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GOVERNOR GEORGE ROMNEY'S  
SPECIAL COMMISSION  
ON TRANSPORTATION

February 10, 1966

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FORM 94

GOVERNOR GEORGE ROMNEY'S  
SPECIAL COMMISSION ON TRANSPORTATION

Northland Inn  
February 10, 1966

ADAMS: Good evening, Gentlemen:

I note that our attendance is about 10% off from our meeting three weeks ago. I can only conclude that this means that I am not as good a drawing card as Governor Romney. However, I am pleased that we have better than two-thirds showing on such an inclement evening.

I would like to report that, since our last meeting, I have had many kind comments and letters from Commission members about their enthusiasm for this project -- and their pleasure in the Governor's deep interest in our activities.

Two weeks ago, I had an opportunity to personally acquaint John Connor, Secretary of Commerce of the United States, with our activities. He expressed both interest and admiration -- and asked me to send him a copy of our membership and operations. He, also, suggested that I write Allan Boyd, Under Secretary of Commerce on Transportation, to attend one of our up-coming meetings. I have, of course, done so.

Last week, I attended the first conference on Urban Transportation in Pittsburgh as Governor Romney's representative. I learned a great deal and met many people who should be helpful to us. There were about 1200 people at the meeting. It was well organized and professionally handled. I would like to comment, however, that the overwhelming emphasis of the three-day conference was on mass fixed-rail transit -- and that automobiles and personal means of transportation were referred to only in criticism. In fact, it would not be too much to say that the attitude of the conference was essentially "anti-automobile." I believe that the meeting would have been far more meaningful if it had had better prospective and better balance. Dick MacManus was also on hand and was in agreement with my thoughts on the meeting.

DICK MACMANUS: Yes, the meeting dealt almost entirely with fixed-rail transit. In fact, the meeting seemed to be a kick-off for making Pennsylvania the capitol of mass transit development. A \$300,000 grant for this purpose was announced at the end of the meeting -- and I wonder if we should have an annual conference here in Detroit to put things in perspective.

ADAMS: I would like to move the meeting along briskly because we have some important things to do and it will be time-consuming. We have three distinguished guests with us this evening. Each will address us on specific subjects and will answer any questions which we might have.

The first is Dick Strichartz, Controller of the City of Detroit. Dick is here representing Mayor Cavanagh -- and will talk to us on Detroit's approach to its long-range transportation needs. Mr. Strichartz:

REMARKS BY RICHARD STRICHARTZ  
CITY CONTROLLER, CITY OF DETROIT

STRICHARTZ: (As reconstructed by Charles F. Adams) An off-the-cuff, off-the-record speech by Richard Strichartz followed, including a brief history of transportation in Detroit, an analysis of Detroit's current approach to the problem and a discussion of the problem of dealing with the many members and levels of governmental bodies having jurisdiction in and over the Detroit area. In reply to specific questions, Mr. Strichartz replied that there were still obstacles to the completion of the experimental teletrans installation between Seven and Eight Mile Road on Woodward and that while it might prove the workability of such a project, it would not give any real answers as to demand or use. Mr. Strichartz, in reply to the inquiry as to whether the City of Detroit would rather receive its transportation help directly from the Federal Government or through the State Government, replied that they would rather receive it through the State because of its greater and more intimate familiarity with problems in the area. He qualified this, however, by saying that the State should, however, bring something to the relationship and not be a mere dispenser of funds. It should study and contribute to the problem.

ADAMS: The second speaker this evening is Clarence Byrd from the University of Michigan. Mr. Byrd has been assisting Professor Paul MacCracken on an analysis of Michigan's economic future -- and we are pleased to have him here representing the University in giving us our economic outlook. Mr. Byrd:

## THE GROWTH OF THE MICHIGAN ECONOMY

By Clarence Byrd, University of Michigan

The projections that I am about to present to you have been made as part of a broadly based study on the Michigan economy, the Michigan Energy Study. They will be published, along with the remainder of the study, by the Bureau of Business Research of the University of Michigan.

(See Chart I)

This first chart shows the growth of Michigan's population, both in total and as a percent of the United States. We can see here that Michigan's raw material based industry was not sufficient to keep the state's late nineteenth century progress at a level comparable to that of the nation. However, the turn of the century brought with it the automobile. Michigan's leadership in this field gave it the impetus required to grow rapidly and become the prosperous, heavily industrialized state that we are familiar with today.

Can Michigan continue to grow at the rapid pace that it has experienced over the last 60 years? We shall examine this question this evening by projecting Michigan's output over the period between now and 1980.

(See Chart II)

As a check on the reliability of our results, we have used two methods of projecting Michigan's gross state output. Our first method is diagrammed in this chart. It basically involves projecting the 1980 United States output total. Then by assuming that Michigan's share of the national total will remain a constant 4 1/2 percent, we simply multiply this figure by the projection of the United States gross national product. The 4 1/2 percent figure is based on the fact that this has been the average postwar relationship between the United States and Michigan personal income data.

(See Chart III)

Our projection of United States gross national product begins with a projection of United States gross national product per civilian employee. Technological change has caused this statistic to grow consistently. However, it has grown at different rates during various periods. Between 1948 and 1964 it grew by 2.6 percent per year; between 1948 and 1947 the average annual increase was 2.7 percent; and between 1929 and 1964 it increased by 1.9 percent annually. We have used all three of these rates in our projections.

With these projections of gross national product per civilian employee in hand, we may simply multiply them by some estimate of the future United States labor force. We have used labor force projections made by the Bureau of Labor Statistics. These projections indicate that the



United States labor force will grow to 86 million by 1970, to 94 million in 1975, and by 1980 to 101 million. In using these projections we have assumed two different rates of unemployment, 4 and 5 percent. These two unemployment assumptions combined with the three possible growth rates in gross national product per civilian employee, give us the six projections of United States gross national product shown in this table.

(See Chart IV)

Multiplying these figures by Michigan's 4 1/2 percent share of the national total gives us the projections of Michigan's gross state output shown in this next table.

(See Chart V)

We can expect that Michigan's 1980 gross state output will be between 48 and 54 billion dollars. This implies growth rates ranging from 3.7 to 4.6 percent annually. These figures would of course be lower if unemployment were to rise above 5 percent.

(See Chart VI)

Our second projection method is diagrammed in this chart. This method is similar to that used for making the United States projections under our first method, and as such does away with the assumption that Michigan will have a constant share of United States gross national product.

(See Chart VII)

This chart shows the projection of Michigan's population that we have used. It is the work of David Goldberg and is found in Michigan In The 1970's. This projection assumes that migration to or from the state will average out to zero over the period under consideration and that natural birth and death factors will give the state a 1980 population of slightly over 10 million.

Converting population statistics to labor force data basically involves expected rates of participation in the labor force. We have made fairly typical participation rate assumptions. Specifically, participation rates are expected to increase for women 25 and over and to decrease for men under 25 and over 55. Applying these participation rates gives the labor force projections shown in this chart.

(See Chart VIII)

Michigan's labor force is expected to exceed 8 million in 1980 and to maintain a share of the United States labor force in excess of 4 percent.

