939D 06	0.26722D 06	0.89155D 05
	0.66213D 06	0.19827D 05	0.83849D 06	0.31711D 06	0.37528D 07	0.52421D 05	0.15525D 06	0.44604D 06	0.31761D 05	0.10977D 06
	0.16688D 06	0.30920D 06	0.19643D 07	0.24489D 06	0.64651D 06	0.97126D 05	0.26386D 06			
QFTRIPON	0.14333D 05	0.73236D 04	0.12089D 06	0.41875D 06	0.17502D 06	0.36414D 06	0.19733D 06	0.24651D 06	0.23401D 05	0.30694D 07
	0.19928D 07	0.96170D 05	0.13658D 05	0.39192D 06	0.11242D 06	0.52430D 07	0.14540D 06	0.38661D 06	0.31704D 06	0.10472D 06
	0.77138D 06	0.23657D 05	0.96649D 06	0.35859D 06	0.42146D 07	0.58725D 05	0.16506D 06	0.48897D 06	0.40481D 05	0.12735D 06
	0.19384D 06	0.34675D 06	0.21933D 07	0.27194D 06	0.73478D 06	0.11068D 06	0.29988D 06			
QHTRIPON	0.45966D 04	0.21234D 04	0.28553D 05	0.11686D 06	0.53596D 05	0.10097D 06	0.54958D 05	0.65382D 05	0.69706D 04	0.79005D 06
	0.53142D 06	0.23161D 05	0.28983D 05	0.11059D 06	0.28306D 05	0.14947D 07	0.39627D 05	0.11166D 06	0.83746D 05	0.26781D 05
	0.19966D 06	0.62738D 04	0.26023D 06	0.89438D 05	0.10641D 07	0.14379D 05	0.47748D 05	0.11711D 06	0.34031D 05	0.43248D 05
	0.48379D 05	0.97721D 05	0.60565D 06	0.82623D 05	0.24146D 06	0.36678D 05	0.83530D 05			
QPTRIPON	0.55656D 04	0.32212D 04	0.62026D 05	0.23548D 06	0.87268D 05	0.21833D 06	0.11166D 06	0.14996D 06	0.95022D 04	0.16976D 07
	0.11175D 07	0.48108D 05	0.43192D 05	0.22503D 06	0.61411D 05	0.31874D 07	0.84661D 05	0.21560D 06	0.18599D 06	0.58157D 05
	0.45104D 06	0.11494D 05	0.56585D 06	0.20432D 06	0.23587D 07	0.31814D 05	0.92624D 05	0.27013D 06	0.22980D 05	0.54023D 05
	0.11349D 06	0.20917D 06	0.13120D 07	0.16500D 06	0.47634D 06	0.67926D 05	0.17953D 06			
QSTRIPON	0.13540D 05	0.36304D 04	0.42736D 05	0.24499D 06	0.10404D 06	0.19742D 06	0.11036D 06	0.14161D 06	0.15155D 05	0.15721D 07
	0.11134D 07	0.59839D 05	0.87514D 05	0.22377D 06	0.63438D 05	0.29108D 07	0.81813D 05	0.21081D 06	0.18057D 06	0.59985D 05
	0.41841D 06	0.14196D 05	0.52700D 06	0.20505D 06	0.23626D 07	0.34065D 05	0.10697D 06	0.29022D 06	0.23107D 05	0.48682D 05
	0.10586D 06	0.18648D 06	0.12372D 07	0.16108D 06	0.41490D 06	0.65461D 05	0.17249D 06			
QBVACATN	0.38494D 05	0.94384D 04	0.21999D 05	0.63140D 05	0.30631D 05	0.16793D 05	0.21627D 05	0.19805D 05	0.61261D 05	0.15692D 06
	0.28602D 06	0.44387D 05	0.17513D 05	0.66196D 05	0.24703D 05	0.11803D 06	0.10118D 05	0.25549D 05	0.73268D 04	0.33647D 05
	0.30669D 05	0.12565D 05	0.39500D 05	0.18344D 05	0.20969D 06	0.18026D 05	0.19981D 05	0.29851D 05	0.58010D 04	0.19900D 04
	0.13924D 05	0.40560D 04	0.11814D 05	0.16102D 05	0.10548D 05	0.76422D 04	0.13721D 05			
QCVACATN	0.10536D 06	0.20927D 05	0.33496D 05	0.62962D 05	0.64493D 05	0.47730D 05	0.72279D 05	0.38805D 05	0.12428D 06	0.45664D 06
	0.12956D 07	0.18108D 06	0.74198D 05	0.17437D 06	0.13227D 06	0.11132D 07	0.75689D 05	0.95832D 05	0.12446D 06	0.13258D 06
	0.53860D 05	0.14761D 06	0.15387D 06	0.17416D 06	0.26675D 07	0.15946D 06	0.39432D 06	0.54390D 06	0.96946D 05	0.20674D 05
	0.16438D 06	0.63265D 05	0.41066D 06	0.10558D 06	0.14598D 06	0.68753D 05	0.99941D 05			
QFVACATN	0.70107D 05	0.19990D 05	0.43809D 05	0.97336D 05	0.64465D 05	0.43358D 05	0.61760D 05	0.34601D 05	0.15155D 06	0.35825D 06
	0.85419D 06	0.11360D 06	0.28204D 05	0.19782D 06	0.79324D 05	0.39935D 06	0.33122D 05	0.77351D 05	0.94439D 05	0.73228D 05
	0.64535D 05	0.42157D 05	0.15282D 06	0.10055D 06	0.76216D 06	0.67590D 05	0.12781D 06	0.77779D 05	0.10174D 05	0.78876D 04
	0.60718D 05	0.12709D 05	0.96606D 05	0.14265D 05	0.39052D 05	0.12842D 05	0.43895D 05			
QHVACATN	0.21478D 04	0.10743D 04	0.56740D 04	0.24813D 05	0.18397D 04	0.23965D 04	0.64581D 04	0.55372D 04	0.24569D 05	0.35791D 05
	0.44242D 05	0.75704D 04	0.19838D 04	0.90611D 04	0.11731D 04	0.10458D 05	0.16663D 04	0.73844D 04	0.57107D 04	0.48100D 04
	0.88130D 04	0.83405D 03	0.69381D 04	0.32095D 04	0.30975D 05	0.24719D 04	0.27779D 04	0.30966D 04	0.90635D 03	0.22417D 03
	0.14499D 04	0.35416D 03	0.53094D 04	0.42243D 03	0.98621D 03	0.73157D 03	0.11514D 04			
QPVACATN	0.32710D 05	0.96859D 04	0.18265D 05	0.50755D 05	0.19988D 05	0.19710D 05	0.25806D 05	0.11672D 05	0.18056D 05	0.10571D 06
	0.44611D 06	0.39939D 05	0.37260D 05	0.97605D 05	0.44547D 05	0.19724D 06	0.22716D 05	0.28474D 05	0.88984D 04	0.96578D 04
	0.80286D 04	0.24459D 05	0.53913D 05	0.68766D 05	0.32974D 06	0.33275D 05	0.11379D 05	0.23674D 05	0.21346D 05	0.41760D 04
	0.29174D 05	0.93302D 04	0.53516D 05	0.81223D 04	0.22418D 05	0.86896D 04	0.13265D 05			

[illegible]	[illegible]	0.169440 05	0.370890 05	0.124750 06	0.522260 05	0.253900 05	0.551720 05	0.397310 05	0.174130 06	0.292530 06
0.417720 06	[illegible]	0.164300 05	0.129460 06	0.130610 05	0.241340 06	0.187950 05	0.481030 05	0.869580 05	0.812790 05	
0.643950 05	0.194780 05	0.734130 05	0.716190 05	0.444480 06	0.398620 05	0.532030 05	0.543230 05	0.349590 05	0.232030 04	
0.320360 05	0.960140 04	0.543140 05	0.319680 05	0.116890 05	0.619060 04	0.325260 05				

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JUSTED FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1990 MEDIUM

TATEWIDE TOTAL QBTRIPON = 0.12370D 08

TATEWIDE TOTAL QCTRIPON = 0.21480D 08

TATEWIDE TOTAL QFTRIPON = 0.24804D 08

TATEWIDE TOTAL QHTRIPON = 0.67753D 07

TATEWIDE TOTAL QPTRIPON = 0.14394D 08

TATEWIDE TOTAL QSTRIPON = 0.13811D 08

TATEWIDE TOTAL QBVACATN = 0.15378D 07

TATEWIDE TOTAL QCVACATN = 0.98972D 07

TATEWIDE TOTAL QFVACATN = 0.45888D 07

TATEWIDE TOTAL QHVACATN = 0.27501D 06

TATEWIDE TOTAL QPVACATN = 0.19681D 07

TATEWIDE TOTAL QSVACATN = 0.32352D 07

FORECASTED VALUES OF ENDOGENOUS VARIABLES FOR BY REGION FOR 1990 HIGH

NOTRIPON 0.10500D 05 0.49410D 04 0.72390D 05 0.25068D 06 0.11061D 06 0.20736D 06 0.11089D 06 0.14246D 06 0.95061D 04 0.17191D 07
0.10715D 07 0.52557D 05 0.81093D 05 0.20032D 06 0.55205D 05 0.29658D 07 0.81517D 05 0.22517D 06 0.17069D 06 0.54390D 05
0.40038D 06 0.11117D 05 0.52120D 06 0.19362D 06 0.20610D 07 0.30047D 05 0.64417D 05 0.24016D 06 0.25043D 06 0.74995D 05
0.99594D 05 0.20704D 06 0.13976D 07 0.18017D 06 0.45155D 06 0.65094D 05 0.16699D 06

NOVACATN 0.42609D 05 0.12981D 05 0.13677D 05 0.41767D 05 0.31216D 05 0.10849D 05 0.21578D 05 0.10192D 05 0.28768D 05 0.17120D 06
0.38162D 06 0.71591D 05 0.34399D 05 0.77613D 05 0.31349D 05 0.18640D 06 0.14218D 05 0.30081D 05 0.35053D 05 0.28790D 05
0.17766D 05 0.17633D 05 0.75146D 05 0.47594D 05 0.52590D 06 0.22322D 05 0.64670D 05 0.75249D 05 0.72871D 05 0.26411D 04
0.20509D 05 0.14203D 05 0.61473D 05 0.32813D 05 0.17518D 05 0.14196D 05 0.19537D 05

QBTRIPON 0.70282D 04 0.38810D 04 0.78347D 05 0.26134D 06 0.12182D 06 0.22294D 06 0.11850D 06 0.15956D 06 0.91059D 04 0.18244D 07
0.11251D 07 0.48401D 05 0.89357D 05 0.22373D 06 0.57476D 05 0.32118D 07 0.89332D 05 0.22967D 06 0.18837D 06 0.60721D 05
0.43849D 06 0.10657D 05 0.55608D 06 0.21147D 06 0.20447D 07 0.28556D 05 0.89975D 05 0.23267D 06 0.25229D 06 0.82961D 05
0.10464D 06 0.21984D 06 0.14053D 07 0.18487D 06 0.48592D 06 0.66352D 05 0.18308D 06

QCTRIPON 0.20600D 05 0.92364D 04 0.13347D 06 0.46155D 06 0.20780D 06 0.38254D 06 0.20654D 06 0.27129D 06 0.20046D 05 0.32122D 07
0.20147D 07 0.10251D 06 0.15317D 06 0.38499D 06 0.10773D 06 0.56014D 07 0.15258D 06 0.41563D 06 0.32364D 06 0.10548D 06
0.76825D 06 0.22364D 05 0.99463D 06 0.38069D 06 0.39917D 07 0.61062D 05 0.12938D 06 0.47030D 06 0.45948D 06 0.13510D 06
0.19194D 06 0.39762D 06 0.26721D 07 0.34355D 06 0.84264D 06 0.11980D 06 0.31851D 06

QFTRIPON 0.26277D 05 0.11524D 05 0.15159D 06 0.52176D 06 0.23513D 06 0.43453D 06 0.23423D 06 0.30612D 06 0.25755D 05 0.36427D 07
0.22939D 07 0.11670D 06 0.17703D 06 0.43936D 06 0.12277D 06 0.62476D 07 0.17196D 06 0.46255D 06 0.36533D 06 0.12041D 06
0.87282D 06 0.25873D 05 0.11089D 07 0.41900D 06 0.43752D 07 0.67540D 05 0.13810D 06 0.50622D 06 0.50620D 06 0.15287D 06
0.21705D 06 0.43486D 06 0.29119D 07 0.37191D 06 0.93450D 06 0.13294D 06 0.35271D 06

QHTRIPON 0.79660D 04 0.31810D 04 0.40006D 05 0.14367D 06 0.66139D 05 0.12340D 06 0.65895D 05 0.78749D 05 0.76078D 04 0.97547D 06
0.62616D 06 0.31586D 05 0.50724D 05 0.12574D 06 0.31411D 05 0.18111D 07 0.47838D 05 0.13692D 06 0.98436D 05 0.31200D 05
0.22926D 06 0.68630D 04 0.30286D 06 0.10557D 06 0.11180D 07 0.15891D 05 0.40048D 05 0.12368D 06 0.16893D 06 0.53197D 05
0.54753D 05 0.12443D 06 0.81774D 06 0.11362D 06 0.31287D 06 0.44780D 05 0.99784D 05

QPTRIPON 0.10625D 05 0.50451D 04 0.90968D 05 0.31340D 06 0.13811D 06 0.26602D 06 0.13789D 06 0.18658D 06 0.10858D 05 0.22431D 07
0.13433D 07 0.59576D 05 0.10099D 06 0.25464D 06 0.68319D 05 0.38945D 07 0.10173D 06 0.27941D 06 0.21790D 06 0.68126D 05
0.51857D 06 0.12883D 05 0.65733D 06 0.24303D 06 0.25851D 07 0.37093D 05 0.76421D 05 0.29766D 06 0.31170D 06 0.98617D 05
0.12937D 06 0.26677D 06 0.17716D 07 0.23018D 06 0.61561D 06 0.82976D 05 0.21476D 06

QSTRIPON 0.21427D 05 0.87052D 04 0.98261D 05 0.33869D 06 0.15541D 06 0.27036D 06 0.15246D 06 0.19052D 06 0.19013D 05 0.23093D 07
0.14922D 07 0.82710D 05 0.11492D 06 0.28542D 06 0.79196D 05 0.39645D 07 0.11092D 06 0.29813D 06 0.23827D 06 0.78794D 05
0.54036D 06 0.17632D 05 0.70987D 06 0.27347D 06 0.28297D 07 0.43141D 05 0.10056D 06 0.34200D 06 0.34003D 06 0.10058D 06
0.13528D 06 0.27899D 06 0.18773D 07 0.25085D 06 0.60369D 06 0.89932D 05 0.23193D 06

QBVACATN 0.54756D 05 0.14739D 05 0.24788D 05 0.65850D 05 0.37090D 05 0.16279D 05 0.33764D 05 0.17390D 05 0.76123D 05 0.18641D 06
0.35619D 06 0.66138D 05 0.30534D 05 0.77562D 05 0.21854D 05 0.11947D 06 0.14107D 05 0.30937D 05 0.41015D 05 0.32665D 05
0.27579D 05 0.11164D 05 0.59742D 05 0.32727D 05 0.26724D 06 0.16536D 05 0.28342D 05 0.28708D 05 0.47923D 05 0.21006D 04
0.13883D 05 0.60152D 04 0.30231D 05 0.14208D 05 0.93269D 04 0.67571D 04 0.12325D 05

QCVACATN 0.21733D 06 0.67057D 05 0.66814D 05 0.19676D 06 0.16986D 06 0.51901D 05 0.10585D 06 0.51598D 05 0.12764D 06 0.92197D 06
0.21844D 07 0.41614D 06 0.21425D 06 0.47991D 06 0.20350D 06 0.11892D 07 0.83021D 05 0.16089D 06 0.19203D 06 0.16967D 06
0.85450D 05 0.12231D 06 0.44630D 06 0.32006D 06 0.33774D 07 0.13412D 06 0.44963D 06 0.52061D 06 0.44815D 06 0.17088D 05
0.13252D 06 0.10432D 06 0.39332D 06 0.23123D 06 0.12034D 06 0.96933D 05 0.13084D 06

QFVACATN 0.17540D 06 0.49118D 05 0.62327D 05 0.17910D 06 0.12026D 06 0.45783D 05 0.93861D 05 0.47477D 05 0.16065D 06 0.58654D 06
0.11706D 07 0.23849D 06 0.10944D 06 0.25193D 06 0.90033D 05 0.43115D 06 0.46552D 05 0.10188D 06 0.11938D 06 0.98778D 05
0.76045D 05 0.46193D 05 0.20967D 06 0.12439D 06 0.11524D 07 0.66304D 05 0.13868D 06 0.14680D 06 0.18608D 06 0.70750D 05
0.55571D 05 0.25168D 05 0.12056D 06 0.61374D 05 0.35112D 05 0.27693D 05 0.48393D 05

QHVACATN 0.14944D 05 0.36520D 04 0.67C32D 04 0.23442D 05 0.69150D 04 0.523C7D 04 0.10048D 05 0.45915D 04 0.31638D 05 0.37512D 05
0.538730 05 0.11273D 05 C.29059D 04 0.80948D 04 0.19144D 04 0.13100D 05 0.21136D 04 0.75055D 04 0.74935D 04 0.41026D 04
0.789220 04 0.73129D 03 0.86627D 04 0.28539D 04 0.31858D 05 0.24090D 04 0.24545D 04 0.30010D 04 0.68843D 04 0.19191D 03
0.136830 04 0.38685D 03 0.464C6D 04 0.13162D 04 0.87194D 03 0.63622D 03 0.10417D 04

QPVACATN 0.61321D 05 0.21969D 05 0.34404D 05 0.93050D 05 0.56621D 05 0.23083D 05 0.48059D 05 0.24889D 05 0.99501D 05 0.29790D 06
0.59960D 06 0.11032D 06 0.52417D 05 0.13199D 06 0.41062D 05 0.23840D 06 0.22974D 05 0.49513D 05 0.65582D 05 0.53336D 05
0.39167D 05 0.22603D 05 0.10648D 06 0.63749D 05 0.57057D 06 0.31458D 05 0.64831D 05 0.69672D 05 0.90966D 05 0.38333D 04
0.27510D 05 0.14380D 05 0.65175D 05 0.33597D 05 0.20625D 05 0.15027D 05 0.24688D 05

QSVACATN 0.92951D 05 0.23383D 05 0.42596D 05 0.11617D 06 0.66085D 05 0.27007D 05 0.62101D 05 0.32389D 05 0.14935D 06 0.34762D 06
0.69966D 06 0.12634D 06 0.60027D 05 0.16301D 06 0.45051D 05 0.23974D 06 0.26127D 05 0.51604D 05 0.84776D 05 0.70222D 05
0.56112D 05 0.26003D 05 0.12317D 06 0.77059D 05 0.51819D 06 0.35563D 05 0.53863D 05 0.60576D 05 0.72967D 05 0.38232D 04
0.31743D 05 0.13213D 05 0.62593D 05 0.31241D 05 0.19401D 05 0.13908D 05 0.27245D 05

FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1990 HIGH

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STATEWIDE TOTAL NOTRIPCN = 0.14012D 08

STATEWIDE TOTAL NOVACATN = 0.23780D 07

STATEWIDE TOTAL QBTRIPCN = 0.14698D 08

STATEWIDE TOTAL QCTRIPCN = 0.26586D 08

STATEWIDE TOTAL QFTRIPCN = 0.29636D 08

STATEWIDE TOTAL QHTRIPCN = 0.82354D 07

STATEWIDE TOTAL QPTRIPCN = 0.17941D 08

STATEWIDE TOTAL QSTRIPCN = 0.19075D 08

STATEWIDE TOTAL QBVACATN = 0.19325D 07

STATEWIDE TOTAL QCVACATN = 0.14400D 08

STATEWIDE TOTAL QFVACATN = 0.67063D 07

STATEWIDE TOTAL QHVACATN = 0.33425D 06

STATEWIDE TOTAL QPVACATN = 0.34103D 07

STATEWIDE TOTAL QSVACATN = 0.37529D 07

ADJUSTED FORECASTED VALUES OF ENDOGENOUS VARIABLES BY REGION FOR 1990 (CONT.)

