

Decentralization in Highway Administration

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"Decentralization of management" is heard these days, whether in business, industry, or government, with such frequency that one gets the impression that decentralized management is the panacea for the cumbersome administrative arrangements fostered by the concentrations of administrative and legal authorities in all private and public business.

In the business world scores of the largest companies are taking a serious look at this newly rediscovered administrative system, which according to business reports will permit streamlining of central organizations that have become massive and cumbersome. In short, management structure has failed to keep pace with physical growth.

Decentralized highway administration as discussed in this paper means maximum delegation of authority to the lowest possible level in the organization. It means that operations are conducted by district offices with almost complete autonomy and with authority to do the job assigned. Field offices must be given the power of decision. Such delegation and decentralization of responsibilities require, however, new controls and management procedures.

Efficient handling of the accelerated highway program demands changes in past administration concepts which take into account important background changes and trends. If anything is clear, it is that the complexities of modern business and government, and highway administration in particular, require the ability to get things done through other people. Management skills of the highest order are needed to meet today's executive and administrative responsibilities—to convert ideas into plans and to translate plans into action and results. Decentralized administration with centralized management controls fits neatly into the new administrative pattern. It eliminates the big bottleneck, duplication of engineering work, and forces engineering decisions to be made at lower levels—important steps in effective use of engineering manpower.

● "DECENTRALIZATION of management" is heard these days, whether in business, industry, or government, with such frequency that one gets the impression that decentralized management is being proposed as the panacea for the cumbersome administrative arrangements fostered by the concentrations of administrative and legal authorities in all public and private business.

When "decentralization" is mentioned, immediately "centralization" is brought up. Supporters of centralized administrative systems usually describe them as simple, logical, orderly, and well coordinated. Experience, however, has shown that the frequent result is an unwieldy, cumbersome administrative system presenting many difficult problems of internal coordination and inefficiencies. Opponents of centralization refer to the uniformity sought thereunder as "deadly," and point to the loss of such important intangibles as initiative, resourcefulness, and experimentation. On the other hand, centralization is presumed to have less confusion and wider perspective and its proponents say decentralization is inefficient and full of confusion and frustration.

It is not intended to discuss the basic issues of centralized versus decentralized administration in this paper. As is the case so often in the evaluation of academic controversies of this kind, all is not black or white—there are many shades between. Undoubtedly there are advantages to each system and workable arrangements can be affected in the proper environment and with skilled and capable personnel.