At this point we are in need of an estimate of Michigan's gross state product per civilian employee. This presented a problem in that no gross state product data existed. For the period 1949 to 1964 a series of gross state product data was developed using state personal income data as its base. This data was divided by state employment figures and the resulting gross state product per civilian employee figures were compared with the

analogous United States figures. We found that Michigan's gross state product per civilian employee figures averaged 111 percent of the similar United States figures. Applying this relationship to our earlier estimates of United States gross national product per civilian employee gave us the Michigan gross state product per civilian employee projections shown in this table.

(See Chart IX)

Multiplying these gross state product per civilian employee figures times our earlier projections of Michigan's labor force (minus unemployment) gives us the gross state product projections shown in this table.

(See Chart X)

These estimates range from 48.5 billion dollars to 55.5 billion dollars. They imply slightly higher growth rates than our first set of estimates. However, the two sets of estimates are quite close together, a fact which enhances their plausibility.

(See Chart XI)

This final chart summarizes our results. From a 1949 base of \$15 billion, Michigan's gross state product rises rapidly to \$23 billion in 1955. It then levels off until 1961, then turns sharply upward to reach \$27 billion in 1964. From this point our projections suggest that state output will rise to between \$48 and \$55.5 billion in 1980. There would seem to be nothing on the economic horizon to prevent these estimates from being realized.

# MICHIGAN POPULATION

## TOTALS AND PERCENT OF U.S. A.

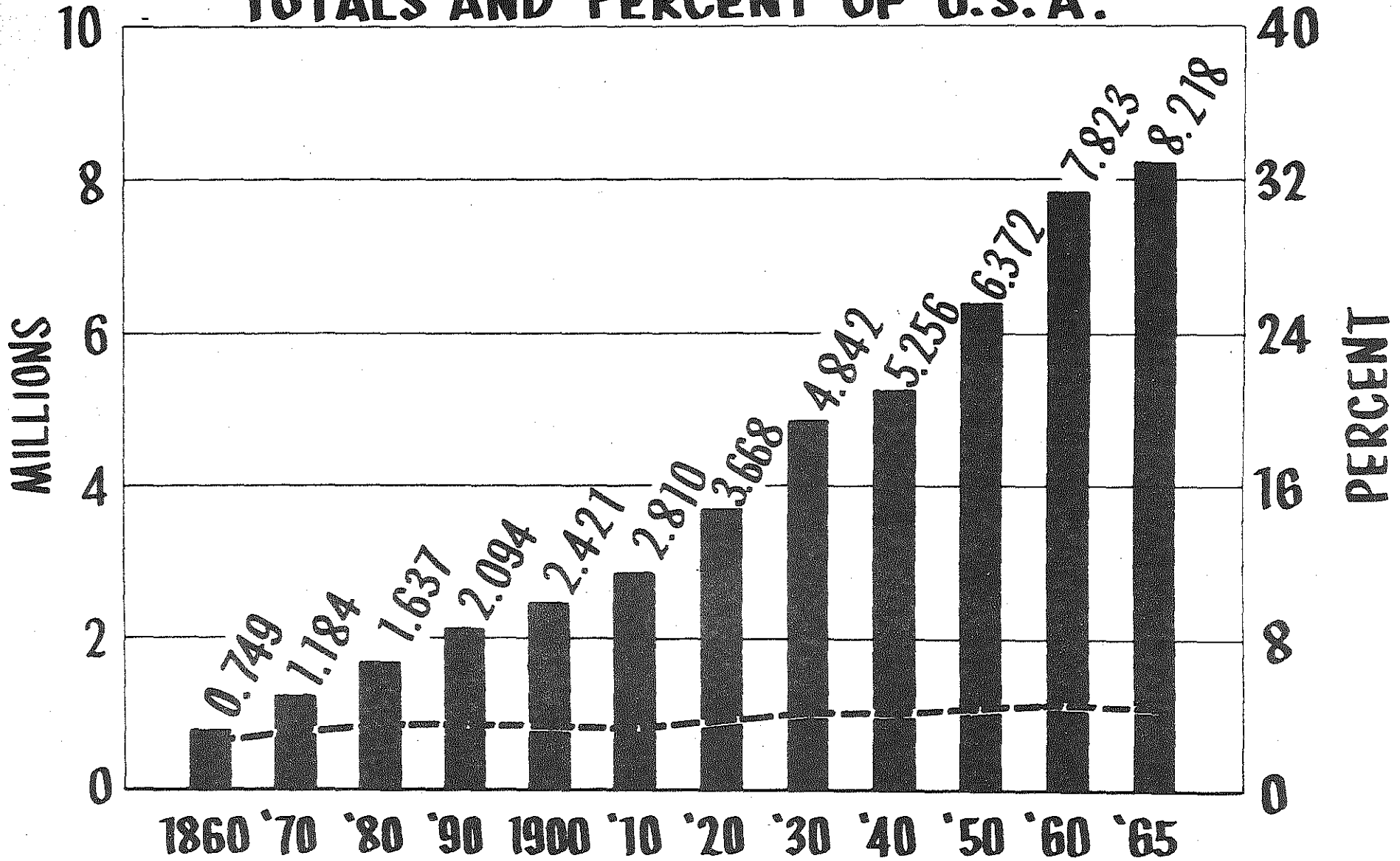


CHART I

## CHART II

PROJECTION METHOD I

1. PROJECT U. S. GNP/CIVILIAN EMPLOYEE
2. B. L. S. LABOR FORCE PROJECTIONS
3. PROJECTED GNP/C. E. TIMES PROJECTED  
CIVILIAN EMPLOYMENT = PROJECTED U. S. GNP
4. MICHIGAN'S SHARE OF U. S. GNP  
ASSUMED TO BE 4 1/2%

## CHART III

ESTIMATED UNITED STATES GROSS NATIONAL PRODUCT  
PER CIVILIAN EMPLOYEE  
(1960 Dollars)

| <u>Annual<br/>Growth<br/>Rate</u> | <u>Year</u> |             |             |
|-----------------------------------|-------------|-------------|-------------|
|                                   | <u>1970</u> | <u>1975</u> | <u>1980</u> |
| 2.6%                              | 9,888       | 11,244      | 12,787      |
| 2.7%                              | 9,946       | 11,366      | 12,991      |
| 1.9%                              | 9,490       | 10,428      | 11,460      |

## CHART IV

## ESTIMATED UNITED STATES GROSS NATIONAL PRODUCT

(Billions of 1960 Dollars)

| <u>Annual Growth<br/>Rate-GNP Per<br/>Civilian Employee</u> | <u>4 Percent<br/>Unemployment</u> |             |             | <u>5 Percent<br/>Unemployment</u> |             |             |
|---|-----------------------------------|-------------|-------------|-----------------------------------|-------------|-------------|
|   | <u>1970</u>                       | <u>1975</u> | <u>1980</u> | <u>1970</u>                       | <u>1975</u> | <u>1980</u> |
| 2.6%  | 787                               | 975         | 1,201       | 779                               | 965         | 1,188       |
| 2.7%  | 792                               | 985         | 1,220       | 784                               | 975         | 1,207       |
| 1.9%  | 756                               | 904         | 1,076       | 748                               | 895         | 1,065       |