QBTRIPON 0.47277D 04 0.30446D 04 0.68338D 05 0.24147D 06 0.10322D 06 0.20600D 06 0.10950D 06 0.14743D 06 0.84133D 0[illegible] 0.15[illegible] 07
0.10396D 07 0.44723D 05 0.82566D 05 0.20673D 06 0.53108D 05 0.29677D 07 0.82542D 05 0.21136D 0[illegible] 0.17[illegible] 0[illegible] 0.3[illegible] 05
0.40517D 06 0.98466D 04 0.51382D 06 0.19539D 06 0.18667D 07 0.26336D 05 0.44902D 05 0.21493D 06 0.14[illegible] 05 0.78656D 05
0.26683D 05 0.20313D 06 0.12985D 07 0.17082D 06 0.44899D 06 0.61309D 05 0.18917D 06

QCTRIPON 0.18201D 05 0.74283D 04 0.96507D 05 0.39919D 06 0.18244D 06 0.35084D 06 0.19270D 06 0.25312D 06 0.18702D 05 0.27122D 0[illegible]
0.18121D 07 0.94303D 05 0.37583D 05 0.35919D 06 0.10051D 06 0.52261D 07 0.14235D 06 0.37693D 06 0.29501D 06 0.98412D 05
0.71678D 06 0.20865D 05 0.91778D 06 0.35518D 06 0.37019D 07 0.56971D 05 0.13071D 06 0.44[illegible] 0[illegible] 0.37[illegible] 05 0.12[illegible] 0[illegible]
0.17908D 06 0.37098D 06 0.24930D 07 0.32053D 06 0.79619D 05 0.11177D 06 0.29717D 06

QETRIPON 0.19072D 05 0.90865D 04 0.13868D 06 0.48130D 06 0.19545D 06 0.4[illegible] 05 0.2[illegible] 0[illegible] 0.27[illegible] 06 0.24[illegible] 05 0.33[illegible] 0[illegible]
0.21633D 07 0.10779D 06 0.11604D 05 0.41405D 06 0.11683D 06 0.59252D 07 0.16336D 0[illegible] 0.33[illegible] 05 0.34[illegible] 0[illegible] 0.11[illegible] 05
0.82918D 06 0.24530D 05 0.10492D 07 0.39805D 06 0.41232D 07 0.63264D 05 0.12726D 06 0.47754D 06 0.47127D 05 0.14523D 06
0.20620D 06 0.41311D 06 0.27663D 07 0.35331D 06 0.88778D 06 0.12629D 06 0.33508D 06

QHTRIPON 0.48630D 04 0.22166D 04 0.29930D 05 0.12284D 06 0.54852D 05 0.10551D 06 0.56[illegible] 05 0.67331D 05 0.[illegible] 04 0.78899D 06
0.52733D 06 0.23144D 05 0.28927D 05 0.10751D 06 0.26[illegible] 05 0.13489D 07 0.40[illegible] 05 0.11[illegible] 0[illegible] 0.38[illegible] 05 0.26[illegible] 05
0.19602D 06 0.58679D 04 0.25894D 06 0.90263D 05 0.95203D 06 0.13[illegible] 05 0.34241D 05 0.10575D 0[illegible] 0.3[illegible] 05 0.45433D 05
0.46814D 05 0.10638D 06 0.69917D 06 0.97145D 05 0.26750D 06 0.38287D 05 0.85315D 05

QPTRIPON 0.88293D 04 0.43630D 04 0.71572D 05 0.27221D 06 0.98145D 05 0.24831D 06 0.12534D 06 0.16679D 06 0.10207D 05 0.18597D 07
0.12235D 07 0.55330D 05 0.47467D 05 0.23936D 06 0.64220D 05 0.36316D 07 0.95622D 05 0.24583D 06 0.20483D 06 0.64039D 05
0.48746D 06 0.12110D 05 0.61789D 06 0.22844D 06 0.23206D 07 0.34867D 05 0.70471D 05 0.26497D 06 0.26956D 05 0.61831D 05
0.12160D 06 0.25076D 06 0.16654D 07 0.21637D 06 0.57867D 06 0.77997D 05 0.20188D 06

QSTRIPON 0.16253D 05 0.42181D 04 0.47932D 05 0.27536D 06 0.11384D 06 0.21980D 06 0.12085D 06 0.15489D 06 0.15458D 05 0.16747D 07
0.11840D 07 0.64957D 05 0.93431D 05 0.23204D 06 0.64387D 05 0.32231D 07 0.90181D 05 0.23486D 06 0.19372D 06 0.64060D 05
0.43931D 06 0.14335D 05 0.56039D 06 0.22233D 06 0.22637D 07 0.35073D 05 0.81757D 05 0.27805D 06 0.26262D 05 0.54540D 05
0.10999D 06 0.21729D 06 0.15263D 07 0.20394D 06 0.49080D 06 0.73115D 05 0.18856D 06

QBVACATN 0.38944D 05 0.95686D 04 0.22215D 05 0.63707D 05 0.30940D 05 0.16965D 05 0.21880D 05 0.19981D 05 0.62450D 05 0.15871D 06
0.28894D 06 0.44911D 05 0.17542D 05 0.66572D 05 0.25110D 05 0.12094D 06 0.10244D 05 0.25878D 05 0.74459D 04 0.34267D 05
0.31688D 05 0.12828D 05 0.40706D 05 0.18801D 05 0.21740D 06 0.19000D 05 0.20581D 05 0.31897D 05 0.58368D 04 0.20105D 04
0.14675D 05 0.41469D 04 0.11984D 05 0.16326D 05 0.10717D 05 0.77639D 04 0.14161D 05

QCVACATN 0.94877D 05 0.18872D 05 0.30056D 05 0.56465D 05 0.58720D 05 0.42842D 05 0.65093D 05 0.35160D 05 0.11172D 06 0.41577D 06
0.11860D 07 0.16553D 06 0.68844D 05 0.16112D 06 0.12153D 06 0.10119D 07 0.68990D 05 0.86635D 05 0.11298D 06 0.12069D 06
0.47339D 05 0.13552D 06 0.13896D 06 0.15852D 06 0.24212D 07 0.13998D 06 0.36318D 06 0.49089D 06 0.88882D 05 0.18933D 05
0.14683D 06 0.57792D 05 0.37392D 06 0.96077D 05 0.13334D 06 0.63152D 05 0.90610D 05

QFVACATN 0.70338D 05 0.20081D 05 0.43930D 05 0.97628D 05 0.64611D 05 0.43468D 05 0.61962D 05 0.34683D 05 0.15235D 06 0.36034D 06
0.85780D 06 0.11348D 06 0.28239D 05 0.19811D 06 0.79850D 05 0.40309D 06 0.33227D 05 0.77610D 05 0.94940D 05 0.73593D 05
0.65490D 05 0.42517D 05 0.15434D 06 0.10143D 06 0.77623D 06 0.69100D 05 0.13043D 06 0.79853D 05 0.10185D 05 0.79027D 04
0.62073D 05 0.12791D 05 0.96552D 05 0.14328D 05 0.39220D 05 0.12899D 05 0.44379D 05

QHVACATN 0.29335D 04 0.14690D 04 0.77008D 04 0.33532D 05 0.24700D 04 0.32402D 04 0.87138D 04 0.73877D 04 0.32529D 05 0.47984D 05
0.59377D 05 0.10212D 05 0.25997D 04 0.11983D 05 0.16141D 04 0.14817D 05 0.22683D 04 0.10084D 05 0.77527D 04 0.66011D 04
0.12699D 05 0.11766D 04 0.98265D 04 0.45919D 04 0.44493D 05 0.38761D 04 0.39018D 04 0.46693D 04 0.12295D 04 0.30879D 03
0.22016D 04 0.52409D 03 0.74667D 04 0.61837D 03 0.14030D 04 0.10237D 04 0.16761D 04

QPVACATN 0.33609D 05 0.99630D 04 0.18715D 05 0.51969D 05 0.20492D 05 0.20214D 05 0.26465D 05 0.11927D 05 0.18561D 05 0.10848D 06
0.45811D 06 0.41035D 05 0.38058D 05 0.[illegible]981C0 05 0.45866D 05 0.20398D 06 0.23327D 05 0.29257D 05 0.91570D 04 0.99493D 04
0.83561D 04 0.25248D 05 0.56022D 05 0.71207D 05 0.34479D 06 0.35139D 05 0.11876D 05 0.25059D 05 0.21846D 05 0.42818D 04
0.30728D 05 0.96378D 04 0.54965D 05 0.83312D 04 0.23038D 05 0.89468D 04 0.13788D 05

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QSVACATN  0.60864D 05 0.17448D 05 0.38611D 05 0.12712D 06 0.53532D 05 0.29045D 05 0.56447D 05 0.40551D 05 0.17894D 06 0.29900D 06
          0.62633D 06 0.68808D 05 0.16684D 05 0.13164D 06 0.13424D 05 0.25273D 06 0.19332D 05 0.49684D 05 0.89370D 05 0.83698D 05
          0.68848D 05 0.20347D 05 0.82193D 05 0.74288D 05 0.47490D 06 0.42566D 15 0.55366D 05 0.60370D 05 0.36085D 05 0.23933D 04
          0.34655D 05 0.67492D 04 0.57050D 05 0.33090D 05 0.12145D 05 0.64426D 04 0.34.11D 05
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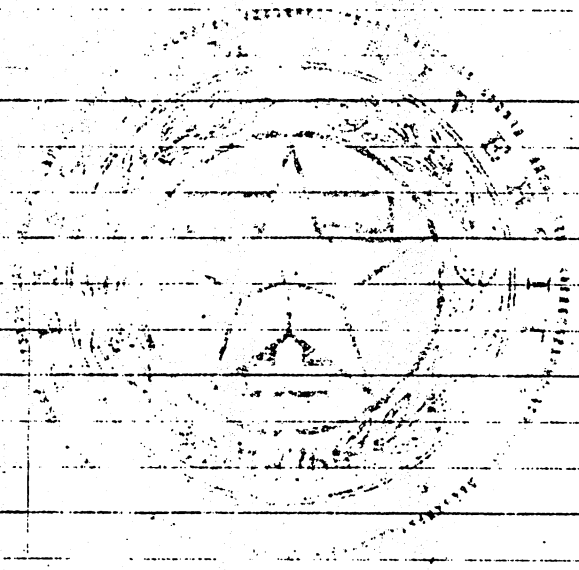

JUSTED FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1990 HIGH

TATEWIDE TOTAL QBTRIPON = 0.13298D 08

TATEWIDE TOTAL QCTRIPON = 0.23825D 08

TATEWIDE TOTAL QFTRIPON = 0.27300D 08

TATEWIDE TOTAL QHTRIPON = 0.68488D 07

TATEWIDE TOTAL QPTRIPON = 0.15976D 08

TATEWIDE TOTAL QSTRIPON = 0.14874D 08

TATEWIDE TOTAL QBVACATN = 0.15677D 07

TATEWIDE TOTAL QCVACATN = 0.89989D 07

TATEWIDE TOTAL QFVACATN = 0.46291D 07

TATEWIDE TOTAL QHVACATN = 0.37695D 06

TATEWIDE TOTAL QPVACATN = 0.20322D 07

TATEWIDE TOTAL QSVACATN = 0.33549D 07

FORECASTED VALUES OF ENDOGENOUS VARIABLES FOR BY REGION FOR 2000 LOW

NOTRIPON	0.80379D 04	0.53844D 04	0.83215D 05	0.33269D 06	0.15572D 06	0.27698D 06	0.15228D 06	0.13054D 06	0.32895D 05	0.27742D 07		
	0.19250D 07	0.10219D 06	0.14942D 06	0.35609D 06	0.10065D 06	0.36127D 07	0.33548D 05	0.27178D 06	0.25671D 06	0.[illegible]8599D 05		
	0.33399D 06	0.30290D 05	0.62019D 06	0.27534D 06	0.40445D 07	0.25839D 05	0.17355D 06	0.20595D 06	0.27064D 06	0.[illegible]1088D 05		
	0.70859D 05	0.25338D 06	0.15693D 07	0.89651D 05	0.24717D 06	0.10203D 06	0.96344D 05					
NOVACATN	0.58643D 05	0.13730D 05	0.16930D 05	0.58607D 05	0.35376D 05	0.13642D 05	0.22526D 05	0.10197D 05	0.32867D 05	0.241510 06		
	0.55180D 06	0.89737D 05	0.39276D 05	0.93615D 05	0.39387D 05	0.27284D 06	0.14095D 05	0.36329D 05	0.45599D 05	0.29266D 05		
	0.25272D 05	0.21332D 05	0.99640D 05	0.60327D 05	0.78606D 06	0.32411D 05	0.82626D 05	0.10457D 06	0.85155D 05	0.302909 04		
	0.22852D 05	0.17395D 05	0.81057D 05	0.30940D 05	0.24795D 05	0.18323D 05	0.23679D 05					
QBTRIPON	0.51732D 04	0.49233D 04	0.94598D 05	0.36352D 06	0.18022D 06	0.31270D 06	0.17079D 06	0.15204D 06	0.37558D 05	0.20549D 07		
	0.21267D 07	0.10179D 06	0.17386D 06	0.41838D 06	0.11100D 06	0.40726D 07	0.38450D 05	0.23108D 06	0.29702D 06	0.[illegible]D 05		
	0.38130D 06	0.32259D 05	0.68893D 06	0.31494D 06	0.42698D 07	0.25634D 05	0.17500D 06	0.20378D 06	0.28567D 06	0.20757D 06		
	0.77262D 05	0.28061D 06	0.16398D 07	0.94802D 05	0.27241D 06	0.11032D 06	0.10850D 06					
QCTRIPON	0.14609D 05	0.95580D 04	0.14867D 06	0.59499D 06	0.28427D 06	0.49594D 06	0.27594D 06	0.24249D 06	0.63152D 05	0.50418D 07		
	0.35064D 07	0.19235D 06	0.27439D 06	0.66508D 06	0.18991D 06	0.65824D 07	0.61530D 05	0.48764D 06	0.47221D 06	0.[illegible]9530 06		
	0.61417D 06	0.58119D 05	0.11437D 07	0.52406D 06	0.75683D 07	0.49707D 05	0.33462D 06	0.39114D 06	0.48299D 06	0.32174D 05		
	0.13018D 06	0.47173D 06	0.29167D 07	0.16552D 06	0.44428D 06	0.18209D 06	0.17770D 06					
QFTRIPON	0.20707D 05	0.12030D 05	0.17079D 06	0.68049D 06	0.32606D 06	0.57087D 06	0.31770D 06	0.27774D 06	0.75098D 05	0.58035D 07		
	0.40381D 07	0.22016D 06	0.32116D 06	0.76851D 06	0.21871D 06	0.74302D 07	0.70512D 05	0.54920D 06	0.54117D 06	0.[illegible]3810D 06		
	0.70662D 06	0.67202D 05	0.12922D 07	0.58411D 06	0.84121D 07	0.56011D 05	0.36245D 06	0.42729D 06	0.53802D 06	0.36289D 05		
	0.14922D 06	0.52306D 06	0.32139D 07	0.18160D 06	0.49800D 06	0.20426D 06	0.19908D 06					
QHTRIPON	0.86000D 04	0.35941D 04	0.50014D 05	0.20613D 06	0.99777D 05	0.18041D 06	0.96156D 05	0.75008D 05	0.21512D 05	0.17042D 07		
	0.12279D 07	0.60135D 05	0.99525D 05	0.24014D 06	0.61708D 05	0.24237D 07	0.21932D 05	0.17898D 06	0.16061D 06	0.39307D 05		
	0.20712D 06	0.18191D 05	0.39345D 06	0.16770D 06	0.24484D 07	0.16260D 05	0.11078D 06	0.10933D 06	0.19641D 06	0.13344D 05		
	0.43596D 05	0.16753D 06	0.10045D 07	0.59482D 05	0.17145D 06	0.78622D 05	0.59385D 05					
QPTRIPON	0.64369D 04	0.55516D 04	0.10298D 06	0.41071D 06	0.19364D 06	0.35007D 06	0.18981D 06	0.17016D 06	0.40039D 05	0.35622D 07		
	0.23773D 07	0.11868D 06	0.18703D 06	0.45300D 06	0.12379D 06	0.46109D 07	0.40359D 05	0.33283D 06	0.32437D 06	0.79246D 05		
	0.41617D 06	0.36205D 05	0.76504D 06	0.33966D 06	0.49826D 07	0.29540D 05	0.21036D 06	0.24797D 06	0.33148D 06	0.224290 05		
	0.87760D 05	0.32107D 06	0.19492D 07	0.11112D 06	0.32497D 06	0.12826D 06	0.11948D 06					
QSTRIPON	0.20659D 05	0.93193D 04	0.11570D 06	0.45967D 06	0.22017D 06	0.36924D 06	0.21054D 06	0.17683D 06	0.51609D 05	0.37946D 07		
	0.27121D 07	0.15230D 06	0.20973D 06	0.50515D 06	0.14367D 06	0.49894D 07	0.48089D 05	0.36721D 06	0.36264D 06	0.93029D 05		
	0.46805D 06	0.43918D 05	0.86850D 06	0.39650D 06	0.56309D 07	0.40290D 05	0.25732D 06	0.30521D 06	0.37511D 06	0.25199D 05		
	0.10134D 06	0.34977D 06	0.21625D 07	0.12973D 06	0.34242D 06	0.14385D 06	0.13933D 06					
QBVACATN	0.46725D 05	0.98631D 04	0.20022D 05	0.59966D 05	0.27739D 05	0.12835D 05	0.23522D 05	0.11371D 05	0.67476D 05	0.16771D 06		
	0.32399D 06	0.51960D 05	0.23367D 05	0.59846D 05	0.16378D 05	0.84994D 05	0.12068D 05	0.23237D 05	0.30039D 05	0.19748D 05		
	0.13504D 05	0.80988D 04	0.40150D 05	0.23092D 05	0.18951D 06	0.94203D 04	0.18201D 05	0.16995D 05	0.33777D 05	0.140400 04		
	0.58366D 04	0.37523D 04	0.21365D 05	0.67156D 04	0.58181D 04	0.48785D 04	0.77551D 04					
QCVACATN	0.39152D 06	0.90770D 05	0.10847D 06	0.36163D 06	0.23842D 06	0.86180D 05	0.14040D 06	0.65472D 05	0.17728D 06	0.16276D 07		
	0.39275D 07	0.64200D 06	0.29375D 06	0.70818D 06	0.31559D 06	0.22871D 07	0.94530D 05	0.25022D 06	0.32452D 06	0.21899D 06		
	0.19148D 06	0.17955D 06	0.77251D 06	0.50984D 06	0.64762D 07	0.27489D 06	0.71124D 06	0.91277D 06	0.65020D 06	0.24580D 05		
	0.20607D 06	0.15798D 06	0.64906D 06	0.27095D 06	0.21955D 06	0.15371D 06	0.20164D 06					
QFVACATN	0.17606D 06	0.38488D 05	0.56768D 05	0.18507D 06	0.10361D 06	0.41515D 05	0.74256D 05	0.35929D 05	0.15231D 06	0.60879D 06		
	0.12368D 07	0.22396D 06	0.96060D 05	0.22035D 06	0.81932D 05	0.37919D 06	0.40390D 05	0.89015D 05	0.10613D 06	0.71382D 05		
	0.55387D 05	0.40966D 05	0.18125D 06	0.10807D 06	0.10904D 07	0.55030D 05	0.11869D 06	0.13086D 06	0.15336D 06	0.56364D 04		
	0.34159D 05	0.20251D 05	0.10552D 06	0.38539D 05	0.30293D 05	0.24279D 05	0.38727D 05					