FUNCTIONAL ORGANIZATION CHART

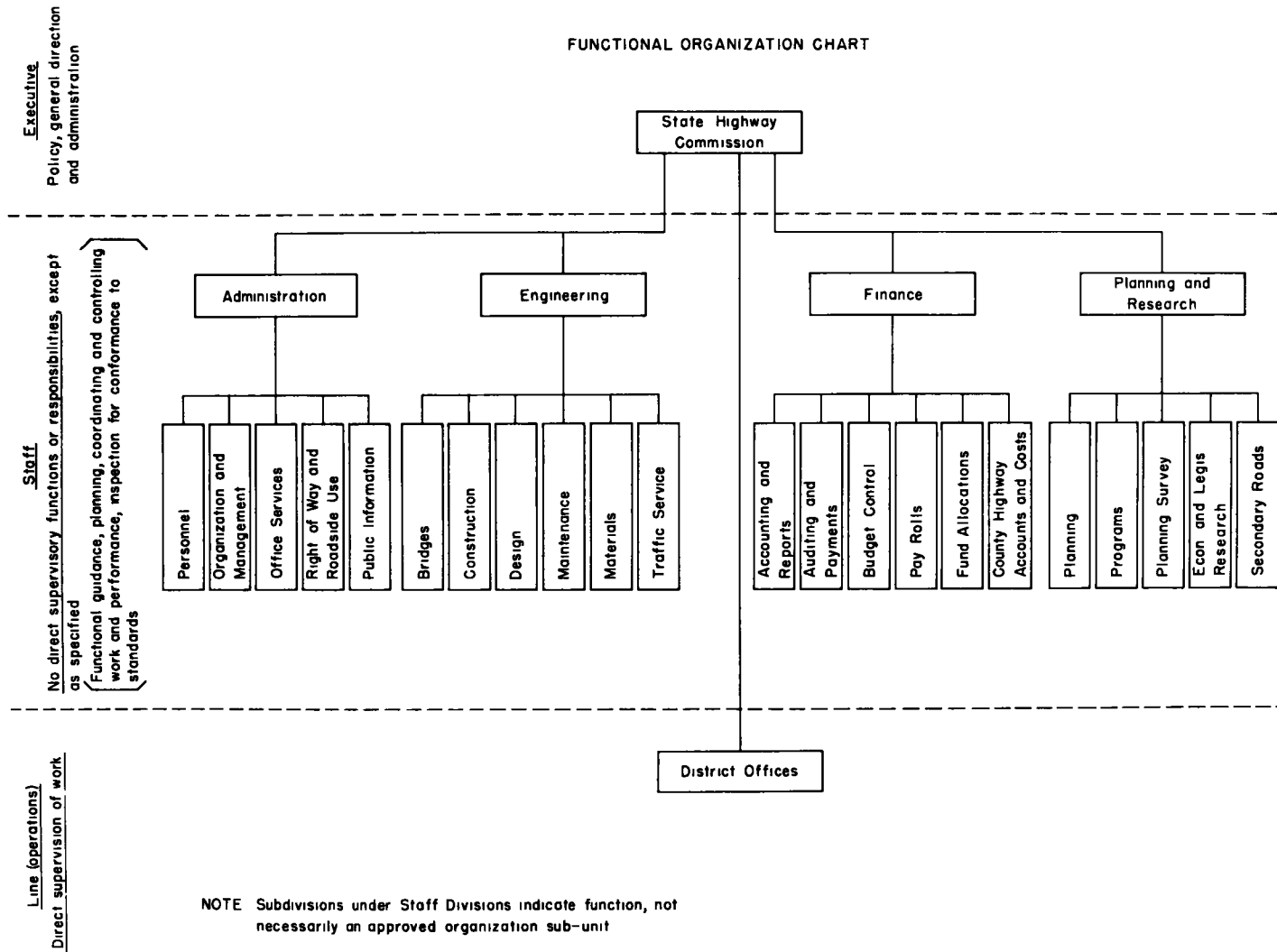


Figure 1.

Decentralized administration in practice takes on many forms and varies greatly in degree. Sometimes decentralization is more spurious than real when the authority to act is not completely delegated. Decentralized administration as discussed herein means maximum delegation of authority to the lowest possible level in the organization. It means that operations are conducted by district offices with almost complete autonomy and with authority to do the job assigned. Field offices must be given the power of decision. It is not decentralization to have district or division offices if decisions have to be made in the central office and district engineers are merely errand boys. This concept does not imply that district offices are completely without central office guidance and control. On the contrary, such delegation and decentralization of responsibilities require the exercise of new controls and procedures to bring about effective central planning and coordination.

The observations made hereafter are based to a large extent on experience in Wis-

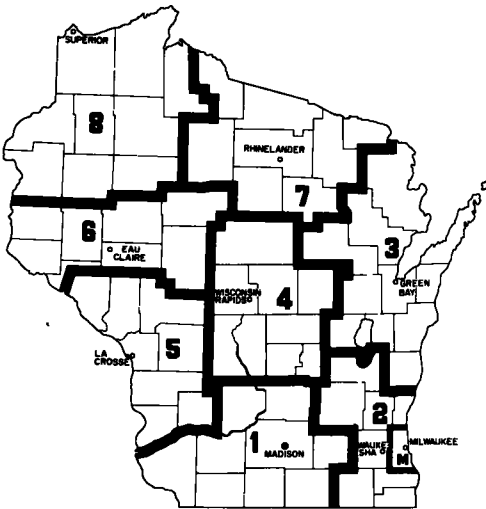


Figure 2.

consin, where decentralized administration has been in existence almost from the beginning. Under a recent reorganization, however, the system has been modified in important respects and modernized. Figure 1 shows the principal organization components of the central office and the general functions and responsibilities of each. The chart also indicates the relationships of the executive, staff divisions, and line operations.

The present system may be best described as decentralization with centralized controls. Under this scheme the operating units (districts) have authority and responsibility to make decisions on operations and services they perform, within the limits approved by the Commission. In the central office the staff divisions provide advice on research and planning, finance and accounting, engineering, personnel, and management consultation. In other words,

the function of the central staff is to help the field districts do their job, not to do the job itself. They do not exercise direct control, but they provide "functional guidance" in the area of their specialization. Controls over such activities as accounting, employment policies, quality of product and service, and programs of work are retained in the Commission proper. With the central staff thus freed of control responsibilities, more time is available for them to devote to planning, to watch performance of the operating units, and assist with the formulation of proper policy.

The form of organization is a modified staff and line type in which the direct line of control runs from the Commission to the operating districts. District engineers are not subject to the orders or direct control of the staff men; they are accountable only to the Commission. They are, however, responsible for the application of the functional guidance provided by the staff. In this manner help and guidance are given to the district engineers by the specialists and at the same time this arrangement ensures that the District Engineer has only one person to whom he reports.