## CHART V

## ESTIMATED MICHIGAN GROSS STATE PRODUCT

## PROJECTION METHOD I

(Billions of 1960 Dollars)

| <u>Annual Growth<br/>Rate-GNP Per<br/>Civilian Employee</u> | <u>4 Percent<br/>Unemployment</u> |             |             | <u>5 Percent<br/>Unemployment</u> |             |             |
|---|-----------------------------------|-------------|-------------|-----------------------------------|-------------|-------------|
|   | <u>1970</u>                       | <u>1975</u> | <u>1980</u> | <u>1970</u>                       | <u>1975</u> | <u>1980</u> |
| 2.6%  | 35.4                              | 43.9        | 54.0        | 35.1                              | 43.4        | 53.5        |
| 2.7%  | 35.6                              | 44.3        | 54.9        | 35.3                              | 43.9        | 54.3        |
| 1.9%  | 34.0                              | 40.7        | 48.4        | 33.6                              | 40.3        | 47.9        |



## CHART VI

PROJECTION METHOD II

1. PROJECT MICHIGAN'S LABOR FORCE.  
(MICHIGAN IN THE '70's)
  
2. MICHIGAN'S GNP/CIVILIAN  
EMPLOYEE = 111% OF U.S.
  
3. PROJECTED MICHIGAN GNP/C. E. TIMES  
  
PROJECTED EMPLOYMENT = TOTAL  
  
PROJECTED MICHIGAN GNP.

# MICHIGAN POPULATION TOTALS AND PERCENT OF U.S.A.

MILLION

PERCENT

12

12%

10

10

8

8

6

6

4

4

2

2

0

0

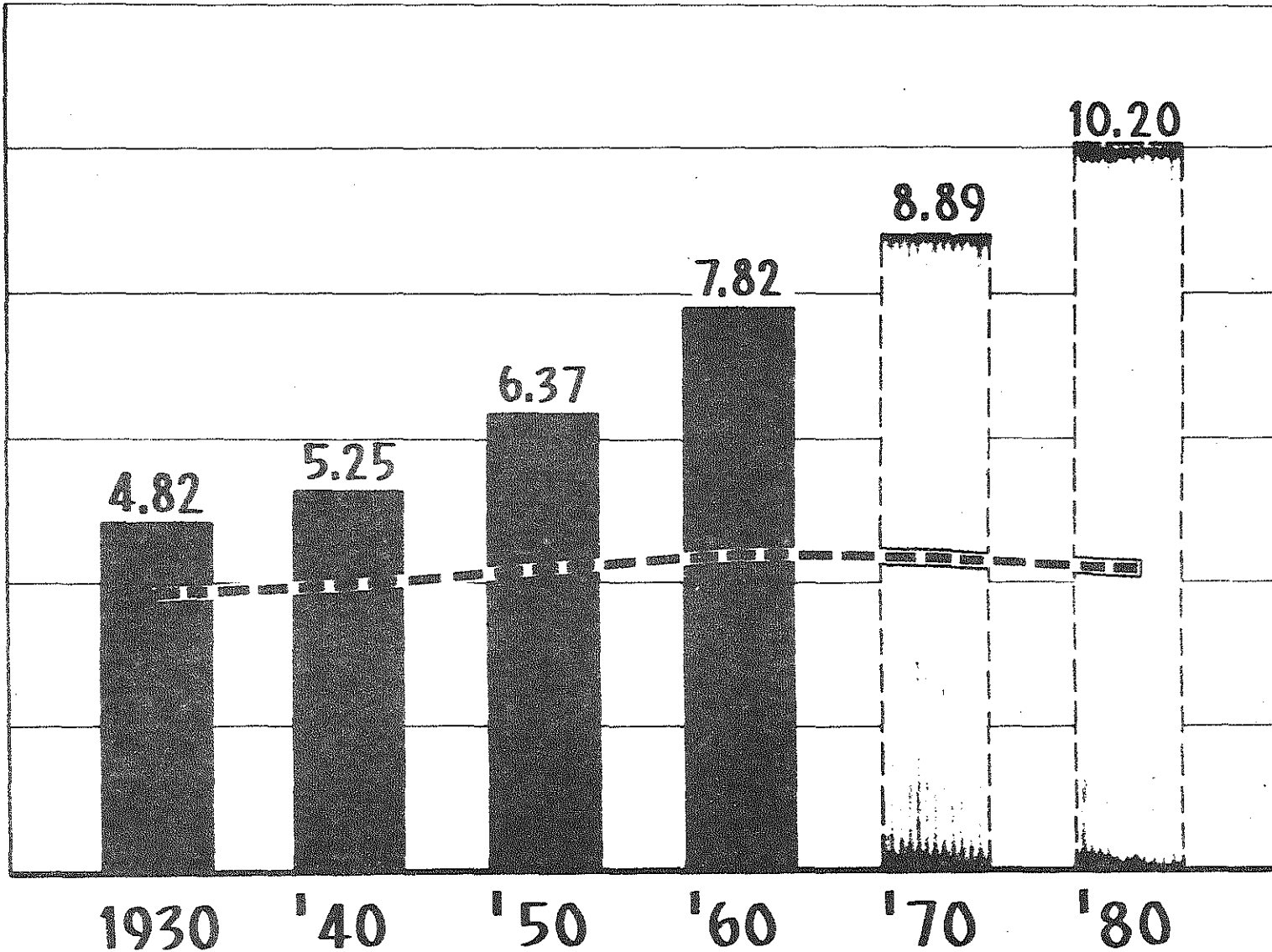
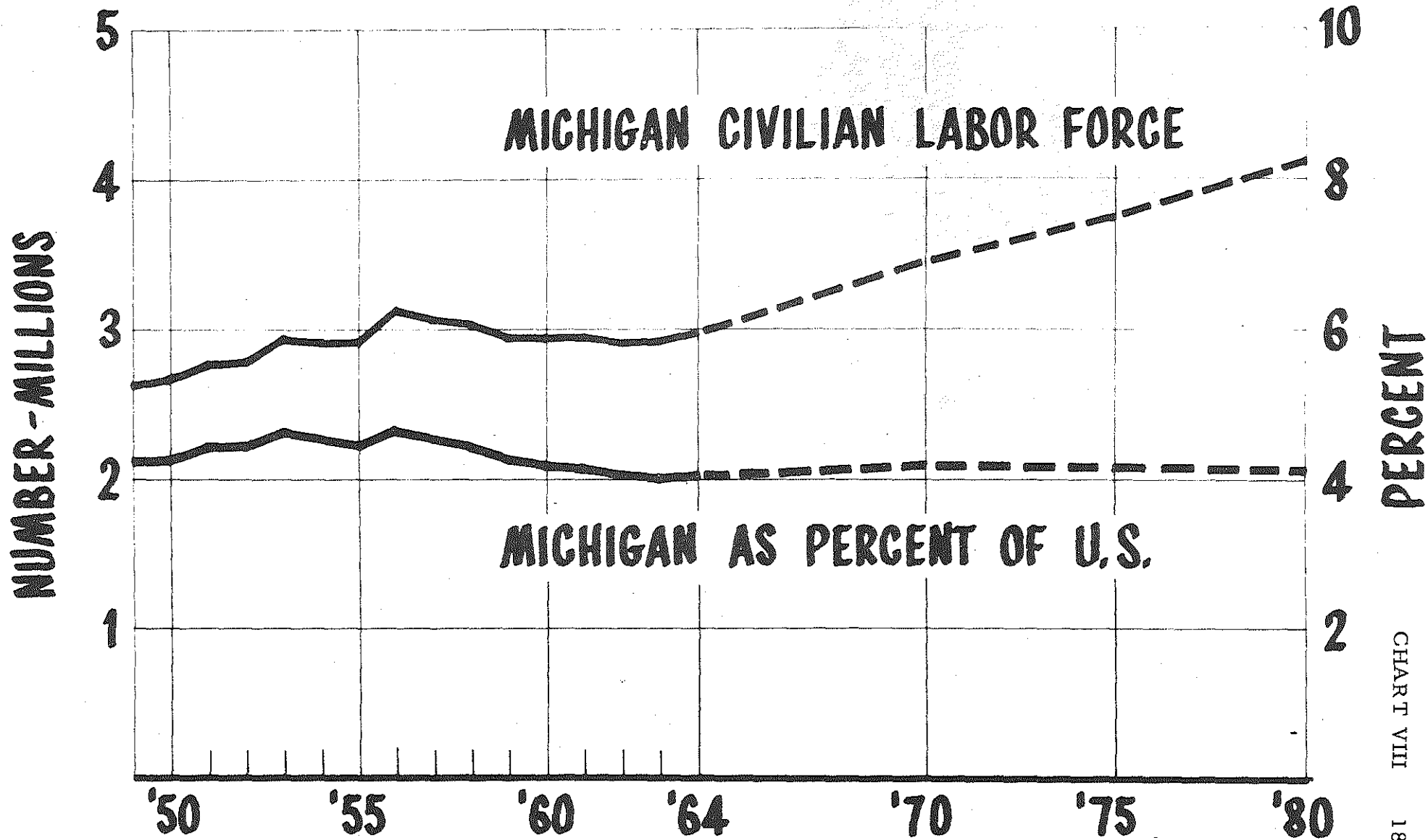