QHVACATN 0.40744D 04 0.928790 03 0.176480 04 0.72414D 04 0.198340 04 0.13105D 04 0.25459D 04 0.10409D 04 0.13144D 05 0.119210 05
0.16556D 05 0.323330 04 0.788C0D 03 0.204940 04 0.416900 03 0.17022D 04 0.93151D 03 0.18300D 04 0.15404D 04 0.708180 03
0.48102D 03 0.150700 03 0.14171D 04 0.50312D 03 0.537470 04 0.20491D 03 0.385840 03 0.39295D 03 0.151030 04 0.339810 02
0.54440D 02 0.40646D 02 0.96754D 03 0.13118D 03 0.81827D 02 0.11653D 03 0.12540D 03

QPVACATN 0.790320 05 0.166530 05 0.309780 05 0.94803D 05 0.47163D 05 0.20558D 05 0.37073D 05 0.18136D 05 0.926390 05 0.303310 06
0.623110 06 0.998780 05 0.448950 05 0.11568D 06 0.36317D 05 0.22197D 06 0.20443D 05 0.42806D 05 0.56578D 05 0.373710 05
0.265460 05 0.193540 05 0.891740 05 0.54992D 05 0.537550 06 0.24839D 05 0.54530D 05 0.59939D 05 0.76094D 05 0.307760 04
0.167590 05 0.118120 05 0.587120 05 0.21031D 05 0.177760 05 0.136000 05 0.197170 05

QSVACATN 0.67821D 05 0.120700 05 0.319250 05 0.957100 05 0.416000 05 0.179870 05 0.392100 05 0.19852D 05 0.130120 06 0.267450 06
0.538070 06 0.827600 05 0.390760 05 0.112690 06 0.267130 05 0.118280 06 0.210060 05 0.29724D 05 0.554280 05 0.391370 05
0.245210 05 0.151870 05 0.631320 05 0.459810 05 0.164090 06 0.143700 05 0.152010 05 0.12012D 05 0.307060 05 0.210550 04
0.993790 04 0.465230 04 0.261500 05 0.875260 04 0.687240 04 0.601340 04 0.136380 05

FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 2000 LDS

STATEWIDE TOTAL NOTRIPON = 0.19251D 08

STATEWIDE TOTAL NOVACATN = 0.32356D 07

STATEWIDE TOTAL QBTRIPON = 0.21065D 08

STATEWIDE TOTAL QCTRIPON = 0.35410D 08

STATEWIDE TOTAL QFTRIPON = 0.40003D 08

STATEWIDE TOTAL QHTRIPON = 0.12225D 08

STATEWIDE TOTAL QPTRIPON = 0.24102D 08

STATEWIDE TOTAL QSTRIPON = 0.26792D 08

STATEWIDE TOTAL QBVACATN = 0.15031D 07

STATEWIDE TOTAL QCVACATN = 0.24912D 08

STATEWIDE TOTAL QFVACATN = 0.62554D 07

STATEWIDE TOTAL QHVACATN = 0.87483D 05

STATEWIDE TOTAL QPVACATN = 0.31449D 07

STATEWIDE TOTAL QSVACATN = 0.22499D 07

ADJUSTED FORECASTED VALUES OF ENDOGENOUS VARIABLES BY REGION FOR 2000 LOW

QBTRIPON 0.34798D 04 0.38622D 04 0.82514D 05 0.33589D 06 0.15271D 06 0.28894D 06 0.15781D 06 0.14049D 06 0.34684D 05 0.27973D 07
0.19651D 07 0.94050D 05 0.16065D 06 0.38659D 06 0.10256D 06 0.37631D 07 0.35528D 05 0.26789D 06 0.27445D 06 0.69606D 05
0.35232D 06 0.29867D 05 0.63657D 06 0.29100D 06 0.38979D 07 0.23686D 05 0.13324D 06 0.18830D 06 0.16688D 05 0.19179D 05
0.71390D 05 0.25928D 06 0.15152D 07 0.87597D 05 0.25171D 06 0.10193D 06 0.10026D 06

QCTRIPON 0.12907D 05 0.76870D 04 0.10750D 06 0.51460D 06 0.24958D 06 0.45484D 06 0.25745D 06 0.22624D 06 0.58921D 05 0.42571D 07
0.31537D 07 0.17695D 06 0.67330D 05 0.62052D 06 0.17719D 06 0.61414D 07 0.57409D 05 0.44225D 06 0.43044D 06 0.11152D 06
0.57302D 06 0.54225D 05 0.10554D 07 0.48895D 06 0.70188D 07 0.46377D 05 0.31220D 06 0.36494D 06 0.39205D 05 0.30019D 05
0.12146D 06 0.44012D 06 0.27213D 07 0.15443D 06 0.41451D 06 0.16989D 06 0.16580D 06

QFTRIPON 0.15029D 05 0.94857D 04 0.15625D 06 0.62772D 06 0.27104D 06 0.54233D 06 0.29880D 06 0.24803D 06 0.72198D 05 0.53204D 07
0.38093D 07 0.20372D 06 0.21052D 06 0.72425D 06 0.20778D 06 0.70586D 07 0.66987D 05 0.52122D 06 0.51411D 06 0.13119D 06
0.71129D 06 0.63841D 05 0.12227D 07 0.55491D 06 0.79275D 07 0.52466D 05 0.33400D 06 0.40309D 06 0.50089D 05 0.34475D 05
0.14175D 06 0.49691D 06 0.30532D 07 0.17252D 06 0.47310D 06 0.19404D 06 0.18912D 06

QHTRIPON 0.52500D 04 0.25044D 04 0.37417D 05 0.17624D 06 0.82750D 05 0.15425D 06 0.82214D 05 0.64132D 05 0.18393D 05 0.13734D 07
0.10341D 07 0.44063D 05 0.56758D 05 0.20532D 06 0.52760D 05 0.20722D 07 0.18752D 05 0.15227D 06 0.13732D 06 0.33608D 05
0.17709D 06 0.15553D 05 0.33640D 06 0.14338D 06 0.20850D 07 0.13902D 05 0.94717D 05 0.93476D 05 0.41982D 05 0.11409D 05
0.37275D 05 0.14324D 06 0.85882D 06 0.50857D 05 0.14659D 06 0.67222D 05 0.50774D 05

QPTRIPON 0.53488D 04 0.48010D 04 0.81020D 05 0.35673D 06 0.13761D 06 0.32676D 06 0.17253D 06 0.15212D 06 0.37637D 05 0.29533D 07
0.21654D 07 0.11022D 06 0.87905D 05 0.42582D 06 0.11636D 06 0.42996D 07 0.37938D 05 0.29283D 06 0.30491D 06 0.74491D 05
0.39120D 06 0.34033D 05 0.71914D 06 0.31928D 06 0.44728D 07 0.27768D 05 0.19398D 06 0.22074D 06 0.28666D 05 0.14062D 05
0.82495D 05 0.30180D 06 0.18322D 07 0.10446D 06 0.30548D 06 0.12057D 06 0.11231D 06

QSTRIPON 0.15670D 05 0.45156D 04 0.56441D 05 0.37371D 06 0.16128D 06 0.30019D 06 0.16689D 06 0.14376D 06 0.41958D 05 0.27519D 07
0.21520D 07 0.11961D 06 0.17051D 06 0.41068D 06 0.11680D 06 0.40564D 07 0.39096D 05 0.28929D 06 0.29482D 06 0.75633D 05
0.38052D 06 0.35706D 05 0.68561D 06 0.32235D 06 0.45047D 07 0.32755D 05 0.20920D 06 0.24814D 06 0.28971D 05 0.13665D 05
0.82393D 05 0.27242D 06 0.17581D 07 0.10547D 06 0.27839D 06 0.11695D 06 0.11328D 06

QBVACATN 0.33232D 05 0.64030D 04 0.17944D 05 0.58015D 05 0.23140D 05 0.13376D 05 0.15243D 05 0.13065D 05 0.55356D 05 0.14279D 06
0.26282D 06 0.35284D 05 0.13424D 05 0.51366D 05 0.18818D 05 0.86036D 05 0.87633D 04 0.19437D 05 0.54533D 04 0.20717D 05
0.15516D 05 0.93056D 04 0.27357D 05 0.13266D 05 0.15417D 06 0.10824D 05 0.13217D 05 0.18882D 05 0.41139D 04 0.13438D 04
0.61697D 04 0.25868D 04 0.84693D 04 0.77162D 04 0.66851D 04 0.56054D 04 0.89106D 04

QCVACATN 0.17092D 06 0.25546D 05 0.48793D 05 0.10378D 06 0.82420D 05 0.71138D 05 0.86340D 05 0.44614D 05 0.15518D 06 0.73396D 06
0.21323D 07 0.25537D 06 0.94387D 05 0.23775D 06 0.18847D 06 0.19462D 07 0.78554D 05 0.13474D 06 0.19093D 06 0.15578D 06
0.10608D 06 0.19895D 06 0.24052D 06 0.25251D 06 0.46427D 07 0.28691D 06 0.57449D 06 0.86066D 06 0.12896D 06 0.27234D 05
0.22832D 06 0.87518D 05 0.61703D 06 0.11258D 06 0.24326D 06 0.10014D 06 0.13964D 06

QFVACATN 0.70601D 05 0.15735D 05 0.40012D 05 0.10088D 06 0.55665D 05 0.39417D 05 0.49020D 05 0.26247D 05 0.14445D 06 0.37401D 06
0.90629D 06 0.10657D 06 0.24770D 05 0.17800D 06 0.72665D 05 0.35451D 06 0.28829D 05 0.67811D 05 0.84408D 05 0.53182D 05
0.47700D 05 0.37706D 05 0.13342D 06 0.88120D 05 0.73441D 06 0.57350D 05 0.11163D 06 0.71184D 05 0.83938D 04 0.62959D 04
0.38156D 05 0.10292D 05 0.84510D 05 0.89972D 04 0.33837D 05 0.11309D 05 0.35515D 05

QHVACATN 0.79980D 03 0.33338D 03 0.20274D 04 0.10358D 05 0.67274D 03 0.81181D 03 0.22079D 04 0.16747D 04 0.13514D 05 0.15248D 05
0.18248D 05 0.29289D 04 0.70495D 03 0.30337D 04 0.35150D 03 0.19254D 04 0.99970D 03 0.24586D 04 0.15937D 04 0.11395D 04
0.77396D 03 0.24247D 03 0.16074D 04 0.80953D 03 0.75064D 04 0.32970D 03 0.61337D 03 0.61139D 03 0.26974D 03 0.54676D 02
0.87595D 02 0.54280D 02 0.15568D 04 0.61634D 02 0.13166D 03 0.18750D 03 0.20177D 03

QPVACATN 0.32663D 05 0.75524D 04 0.16851D 05 0.52947D 05 0.17069D 05 0.18004D 05 0.20415D 05 0.86904D 04 0.17281D 05 0.11045D 06
0.47608D 06 0.37151D 05 0.32596D 05 0.87475D 05 0.40566D 05 0.18992D 06 0.20757D 05 0.25294D 05 0.78997D 04 0.69712D 04
0.56635D 04 0.21619D 05 0.46915D 05 0.61426D 05 0.32484D 06 0.27746D 05 0.99892D 04 0.21559D 05 0.18274D 05 0.34377D 04
0.18719D 05 0.79161D 04 0.49514D 05 0.52152D 04 0.19856D 05 0.80968D 04 0.11012D 05

[illegible] 0.44409D 05 0.90067D 04 0.2[illegible] [illegible]
0.48167D [illegible] 0.45973D 05 0.10881D 05 0.5[illegible] 05 0.7[illegible] 04 0.1[illegible] 06 0.1[illegible] 05 0.[illegible]
0.30086D 05 0.11884D 05 0.42129D 05 0.64328D 05 0.15038D 06 0.17200D 05 0.15625D 05 0.11971D 05 0.15185D 05 0.13[illegible] 05
0.10850D 05 0.23765D 04 0.23835D 05 0.92707D 04 0.43022D 04 0.27857D 04 0.17075D 05

