



**AgEcon** SEARCH

RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

*No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.*

Association of Highway Officials of North Atlantic States  
Atlantic City, N.J., February 18, 1932

Road Service for Communities Not on State Road System

by

Thos. H. MacDonald, Chief  
U.S. Bureau of Public Roads

As a preliminary to the preparation of this discussion I requested information from the district engineers and State representatives of the Bureau:

In addition to certain statistics and facts, I desired particularly their reactions and their comments as to future possibilities of extension of more adequate highway service in the face of a certain reduction of total road income. The executives of the State highway departments, as always, generously collaborated. In the reports covering the whole of the United States there is a wealth of data, but more important indeed are the conclusions drawn and the enlightening picture presented of the whole highway improvement trend by experienced engineers who have lived with, and been a responsible part of, the actualities which they now record.

Constructive Legislation Dependent Upon Public Understanding

From these combined sources, intelligently interpreting things as they are, may be drawn the basis for a sound highway

philosophy for the future. Not that the conclusions are either final or exclusive - rather they point the direction which definitely leads to progress and equally definitely define the errors of past policies and principles of both legislation and administration. I am accenting the source of the data and reports upon which this discussion is immediately based because I desire to emphasize the necessity for engineering statesmanship in planning financial and administrative policies, and to assert the right through accomplishment of the State highway departments to formulate the principles written into future road legislation. There is no thought of little or partisan issues. There is only the desire to impress the need for constructive legislation founded upon a long-time conception free from the false palliatives and panaceas that have inevitably and constantly failed.

For about forty years the underlying economic principles have been developing complementary to the advance of engineering technique. The essential harmony of these and the dependence of the one upon the other are widely if not universally acknowledged. The translation as a unity into practice has been confronted with, and in many cases delayed by, the element of public education involved. The establishment of highway transport on an efficient and economical basis presents a unique difficulty, - a private ownership and operation of the vehicle and the public ownership and provision of the roadways.

The maturing of highway legislation providing efficient administration becomes not only a problem of writing into the statutes the imposition of authority and responsibility upon the highway officials, but also one of securing the prerequisites of public understanding and support, since legislation rarely outstrips public thought.

### State Highway Legislation - A Product of the Present

Ever since the first State highway department was established there has been a fairly consistent progress toward better rural highway administration, - better with respect to the standards of both design and workmanship, to economy in expenditures, and to meeting the State-wide traffic service needs. Right here it may be noted that this progress can in general be credited to the engineering profession, although there have been some outstanding administrators who were not engineers but who adopted and held to both the economic and technical principles of good engineering.\* This growth, however, has not been sufficiently rapid for the critical time which has now come upon us. We are confronted with a difficult fiscal situation with the unequivocal demand for no decrease in either the quality or extension of highway service. We are confronted with an acute reaction against taxation, particularly of real property.

Road User Tax Diversion - A Major Problem

There are more than a few demands to divert the income from special taxes upon the road user for other governmental purposes. This year relatively few of the State legislatures are holding their regular sessions. Were this not true there would be a much wider and much more general attack upon this income from these special taxes, for the purpose of relieving other taxation or to replace the income from these other taxes already lost. And it is probable that in another year, although business conditions have materially changed for the better, there will be widespread and vigorous attempts to divert this income for a variety of uses, and from the control of the State highway Departments.

This would be a more serious economic blunder than the spreading of a portion of these taxes to roads other than State highways.

Road Financing Difficulties Have Resulted From Past Policies of Dividing Road Income Between State and Local Control

Taking the picture as it now presents itself for each of the 48 States, the outstanding principles evident are:

First, the States, without exception, which have placed the administration of the income from the gas taxes and the motor vehicle registration fees wholly under the control of the State

highway departments, are in the best condition financially to carry forward their State road programs, and to extend assistance beyond the roads included within the State systems.

Second, the States that, while not retaining within the State highway departments direct expenditure of all the income from these taxes, have provided a general control of the expenditures of the part of the income allocated to other governmental divisions, are without exception able to meet their obligation for State roads and through this definite direction are obtaining the coordination of State and local road improvement.

And third, the States which have divided between the States and other agencies without State control a material part of the income from these funds are almost without exception facing serious financial difficulties both on the part of the State and the localities, to maintain existing roads and to go forward with even a largely reduced program.

Thus, there is no single answer to the problem of extending road service to communities not on the State road system that may be applied at once in each State, because of the wide variation in the existing conditions in the States and the local communities.

These governmental units are not free to assume new obligations irrespective of the commitments and obligations which

they have accumulated, some of them not only covering many years in the past but extending many years into the future.