CHART VII

# MICHIGAN CIVILIAN LABOR FORCE



## CHART IX

## ESTIMATED MICHIGAN GROSS STATE PRODUCT

## PER CIVILIAN EMPLOYEE

(1960 Dollars)

| <u>Annual Growth<br/>Rate-GNP Per<br/>Civilian Employee</u> | <u>Year</u> |             |             |
|---|-------------|-------------|-------------|
|   | <u>1970</u> | <u>1975</u> | <u>1980</u> |
| 2.6%  | 10,976      | 12,481      | 14,194      |
| 2.7%  | 11,040      | 12,616      | 14,420      |
| 1.9%  | 10,534      | 11,575      | 12,721      |

## CHART X

## ESTIMATED MICHIGAN GROSS STATE PRODUCT

## PROJECTION METHOD II

(Billions of 1960 Dollars)

| <u>Annual Growth<br/>Rate-GNP Per<br/>Civilian Employee</u> | <u>4 Percent<br/>Unemployment</u> |             |             | <u>5 Percent<br/>Unemployment</u> |             |             |
|---|-----------------------------------|-------------|-------------|-----------------------------------|-------------|-------------|
|   | <u>1970</u>                       | <u>1975</u> | <u>1980</u> | <u>1970</u>                       | <u>1975</u> | <u>1980</u> |
| 2.6%  | 36.4                              | 44.8        | 54.7        | 36.0                              | 44.4        | 54.1        |
| 2.7%  | 36.6                              | 45.3        | 55.5        | 36.2                              | 44.9        | 55.0        |
| 1.9%  | 34.9                              | 41.6        | 49.0        | 34.5                              | 41.2        | 48.5        |

Billions

# Michigan Gross State Product 1949 - 1980

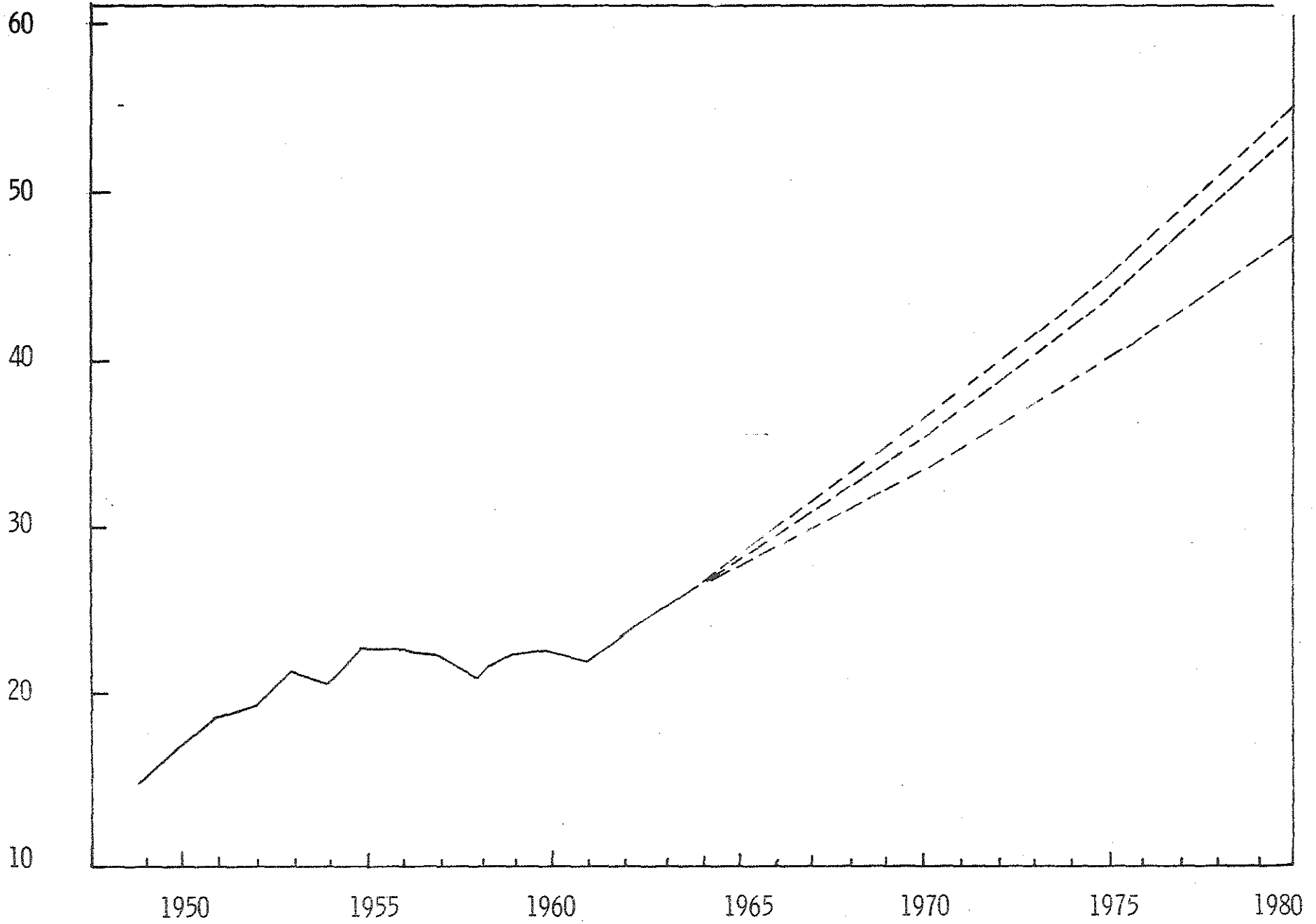


CHART XI

## ATTACHMENT TO CHART XI

## MICHIGAN GNP -- 1960 Dollars

|      |      |
|------|------|
| 1949 | 15.3 |
| 1950 | 17.3 |
| 1951 | 18.7 |
| 1952 | 19.3 |
| 1953 | 21.5 |
| 1954 | 20.5 |
| 1955 | 23.0 |
| 1956 | 22.9 |
| 1957 | 22.5 |
| 1958 | 21.2 |
| 1959 | 22.4 |
| 1960 | 22.8 |
| 1961 | 22.3 |
| 1962 | 23.8 |
| 1963 | 25.2 |
| 1964 | 26.7 |