ADJUSTED FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 2000 LOW

STATEWIDE TOTAL QBTRIPON = 0.19093D 08

STATEWIDE TOTAL QCTRIPON = 0.31696D 08

STATEWIDE TOTAL QFTRIPON = 0.36855D 08

STATEWIDE TOTAL QHTRIPON = 0.10176D 08

STATEWIDE TOTAL QPTRIPON = 0.21424D 08

STATEWIDE TOTAL QSTRIPON = 0.20930D 08

STATEWIDE TOTAL QBVACATN = 0.12148D 07

STATEWIDE TOTAL QCVACATN = 0.15785D 08

STATEWIDE TOTAL QFVACATN = 0.43119D 07

STATEWIDE TOTAL QHVACATN = 0.96132D 05

STATEWIDE TOTAL QPVACATN = 0.18884D 07

STATEWIDE TOTAL QSVACATN = 0.20077D 07

FORECASTED VALUES OF ENDOGENOUS VARIABLES FOR BY REGION FOR 2000 MEDIUM

NOTRIPON	0.11520D 05	0.65778D 04	0.95366D 05	0.38351D 06	0.17293D 06	0.31281D 06	0.17098D 06	0.14497D 06	0.34207D 05	0.29670D 07
	0.20490D 07	0.10961D 06	0.16211D 06	0.37855D 06	0.10696D 06	0.41489D 07	0.37979D 05	0.30834D 06	0.25838D 06	0.67954D 05
	0.34835D 06	0.30595D 05	0.67248D 06	0.31386D 06	0.40227D 07	0.26406D 05	0.15221D 06	0.19681D 06	0.31785D 06	0.20562D 05
	0.78581D 05	0.30627D 06	0.19938D 07	0.11243D 06	0.30975D 06	0.11852D 06	0.11433D 06			
NOVACATN	0.55462D 05	0.12986D 05	0.15984D 05	0.55413D 05	0.33399D 05	0.12894D 05	0.21306D 05	0.97023D 04	0.31115D 05	0.22883D 06
	0.52214D 06	0.85378D 05	0.37645D 05	0.89621D 05	0.37435D 05	0.25979D 06	0.13353D 05	0.34579D 05	0.42063D 05	0.27215D 05
	0.23813D 05	0.20327D 05	0.94510D 05	0.57015D 05	0.75008D 06	0.30759D 05	0.78411D 05	0.99294D 05	0.81130D 05	0.28685D 04
	0.21722D 05	0.16572D 05	0.77244D 05	0.29578D 05	0.23484D 05	0.17427D 05	0.22631D 05			
QBTRIPON	0.82766D 04	0.59819D 04	0.10647D 06	0.41188D 06	0.19682D 06	0.34707D 06	0.18860D 06	0.16607D 06	0.38326D 05	0.32265D 07
	0.22301D 07	0.10782D 06	0.18562D 06	0.43853D 06	0.11610D 06	0.46003D 07	0.42753D 05	0.32435D 06	0.29341D 06	0.78577D 05
	0.29114D 06	0.32028D 05	0.73542D 06	0.35321D 06	0.41616D 07	0.25628D 05	0.14992D 06	0.19128D 06	0.33112D 06	0.23141D 05
	0.84267D 05	0.33367D 06	0.20517D 07	0.11656D 06	0.33428D 06	0.12590D 06	0.12658D 06			
QCTRIPON	0.21901D 05	0.12042D 05	0.17364D 06	0.69881D 06	0.32168D 06	0.57002D 06	0.31537D 06	0.27353D 06	0.66972D 05	0.54691D 07
	0.38018D 07	0.21037D 06	0.30283D 06	0.71894D 06	0.20584D 06	0.76945D 07	0.70987D 05	0.56330D 06	0.48501D 06	0.12994D 06
	0.65224D 06	0.59900D 05	0.12620D 07	0.60885D 06	0.76594D 07	0.51968D 05	0.30099D 06	0.38060D 06	0.57804D 06	0.37224D 05
	0.14704D 06	0.58088D 06	0.37739D 07	0.21221D 06	0.56922D 06	0.21541D 06	0.21469D 06			
QFTRIPON	0.28330D 05	0.14674D 05	0.19791D 06	0.79323D 06	0.36587D 06	0.65171D 06	0.36030D 06	0.31100D 06	0.79404D 05	0.62692D 07
	0.43394D 07	0.23786D 06	0.35137D 06	0.82361D 06	0.23495D 06	0.86292D 07	0.80555D 05	0.62976D 06	0.55120D 06	0.14874D 06
	0.74481D 06	0.68529D 05	0.14151D 07	0.67369D 06	0.84464D 07	0.57919D 05	0.32244D 06	0.41264D 06	0.63876D 06	0.41666D 05
	0.16721D 06	0.64008D 06	0.41349D 07	0.23074D 06	0.63427D 06	0.23988D 06	0.23882D 06			
QHTRIPON	0.91547D 04	0.37754D 04	0.52789D 05	0.21911D 06	0.10215D 06	0.18906D 06	0.10000D 06	0.77854D 05	0.20630D 05	0.16913D 07
	0.12093D 07	0.59241D 05	0.10031D 06	0.23775D 06	0.60367D 05	0.25805D 07	0.22796D 05	0.18799D 06	0.14883D 06	0.35237D 05
	0.20038D 06	0.16977D 05	0.39600D 06	0.17588D 06	0.22714D 07	0.15224D 05	0.89487D 05	0.97691D 05	0.21207D 06	0.13034D 05
	0.44652D 05	0.18694D 06	0.11790D 07	0.67287D 05	0.19550D 06	0.04171D 05	0.65033D 05			
QPTRIPON	0.11055D 05	0.71305D 04	0.12010D 06	0.48191D 06	0.21877D 06	0.40139D 06	0.21653D 06	0.19123D 06	0.42316D 05	0.38772D 07
	0.25722D 07	0.12991D 06	0.20631D 06	0.48863D 06	0.13444D 06	0.53809D 07	0.46516D 05	0.38351D 06	0.32876D 06	0.85700D 05
	0.44046D 06	0.37400D 05	0.83979D 06	0.39478D 06	0.50529D 07	0.30894D 05	0.18653D 06	0.24014D 06	0.39703D 05	0.25876D 05
	0.98972D 05	0.39568D 06	0.25247D 07	0.14249D 06	0.41794D 06	0.15163D 06	0.14438D 06			
QSTRIPON	0.25088D 05	0.10808D 05	0.13107D 06	0.52384D 06	0.24193D 06	0.41376D 06	0.23425D 06	0.19532D 06	0.53157D 05	0.40330D 0
	0.28605D 07	0.16132D 06	0.22580D 06	0.53296D 06	0.15098D 06	0.56817D 07	0.53764D 05	0.41307D 06	0.36258D 06	0.97774D 05
	0.48457D 06	0.44085D 05	0.93444D 06	0.44670D 06	0.55754D 07	0.40741D 05	0.22496D 06	0.29009D 06	0.43804D 06	0.28355D 05
	0.11120D 06	0.41885D 06	0.27217D 07	0.16005D 06	0.42355D 06	0.16533D 06	0.16339D 06			
QBVACATN	0.48956D 05	0.10362D 05	0.20883D 05	0.62371D 05	0.29222D 05	0.13395D 05	0.24515D 05	0.11725D 05	0.71034D 05	0.17689D 06
	0.34437D 06	0.54273D 05	0.23953D 05	0.61603D 05	0.17190D 05	0.89399D 05	0.12586D 05	0.24377D 05	0.38905D 05	0.21901D 05
	0.14579D 05	0.85113D 04	0.42740D 05	0.24785D 05	0.20322D 06	0.10165D 05	0.19767D 05	0.19272D 05	0.35099D 05	0.14060D 04
	0.62863D 04	0.39683D 04	0.22252D 05	0.68614D 04	0.62038D 04	0.51606D 04	0.80203D 04			
QCVACATN	0.33828D 06	0.78396D 05	0.93088D 05	0.31077D 06	0.20522D 06	0.74102D 05	0.12086D 06	0.57312D 05	0.15152D 06	0.14137D 07
	0.34095D 07	0.56477D 06	0.26342D 06	0.63354D 06	0.27801D 06	0.20262D 07	0.82027D 05	0.21696D 06	0.26458D 06	0.18281D 06
	0.16499D 06	0.15936D 06	0.67657D 06	0.44415D 06	0.57650D 07	0.24178D 06	0.62483D 06	0.80506D 06	0.57523D 06	0.21484D 05
	0.18222D 06	0.14039D 06	0.57524D 06	0.24224D 06	0.19238D 06	0.13582D 06	0.18024D 06			
QFVACATN	0.17939D 06	0.39241D 05	0.57818D 05	0.18849D 06	0.10574D 06	0.42246D 05	0.75465D 05	0.36328D 05	0.15503D 06	0.32316D 06
	0.12698D 07	0.22844D 06	0.97266D 05	0.22917D 06	0.84092D 05	0.38648D 06	0.41051D 05	0.90768D 05	0.10991D 06	0.74251D 05
	0.57030D 05	0.42042D 05	0.18369D 06	0.11090D 06	0.11240D 07	0.56783D 05	0.12276D 06	0.13624D 06	0.15640D 06	0.57721D 04
	0.34991D 05	0.20743D 05	0.10699D 06	0.39144D 05	0.31490D 05	0.24895D 05	0.39198D 05			

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QHVACATN  0.66851D 04 0.13655D 04 0.28746D 04 0.11626D 05 0.31602D 04 0.21223D 04 0.40903D 04 0.16077D 04 0.20312D 05 0.19492D 05
          0.28160D 05 0.52150D 04 0.12490D 04 0.32279D 04 0.75086D 03 0.32556D 04 0.15127D 04 0.30180D 04 0.32101D 04 0.14171D 04
          0.87865D 03 0.28012D 03 0.25147D 04 0.98828D 03 0.98724D 04 0.40437D 03 0.82099D 03 0.85844D 03 0.25170D 04 0.62791D 02
          0.13547D 03 0.98444D 02 0.16750D 04 0.26106D 03 0.19288D 03 0.22473D 03 0.23720D 03

QPVACATN  0.82899D 05 0.17499D 05 0.32400D 05 0.98972D 05 0.49656D 05 0.21545D 05 0.38785D 05 0.18849D 05 0.97482D 05 0.31982D 06
          0.65995D 06 0.10445D 06 0.46595D 05 0.12023D 06 0.38085D 05 0.23343D 06 0.21430D 05 0.44998D 05 0.63663D 05 0.40892D 05
          0.28523D 05 0.20317D 05 0.95210D 05 0.58409D 05 0.57254D 06 0.26490D 05 0.58730D 05 0.65039D 05 0.79457D 05 0.32480D 04
          0.17806D 05 0.12385D 05 0.61271D 05 0.21778D 05 0.18749D 05 0.14297D 05 0.20503D 05

QSVACATN  0.74580D 05 0.13634D 05 0.34156D 05 0.10251D 06 0.45972D 05 0.19605D 05 0.42074D 05 0.20892D 05 0.13762D 06 0.29409D 06
          0.59853D 06 0.90262D 05 0.41253D 05 0.11876D 06 0.29645D 05 0.13714D 06 0.22571D 05 0.33473D 05 0.62860D 05 0.44435D 05
          0.27520D 05 0.16923D 05 0.71717D 05 0.52315D 05 0.22326D 06 0.17118D 05 0.20367D 05 0.21186D 05 0.35990D 05 0.23901D 04
          0.11792D 05 0.58095D 04 0.31503D 05 0.98115D 04 0.85589D 04 0.73279D 04 0.15025D 05
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FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 2000 MEDIUM

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STATEWIDE TOTAL NOTRIPON = 0.21063D 08

STATEWIDE TOTAL NOVACATN = 0.36732D 07

STATEWIDE TOTAL OBTRIPON = 0.22681D 08

STATEWIDE TOTAL OCTRIPON = 0.39431D 08

STATEWIDE TOTAL OFTRIPON = 0.44206D 08

STATEWIDE TOTAL OHTRIPON = 0.12423D 08

STATEWIDE TOTAL OPTRIPON = 0.26846D 08

STATEWIDE TOTAL OSTRIPON = 0.29061D 08

STATEWIDE TOTAL OBVACATN = 0.15914D 07

STATEWIDE TOTAL OCVACATN = 0.21892D 08

STATEWIDE TOTAL OFVACATN = 0.64074D 07

STATEWIDE TOTAL OHVACATN = 0.14636D 06

STATEWIDE TOTAL OPVACATN = 0.33264D 07

STATEWIDE TOTAL OSVACATN = 0.25427D 07

ADJUSTED FORECASTED VALUES OF ENDOGENOUS VARIABLES BY REGION FOR 2000 MEDIUM

QBTRIPON 0.55674D 04 0.46927D 04 0.92866D 05 0.38058D 06 0.16677D 06 0.32070D 06 0.17426D 06 0.15345D 06 0.35413D 05 0.29544D 07
0.20606D 07 0.99623D 05 0.17152D 06 0.40520D 06 0.10728D 06 0.42507D 07 0.39504D 05 0.29850D 06 0.27111D 06 0.72405D 05
0.36141D 06 0.29594D 05 0.67953D 06 0.32637D 06 0.37992D 07 0.23680D 05 0.11415D 06 0.17674D 06 0.19275D 05 0.21382D 05
0.77863D 05 0.30831D 06 0.18957D 07 0.10770D 06 0.30888D 06 0.11634D 06 0.11696D 06

QCTRIPON 0.19351D 05 0.96845D 04 0.12556D 06 0.60439D 06 0.28242D 06 0.52279D 06 0.29424D 06 0.25520D 06 0.62485D 05 0.46348D 07
0.34194D 07 0.19352D 06 0.74309D 05 0.67077D 06 0.19205D 06 0.71789D 07 0.66231D 05 0.51084D 06 0.44210D 06 0.12124D 06
0.60854D 06 0.55886D 05 0.11645D 07 0.56805D 06 0.71033D 07 0.48486D 05 0.28083D 06 0.35510D 06 0.46920D 05 0.34730D 05
0.13719D 06 0.54196D 06 0.35211D 07 0.19799D 06 0.53109D 06 0.20098D 06 0.20030D 06

QFTRIPON 0.20562D 05 0.11571D 05 0.18105D 06 0.73171D 06 0.30413D 06 0.61913D 06 0.33887D 06 0.27772D 06 0.75510D 05 0.57478D 07
0.40935D 07 0.22009D 06 0.23033D 05 0.77617D 06 0.22321D 06 0.81977D 07 0.76527D 05 0.59767D 06 0.52364D 06 0.14130D 06
0.70757D 06 0.65102D 05 0.13389D 07 0.64000D 06 0.79599D 07 0.54252D 05 0.29713D 06 0.38926D 06 0.59468D 05 0.39583D 05
0.15885D 06 0.60808D 06 0.39281D 07 0.21921D 06 0.60256D 06 0.22789D 06 0.22688D 06

QHTRIPON 0.55887D 04 0.26308D 04 0.39493D 05 0.18734D 06 0.84720D 05 0.16165D 06 0.85504D 05 0.66565D 05 0.17639D 05 0.13688D 07
0.10184D 07 0.43408D 05 0.57204D 05 0.20327D 06 0.51614D 05 0.22063D 07 0.19490D 05 0.15986D 06 0.12725D 06 0.32693D 05
0.17132D 06 0.14515D 05 0.33858D 06 0.15037D 06 0.19343D 07 0.13016D 05 0.76511D 05 0.83526D 05 0.45329D 05 0.11956D 05
0.38177D 05 0.15983D 06 0.10080D 07 0.57530D 05 0.16716D 06 0.71967D 05 0.55604D 05

QPTRIPON 0.91864D 04 0.61664D 04 0.94493D 05 0.41857D 06 0.15547D 06 0.37467D 06 0.19682D 06 0.17095D 06 0.39777D 05 0.32146D 07
0.23429D 07 0.12065D 06 0.96966D 05 0.45931D 06 0.12638D 06 0.50176D 07 0.43725D 05 0.33743D 06 0.30904D 06 0.80558D 05
0.41403D 06 0.35156D 05 0.78940D 06 0.37110D 06 0.45360D 07 0.29041D 05 0.17201D 06 0.21377D 06 0.34337D 05 0.16225D 05
0.93033D 05 0.37194D 06 0.23732D 07 0.13394D 06 0.39286D 06 0.14253D 06 0.13571D 06

QSTRIPON 0.19030D 05 0.52371D 04 0.63935D 05 0.42588D 06 0.17722D 06 0.33639D 06 0.18569D 06 0.15860D 06 0.43216D 05 0.29175D 07
0.22698D 07 0.12669D 06 0.18357D 06 0.43330D 06 0.12275D 06 0.46192D 07 0.43710D 05 0.32541D 06 0.29474D 06 0.79490D 05
0.39396D 06 0.35841D 05 0.73767D 06 0.36317D 06 0.44603D 07 0.33122D 05 0.18289D 06 0.23584D 06 0.33600D 05 0.15376D 05
0.90408D 05 0.32622D 06 0.22127D 07 0.13012D 06 0.34435D 06 0.13442D 06 0.13284D 06

QBVACATN 0.34819D 05 0.67268D 04 0.18715D 05 0.60341D 05 0.24376D 05 0.13960D 05 0.15887D 05 0.13472D 05 0.58276D 05 0.15061D 06
0.27935D 06 0.36855D 05 0.13761D 05 0.52874D 05 0.19751D 05 0.90496D 05 0.91398D 04 0.20390D 05 0.61552D 04 0.23059D 05
0.16751D 05 0.97794D 04 0.29121D 05 0.14239D 05 0.16532D 06 0.11679D 05 0.14354D 05 0.21413D 05 0.42749D 04 0.14222D 04
0.66451D 04 0.27357D 04 0.88209D 04 0.78838D 04 0.71281D 04 0.59295D 04 0.92153D 04

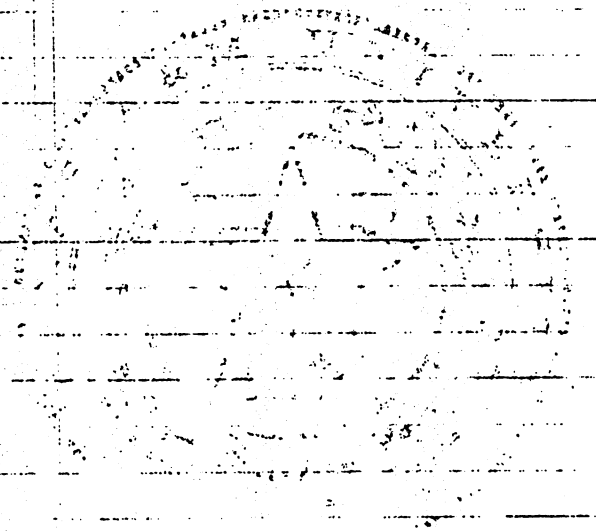
QCVACATN 0.14768D 06 0.22063D 05 0.41875D 05 0.89183D 05 0.70943D 05 0.61168D 05 0.74319D 05 0.39053D 05 0.13262D 06 0.63750D 06
0.18511D 07 0.22465D 06 0.84641D 05 0.21269D 06 0.16603D 06 0.17242D 07 0.68164D 05 0.11683D 06 0.15567D 06 0.13004D 06
0.91407D 05 0.17657D 06 0.21065D 06 0.21997D 06 0.41328D 07 0.25235D 06 0.50470D 06 0.75909D 06 0.11409D 06 0.23804D 05
0.20190D 06 0.77777D 05 0.54686D 06 0.10065D 06 0.21315D 06 0.88485D 05 0.12481D 06

QFVACATN 0.71938D 05 0.16043D 05 0.40752D 05 0.10274D 06 0.56810D 05 0.40110D 05 0.49818D 05 0.26535D 05 0.14701D 06 0.38284D 06
0.93046D 06 0.10870D 06 0.25097D 05 0.18021D 06 0.74581D 05 0.36133D 06 0.29300D 05 0.69147D 05 0.87415D 05 0.55320D 05
0.49115D 05 0.38696D 05 0.13536D 06 0.90430D 05 0.75709D 06 0.59177D 05 0.11546D 06 0.74114D 05 0.85603D 04 0.64474D 04
0.39085D 05 0.10542D 05 0.85683D 05 0.91384D 04 0.35174D 05 0.11596D 05 0.35947D 05

QHVACATN 0.13123D 04 0.54925D 03 0.33024D 04 0.16630D 05 0.11288D 04 0.13147D 04 0.35473D 04 0.25867D 04 0.20884D 05 0.24933D 05
0.31037D 05 0.47241D 04 0.11048D 04 0.47781D 04 0.63308D 03 0.36825D 04 0.16234D 04 0.40547D 04 0.33212D 04 0.22802D 04
0.14138D 04 0.45071D 03 0.28525D 04 0.15901D 04 0.13788D 05 0.65064D 03 0.13051D 04 0.13357D 04 0.44953D 03 0.10103D 03
0.21797D 03 0.13337D 03 0.26950D 04 0.12265D 03 0.31034D 03 0.36159D 03 0.38165D 03