The position of the State or other units of government is exactly that of the individual who has an income and has living expenses, accumulated obligations, and a multitude of financial contingencies which may so tie his activities that he can move only as the total of these obligations dictates unless he takes advantage of the bankruptcy laws, which practiced by a governmental body become the repudiation of debts.

Because of the wide variations now existing between the States, I am attempting to set up no cure-all for the difficulties that beset any particular State, but rather to present principles and facts that can be applied in an analysis of each situation, and which, if applied, will result in relieving to a reasonable degree at least, road taxes, and in the obtaining of better results relative to the amounts expended.

Road Administration by Too Many Small Units  
Not Now Efficient or Economical

The creation of the State highway departments grew out of the demand for the development of a system of State and inter-state main roads due to changed conditions of highway traffic.

These departments were established under relatively new laws which have been modified from time to time to meet changing

conditions. On the other hand the local roads, constituting the big percentage of all public highways, have remained under the jurisdiction of the local officials whose basic laws were provided to meet pioneer conditions, a totally different method of travel and the use of funds derived essentially from local taxation.

There are certain characteristics of this system. Among them are the multiplicity of small administrative boards with power to tax and to expend the proceeds, the election of road officials, such as that of town superintendent, the utilization of day labor or force account methods, the lack of budgeting income or a predetermined program, the lack of engineering, the purchasing of machinery or materials in small amounts, the unnecessary duplication of equipment which can not be used to full efficiency, road work done at the wrong periods of the year, the lack of continuous maintenance, and the lack of sufficient funds to make possible efficient operation.

These are characteristic of the small highway administrative unit, such as the rural town or township. Many of them apply to the rural county as an administrative unit.

Leaving out of consideration the relatively small use of the special road districts, the county has generally been the smallest unit having legal authority to issue bonds for rural

roads. This authority, combined with bad fiscal practices, is responsible for the present inextricable financial position of many county governments.

There are many counties whose assessed valuations at present would fall far below the legal requirements to support the amount of outstanding bonds with disastrous repercussions upon the value of their securities which have been purchased in good faith.

While town and township government has left in recent years much to be desired in the way of efficient results for the funds expended, they at least have piled up no large bonded indebtedness from sheer lack of competent bookkeeping and management, such as now confronts many counties. These conditions do not generally exist in the States represented by the membership of this Association, - it does exist to an alarming degree in some of the cities.

Lower Property Taxes Can Only Be Secured Through  
a Decrease in the Number of Taxing Units

Because of these accumulated local debts it is difficult to determine how much can be done to relieve property taxation at once, but it is not difficult to determine that the only help for the situation that gives promise of relief is a thorough going revision of our system of local road administration, in so

far as the strictly rural townships and counties are concerned. Once the road study is begun it is apparent that the problem in any State must be treated as a whole with these objectives:

First, to establish an efficient organization so constituted as to withstand the spoils system; second, to provide an allocation of available road funds so as not to defeat the greater purpose use or to decrease income.

#### A Suggested General Plan

While this general discussion might be further elaborated, it is doubtless sufficient to form a background for the following principles to guide future legislation and administrative policies to secure greater economy in the expenditure of all road funds, and particularly for the purpose of extending road service to localities which are not now on the State highway system.

##### (1) Administration of Public Highways.

Based on their size and other characteristics, the States may be divided into two classes. The first class will include those which are small in area and those in which county or town government is essentially rural in character. In these States complete jurisdiction over the roads should be placed under the State highway departments. The second class will constitute those States which are large in area and in which county government has

been well developed, and which contain a number of metropolitan areas. In these the smaller units of government such as the townships should be consolidated under the counties, and no unit of road administration left smaller than the county. The metropolitan counties have sufficient road income to provide for the maintenance of an adequate engineering staff, and this should be the standard for the grouping, if necessary, of the remaining counties into districts.

An established working relationship should be set up, under which the State highway department would establish standard specifications and methods of accounting, and exercise authority to correlate local road improvements with the system of State highways.

In both classes of States there may be units smaller than the counties that are essentially urban districts, such as many of the towns of Massachusetts, in which the administration justifies an engineering organization as indicated for the metropolitan county.

It will be noted in the above that the suggested division between the States is based upon the area, but with the further qualification of there having been established county administrations which are now functioning with an engineering organization. I can see no good reason, and some disadvantages, for the large

States to take over all road administration at the present time, since it will be much better for the State highway departments in such States to occupy a position analogous to the position occupied by the Federal Government in its operations with the State highway departments.

(2) Finances.

a. All income from the gasoline tax and the motor vehicle license fees should be placed under the direct or general control of the State highway departments.

b. The first income from these taxes should provide for the meeting of all current obligations of the State highway system, including maintenance, and a sufficient amount additional to provide for a construction and reconstruction program, determined by the condition and reasonable needs of the existing system.