|      | <u>Low</u> | <u>Median</u> | <u>High</u> |
|------|------------|---------------|-------------|
| 1970 | 33.6       | 35.3          | 36.6        |
| 1975 | 40.3       | 43.9          | 45.3        |
| 1980 | 47.9       | 54.1          | 55.5        |

ADAMS: Our third speaker is Irving Rubin who is Director of the Talus Project on Transportation and Land Use in the City, a multi-million dollar project which will take several years to complete. It is one of 11 metropolitan studies going on at the present time in the State of Michigan. We are very honored to have Mr. Rubin here to bring us up-to-date on this important undertaking. Mr. Rubin:



REMARKS BY IRVING RUBIN, DIRECTOR, TALUS PROJECT

Two basic alternatives lie before us with respect to the development of the Detroit region between now and 1990. On the one hand a continuation of past trends: increasing congestion; the proliferation of poorly planned, unsatisfying subdivisions; incompatible uses of land; inadequate sewer service; swallowing up of open spaces -- in other words a straight line projection of the mess which we presently see developing.

The other alternative is development and growth of the region consistent with a rational planning process.

The basic responsibility of the Detroit Regional Transportation and Land Use Study is to develop recommendations for a balanced transportation system, including all forms of public transportation (as well as airports, harbors and railroads) and a generalized land use plan to guide the future growth of the southeastern Michigan metropolitan region.

It is an effort to relate to each other all of the major determinants of the way in which a region grows -- to determine the way in which these elements affect each other, to examine alternative ways in which the region might grow, to select from among these the most desirable

land use plan and then to make recommendations concerning the provision of physical facilities and the adoption of governmental policies which will achieve this particular land use plan.

The amount of planning activity in the Detroit metropolitan region has for many years been much greater than in most other metropolitan areas in the United States. The first large scale effort in any major metropolitan area in the United States to relate land use to traffic generation in order to develop a basic highway transportation plan and network took place in the Detroit area between 1953 and 1956. This was known as the Detroit Area Traffic Study -- it included Wayne, Oakland and Macomb Counties and was financed by the Michigan State Highway Department, the Wayne County Road Commission, the City of Detroit, and the United States Bureau of Public Roads.

The Detroit Area Traffic Study examined all travel behavior in the region at that time and related it to land use in the region at that time. Straight line projections of anticipated future land use were then used to develop anticipated future traffic volumes, destinations and origins and trip purposes. A theoretical future highway system was described to the computer and anticipated future traffic was assigned to this system. By examining the traffic assignment to the theoretical future system, deficiencies in the network were noted and a revised network

was developed. The traffic was then assigned to the revised network, further network adjustments were made, and traffic was again assigned to the new network. The results of this process were the recommendations of the 1956 Detroit Area Traffic Study, which provided the basis for the 15-year freeway construction program proposed for the Detroit Metropolitan area by State Highway Commissioner Mackie in November of 1957. This is thus the basis for the Highway Department's freeway program in the Detroit area as presently programmed and scheduled through 1972.

Since that time, however, it has become evident that a more comprehensive approach to rational planning of a region is necessary. The efforts and the results of the '53 to '56 study were extremely valuable, and so far as those recommendations go are valid without question to guide freeway construction in the Detroit metropolitan area through 1972. However, the '53 to '56 study is not adequate for planning transportation facilities other than highways in the immediate period, nor does it provide a basis for developing alternative land use plans for the region.

Several of the differences between the present Detroit Regional Transportation and Land Use Study and the '53 to '56 Detroit Area Traffic Study will illustrate this. First, the Detroit Area Traffic Study included

only Wayne, Oakland and Macomb Counties. For the purpose of the TALUS Study we include seven counties -- Wayne, Oakland, Macomb, Monroe, Washtenaw, St. Clair and Livingston.

Secondly, the cordon line, the area in which travel was studied intensively in the '53 to '56 study, was quite closely drawn with respect to the center of the region, the city of Detroit. The cordon line which we have established for our study encompasses all of Wayne, Oakland and Macomb counties, about half of Washtenaw county and portions of St. Clair and Monroe counties.

A third major difference relates to the concept of transportation used in the two studies. Whereas the Detroit Area Traffic Study dealt almost exclusively with highway transportation, our study considers public transportation by all modes in addition to highway transportation. In addition, since we must deal with the movement of goods as well as the movement of people, our concept of transportation must embrace airports, harbors and railroads as well as freeways, highways, and public transportation systems.

The fourth difference relates to the way in which land use is handled. The Detroit Area Traffic Study used what amounted to straight line land use projections, based on developmental patterns prior to 1956 as the

basis for estimating future travel demands. We propose in our study to examine the way in which land uses throughout the region have developed over previous years; to determine the influence of traffic facilities, sewer and water development, and governmental policies on this development. Then we will project probable land use development in the region, between now and 1990, based on the assumption that no one will do things much differently in the future than has been the case in the past. We will then examine this development pattern carefully to determine ways in which this "non-plan" is unsatisfactory from the standpoint of sprawl, congestion, incompatibility of land uses, poor planning, etc. Then we will determine ways in which the region might grow in a more desirable manner and develop a number of alternative land use plans.

At this point, with the policy and administrative structure which has been established for our study, we will attempt to secure consensus and agreement among the local public officials as to which of these alternative land use plans is the most desirable one and should become the goal for our study. Then, using the information that we have developed earlier, we will develop recommendations for facilities and governmental policies designed (a) to serve the needs that will be generated by this particular distribution of activities or land use plan and (b) to encourage development of the region along these lines as opposed to development along alternative and less desirable lines.

A fifth and major difference between our present study and the '53 to '56 Detroit Area Traffic Study, as well as between TALUS and most of the other comprehensive studies of this nature of which we are aware, is the extent to which we are concerned with implementation.

So far as I am concerned, the 3 1/2 year, 3.6 million dollar study which we are conducting will be nothing more than a fruitless academic exercise if it is not implemented to the extent that it has some effect, some impact, on the way in which this region grows and develops. All too often in the past, planning studies have been conducted with their major purposes the completion of a good, technically excellent study. TALUS will be precisely that and more! At the same time we will produce a study which, because of the way in which it has been conducted, and the extent to which we have involved public officials and the general citizenry in the planning process itself, has an excellent chance of substantial implementation.