QPVACATN 0.34261D 05 0.79360D 04 0.17625D 05 0.55276D 05 0.17971D 05 0.18867D 05 0.21358D 05 0.90322D 04 0.18184D 05 0.11646D 06
0.50422D 06 0.38853D 05 0.33830D 05 0.90422D 05 0.42541D 05 0.19973D 06 0.21759D 05 0.26589D 05 0.88890D 04 0.76279D 04
0.60852D 04 0.22694D 05 0.50091D 05 0.65243D 05 0.34598D 06 0.29589D 05 0.10759D 05 0.23393D 05 0.19082D 05 0.36280D 04
0.19889D 06 0.83938D 04 0.51672D 05 0.54005D 04 0.20943D 05 0.85118D 04 0.11451D 05

DSVACATN 0.48835D 05 0.10174D 05 0.30960D 05 0.11217D 06 0.37239D 05 0.21084D 05 0.38243D 05 0.26157D 05 0.16489D 06 0.25295D 06
0.53579D 06 0.49158D 05 0.11466D 05 0.95905D 05 0.88334D 04 0.14457D 06 0.16701D 05 0.32227D 05 0.66266D 05 0.52963D 05
0.33766D 05 0.13242D 05 0.47858D 05 0.50434D 05 0.20461D 06 0.20488D 05 0.20935D 05 0.21113D 05 0.17798D 05 0.14962D 04
0.12874D 05 0.29676D 04 0.28714D 05 0.10392D 05 0.53579D 04 0.33946D 04 0.18812D 05



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ADJUSTED FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 2000 MEDIUM

STATEWIDE TOTAL OBTRIPON = 0.20548D 08

STATEWIDE TOTAL OCTRIPON = 0.35277D 08

STATEWIDE TOTAL OFTRIPON = 0.40703D 08

STATEWIDE TOTAL OHTRIPON = 0.10336D 08

STATEWIDE TOTAL OPTRIPON = 0.23869D 08

STATEWIDE TOTAL OSTRIPON = 0.22694D 08

STATEWIDE TOTAL ORVACATN = 0.12857D 07

STATEWIDE TOTAL OCVACATN = 0.13839D 08

STATEWIDE TOTAL OFVACATN = 0.44178D 07

STATEWIDE TOTAL OHVACATN = 0.16159D 06

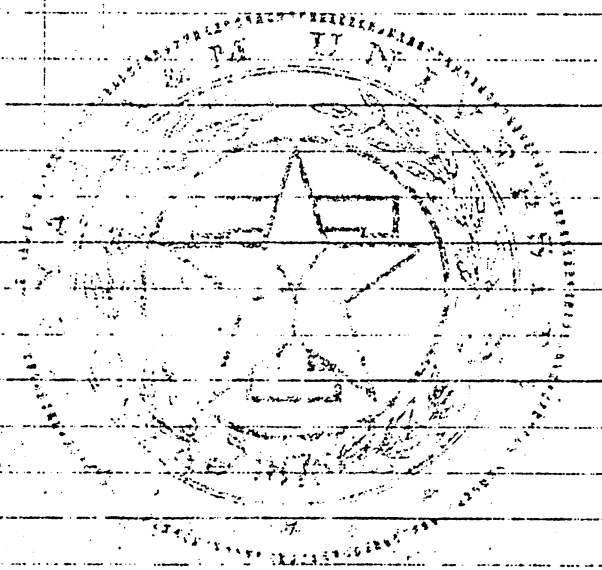
STATEWIDE TOTAL OPVACATN = 0.19946D 07

STATEWIDE TOTAL OSVACATN = 0.22709D 07

FORECASTED VALUES OF ENDOGENOUS VARIABLES FOR BY REGION FOR 2000 HIGH

NOTRIPON	0.92523D 04	0.57848D 04	0.88401D 05	0.35602D 06	0.16000D 06	0.29067D 06	0.15850D 06	0.13424D 06	0.29939D 05	0.27134D 07			
	0.18610D 07	0.99078D 05	0.14947D 06	0.34809D 06	0.94339D 05	0.39526D 07	0.35037D 05	0.28816D 06	0.23869D 06	0.60252D 05			
	0.31462D 06	0.25449D 05	0.62522D 06	0.30056D 06	0.33333D 07	0.21876D 05	0.10626D 06	0.16994D 06	0.30451D 06	0.19107D 05			
	0.72962D 05	0.30322D 06	0.20452D 07	0.10939D 06	0.31353D 06	0.11247D 06	0.10871D 06						
NOVACATN	0.54396D 05	0.12740D 05	0.15655D 05	0.54347D 05	0.32864D 05	0.12637D 05	0.20967D 05	0.96010D 04	0.31034D 05	0.22524D 06			
	0.51333D 06	0.84189D 05	0.37172D 05	0.88483D 05	0.36614D 05	0.25473D 06	0.13116D 05	0.33826D 05	0.41428D 05	0.26521D 05			
	0.23363D 05	0.19923D 05	0.93181D 05	0.55879D 05	0.73953D 06	0.30160D 05	0.77435D 05	0.97283D 05	0.79455D 05	0.27996D 04			
	0.21293D 05	0.16110D 05	0.75262D 05	0.28804D 05	0.22432D 05	0.17000D 05	0.22246D 05						
QBTRIPON	0.51640D 04	0.48910D 04	0.96135D 05	0.37269D 06	0.17748D 06	0.31476D 06	0.17051D 06	0.15006D 06	0.32408D 05	0.26991D 07			
	0.19735D 07	0.94034D 05	0.16670D 06	0.39293D 06	0.99545D 05	0.42800D 07	0.38350D 05	0.29328D 06	0.26413D 06	0.67526D 05			
	0.34466D 06	0.25729D 05	0.66726D 06	0.33008D 06	0.33412D 07	0.20189D 05	0.10046D 06	0.15980D 06	0.30895D 06	0.20959D 05			
	0.76200D 05	0.32275D 06	0.20370D 07	0.11038D 06	0.33022D 06	0.11653D 06	0.11738D 06						
QCTRIPON	0.18891D 05	0.10995D 05	0.16448D 06	0.66267D 06	0.30413D 06	0.54045D 06	0.29844D 06	0.25816D 06	0.60428D 05	0.51292D 07			
	0.35315D 07	0.19534D 06	0.28537D 06	0.67579D 06	0.18608D 06	0.74831D 07	0.66999D 05	0.53375D 06	0.45761D 06	0.11807D 06			
	0.60157D 06	0.51230D 05	0.11976D 07	0.59594D 06	0.64997D 07	0.44521D 05	0.21665D 06	0.38677D 06	0.56650D 06	0.38341D 06			
	0.13960D 06	0.58768D 06	0.39545D 07	0.21131D 06	0.59045D 06	0.20889D 06	0.20848D 06						
QFTRIPON	0.24286D 05	0.13240D 05	0.18520D 06	0.74318D 06	0.34173D 06	0.61049D 06	0.33686D 06	0.29000D 06	0.70916D 05	0.57080D 07			
	0.39818D 07	0.21804D 06	0.32720D 06	0.76514D 06	0.20934D 06	0.82940D 07	0.75077D 05	0.58947D 06	0.51379D 06	0.13344D 06			
	0.67857D 06	0.57887D 05	0.13268D 07	0.65176D 06	0.70704D 07	0.49011D 05	0.22903D 06	0.36055D 06	0.61871D 06	0.39077D 05			
	0.15682D 06	0.64014D 06	0.42849D 07	0.22718D 06	0.65035D 06	0.22979D 06	0.22914D 06						
QHTRIPON	0.70165D 04	0.30467D 04	0.44984D 05	0.18715D 06	0.87001D 05	0.16173D 06	0.85461D 05	0.66718D 05	0.16305D 05	0.14130D 07			
	0.10103D 07	0.49248D 05	0.85141D 05	0.20124D 06	0.48812D 05	0.22599D 07	0.19373D 05	0.16052D 06	0.12665D 06	0.31136D 05			
	0.16632D 06	0.13058D 05	0.33945D 06	0.15447D 06	0.17252D 07	0.11692D 05	0.50562D 05	0.77766D 05	0.18603D 06	0.11937D 05			
	0.38075D 05	0.16934D 06	0.11075D 07	0.59754D 05	0.17909D 06	0.73310D 05	0.56882D 05						
QPTRIPON	0.87667D 04	0.63273D 04	0.11254D 06	0.45228D 06	0.20466D 06	0.37675D 06	0.20278D 06	0.17850D 06	0.37521D 05	0.35945D 07			
	0.23644D 07	0.11892D 06	0.19248D 06	0.45445D 06	0.12000D 06	0.51916D 07	0.43419D 05	0.35956D 06	0.30727D 06	0.77932D 05			
	0.40231D 06	0.31447D 05	0.78940D 06	0.38353D 06	0.42287D 07	0.25831D 05	0.13082D 06	0.20979D 06	0.36641D 06	0.24319D 05			
	0.93077D 05	0.39794D 06	0.26310D 07	0.14122D 06	0.43248D 06	0.14584D 06	0.13902D 06						
QSTRIPON	0.21792D 05	0.96825D 04	0.12101D 06	0.48423D 06	0.22303D 06	0.38279D 06	0.21637D 06	0.18040D 06	0.47045D 05	0.36528D 07			
	0.25886D 07	0.14609D 06	0.20739D 06	0.48789D 06	0.13268D 06	0.53832D 07	0.49532D 05	0.38191D 06	0.33370D 06	0.86688D 05			
	0.43543D 06	0.36917D 05	0.86531D 06	0.42504D 06	0.46098D 07	0.34210D 05	0.15862D 06	0.25084D 06	0.41402D 06	0.26236D 05			
	0.10280D 06	0.41183D 06	0.27728D 07	0.15460D 06	0.42437D 06	0.15611D 06	0.15468D 06						
QBVACATN	0.46797D 05	0.98825D 04	0.20093D 05	0.59712D 05	0.27782D 05	0.12825D 05	0.23321D 05	0.11059D 05	0.66506D 05	0.16789D 06			
	0.32744D 06	0.51019D 05	0.22558D 05	0.58038D 05	0.16653D 05	0.83912D 05	0.11993D 05	0.23383D 05	0.33134D 05	0.21499D 05			
	0.13962D 05	0.82269D 04	0.39988D 05	0.23552D 05	0.18886D 06	0.97109D 04	0.18428D 05	0.18339D 05	0.33139D 05	0.14315D 04			
	0.59452D 04	0.37744D 04	0.20932D 05	0.64538D 04	0.60917D 04	0.48861D 04	0.74835D 04						
QCVACATN	0.31813D 06	0.73766D 05	0.87089D 05	0.29148D 06	0.19461D 06	0.69424D 05	0.11440D 06	0.55078D 05	0.14811D 06	0.13419D 07			
	0.32311D 07	0.53925D 06	0.25261D 06	0.60742D 06	0.26097D 06	0.19143D 07	0.77448D 05	0.20288D 06	0.25169D 06	0.16970D 06			
	0.15580D 06	0.15044D 06	0.64671D 06	0.41925D 06	0.55129D 07	0.22848D 06	0.59997D 06	0.75999D 06	0.54105D 06	0.20634D 07			
	0.17227D 06	0.13021D 06	0.53501D 06	0.22544D 06	0.17120D 06	0.12678D 06	0.17134D 06						
QFVACATN	0.18083D 06	0.39543D 05	0.58288D 05	0.18982D 06	0.10616D 06	0.42584D 05	0.75687D 05	0.36186D 05	0.15339D 06	0.62754D 06			
	0.12808D 07	0.22953D 06	0.97589D 05	0.22959D 06	0.85553D 05	0.39347D 06	0.41341D 05	0.91901D 05	0.11062D 06	0.75593D 05			
	0.51735D 05	0.42751D 05	0.18460D 06	0.11268D 06	0.11394D 07	0.57819D 05	0.12587D 06	0.13929D 06	0.15859D 06	0.58804D 04			
	0.35582D 05	0.21626D 05	0.11049D 06	0.40754D 05	0.34379D 05	0.25670D 05	0.39591D 05						

[illegible]	0.838037D 04	0.169066D 04	0.357540 04	0.142990 05	0.382860 04	0.262890 04	0.491350 04	0.185660 04	0.220680 05	0.235880 05		
	0.346760 05	0.625830 04	0.148080 04	0.386790 04	0.995290 03	0.431760 04	0.185480 04	0.383070 04	0.387040 04	0.187650 04		
	0.110930 04	0.371370 03	0.307060 04	0.129280 04	0.124280 05	0.535230 03	0.103100 04	0.117550 04	0.323970 04	0.644690 02		
	0.190290 03	0.153260 03	0.228880 04	0.381310 03	0.346690 03	0.313080 03	0.310010 03					
OSVACATN	0.822410 05	0.173440 05	0.322230 05	0.982090 05	0.491950 05	0.213860 05	0.383610 05	0.185610 05	0.955240 05	0.316850 06		
	0.654860 06	0.182920 06	0.460230 05	0.118810 06	0.382530 05	0.230340 06	0.212100 05	0.447430 05	0.628550 05	0.411530 05		
	0.284050 05	0.204120 05	0.938070 05	0.578830 05	0.568420 06	0.264690 05	0.578160 05	0.653370 05	0.785680 05	0.324430 04		
	0.176340 05	0.122720 05	0.603590 05	0.215210 05	0.186000 05	0.141610 05	0.201810 05					
OSVACATN	0.698580 05	0.125890 05	0.326500 05	0.970490 05	0.428090 05	0.184420 05	0.397060 05	0.196890 05	0.130730 06	0.270730 06		
	0.553910 06	0.816440 05	0.377550 05	0.110050 06	0.279630 05	0.119640 06	0.213150 05	0.310240 05	0.592050 05	0.433300 05		
	0.259370 05	0.161390 05	0.644770 05	0.484060 05	0.177340 06	0.156270 05	0.155100 05	0.176470 05	0.305020 05	0.223440 04		
	0.106550 05	0.495630 04	0.266100 05	0.796160 04	0.724200 04	0.628050 04	0.134030 05					



FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 2000 HIGH

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STATEWIDE TOTAL NOTRIPON = 0.19357D 08

STATEWIDE TOTAL NOVACATN = 0.30211D 07

STATEWIDE TOTAL OBTRIPON = 0.20333D 08

STATEWIDE TOTAL OCTRIPON = 0.37028D 08

STATEWIDE TOTAL OFTRIPON = 0.41012D 08

STATEWIDE TOTAL OHTRIPON = 0.10500D 08

STATEWIDE TOTAL OPTRIPON = 0.24997D 08

STATEWIDE TOTAL OSTRIPON = 0.26570D 08

STATEWIDE TOTAL OBVACATN = 0.15058D 07

STATEWIDE TOTAL OCVACATN = 0.20768D 08

STATEWIDE TOTAL OFVACATN = 0.64778D 07

STATEWIDE TOTAL OHVACATN = 0.17808D 06

STATEWIDE TOTAL OPVACATN = 0.32962D 07

STATEWIDE TOTAL OSVACATN = 0.23110D 07

ASSOCIATED FORECASTED VALUES OF ENDOGENOUS VARIABLES BY REGION FOR 2000 HIGH

QBTRIPON 0.34737D 04 0.38369D 04 0.83854D 05 0.34436D 06 0.15038D 06 0.29084D 06 0.15755D 06 0.13866D 06 0.29945D 05 0.26455D 07
0.18235D 07 0.86888D 05 0.15403D 06 0.36307D 06 0.91980D 05 0.39547D 07 0.35435D 05 0.26991D 06 0.24410D 06 0.62486D 05
0.31846D 06 0.23774D 05 0.61655D 06 0.30499D 06 0.30502D 07 0.18654D 05 0.76484D 05 0.14765D 06 0.17985D 05 0.19366D 05
0.70409D 05 0.29822D 06 0.19007D 07 0.10199D 06 0.30512D 06 0.10767D 06 0.10846D 06

QCTRIPON 0.16692D 05 0.88426D 04 0.11893D 06 0.57314D 06 0.26701D 06 0.49567D 06 0.27845D 06 0.24087D 06 0.56379D 05 0.43309D 07
0.31762D 07 0.17970D 06 0.70025D 05 0.63052D 06 0.17361D 06 0.69817D 07 0.62510D 05 0.48405D 06 0.41713D 06 0.11016D 06
0.56127D 06 0.47798D 05 0.11051D 07 0.55601D 06 0.60278D 07 0.41538D 05 0.20214D 06 0.31421D 06 0.45990D 05 0.32974D 05
0.13024D 06 0.54831D 06 0.36896D 07 0.19715D 06 0.55089D 06 0.19490D 06 0.19451D 06

QFTRIPON 0.17627D 05 0.10439D 05 0.16943D 06 0.68555D 06 0.28407D 06 0.57997D 06 0.31682D 06 0.25897D 06 0.67370D 05 0.53061D 07
0.37563D 07 0.20176D 06 0.21448D 05 0.72106D 06 0.19935D 06 0.78793D 07 0.71323D 05 0.55944D 06 0.40810D 06 0.12677D 06
0.64464D 06 0.54993D 05 0.12554D 07 0.61919D 06 0.66631D 07 0.45908D 05 0.21105D 06 0.34013D 06 0.57602D 05 0.37123D 05
0.14898D 06 0.60814D 06 0.40707D 07 0.21582D 06 0.61783D 06 0.21831D 06 0.21768D 06

QHTRIPON 0.42834D 04 0.21230D 04 0.33655D 05 0.16001D 06 0.72154D 05 0.13832D 06 0.73069D 05 0.57044D 05 0.14369D 05 0.11477D 07
0.85085D 06 0.36086D 05 0.48555D 05 0.17206D 06 0.41735D 05 0.19322D 07 0.16564D 05 0.13656D 06 0.10828D 06 0.26621D 05
0.14220D 06 0.11165D 05 0.29023D 06 0.13207D 06 0.14692D 07 0.99966D 04 0.50070D 05 0.66490D 05 0.39764D 05 0.10206D 05
0.32554D 05 0.14479D 06 0.94688D 06 0.51090D 05 0.15312D 06 0.62680D 05 0.48634D 05