The essential element here is the necessity to meet the major traffic requirements and to provide roads which will encourage the growth of traffic upon them. The safety of the traveling public necessitates the further improvement of roads already improved. The income from these roads will be materially reduced if they are not constantly raised to standards that will encourage their use since so large a percentage of our road income is dependent upon what may be termed the optional or recreational use of the highways.

c. A portion of the balance of the road income from these special taxes may be used as State aid for the secondary road system under either the direct or general control of the State highway department. This would depend upon the class into which the State would fall as above.

d. The remaining portion of the balance should be allocated to the construction and reconstruction of the streets in the cities which are a necessary part of the State highway system, under the general control of the State highway departments.

e. In these recommendations lies the possibility of a material reduction of property taxation except where there has been an accumulation of past indebtedness so large as to absorb a large part of the income, and unfortunately this is true in some States and many counties. I appreciate fully that a division of the income from these special road taxes disregarding these principles can be forced to produce utterly disastrous results. Any reduction of the funds available to the State highway departments below that necessary for the constant improvement and extension of the State highway system will result in a loss of income from road use and a rapid depreciation of the tremendous investments already made. This is the economic brake that must be kept in efficient working order to stop raids upon these special road funds that can only result in the loss

of a large part of the funds themselves. The State highway systems must be recognized as a vast public utility whose earning capacity if kept up to a high degree of efficiency is very large and constantly growing but whose earning power can be cut down almost over night. Property taxation for rural road purposes can not be replaced entirely by these special taxes. There is no State in which the income from these special taxes will support the total cost of the necessary annual road program of construction and maintenance. The principle of divisions of cost between sources of revenue based on the character of use of the roads must be recognized, which makes a distinction between those roads which are built and maintained for the general use of the public and those which are built and maintained to give access to the land.

### (3) Cooperation.

There is no insurmountable difficulty in establishing the coordinated administration necessary to produce the most effective results between the State highway department and the local units, where these are operating on a basis that justifies the maintenance of an adequate and competent engineering force. While the consolidation of a number of rural counties individually unable to maintain such a force into districts is feasible, this would be difficult to accomplish, and it would doubtless be

preferable to set up for such rural counties, a district under the direct jurisdiction of the State highway department, acting through district engineers appointed from its own staff.

It will be noted that the above recommendations for cooperative administration in substance reduce to a plan in which the State highway department takes over direction of all essentially rural road work, with the exception of the metropolitan counties or towns whose business justifies the maintenance of a competent engineering organization. It also extends the activity of the State highway department into the cities for the improvement of the main arteries of travel with financial and engineering cooperation between the State highway department and the city engineering departments.

This latter suggestion will be criticized, but the diversion of the income from the special road taxes to residential streets and those of new subdivisions, which will otherwise inevitably result, will not aid in meeting the cities' financial problems in providing adequate arterial roads to carry the ever increasing concentration of traffic.

#### (4) Types of construction.

This discussion, which would project the State into the building and maintenance of roads of secondary types and the so-called low-cost types, finds justification in the fact that there

will be a tremendous waste of funds over a period of years unless this work is done by the most competent engineers and under constantly improved specifications.

(5) Other Technical Requirements.

Research and laboratory control are essential concomitants. The secondary road and farm traffic can be served adequately with the lower-cost construction if there is put into the planning of the systems and the carrying out of the work the best efforts of the State highway departments either directly through their own organizations or in cooperation with competent engineering departments of the smaller units. It is fully demonstrated by the transport surveys which have been made in State after State that the concentration of traffic, and particularly the use of the heavier units, is confined to a small portion of the total public roads.

There are very definite laws which govern the flow of traffic, and we have come to the time now when no State can afford to be working in the dark without the segregation and classification of its roads into systems based upon their potential utilization.

After the basic transport survey has been made, check surveys for limited periods should be made at intervals of a

few years each, so that the planning of the system as it needs to be, can be kept in a constantly up to date status.

As an essential part of a highway transport survey, and as a basis for the reorganization and revamping of highway administration, there should be a complete financial study made to determine the fixed liabilities and the income which will be available for operations.

Most of the recent changes in highway legislation of an important character have been forced upon the State highway departments by public sentiment or acute financial difficulties of the smaller units of government.

I wish to recommend to your Association and the individual States of the Association that you now take the initiative in making studies along the general lines here indicated to place yourselves in the position of being able to give accurate, determinative and compelling information to your State legislatures when these questions shall become acute before them. It is a time when engineering statesmanship applied in the highway field can be productive of the greatest benefits in an essential undertaking, - that of providing adequate highways throughout each State.