For this reason we have created an administration, policy and technical structure for the study which will, by the completion of the study three years from now, involve literally thousands of people in the study itself. Thousands of public officials and citizens throughout the region will be kept advised of what we are doing, why we are doing it, and why regional planning of this nature is important if we are to create a more satisfactory, more desirable region in which to live and work.

The need for a comprehensive approach to the planning of this and other metropolitan regions has long been evident to planners and to public officials. The difficulties which have delayed the creation of such regional planning approaches have been several. First, large amounts of money are needed to conduct such a planning process. And secondly, there are more than 214 separate units of government in this metropolitan region. If we add the school districts, there are more than 450 separate units of government. The difficulties involved in securing financial support, let alone cooperation from so many units of government can easily be imagined.

However, as population pressures and the attendant problems have increased in this metropolitan region and others, the need for a comprehensive approach to facility and land use planning for the region has become quite obvious. The passage of section 701 of the Federal Housing Act made federal funds available for comprehensive planning projects, and the Highway Department became increasingly aware that good highway planning required a more comprehensive approach than had been the case in the past. And finally, the Federal Highway Act of 1962 provided that "after July 1 of 1965 the Secretary of Commerce shall not approve any program for any project in any urbanized area over 50,000 population unless the project is based on a continuing comprehensive

transportation planning process being carried on cooperatively between the states and the local communities." All of these added up to the Transportation and Land Use Study project presently in operation in the Detroit metropolitan region.

In 1961, shortly after Detroit Mayor Jerome Cavanagh took office, a public transportation crisis developed in a number of communities downriver from the City of Detroit. In an effort to resolve this crisis, the Mayor created a Metropolitan Transportation Study Committee consisting of representatives of various departments of the City of Detroit, the Detroit Metropolitan Area Regional Planning Commission, the Supervisors Inter-County Committee, the Metropolitan Fund and the Michigan State Highway Department.

This committee began with the responsibility to make recommendations regarding public transportation in the Detroit region. It soon became obvious that such recommendations could not intelligently be made without a more comprehensive approach to the total transportation needs of the region. Accordingly, \$12,000 was contributed by these agencies to match a \$24,000 grant from the Housing and Home Finance Agency to finance development of a study design -- an outline to guide a comprehensive transportation and land use planning program for the Southeastern Michigan region.



The study design which was developed, largely through the efforts of members of this committee and the firm of Allan Voorhees and Associates, transportation planning consulting firm located in Washington, D. C., was patterned largely upon the memorandum produced by the Bureau of Public Roads and the Department of Housing and Urban Development subsequent to the 1962 Federal Highway Act.

The total estimated cost of the TALUS Study program is \$3,600,000 to be expended over a period of 3 1/2 years. The study itself is divided into five separate phases. First phase, inventory and data gathering; the second phase, analysis; the third, plan formulation and testing; the fourth phase, plan review and adoption; and the fifth phase, plan implementation.

Phase I, whose cost is estimated at \$1,976,000 has been funded. The Michigan State Highway Department provides \$1,000,000; the Housing and Home Finance Agency \$628,000; local governmental agencies \$348,000 -- \$314,000 of this \$348,000 is used to match the \$628,000 from the Department of Housing and Urban Development. The other \$34,000 is used to pay those study costs which are not eligible for H.H.F.A. financing and which are not eligible for Highway Department Bureau of Public Roads financing because they are not directly related to highway purposes.

The entire study is divided into 32 separate sub-studies -- eleven of which are included in the data gathering phase. A brief review and description of those eleven sub-studies will illustrate the comprehensiveness of the approach to the project and will indicate how the elements relate to each other.

Sub-Study I-1 is a study of governmental and financial factors. This is designed to give us information about the relationships between all of the governmental agencies in the region at the present time, their areas of jurisdiction, their authority, their limitations, and their financial resources. We will also secure information about expenditures by all levels of governments in the region for various purposes in previous years. This information will enable us, toward the end of the study when we are developing capital improvement programs, to recommend the necessary allocation of governmental financial resources to carry out the programs which we recommend. Obviously, in order to do this it is necessary to know how much money various levels of government have been spending for these purposes.

Sub-Study I-2 is a study of living patterns and attitudinal factors, designed to give us information about attitudes, and "life styles" of people in the region by various socio-economic, income, educational and other strata. It will help us to do a better job of basing our recommendations on the

needs, wants, and desires of the people who will be served by the plan, rather than base our recommendations on what planners think people ought to want.

Sub-Study I-3 is a study of economic factors. It will provide information about the distribution of industrial employment throughout the region by civil division, and smaller areas in case of the larger civil divisions, in future years. Its importance, in terms of transportation facilities for home to work movements, is obvious. It is also important, from a transportation standpoint in order that we can provide the transportation system to serve the "goods-movement" needs of anticipated future levels of economic activity. In the course of this study we will determine alternative distributions of employment throughout the region based on alternative assumptions about the level and nature of economic activity in future years.

Sub-Study I-4 is a study of population factors, which will produce data on the probable total size of the population in the region at various future points in time and the distribution of this population by age and sex as well as its spatial distribution by residence.

Sub-Study I-5 is a study of land use factors, which will give us a regional inventory designed to give us information of existing land use. We will use this information to develop a "regional growth model," a computer

model which will enable us to examine the various forces, factors, influences, governmental policies and physical facilities which have lead to the development of the existing land use pattern. When we understand this, we are in a position to analyze the way in which alternative assumptions about these factors in the future may result in altered patterns of land use in the region in future years.

Sub-Study I-6, the Highway Facilities Inventory will yield data on the capacity of the existing regional highway network, pavement, width, intersection characteristics, length, parking restrictions, one-way streets, divided highways and boulevards, freeways, grade separations, etc.

Sub-Study I-7 is the study of traffic operations which will measure the efficiency with which the present highway system operates. These two studies (I-6 and I-7) are necessary so that our future highway plans will include not merely recommendations about added laneage and added facilities, but will also enable us to recommend the type of "hardware," restrictions and controls which will give us more highway capacity per dollar invested.

Sub-Study I-8, the travel survey, is the most expensive single portion of the entire Transportation and Land Use Study. The cost of this study is estimated at \$960,000. It is being conducted for TALUS by the Center for Urban Studies located at the Dearborn campus of the University of Michigan.

The survey portion of the travel survey is divided into three basic parts. The first of these is a "special vehicle" survey for which we draw a sample of trucks, taxis and commercial vehicles in the region and interview their operators about all trips made by that vehicle on the interview day which is selected at random.

The second part of the travel survey is a roadside interview known as the "external survey." We drew a cordon line around the buildup portion of the metropolitan region and interviewed a sample of 95% of all vehicles crossing the cordon line. We collected data on the origin, destination, purpose of the trip and also noted the type of vehicle and number of passengers.

The third and most elaborate part of the Travel Survey was the home interview. Interviewers were sent to a sample of 52,000 households within the cordon line to secure information about every trip made by every member of the household, over the age of five, on the day prior to the interview; the origin, destination and purpose of trip, the time of departure and arrival, the land use at the beginning and end of the trip, the method of conveyance, the type of parking if it was an automobile trip, whether the individual was an automobile driver or a passenger if it was an automobile trip, the age, sex and occupation of every member of the household, whether or not that individual has a drivers license,

the number of automobiles available to the household, the family income and the educational background of the head of household.