QPTRIPON 0.72848D 04 0.54718D 04 0.88542D 05 0.39284D 06 0.14544D 06 0.35166D 06 0.18432D 06 0.15957D 06 0.35270D 05 0.29802D 07
0.21537D 07 0.11044D 06 0.90466D 05 0.42718D 06 0.11280D 06 0.48410D 07 0.40814D 05 0.31635D 06 0.28883D 06 0.72270D 05
0.37817D 06 0.29560D 05 0.74203D 06 0.36052D 06 0.37961D 07 0.24281D 05 0.12063D 06 0.18676D 06 0.33417D 05 0.15247D 05
0.87492D 05 0.37407D 06 0.24732D 07 0.13275D 06 0.40653D 06 0.13709D 06 0.13068D 06

QSTRIPON 0.16530D 05 0.46916D 04 0.59029D 05 0.39368D 06 0.16337D 06 0.31121D 06 0.17151D 06 0.14667D 06 0.38247D 05 0.26490D 07
0.20540D 07 0.11474D 06 0.16860D 06 0.39666D 06 0.10787D 06 0.43765D 07 0.40270D 05 0.30087D 06 0.27129D 06 0.70477D 05
0.35401D 06 0.30014D 05 0.68309D 06 0.34556D 06 0.36878D 07 0.27812D 05 0.12895D 06 0.20393D 06 0.31977D 05 0.14227D 05
0.83580D 05 0.32075D 06 0.22543D 07 0.12569D 06 0.34901D 06 0.12691D 06 0.12575D 06

QBVACATN 0.33283D 05 0.64156D 04 0.18008D 05 0.57769D 05 0.23175D 05 0.13366D 05 0.15113D 05 0.12707D 05 0.54561D 05 0.14294D 06
0.26562D 06 0.34645D 05 0.12959D 05 0.49837D 05 0.19134D 05 0.84942D 05 0.87090D 04 0.19534D 05 0.58391D 04 0.22549D 05
0.16042D 05 0.94527D 04 0.27246D 05 0.13531D 05 0.15364D 06 0.11158D 05 0.13382D 05 0.20376D 05 0.40362D 04 0.13701D 04
0.62846D 04 0.26021D 04 0.82976D 04 0.74155D 04 0.69994D 04 0.56141D 04 0.85985D 04

QCVACATN 0.13888D 06 0.20760D 05 0.39177D 05 0.83647D 05 0.67275D 05 0.57306D 05 0.70347D 05 0.37531D 05 0.12964D 06 0.60515D 06
0.17542D 07 0.21450D 06 0.81168D 05 0.20392D 06 0.15585D 06 0.16290D 07 0.64359D 05 0.10925D 06 0.14808D 06 0.12071D 06
0.86311D 05 0.16668D 06 0.20135D 06 0.20764D 06 0.39520D 07 0.23847D 06 0.48462D 06 0.71660D 06 0.10731D 06 0.22231D 05
0.19087D 06 0.72138D 05 0.50861D 06 0.93668D 05 0.18969D 06 0.82597D 05 0.11865D 06

QFVACATN 0.72512D 05 0.16166D 05 0.41083D 05 0.10347D 06 0.57038D 05 0.40432D 05 0.49964D 05 0.26434D 05 0.14547D 06 0.38553D 06
0.93851D 06 0.10922D 06 0.25180D 05 0.18054D 06 0.75876D 05 0.36786D 06 0.29507D 05 0.70010D 05 0.87978D 05 0.56324D 05
0.49722D 05 0.39349D 05 0.13588D 06 0.91882D 05 0.76679D 06 0.60256D 05 0.11839D 06 0.75774D 05 0.86801D 04 0.65685D 04
0.39745D 05 0.10991D 05 0.88492D 05 0.95141D 04 0.38401D 05 0.11957D 05 0.36308D 05

QHVACATN 0.16261D 04 0.68005D 03 0.41075D 04 0.20453D 05 0.13676D 04 0.16285D 04 0.42613D 04 0.29873D 04 0.22689D 05 0.30172D 05
0.38212D 05 0.56692D 04 0.13247D 04 0.57256D 04 0.83914D 03 0.40837D 04 0.19906D 04 0.51466D 04 0.40043D 04 0.30193D 04
0.17848D 04 0.59753D 03 0.34831D 04 0.20801D 04 0.17358D 05 0.86119D 03 0.16390D 04 0.18290D 04 0.57860D 03 0.13591D 03
0.30617D 03 0.20764D 03 0.36827D 04 0.17915D 03 0.55782D 03 0.50375D 03 0.45881D 03

QPVACATN 0.33989D 05 0.78654D 04 0.17529D 05 0.54850D 05 0.17804D 05 0.18728D 05 0.21125D 05 0.88945D 04 0.17819D 05 0.11538D 06
0.50033D 06 0.38282D 05 0.33415D 05 0.89845D 05 0.42728D 05 0.19708D 06 0.21536D 05 0.26438D 05 0.87761D 04 0.76766D 04
0.60602D 04 0.22800D 05 0.49352D 05 0.64656D 05 0.34350D 06 0.29566D 05 0.10591D 05 0.23500D 05 0.18869D 05 0.36238D 04
0.19753D 05 0.82249D 04 0.50903D 05 0.53368D 04 0.20776D 05 0.84308D 04 0.11271D 05

```
QSVACATN  0.45743D 05 0.93941D 04 0.29595D 05 0.10620D 06 0.34677D 05 0.19834D 05 0.36091D 05 0.24650D 05 0.15663D 06 0.23236D 06
          0.49585D 06 0.44465D 05 0.10494D 05 0.88873D 05 0.83323D 04 0.12612D 06 0.15772D 05 0.29870D 05 0.62412D 05 0.51645D 05
          0.31824D 05 0.12629D 05 0.43026D 05 0.46665D 05 0.16252D 06 0.18704D 05 0.15943D 05 0.17587D 05 0.15085D 05 0.13588D 06
          0.11632D 05 0.25318D 04 0.24254D 05 0.84329D 04 0.45335D 04 0.29094D 04 0.16780D 05
```

ADJUSTED FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 2000 HIGH

STATEWIDE TOTAL QBTRIPON = 0.18421D 08

STATEWIDE TOTAL QCTRIPON = 0.33113D 08

STATEWIDE TOTAL QFTRIPON = 0.37748D 08

STATEWIDE TOTAL QHTRIPON = 0.87334D 07

STATEWIDE TOTAL QPTRIPON = 0.22233D 08

STATEWIDE TOTAL QSTRIPON = 0.20745D 08

STATEWIDE TOTAL QBVACATN = 0.12172D 07

STATEWIDE TOTAL QCVACATN = 0.13170D 08

STATEWIDE TOTAL QFVACATN = 0.44678D 07

STATEWIDE TOTAL QHVACATN = 0.19707D 06

STATEWIDE TOTAL QPVACATN = 0.19773D 07

STATEWIDE TOTAL QSVACATN = 0.20660D 07

units for typical households in each region are contained in the accompanying computer printouts. As mentioned before, these results look quite promising.

VI. Use of the Model in Planning

Because of data limitations, the econometric model has been limited to rural recreational demands on longer trips at the origins. From the appearance at the structural equations, reduced form equations and the various simulations, it appears that the model may dispatch its duties rather well. To be used as a means for planning, however, the model is incomplete with respect to short trips, urban recreation, and a mechanism by which to assign origin demand to destinations. The econometric model, however, employs a maximum of sample information about the demand it considers, (perhaps more than is optimal statistically) and considers origin demand whether or not it is destined within the state.

The econometric model approach has the capacity to bring to bear more sample information in forecasting than perhaps any other procedure. Thus, the demand forecasts derived from it should perform better than others provided the model is constructed realistically. Thus, it would seem that the econometric model should be employed to forecast rural recreational demands on overnight trips and vacations at the origins. The gravity model should be used to forecast recreational participation on one-day trips at the origins and to allocate it to the destinations. The gravity model should also be used to allocate origin demands forecast for longer trips using the econometric model.

Forecasts from the gravity model cannot be termed demand forecasts because any linkages between the gravity equations and demand relationships in the purely economic sense are not known. The use of the gravity model to

allocate forecasted demand to destinations should not have such a logical difficulty. It would seem that the term destination demand could be applied to the allocated origin demands.

There are two fundamental difficulties in linking the gravity model to the econometric model for tandem operation. First, the trip definitions are not consistent between them. The gravity model separates 2 and 3 day trips from trips of 4 days or longer and ignores the vacation category of the household survey. The econometric model considers trips of 2 or more days and vacations. Conversion of gravity model participation into econometric model demand can be accomplished by subtracting the quantities of each type of participation on 4 or more day trips that were not vacations to obtain vacation participation and adding this to the 2 and 3 day trips totals. Similarly, by subtracting the quantity of 4 or more day trips from the overnight trip figures and adding it to the vacation totals, one can convert from econometric model units to gravity units. In practice, econometric model units are converted to gravity definitions. In the sample data, the breakdowns in person days between trip definitions were as follows:

Activity	2 - 3 day	4 + day No vacations	Vacations	2 + day No vacations	4 + day & vacations
Boating	5,429,000	446,000	2,998,000	5,875,000	3,444,000
Camping	9,469,000	678,000	6,294,000	10,147,000	6,972,000
Fresh Fishing	14,506,000	758,000	6,506,000	15,264,000	7,264,000
Hunting	3,942,000	670,000	1,102,000	4,612,000	1,772,000
Picnicking	6,249,000	396,000	3,391,000	6,645,000	3,787,000
Swimming	5,907,000	1,358,000	5,382,000	7,265,000	6,740,000

Adjustment factors were based on these figures to convert from one model's

definitions to the other in forecasting. For example, by multiplying 2-3 day boating forecast by a factor of 1.082 one can obtain an overnight or longer boating forecast. Similarly by multiplying a 4 or more day gravity forecast for camping by 0.903, it can be adjusted to a vacation camping forecast. Linking the econometric and gravity models from this point of difference should cause little difficulty.

However, a more serious difficulty, relating to the completeness of the gravity model is in evidence. The gravity model estimates recreation participation at the origins to be allocated to regions within the state. In the estimation of the gravity parameters and the calibration of the model, only the survey data relating to participation inside the state borders was considered. Participation originating in Texas and going out of state was excluded. The econometric model applies to all recreation demand at the origin, whether to be dispatched within the state or not. One way to solve this inconsistency was to reduce econometric model forecasts by the proportion of in-state participation to total participation for each activity, trip type, and region, from the survey data. Computer printouts containing such information were made available to Texas Parks and Wildlife Department. For example, the survey data indicates 5,218,000 person days of boating in in-state 2-3 day trips. There was a total of 5,429,000 person days of boating on all 2-3 day trips. An adjustment factor in this case could be 0.96, indicating that 4 percent of the participation was out of state. More useful factors were obtained by computing such factors on a regional basis. The complete computations are documented on the accompanying computer program printouts.

Dr. Freund has provided a report on the way the remainder of the cascasing process is completed. Similarly he has provided needs computations

from the cascaded results. In this report I have discussed the econometric model and policy simulations. The model in its present form seems most adequate for planning purposes. However, I will continue my attempts to refine the model and any further results in the near future will be supplied as supplements to this report.

Appendix A

Correspondence Between Robert R. Wilson and Dr. Stanley Johnson Concerning Adjustments in the Structural System.

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163.

TEXAS A&M UNIVERSITY

COLLEGE OF AGRICULTURE

COLLEGE STATION, TEXAS 77840

May 10, 1972

DEPARTMENT OF AGRICULTURAL ECONOMICS
Instruction
DEPARTMENT OF AGRICULTURAL ECONOMICS AND RURAL SOCIOLOGY
Research and Extension

Dr. Stanley Johnson, Visiting Professor
Department of Economics
Purdue University
Lafayette, Indiana 47907

Dear Stan:

It has been difficult to get to the point of writing this letter. Herein, I would like to discuss first the difficulties associated with the previous formulations of the 49 identities questioned at the February meeting and a suggested solution to the problem. Then I will discuss the difficulties recently discovered in approximating logarithms of probabilities in 16 stochastic equations. This letter formalizes the procedures for satisfying Item I.A.1. of Gen. Cross' letter to Dr. Williams dated March 1, 1972 to which you and I both agreed by telephone.

I. Identities

In the case of the identities, each of those in which a difficulty occurs requires a solution for the variable x from the equation:

$$e^w = e^x e^y + e^z(1-e^y) \tag{1}$$

Of course, the original formulation of the questionable identities omitted the term $e^z(1-e^y)$. Rewriting equation (1) in terms of e^x, we have

$$e^x = e^{(w-y)} + e^z(1-e^{-y}). \tag{2}$$

The solution for x from equation (2) is thus,

$$x = \ln(e^{(w-y)} + e^z(1-e^{-y})) \tag{3}$$

It seems desirable to express an approximate solution for x as a linear function of w and y with z put at its mean value, $\bar{z}$.

A. Taylor's Series Expansion

It is apparent that a first order Taylor's Series expansion about the mean of the right-hand side of equation (3) will yield a linear expression in e^w and e^y but will be nonlinear in w and y. An attempt was made to obtain various

linear expansions of the right-hand side of equation (2) in w and y and substitute these into the right-hand side of (3). Extremely complicated expressions were obtained when a Taylor's expansion was applied to this modified right-hand side of equation (3) when an attempt was made to collect the linear terms. It was judged that such a procedure would be time consuming and tend to induce computational errors in obtaining approximations because of its complexity. Hence, it was judged to be impracticable for our purposes.

B. Method Proposed at the February Meeting

At the February meeting it was proposed to find constants k_i, $i=1,\ldots,49$, for each of the 49 questioned identities defining x_i such that at the point of means $\bar{x}_i = \bar{w}_i - \bar{y}_i + k_i$. Then an approximate solution for x_i would be

$$x_i \simeq w_i - y_i + k_i. \tag{4}$$

It is apparent that an approximation such as equation (4) might be rather gross and possibly even orthogonal to the function (3) being approximated. Furthermore there could be no alteration in the last 14 equations in the reduced form system, those of most interest from a planning viewpoint. This is true because the coefficients for x_i, w_i, and y_i are not changed from their earlier specification in the endogenous coefficient matrix and its inverse is not changed. The substitution of k_i for 0 in the exogenous coefficient matrix only induces a change in the intercept of the reduced form equation for x_i. No other changes in the reduced form system can occur.

C. Proposed Solution.

With the above considerations in mind I decided to derive an approximation formula for the right-hand side of equation (3) that would be mathematically equivalent to the first order Taylor's expansion, possess its desirable tangentiality properties, and avoid the computational difficulties of applying Taylor's formula to iterated linearizations. The method devised is commonly called differential approximation.

To linearly approximate the right-hand side of equation (3) we write the expression

$$\ln(e^{(w-y)} + e^{\bar{x}}(1-e^{-y})) \simeq k_1 w + k_2 y + k_3, \tag{5}$$

where

$$k_1 = \frac{\partial \ln(\ )}{\partial w}\Big|\ \bar{w},\ \bar{y},\ \bar{z}$$

$$k_2 = \frac{\partial \ln(\ )}{\partial y}\Big|\ \bar{w},\ \bar{y},\ \bar{z}$$

$$k_3 = \ln(e^{(\bar{w} - \bar{y})} + e^{z(1-e^{-\bar{y}})}) - k_1\bar{w} - k_2\bar{y},$$

$\bar{w}$, $\overline{e^y}$, and $\bar{z}$ are the sample means of w, e^y, and z, respectively, and $\bar{y} = \ln(\overline{e^y})$. Equivalently,

$$k_3 = \bar{x} - k_1\bar{w} - k_2\bar{y}$$

Therefore, the approximation for x reduces to

$$x \cong \bar{x} + \left(\frac{\partial \ln(\ )}{\partial w}\Big|\ \bar{w},\ \bar{y},\ \bar{z}\right)(w-\bar{w}) + \left(\frac{\partial \ln(\ )}{\partial y}\Big|\ \bar{w},\ \bar{y},\ \bar{z}\right)(y-\bar{y}) = \bar{x} + k_1(w-\bar{w}) + k_2(y-\bar{y}) \quad (6)$$

which is the first order term of the Taylor's expansion about the point of means. It is the procedure in equations (5) and (6) that we seek your agreement to use. These adjustments have been computed and all but one out of 147 computed coefficients appears to be reasonable. The suspicious coefficient appears to result from unusual relationships among the means of the variables in the equation for hunting on trips. The completed calculations can be supplied to you as soon as they are typed if you would like to have them. I feel that this approach is more advantageous than any other under the circumstances.

II. Stochastic Equations

In the development of the structural system, I have been working with indicator variables valued at 0.0 for nonparticipation and 1.0 for participation. It seems desirable to estimate a system of equations with these indicators as endogenous variables in the system. Estimated proportions of the indicator variables valued at 1 can be interpreted as estimates of the proportions of households participating, or the probability of participation. Given a number of other considerations it seems desirable to work with a logarithmic transformation of the probabilities. The difficulty, of course, in this is that the logarithm of 0.0 is not defined.

A. The Approximations Used in the January Report

For purposes of estimation, I was able to employ the natural logarithmic transformation of 1.0, which is 0.0. Since the logarithm of 0.0 would be negative and larger than any negative number in a limiting sense, I chose the largest negative number I could use in computations. The value -10.0 upon

experimentation turned out to be the largest negative number I could use with our computer. It should be obvious that -10.0 is not a very large negative number and, therefore, should be a poor approximation for something larger and more negative than any negative number. After estimation, it turned out to be convenient to rescale the variables used to approximate logarithms of probabilities so that the -10.0 was replaced by -10,000.0. By this adjustment, it was hoped that logarithms of probabilities would be better approximated. At least, the data points associated with the logarithm of 0.0 might be better approximated.

It is somewhat paradoxical, however, that after a point, the larger and more negative a number used to approximate the logarithm of 0.0, the more poorly the logarithmic function may be approximated. The logarithmic function exhibits rather drastic change over the set of arguments from 0.0 to 0.05 covering a range from $-\infty$ to -3.0. Over the set of arguments 0.05 to 1.0, the logarithmic function varies from -3.0 to 0.0. The sample means of these probabilities ranged from roughly 0.10 to 0.40. The natural logarithms of these sample means ranged from -2.25 to -0.90. These may be seen on the accompanying graph.