In addition to these three basic parts of the survey, nearly a million classification counts were made at screen lines within the cordon line.

All of this information has been gathered and is now in the process of being coded and tabulated. The product of these three surveys is some 949,600 business machine cards which must be coded, punched, checked and rechecked. When this process is completed, we will have raw tabulations. Then, using various accuracy checks, including the screen line counts, the cordon line survey, and additional traffic counts which have been made on the regional highway network, we will "factor up" the data derived from the home interviews, the truck-taxi survey and the external surveys to produce a complete picture of all travel within the region at the present time. This trip data will then be assigned to the regional highway network as it exists at the present time, in order to develop and validate computer models for trip distribution and traffic assignment. When this has been done, we will be in a position to use data from the other sub-studies to project the amount and nature of future travel demand. We will then be in a position to develop alternative future theoretical transportation systems and assign future projected traffic volumes to these systems.

Study I-9 is a transit inventory. This will be divided into two parts, the first of which is an administrative inventory, designed to give us information about all companies and agencies providing public transportation service by rail or bus in the region at the present time. We will utilize this information to develop some interim recommendations about administrative and legislative changes which would improve public transportation service in the region pending our later comprehensive recommendations for a public transportation system. This study will also develop recommendations for the administrative machinery needed to implement the long range recommendations which will follow.

The second part of the transit inventory will be an operating inventory which will include data on routes, scheduling and headways so that we will be able to develop a computer model to describe the operational characteristics of the existing public transportation system.

Sub-Study I-10 is a study of airports, harbors, and railroads, an inventory study which will tell us the capacity of these facilities at the present time, the amount of traffic which they handle, and the extent to which they might increase their capacity without major changes in the existing systems. This is a necessary basis for future recommendations about additional capacity for these facilities and additional locations.

Sub-Study I-11 is a study of terminal facilities designed to give us information about the passenger car storage capacity of parking lots throughout the region at the present time, as well as information about truck terminal facilities.

In Phase II of the TALUS Study, the information we are gathering in Phase I will be analyzed, the relationships between various elements will be determined, and projections of future population, economic activity etc. will be made.

In Phase III we will develop alternative plans for the region and test each of these plans from various standpoints. We then move to Phase IV where we review the various plans and adopt the most desirable of these. This brings us to Phase V -- the implementation of the plan.

The implementation phase includes more than an effort to secure adoption of the plan by the various governmental agencies to which the report will be addressed. It also involves the establishment of a continuing planning process which will remain in existence to make the necessary evaluations, refinements, future projections, adjustments and alterations necessary in order that the plan can be kept current.

A basic policy decision made early in the TALUS Study was that every effort would be made to utilize local personnel in conducting the study.



There are two advantages in this. The first is that there is no need of a long orientation period to acquaint personnel with the region itself. Secondly, there is a greater likelihood that these people will remain in the region to aid in the implementation of the plan upon its completion.

TALUS operates as a special project of the Detroit Metropolitan Area Regional Planning Commission with a separate administrative committee to which the director reports and a policy committee to which the administrative committee is responsible. We are now establishing a governmental assembly, which will include representatives of all the units of government in a seven county region, and a citizens assembly which will be broadly representative of citizen interests, and composed of representatives of a broad cross-section of organizations, institutions, and interests throughout the entire region. A major purpose of these two huge assemblies, which will consist of several hundred persons each, is to make sure that as many citizens and public officials as possible are acquainted with the nature of regional planning, the nature of the TALUS Project, the importance of what TALUS is doing, and the importance of implementation of the TALUS recommendations to development of a metropolitan region which is a more attractive and satisfying place in which to invest our lives and our resources.

Question 1 -- Will transportation needs increase beyond population?

Answer -- There seems to be every reason to believe that this will be the case. Although the number of automobiles per capita and number of automobiles per household has been steadily increasing since the second world war, the average number of miles per automobile per year has been remaining fairly constant -- somewhat over 10,000.

A more direct indication of this in the Detroit region comes from preliminary tabulations of the travel survey data. In the 1953 to 1956 Origin and Destination Study the average number of trips per household per day was 6.2. The preliminary information we have from our current survey shows the average number of trips per household per day to be in excess of eight.

However, this should not be taken to mean that the average number of trips per household per day has increased by 30% in the 12 year period since 1953. About half of the apparent 30% increase in trip generation per household per day is probably due to increased generation of trips as a result of increased leisure time, increased disposable and real income. The balance, the other half of this apparent increase is probably due to two factors: firstly, the cordon line for the 1965 Study included substantially more suburban area than was the case with the 1953 cordon line, and suburban households tend to generate almost

twice as many trips per household per day as is the case with center city households. Secondly, unlike the 1953 Study we called back and spoke directly to every member of the household over the age of sixteen. Transportation needs have been increasing faster than population and I anticipate that this will continue to be the case for the indefinite future.

Question 2 -- Will peak use decline?

Answer -- I doubt that peak use will decline in absolute terms. It will probably continue to increase. However, the period for the peak hour will probably extend -- beginning earlier and extending later both in the morning and in the afternoon hours.

Question 3 -- Will power availability affect transportation?

Answer -- If by that question you are referring to the possibility that the scarcity of fossil fuels may alter our transportation habits materially, I doubt it. There seems to be enough developments in this field so that electrically powered vehicles, the turbine and other methods of propulsion may very well come into their own and tend to replace the eternal combustion engine as the years go on. Although I anticipate the possibility of changes of this sort, I do not anticipate for many, many years to come that the most important form of transportation for people in this region -- the automobile -- will materially change. We may see

vehicles in the future which are larger or smaller, perhaps made entirely of fiber glass or different materials and propelled by peanut oil or automatic fuel cells, but despite these differences I am confident that we will continue to rely for many years to come on a vehicle which operates, functions and looks much the same as the automobile with which we are presently familiar.

Question 4 -- Will alterations of work patterns by industry affect our transportation needs?

Answer -- Yes, they will if industry is able to decentralize and locate itself closer to the place of workers, and if patterns of residential development change so that a wider variety of choice is available all over the region. It would be then possible for workers to live closer to their work, and the total demand for transportation facilities for the home-to-work trip might decrease.

I would like to see this happen because, obviously, the fewer miles and fewer minutes an individual must devote to his home-to-work trip, the more efficient is our transportation system. But past trends indicate that the home-to-work trip is lengthening rather than shortening.

Question 5A -- What state legislation would help effect your recommendations?

Answer -- There is presently before the legislature a bill which would

create a metropolitan transportation authority. I anticipate that we will certainly recommend the creation of such authority as part of our TALUS Study recommendations. I am not completely satisfied with the bill in its present form. I don't think anyone is, but I do think that the debate that may take place on the bill will be important. In the course of our transit inventory we will be developing recommendations regarding a metropolitan transportation authority designed to provide some interim improvement in transportation service at the present time and to provide the machinery which will aid the implementation of our broader recommendations at a later time. Passage of legislation of this sort, based on a thorough study of the needs, will be helpful.

The second way in which the state could provide assistance would be in funding. There is no question that substantial improvement in public transportation service will require a subsidy. It cannot possibly be done out of the fare box. This is true from limited improvements in public transportation by increased utilization of busses, through the provision of a rapid transit system consisting of fixed rails transit facilities of one sort or another.

The State of Massachusetts recently enacted a two cent a pack cigarette tax which is earmarked for public transportation improvements -- mostly on commuter rail lines. The City of Detroit presently subsidizes both

school children and older persons by reduced fares. This is the type of obligation which the state could assume.

A third important area of state action would be review of state planning legislation. The Institute for Continuing Legal Education recently held a seminar in which they reviewed planning legislation in the State of Michigan. It is archaic, inadequate, inconsistent and, in many instances, is an invitation to the land developer to manipulate municipalities, land and people as he sees fit. A complete review of Michigan planning legislation is overdue. We are fortunate that we have within the state and particularly at the University of Michigan people who are well aware of the planning and legal implications that would be involved in such a study.

There is pending on the legislature at the present time a bill which would provide the sum of \$300,000 in the first year and the sum of about \$1,000,000 over a period of several years to match the United States Geodetic Survey funds in order to map portions of the state for which topographic mapping is badly needed. This type of financial aid from the state would provide a type of mapping which is important to a study such as ours, but is beyond our financial capability.

Section 27 of the new constitution authorizes the legislature to enable the creation of multipurpose districts in metropolitan areas to carry

out various functions. The implementation of this legislation will be important for the implementation of TALUS recommendations.

Another area in which state action is clearly indicated is the creation of some type of machinery for decision-making on a regional basis for facilities which are regional in character. An illustration of the need for such legislation was the Twelve Towns Drain which was a subject of protracted controversy in south Oakland County for a number of years. In the course of the struggle, everyone agreed to the need for the facility, but it took ten years to resolve the arguments. By that time the total cost of the facility was about double what it would have been, and millions of dollars were lost from flooded basements during the period the drain was not in existence.

A more current project which clearly indicates the need for some such machinery for decision making on a regional basis is the Interstate 696 freeway. Controversies of this sort will crop up increasingly in future years as the pressures of population and the pressures of economic activity increase in our urban areas and create problems whose solutions do not respect municipal or county boundaries and which cannot be implemented because of the authority which Michigan's Home Rule Act presently gives to local municipalities.

Question 5B -- Will recommendations be made for governmental changes?

Answer -- I anticipate that we might make some modest recommendations for governmental changes in the region, designed to aid us in implementation of the study. I would not think it wise for us to make broad, sweeping recommendations for changes in governmental structure in the region. We must recognize that there is some likelihood of changes in governmental structure occurring between now and the completion of the TALUS Study. County Home Rule may very well be implemented; if not at this legislative session then at the next. In addition, the Metropolitan Fund Inc., about a year and a half ago completed their report on governmental organization in southeastern Michigan. They recommended creation of a Council of Governments which would absorb the functions and staff of the Intercounty Highway Commission and the Regional Planning Commission and along with it the Detroit Regional Transportation and Land Use Study and would constitute a restructuring of the Supervisors Intercounty Committee.

I think it likely that the Council of Governments proposal will be initiated. The experience that will be gained with COG will, I believe, pave the way for additional, broader changes in governmental structure in the region.

So far as TALUS itself and its relationship to changes in governmental structure, what I anticipate will happen is this: We will complete our



recommendations three years from now. We will then request implementation and adoption of these recommendations by the various governmental agencies involved. I anticipate that within a year or so we will achieve ten to fifteen percent implementation and adoption of these recommendations and will then begin to run into a series of roadblocks throughout the region, roadblocks resulting from refusal of various governmental agencies, municipalities, special districts and so forth to go along with these recommendations.

If in the next three years we do a good job of generating awareness, understanding and consensus regarding TALUS function and our recommendations, I anticipate the possibility that the failure of implementation of our recommendations would make the role of fragmentation of government quite clear. Out of this might evolve the type of pressures necessary to result in more drastic changes in governmental structure throughout the region. I would not consider it appropriate for TALUS to make such broad, sweeping recommendations as part of its initial report.

Question 6 -- What can the State do to help you in your work?

Answer -- Most of the things which the State might do I outlined in response to the earlier question. Beyond those items, a continuation of the sort of relationship which TALUS has had with various State

agencies. The State Highway Department is providing a substantial portion of our funding. In addition there has been excellent cooperation, assistance and advice from the Michigan Department of Economic Expansion and from the State Department of Conservation. We have been working with the Department of Conservation on the mapping bill referred to earlier, and we expect to work closely on an investigation of soil conditions within the area as well as our studies of recreational facilities.

As the program continues, there will be a need for cooperation with the Michigan Public Service Commission.

The State might consider a policy adopted in a number of other states in the nation whereby a portion of the local funding necessary to match 701 Planning Assistance Grants is provided by the State itself for regional planning purposes as well as for county planning purposes.

The Tri-State Transportation Commission, the agency which is doing work similar to ours in New York, New Jersey and Connecticut, is funded with State money to match the federal funds. There are no county or municipal funds involved. This is true in many other states.

It is entirely possible that at some point in the future we will come to the State and request that, in addition to the financial assistance we receive from and through the State Highway Department, the State

provide a portion of the money necessary to match H.H.F.A. funds.

I also suggest that the State consider needs of the Detroit Metropolitan Area Regional Planning Commission, which is the parent agency of the Detroit Regional Transportation and Land Use Study. The Regional Planning Commission currently operates entirely with local funding from the Counties, which it uses to match federal aid for various special projects. The amount of work which the Regional Planning Commission is able to do is severely limited by its funding. I believe it is entirely consistent with the State's obligations that additional funds be provided by the Regional Planning Commission by action of the State Legislature.

Another area of needed State action is legislation to prevent the further fragmentation of responsibilities in the metropolitan region. At the present time, including school districts, there are more than 450 separate units of government in southeastern Michigan. The difficulties we will encounter in implementing our long-range recommendations as a result of this fragmentation of responsibility are obvious. At a minimum I would recommend the creation of a boundary commission which could function somewhat as does the Ontario Municipal Board with respect to future incorporations and annexations. Beyond that we should consider the pressures of population development and problems which do not respect municipal and county boundaries and consider creation of an

authority which could eliminate some of the more meaningless artificial boundaries. This could be an alternative to my earlier suggestion concerning the creation of some type of machinery for regional decision making.

ADAMS: You probably have more questions you would like to ask these gentlemen -- but I think they have done an excellent job in bringing us up-to-date on their special areas of expertise. I would like to bring this meeting to a close at this point because at future meetings I want you all to attend with the assurance that they will end at a reasonable hour.

I would like to hear a motion that we formally accept Mr. Byrd's presentation for inclusion in our report to the Governor as our economic plan. (Lucas Miel so moved -- Bill Fucik, seconded. Unanimous vote taken.)

Thank you all for having been here this evening. I feel like the lawyer in court who, after addressing the court at length on a complicated subject, was informed by the judge, "You have spoken at length, and I find myself none the wiser." To which the attorney replied, "I presume that to be true your Honor, but I also assume that you are nonetheless far better informed."

Meeting adjourned.