In the previous version of the model, the logarithmic transformation of probabilities was approximated by a straight line connecting the points -10,000. and 0.0 on the logarithmic axis. As pointed out earlier, this was done in an attempt to gain precision in the approximation of the logarithm of 0.0. It can be easily seen that this approach provided extremely biased estimates of the logarithms of probabilities. At a sample mean of an indicator variable of 0.10, which corresponds to the sample mean probability of hunting given overnight trips, the approximation to the logarithm of 0.10 was -9,000. The logarithm of 0.10 is about -2.25. The value -9,000 corresponds to a number extremely close to 0.0 when exponentiated. On the other end of the range, the sample means for probability of fishing given overnight trips is very near 0.40. The approximation to the logarithm of this number used was -6,000. The logarithm of 0.40 is about -0.90 while -6,000. is also extremely close to 0.0 when exponentiated.

In short, the method of approximating the logarithm of probabilities that was used in the earlier report biases all the probability effects to 0.0. It would seem to be of utmost importance to find a method that would reduce this bias as much as possible at the point of means at least.

B. Proposed Method

A method was devided for adjusting the approximations to the logarithms of probabilities obtained previously in such a manner that they would be unbiased at the point of means. This method might be called the Q.D. method because it simply involves adjusting the scale on the linear approximations to logs of

probability variables. The scale adjustment is done in such a way that the linear approximations each map into ln(1.0) at a probability of 1.0 and $\ln(\bar{P})$ at each probability mean $\bar{P}$. This would clearly eliminate bias at the point of means and at 1.0. Clearly, bias can be eliminated at most at two points with any linear approximation to the logarithmic function. The previous method concentrated on biases at probabilities of 0.0 and 1.0. The Q.D. method is illustrated on the accompanying graph as the lines from the point (1.0, 0.0) and passing either through ln(.40), ln(.20) or ln(.10). It may be noted that the Q.D. method tends to bias probability estimates downward for estimates of ln(P) above the mean and bias upward for estimates of ln(P) below this mean. Biases, however are limited for estimates of ln(P) above the mean, becoming less and less biased after a point and unbiased again at ln(P) = ln(1.0). Thus, the Q.D. method has a built-in bias damping process that should prove valuable for long range projections.

To implement the Q.D. method one obtains an adjustment for the intercept of the linear approximation such that the linear approximation passes through $\ln(\bar{P})$. Adjustments in slope of the linear approximation and scale of the values will be embodied in the adjustment of the intercept.

If y is the approximation used for ln(P), in the previous work, then the approximation equation may be expressed as

$$y = -10{,}000 + 10{,}000P.$$

If y* represents the new approximation for ln(P) through the points $(\bar{P}, \ln(\bar{P}))$ and (10,000) its equation may be expressed as

$$y^* = \frac{\ln(\bar{P})}{1-\bar{P}} - \frac{\ln(\bar{P})}{1-\bar{P}}P$$

or $$y^* = \frac{-1}{10{,}000}\,\frac{\ln(\bar{P})}{1-\bar{P}}\,y = ky.$$

The adjustment factor k is then

$$k = \frac{-1}{10{,}000}\,\frac{\ln(\bar{P})}{1-\bar{P}}.$$

To convert the old approximations into the new values by the Q.D. method all that must be done is to multiply the old value by the adjustment factor k. Values of k for each of the 14 probabilities have been computed and parameters

in each of the 16 affected equations have been adjusted accordingly. It is the Q.D. method that we seek your agreement to employ in the adjustments to the econometric model.

Thank you for all the assistance you have given to us here at Texas A&M University. Your written agreement with the procedures proposed herein will allow Texas A&M University to provide the Texas Parks and Wildlife Department with the modelling results at the earliest possible date.

Sincerely yours,

Robert R. Wilson
Assistant Professor

ems
Enclosures

cc: Dr. H. O. Kunkel
Dr. Jarvis Miller
Dr. T. R. Timm
Dr. J. G. McNeely
Dr. R. J. Freund

PURDUE UNIVERSITY
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A7

169

May 24, 1972

Professor Robert R. Wilson
Department of Agricultural Economics
Texas A&M University
College Station, Texas 77804

Dear Bob:

Please excuse the delay in my response to your letter setting out the procedures for handling the problems with the identities and stochastic equations in the econometric model. I was out of town on a seminar trip last week and have not had sufficient time to study and respond to your suggestions until now.

Let me begin by indicating that the methods you have proposed for reformulating the 49 identities and approximating the logarithms for the 16 stochastic equations appear to be in agreement with the procedures we tentatively worked out in our earlier telephone conversation. In view of the fact that a number of people may have occasion to consult this response toyour proposal it may however be useful for me to comment specifically on the methods suggested for approaching the problems involved in the identities and stochastic equations.

The reasoning in connection with the proposed approximation for the identities is sound. I agree that a Taylor's Series approximation of the right-hand-side of equation (3) as expanded for w and y is likely to give rise to some rather unwieldy expressions and that in view of this difficulty some other method would be more appropriate. The method proposed at the February meeting was c clearly a stop-gap measure and is inferior to the differential approximation for the reasons you have suggested. It may provide some useful insights, however, as a simple alternative in situations when the more complicated differential approximation turns out to give results which are suspect.

As I have already indicated the Taylor's expansion about the point of means or the differential approximation seems the most appropriate of the three approaches, given the circumstances as they are now. I am concurring with

your suggestion mainly on the basis of my intuition. The approximation and reasoning surrounding it are of course correct. However, in situations of this type the degree of satisfaction is many times a conditional upon the function to be approximated. Since this is a numerical question specific to your data I recommend that you do as much as possible to assure yourself that the first order expansion is performing as desired.

The stochastic equations represent a problem of a different order than that involved with the identities. As was the case with the identities we are interested in adjusting the equations so that they perform well at the sample means. In this respect the adjustments you suggest are appropriate. The question of the effect of these adjustments on the parameter values as initially estimated is however unclear to me. I suspect that there is some effect on the parameters but that it would be rather difficult to determine. Hence, the method you have suggested is acceptable. However, in view of the possibiltiy of a difficulty with the parameters, I would suggest that you be rather careful to calibrate the equations so that they perform well at the sample means.

I hope these comments and our earlier telephone conversations have been of some use to you. As we both have indicated a number of times, this is exploratory work both in terms of model formulation and estimation. The isolation of a rduced form which will perform satisfactorly may therefore be rather difficult. Hence I suggest that you may use such calibrating and other "Sherlock Holmes" type methods as are required to obtain an acceptable reduced form.

Sincerely,

Stanley R. Johnson
Visiting Professor

SRJ: rr

cc: H.O. Kunkel
T.R. Timm
J.G. McNeely
R.J. Freund
R. Thuma

Appendix B

Projections of Statewide Totals for Participation Using a Type 2 Bias Correction Factor of 0.1.

FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1975 LOW

172

STATEWIDE TOTAL NOTRIPON = 0.10104D 08

STATEWIDE TOTAL NOVACATN = 0.16104D 07

STATEWIDE TOTAL OBTRIPON = 0.11051D 08

STATEWIDE TOTAL OCTRIPON = 0.18475D 08

STATEWIDE TOTAL OFTRIPON = 0.21096D 08

STATEWIDE TOTAL OHTRIPON = 0.78224D 07

STATEWIDE TOTAL OPTRIPON = 0.12108D 08

STATEWIDE TOTAL OSTRIPON = 0.13719D 08

STATEWIDE TOTAL OBVACATN = 0.27245D 07

STATEWIDE TOTAL OCVACATN = 0.36690D 07

STATEWIDE TOTAL OFVACATN = 0.63016D 07

STATEWIDE TOTAL OHVACATN = 0.72781D 06

STATEWIDE TOTAL OPVACATN = 0.34252D 07

STATEWIDE TOTAL OSVACATN = 0.43319D 07

DJUSTED FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1975 LOW

STATEWIDE TOTAL QBTRIPON = 0.99184D 07

STATEWIDE TOTAL QCTRIPON = 0.16409D 08

STATEWIDE TOTAL QRTRIPON = 0.19197D 08

STATEWIDE TOTAL QHTRIPON = 0.64496D 07

STATEWIDE TOTAL QPTRIPON = 0.10676D 08

STATEWIDE TOTAL QSTRIPON = 0.10649D 08

STATEWIDE TOTAL QBVACATN = 0.22146D 07

STATEWIDE TOTAL QCVACATN = 0.53454D 07

STATEWIDE TOTAL QRVACATN = 0.43530D 07

STATEWIDE TOTAL QHVACATN = 0.82992D 06

STATEWIDE TOTAL QPVACATN = 0.20258D 07

STATEWIDE TOTAL QSVACATN = 0.33596D 07

FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1975 MEDIUM

174

STATEWIDE TOTAL NOTRIPON = 0.94054D 07

STATEWIDE TOTAL NOVACATN = 0.15900D 07

STATEWIDE TOTAL QBTRIPON = 0.10113D 08

STATEWIDE TOTAL QCTRIPON = 0.17428D 08

STATEWIDE TOTAL QFTRIPON = 0.19802D 08

STATEWIDE TOTAL QHTRIPON = 0.70057D 07

STATEWIDE TOTAL QPTRIPON = 0.11385D 08

STATEWIDE TOTAL QSTRIPON = 0.12749D 08

STATEWIDE TOTAL QBVACATN = 0.26959D 07

STATEWIDE TOTAL QCVACATN = 0.33497D 07

STATEWIDE TOTAL QFVACATN = 0.64149D 07

STATEWIDE TOTAL QHVACATN = 0.83144D 06

STATEWIDE TOTAL QPVACATN = 0.34303D 07

STATEWIDE TOTAL QSVACATN = 0.43334D 07

IUSTED FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1975 MEDIUM

105

ATEWIDE TOTAL QBTRIPON = 0.90895D 07

ATEWIDE TOTAL QCTRIPON = 0.15471D 08

ATEWIDE TOTAL QFTRIPON = 0.18011D 08

ATEWIDE TOTAL QHTRIPON = 0.57757D 07

ATEWIDE TOTAL QPTRIPON = 0.10039D 08

ATEWIDE TOTAL QSTRIPON = 0.98948D 07

ATEWIDE TOTAL QBVACATN = 0.21908D 07

ATEWIDE TOTAL QCVACATN = 0.51522D 07

ATEWIDE TOTAL QFVACATN = 0.44266D 07

ATEWIDE TOTAL QHVACATN = 0.94690D 06

ATEWIDE TOTAL QPVACATN = 0.20278D 07

ATEWIDE TOTAL QSVACATN = 0.38577D 07

FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1975 HIGH

176

STATEWIDE TOTAL NOTRIPON = 0.10271D 08

STATEWIDE TOTAL NOVACATN = 0.15833D 07

STATEWIDE TOTAL QOTRIPON = 0.10902D 08

STATEWIDE TOTAL QCTRIPON = 0.19260D 08

STATEWIDE TOTAL QPTRIPON = 0.21758D 08

STATEWIDE TOTAL QHTRIPON = 0.72400D 07

STATEWIDE TOTAL QPTRIPON = 0.12579D 09

STATEWIDE TOTAL QSTRIPON = 0.13756D 08

STATEWIDE TOTAL QSVACATN = 0.25969D 07

STATEWIDE TOTAL QCVACATN = 0.82149D 07

STATEWIDE TOTAL QFVACATN = 0.63491D 07

STATEWIDE TOTAL QHVACATN = 0.88650D 06

STATEWIDE TOTAL QPVACATN = 0.33693D 07

STATEWIDE TOTAL QSVACATN = 0.41036D 07

USTED FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1975 HIGH

ATEWIDE TOTAL QBTRIPON = 0.98013D 07

ATEWIDE TOTAL QCTRIPON = 0.17093D 08

ATEWIDE TOTAL QFTRIPON = 0.19790D 08

ATEWIDE TOTAL QHTRIPON = 0.59685D 07

ATEWIDE TOTAL QPTRIPON = 0.11096D 08

ATEWIDE TOTAL QSTRIPON = 0.10676D 08

ATEWIDE TOTAL QBVACATN = 0.21111D 07

ATEWIDE TOTAL QCVACATN = 0.50702D 07

ATEWIDE TOTAL QFVACATN = 0.43794D 07

ATEWIDE TOTAL QHVACATN = 0.10094D 07

ATEWIDE TOTAL QPVACATN = 0.19903D 07

ATEWIDE TOTAL QSVACATN = 0.36538D 07

FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1980 LOW

178

STATEWIDE TOTAL NQTRIPON = 0.10559D 08

STATEWIDE TOTAL NQVACATN = 0.18199D 07

STATEWIDE TOTAL QBTRIPON = 0.11453D 08

STATEWIDE TOTAL QCTRIPON = 0.19407D 08

STATEWIDE TOTAL QFTRIPON = 0.22056D 08

STATEWIDE TOTAL QHTRIPON = 0.79541D 07

STATEWIDE TOTAL QPTRIPON = 0.12627D 08

STATEWIDE TOTAL QSTRIPON = 0.14429D 08

STATEWIDE TOTAL QRVACATN = 0.26958D 07

STATEWIDE TOTAL QCVACATN = 0.10191D 08

STATEWIDE TOTAL QFVACATN = 0.62994D 07

STATEWIDE TOTAL QHVACATN = 0.61221D 06

STATEWIDE TOTAL QPVACATN = 0.35730D 07

STATEWIDE TOTAL QSVACATN = 0.39928D 07

)JUSTED FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1980 LOW

179

STATEWIDE TOTAL Q8TRIPON = 0.10312D 08

STATEWIDE TOTAL QCTRIPON = 0.17231D 08

STATEWIDE TOTAL QFTRIPON = 0.20108D 08

STATEWIDE TOTAL QHTRIPON = 0.65653D 07

STATEWIDE TOTAL QPTRIPON = 0.11141D 08

STATEWIDE TOTAL QSTRIPON = 0.11204D 08

STATEWIDE TOTAL Q8VACATN = 0.21884D 07

STATEWIDE TOTAL QCVACATN = 0.62961D 07

STATEWIDE TOTAL QFVACATN = 0.43462D 07

STATEWIDE TOTAL QHVACATN = 0.69885D 06

STATEWIDE TOTAL QPVACATN = 0.21206D 07

STATEWIDE TOTAL QSVACATN = 0.35556D 07

FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1980 MEDIUM

180

STATEWIDE TOTAL NOTRIPON = 0.10968D 08

STATEWIDE TOTAL NOVACATN = 0.17854D 07

STATEWIDE TOTAL QBTRIPON = 0.11772D 08

STATEWIDE TOTAL QCTRIPON = 0.20407D 08

STATEWIDE TOTAL QFTRIPON = 0.23067D 08

STATEWIDE TOTAL QHTRIPON = 0.78604D 07

STATEWIDE TOTAL QPTRIPON = 0.13311D 08

STATEWIDE TOTAL QSTRIPON = 0.14833D 08

STATEWIDE TOTAL QBVACATN = 0.27094D 07

STATEWIDE TOTAL QCVACATN = 0.96790D 07

STATEWIDE TOTAL QFVACATN = 0.63831D 07

STATEWIDE TOTAL QHVACATN = 0.73837D 06

STATEWIDE TOTAL QPVACATN = 0.36114D 07

STATEWIDE TOTAL QSVACATN = 0.41952D 07

USTED FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1980 MEDIUM

181

ATEWIDE TOTAL QBTRIPON = 0.10597D 08

ATEWIDE TOTAL QCTRIPON = 0.18107D 08

ATEWIDE TOTAL QETRIPON = 0.21007D 08

ATEWIDE TOTAL QHTRIPON = 0.64861D 07

ATEWIDE TOTAL QPTRIPON = 0.11738D 08

ATEWIDE TOTAL QSTRIPON = 0.11551D 08

ATEWIDE TOTAL QBVACATN = 0.21992D 07

ATEWIDE TOTAL QCVACATN = 0.59777D 07

ATEWIDE TOTAL QEVACATN = 0.44032D 07

ATEWIDE TOTAL QHVACATN = 0.84351D 06

ATEWIDE TOTAL QPVACATN = 0.21438D 07

ATEWIDE TOTAL QSVACATN = 0.37337D 07

FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1980 HIGH

182

STATEWIDE TOTAL NOTRIPON = 0.11243D 08

STATEWIDE TOTAL NOVACATN = 0.17604D 07

STATEWIDE TOTAL QBTRIPON = 0.11905D 08

STATEWIDE TOTAL QCTRIPON = 0.21176D 08

STATEWIDE TOTAL QFTRIPON = 0.23803D 08

STATEWIDE TOTAL QHTRIPON = 0.76680D 07

STATEWIDE TOTAL QPTRIPON = 0.13793D 08

STATEWIDE TOTAL QSTRIPON = 0.15151D 08

STATEWIDE TOTAL QBVACATN = 0.27030D 07

STATEWIDE TOTAL QCVACATN = 0.92824D 07

STATEWIDE TOTAL QFVACATN = 0.64834D 07

STATEWIDE TOTAL QHVACATN = 0.85433D 06

STATEWIDE TOTAL QPVACATN = 0.36404D 07

STATEWIDE TOTAL QSVACATN = 0.41976D 07

JUSTED FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1980 HIGH

183

TATEWIDE TOTAL QBTRIPON = 0.10716D 08

TATEWIDE TOTAL QCTRIPON = 0.18776D 08

TATEWIDE TOTAL QFTRIPON = 0.21664D 08

TATEWIDE TOTAL QHTRIPON = 0.63253D 07

TATEWIDE TOTAL QPTRIPON = 0.12158D 08

TATEWIDE TOTAL QSTRIPON = 0.11754D 08

TATEWIDE TOTAL QBVACATN = 0.21944D 07

TATEWIDE TOTAL QCVACATN = 0.57434D 07

TATEWIDE TOTAL QFVACATN = 0.44709D 07

TATEWIDE TOTAL QHVACATN = 0.97515D 06

TATEWIDE TOTAL QPVACATN = 0.21606D 07

TATEWIDE TOTAL QSVACATN = 0.37340D 07

FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1990 LOW

184

STATEWIDE TOTAL NOTRIPON = 0.10578D 08

STATEWIDE TOTAL NOVACATN = 0.22833D 07

STATEWIDE TOTAL OBTRIPON = 0.11479D 08

STATEWIDE TOTAL OCTRIPON = 0.19511D 08

STATEWIDE TOTAL OFTRIPON = 0.22107D 08

STATEWIDE TOTAL OHTRIPON = 0.76459D 07

STATEWIDE TOTAL OPTRIPON = 0.12662D 08

STATEWIDE TOTAL OSTRIPON = 0.14732D 08

STATEWIDE TOTAL OSVACATN = 0.27033D 07

STATEWIDE TOTAL OCVACATN = 0.13740D 06

STATEWIDE TOTAL OFVACATN = 0.64792D 07

STATEWIDE TOTAL OHVACATN = 0.42532D 06

STATEWIDE TOTAL OPVACATN = 0.38929D 07

STATEWIDE TOTAL OSVACATN = 0.32214D 07

JUSTED FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1990 LOW

185

TATEWIDE TOTAL QBTRIPON = 0.10324D 08

TATEWIDE TOTAL QCTRIPON = 0.17357D 08

TATEWIDE TOTAL QFTRIPON = 0.20203D 08

TATEWIDE TOTAL QHTRIPON = 0.63139D 07

TATEWIDE TOTAL QPTRIPON = 0.11177D 08

TATEWIDE TOTAL QSTRIPON = 0.11434D 08

TATEWIDE TOTAL QBVACATN = 0.21833D 07

TATEWIDE TOTAL QCVACATN = 0.84738D 07

TATEWIDE TOTAL QFVACATN = 0.44653D 07

TATEWIDE TOTAL QHVACATN = 0.48804D 06

TATEWIDE TOTAL QPVACATN = 0.23314D 07

TATEWIDE TOTAL QSVACATN = 0.28723D 07

FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1990 MEDIUM

186

STATEWIDE TOTAL NOTRIPON = 0.10911D 08

STATEWIDE TOTAL NOVACATN = 0.22028D 07

STATEWIDE TOTAL OBTRIPON = 0.11717D 08

STATEWIDE TOTAL OCTRIPON = 0.20366D 08

STATEWIDE TOTAL OFTRIPON = 0.22949D 08

STATEWIDE TOTAL OHTRIPON = 0.75175D 07

STATEWIDE TOTAL OPTRIPON = 0.13243D 08

STATEWIDE TOTAL OSTRIPON = 0.15082D 08

STATEWIDE TOTAL OBVACATN = 0.28931D 07

STATEWIDE TOTAL OCVACATN = 0.12477D 08

STATEWIDE TOTAL OFVACATN = 0.69166D 07

STATEWIDE TOTAL OHVACATN = 0.69793D 06

STATEWIDE TOTAL OPVACATN = 0.40735D 07

STATEWIDE TOTAL OSVACATN = 0.35955D 07

USTED FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1990 MEDIUM

187

ATEWIDE TOTAL QBTRIPON = 0.10527D 08

ATEWIDE TOTAL QCTRIPON = 0.18038D 08

ATEWIDE TOTAL QFTRIPON = 0.20942D 08

ATEWIDE TOTAL QHTRIPON = 0.62056D 07

ATEWIDE TOTAL QPTRIPON = 0.11673D 08

ATEWIDE TOTAL QSTRIPON = 0.11688D 08

ATEWIDE TOTAL QBVACATN = 0.23438D 07

ATEWIDE TOTAL QCVACATN = 0.76889D 07

ATEWIDE TOTAL QFVACATN = 0.47724D 07

ATEWIDE TOTAL QHVACATN = 0.70165D 06

ATEWIDE TOTAL QPVACATN = 0.24427D 07

ATEWIDE TOTAL QSVACATN = 0.34750D 07

FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1990 HIGH

188

STATEWIDE TOTAL NOTRIPON = 0.11403D 08

STATEWIDE TOTAL NOVACATN = 0.21650D 07

STATEWIDE TOTAL QBTRIPON = 0.12141D 08

STATEWIDE TOTAL QCTRIPON = 0.21525D 08

STATEWIDE TOTAL QFTRIPON = 0.24117D 08

STATEWIDE TOTAL QHTRIPON = 0.74849D 07

STATEWIDE TOTAL QPTRIPON = 0.13994D 08

STATEWIDE TOTAL QSTRIPON = 0.15627D 08

STATEWIDE TOTAL QBVACATN = 0.29216D 07

STATEWIDE TOTAL QCVACATN = 0.11895D 08

STATEWIDE TOTAL QFVACATN = 0.69702D 07

STATEWIDE TOTAL QHVACATN = 0.72360D 06

STATEWIDE TOTAL QPVACATN = 0.41447D 07

STATEWIDE TOTAL QSVACATN = 0.40239D 07

)JUSTED FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 1990 HIGH

189

STATEWIDE TOTAL QBTRIPON = 0.10900D 08

STATEWIDE TOTAL QCTRIPON = 0.19091D 08

STATEWIDE TOTAL QFTRIPON = 0.21983D 08

STATEWIDE TOTAL QHTRIPON = 0.61732D 07

STATEWIDE TOTAL QPTRIPON = 0.12330D 08

STATEWIDE TOTAL QSTRIPON = 0.12097D 08

STATEWIDE TOTAL QBVACATN = 0.23679D 07

STATEWIDE TOTAL QCVACATN = 0.73254D 07

STATEWIDE TOTAL QFVACATN = 0.48114D 07

STATEWIDE TOTAL QHVACATN = 0.83715D 06

STATEWIDE TOTAL QPVACATN = 0.24856D 07

STATEWIDE TOTAL QSVACATN = 0.35963D 07

FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 2000 LOW

190

STATEWIDE TOTAL NOTRIPON = 0.15163D 08

STATEWIDE TOTAL NOVACATN = 0.27173D 07

STATEWIDE TOTAL OBTRIPON = 0.16640D 08

STATEWIDE TOTAL OCTRIPON = 0.28056D 08

STATEWIDE TOTAL OFTRIPON = 0.31650D 08

STATEWIDE TOTAL OHTRIPON = 0.10356D 08

STATEWIDE TOTAL OPTRIPON = 0.18393D 08

STATEWIDE TOTAL OSTRIPON = 0.20922D 08

STATEWIDE TOTAL OBVACATN = 0.27612D 07

STATEWIDE TOTAL OCVACATN = 0.16917D 08

STATEWIDE TOTAL OFVACATN = 0.65952D 07

STATEWIDE TOTAL OHVACATN = 0.34955D 06

STATEWIDE TOTAL OPVACATN = 0.42387D 07

STATEWIDE TOTAL OSVACATN = 0.24841D 07

DJUSTED FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 2000 LOW

191

STATEWIDE TOTAL QBTRIPON = 0.14989D 08

STATEWIDE TOTAL QCTRIPON = 0.24938D 08

STATEWIDE TOTAL QFTRIPON = 0.28935D 08

STATEWIDE TOTAL QHTRIPON = 0.85678D 07

STATEWIDE TOTAL QPTRIPON = 0.16235D 08

STATEWIDE TOTAL QSTRIPON = 0.16260D 08

STATEWIDE TOTAL QBVACATN = 0.22361D 07

STATEWIDE TOTAL QCVACATN = 0.10529D 08

STATEWIDE TOTAL QFVACATN = 0.45478D 07

STATEWIDE TOTAL QHVACATN = 0.39859D 06

STATEWIDE TOTAL QPVACATN = 0.25637D 07

STATEWIDE TOTAL QSVACATN = 0.22126D 07

FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 2000 MEDIUM

192

STATEWIDE TOTAL NOTRIPON = 0.15883D 08

STATEWIDE TOTAL NOVACATN = 0.26458D 07

STATEWIDE TOTAL QBTRIPON = 0.17263D 08

STATEWIDE TOTAL QCTRIPON = 0.29706D 08

STATEWIDE TOTAL QFTRIPON = 0.33330D 08

STATEWIDE TOTAL QHTRIPON = 0.10357D 08

STATEWIDE TOTAL QPTRIPON = 0.19477D 08

STATEWIDE TOTAL QSTRIPON = 0.21771D 08

STATEWIDE TOTAL QBVACATN = 0.28375D 07

STATEWIDE TOTAL QCVACATN = 0.15797D 08

STATEWIDE TOTAL QFVACATN = 0.67450D 07

STATEWIDE TOTAL QHVACATN = 0.46882D 06

STATEWIDE TOTAL QPVACATN = 0.43663D 07

STATEWIDE TOTAL QSVACATN = 0.27942D 07

USTED FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 2000 MEDIUM

193

ATEWIDE TOTAL QBTRIPON = 0.15539D 08

ATEWIDE TOTAL QCTRIPON = 0.26375D 08

ATEWIDE TOTAL QFTRIPON = 0.30439D 08

ATEWIDE TOTAL QHTRIPON = 0.85624D 07

ATEWIDE TOTAL QPTRIPON = 0.17131D 08

ATEWIDE TOTAL QSTRIPON = 0.16905D 08

ATEWIDE TOTAL QBVACATN = 0.22977D 07

ATEWIDE TOTAL QCVACATN = 0.98360D 07

ATEWIDE TOTAL QFVACATN = 0.46521D 07

ATEWIDE TOTAL QHVACATN = 0.53630D 06

ATEWIDE TOTAL QPVACATN = 0.26389D 07

ATEWIDE TOTAL QSVACATN = 0.24911D 07

JUSTED FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 2000 HIGH

194

TATEWIDE TOTAL QBTRIPON = 0.143810 08

TATEWIDE TOTAL QCTRIPON = 0.251450 08

TATEWIDE TOTAL QFTRIPON = 0.288250 08

TATEWIDE TOTAL QHTRIPON = 0.769410 07

TATEWIDE TOTAL QPTRIPON = 0.162870 08

TATEWIDE TOTAL QSTRIPON = 0.158830 08

TATEWIDE TOTAL QBVACATN = 0.223850 07

TATEWIDE TOTAL QCVACATN = 0.956600 07

TATEWIDE TOTAL QFVACATN = 0.470200 07

TATEWIDE TOTAL QHVACATN = 0.603830 06

TATEWIDE TOTAL QPVACATN = 0.262680 07

TATEWIDE TOTAL QSVACATN = 0.227460 07

FORECASTED STATEWIDE TOTALS OF ENDOGENOUS VARIABLES FOR 2000 HIGH

195

STATEWIDE TOTAL NOTRIPON = 0.14947D 08

STATEWIDE TOTAL NOVACATN = 0.26227D 07

STATEWIDE TOTAL QBTRIPON = 0.15977D 08

STATEWIDE TOTAL QCTRIPON = 0.28343D 08

STATEWIDE TOTAL QFTRIPON = 0.31582D 08

STATEWIDE TOTAL QHTRIPON = 0.93107D 07

STATEWIDE TOTAL QPTRIPON = 0.18470D 08

STATEWIDE TOTAL QSTRIPON = 0.20474D 08

STATEWIDE TOTAL QBVACATN = 0.27636D 07

STATEWIDE TOTAL QCVACATN = 0.15369D 08

STATEWIDE TOTAL QFVACATN = 0.68149D 07

STATEWIDE TOTAL QHVACATN = 0.52705D 06

STATEWIDE TOTAL QPVACATN = 0.43455D 07

STATEWIDE TOTAL QSVACATN = 0.25491D 07

Appendix C

A Supplement to The Demand for Non-Urban Outdoor Recreation in Texas: 1968-2000

Volume I, June 1, 1972

A Supplement to The Demand for Non-Urban Outdoor Recreation in Texas: 1968 - 2000, Volume I, June 1, 1972.

by Robert R. Wilson

In Volume I of the June 1, 1972 report entitled "The Demand for Non-Urban Outdoor Recreation in Texas: 1968 - 2000", it was indicated that some further checks on the validity of the model would be made and some possible modifications would be attempted. It is the purpose of this report to summarize the effort during June and July, 1972. Briefly stated, errors discovered in the June 1 version of the econometric model should have a minimal effect on its validity. Further modifications have not performed in a promising fashion. Therefore, the June 1, 1972 version should be employed as it stands, unless a substantial program of further research is to be instituted including a re-estimation of the structural model with new data.

Additional work following the submission of the June 1, 1972 report is summarized and documented in the following sections. A section on policy implications of reduced form coefficients is also included.

I. Each structural equation was checked for keypunch errors. Data was fed through each structural equation by hand to make sure each computed appropriate answers. Keypunch errors were discovered in the constant term in one equation and in an exogenous coefficient in another equation. Neither of these errors should have significantly affected the results. It was also discovered that the

26 identities that were deemed to be logically correct and were not adjusted during the February to May period do not perform correctly using means of the survey data. The model is, however, correct in principle. This occurred partly because the sample means are means of logarithms of quantity variables and logarithms of means of probability variables and are used together in the identities. The two different methods were required because of data limitations but are inconsistent from a mathematical viewpoint. The constant 1.0 added to each quantity variable prior to computing its logarithm may also have contributed to the bias in the apparently correct identities.

II. Keypunch errors in the two equations were corrected; the 26 identities that had not been previously adjusted for bias were corrected; and a coefficient in an identity that was correctly computed but had an illogical algebraic sign was set to 0.0 and the constant in that equation adjusted to compensate for the change. In all, 30 changes were made in the system.

III. All computer programs used in the derivation of the forecasting system from the structural model were tested again on sample problems and were found to be operating correctly.

IV. The structural system further adjusted as described in part II above, was solved for the reduced form forecasting system. Upon feeding regional sample means for 1968 and projections of these means for 1975, 1980, 1990, and 2000, through this reduced form forecasting system, the 1968 forecasts were found to be grossly different from observed means for 1968, particularly for the trip variables, and highly insensitive to changes in the policy variables.

This system could not be systematically calibrated in such a way as to be

an improvement over the forecasting system reported in the June 1, 1972 report. Given that the data are known to contain nonsampling errors, as reported on pages 7 to 11 of Volume 1 of the June 1, 1972 report, it was attempted to adjust the forecasts to more closely approximate the observed regional means using least squares. The observed regional mean of each unconditioned endogenous variable was regressed on its value forecasted by the reduced form system. This corresponds to an attempt to estimate the parameters of a transformation hyperplane of measurement errors as discussed in Chapter 10 of Malinvaud's Statistical Methods of Econometrics. In this estimation attempt it was assumed among other things, that the unconditioned sample means of the endogenous variables were relatively less affected by errors (corresponded closely to true values) than were equations fitted to endogenous and exogenous variables all subject to error. The approach seemed to perform statisfactorily on one or two of the fourteen equations. In the June 1, 1972 version of the model, the parameters of the transformation hyperplane were chosen by experimenting with a number of values for the parameters and choosing those values that seemed to perform most reasonably in the current and future simulations. In the remaining equations, the correlation between the observed and forecasted values either approached or attained statistical non-significance at the 5 percent level (assuming such a test to be exact). Malinvaud's discussion points out that any methods to treat the problem are highly experimental at this point in that the parameters of the hyperplane may be difficult to estimate for a variety of reasons. What that means for our situation is that it is not likely possible for us to achieve a reduced form system that can be easily identified using the data from the household survey. The apparent identification

of the structural system may also have been destroyed by nonsampling errors but that is not apparent from its performance. A similar statement may be made about the gravity model.

A pattern consistent with the performance of the model observed earlier seems to have evolved. As adjustments for biases in the structure have been made, the forecasting performance has deteriorated. That is, as the structure become more nearly perfected, containing fewer internal biases resulting from mathematical specifications, biases resulting from nonsampling errors in the data have become more apparent. In this forecasting system, trip equations generally performed much more poorly than vacation equations, which seems consistent with the apparently larger proportion of nonsampling errors in the trip data. The planned straightforward adjustments did not produce the expected results. Substantial restructuring of the model to minimize the effects of nonsampling errors in the data and possible use of new data appear to be needed.

V. To complete the requested documentation of the econometric model, policy interpretations are given, using the adjusted reduced form equation for QBTRIPON, on page 66 of Volume I of the June 1, 1972 report, as an example. The interpretation of each equation would be repetitive and unnecessary. The coefficients of the reduced form equations can be interpreted as estimates of elastictics of demand for the endogenous variables with respect to the exogenous variable. This means that a 1.0 percentage change in the (unlogged) value of an exogenous variable will cause a percentage change in the endogenous variable QBTRIPON of the magnitude of the coefficient. For example, a 1.0 percentage change in HHINCOME is expected to produce a 1.7321 percentage change in QBTRIPON.

Following this line of interpretation, the estimated percentage change in demand for QBTRIPON with respect to a 1.0 percent change in OTHERTRP is 5.949; HRWRK/WK is 1.9216; and FAMLYSZE is -4.7224. Moving on down to the availability variables that are controlled by policy decisions, we see that the estimated percentage change in demand for QBTRIPON with respect to a 1.0 percent change in AVACFWL1 is 0.5701; AVFSHOL1 is 1.8858; AVFWBOT1 is 0.0577; AVSWBOT1 is .0548; AVACFWL2 is .0163; AVFSHQL2 is -.0046; AVFWBOT2 is .0122; and AVSWBOT2 is .0045. The remaining elasticities are interpreted in the same fashion. Of the 85 elasticity coefficients in the equation, some 14 of them appear to have algebraic signs different from those expected. The most serious of these coefficients with improper signs are associated with AVFWBOT1 and AVSWBOT1.

VI. It is recommended that if Texas Parks and Wildlife wishes to use an econometric model in their state plan that they should employ the results contained in the June 1, 1972 report. Given the limitations of the household survey data, the June 1 version of the model may likely be as highly refined as possible without the use of better data. That is, the June 1 report is complete and the model in it is usable and should stand as is. The coefficients in the equations in that model have relative magnitudes that are amenable to calibration and adjustment by specified hyperplane parameters. In fairness I should point out that all possible adjustment experiments have not been performed, but it is my opinion as an econometrician that their chances for success appear dismal. Although I plan to continue refinements of the econometric model in the future, it seems at this point unlikely that many refinements can be successful without the use of new data. For that reason, it may not be possible to incorporate such refinements

into the Texas Outdoor Recreation Plan. I am confident that the approach that we have used would have produced better results if the data were not badly in error. It seems fortunate that the gravity results and the structural system are not as obviously affected by such data errors.