Since it is impossible to issue all instructions and oversee compliance with them, the Commission, in the interest of administrative and operating efficiency, has delegated its responsibility for supervision of the districts to the central staff divisions for operations and activities within their respective provinces. It should be understood that the latter delegation is made only within the limits of policies and procedures approved by the Commission. To ensure control, policies recommended by the staff heads are reviewed and approved by the Commission and appropriate procedures are established in accordance therewith.

Highway operations in Wisconsin are carried on through nine essentially autonomous

DISTRICT FUNCTIONAL ORGANIZATION CHART

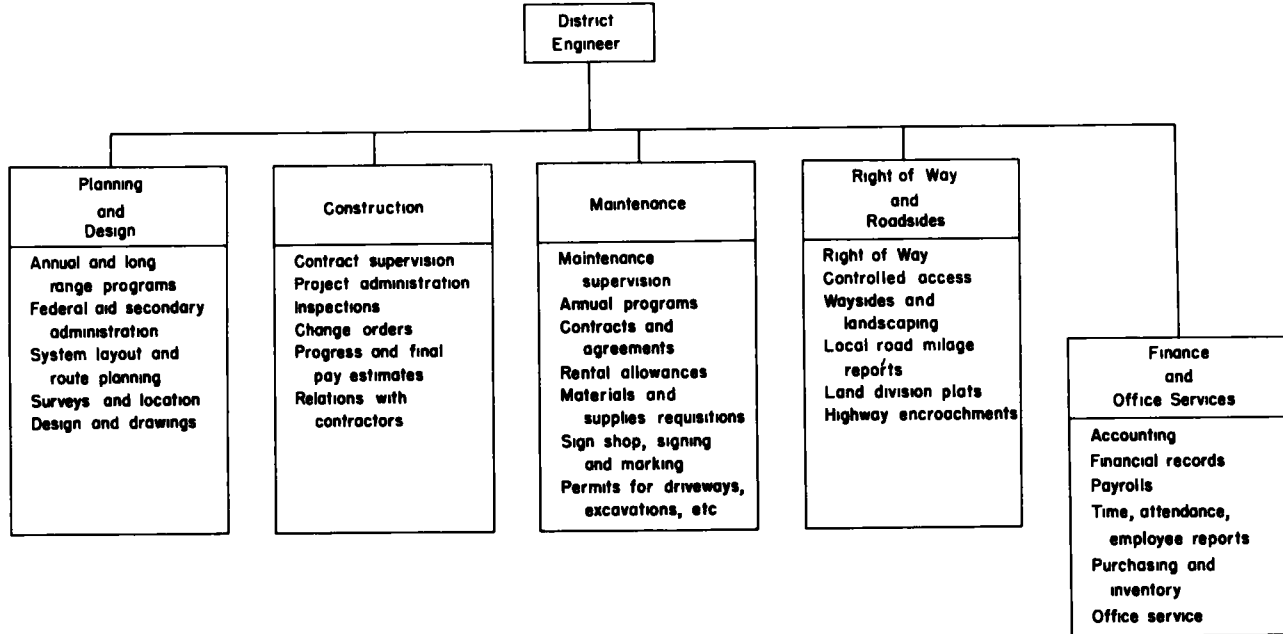


Figure 3.

districts located as shown in Figure 2. All but a very few minor activities are performed in districts, each of which constitutes a small but complete highway department. Figure 3 is a district functional organization chart.

It is, of course, risky to adhere to hard and fast rules about organization and administration. There certainly is much room for variation in detail within any administrative framework. Moreover, it is recognized that it is the competence of personnel which makes an organization or administrative system effective. Nevertheless it is the considered judgment of this observer that the eventual and most satisfactory system of administering the highway service will be a decentralized one because it is the most adaptable and the most compatible with the principles of organization. It provides better than any other system an environment which permits management to instill in its employees an attitude of individual responsibility and pride in accomplishment and thus inspire each to his best efforts. Also, decentralized administration is closer to the people where it belongs. If one doubts the validity of the latter statement he needs merely to note the current scramble to re-establish this traditional relationship—close to the people.

It seems appropriate at this point to interpose the comments by the head¹ of a large industry which so well epitomize the benefits of decentralized administration as follows:

"In the decentralized pattern—which we find very effective. . . —you really put the manager on his own. 'This is your plant,' you tell him. 'You decide what to do and when to do it. We have set the ground rules, the broad policies and controls, but it is strictly up to you to figure out how to operate under them.'

"This, we have found has a very stimulating effect. It gives the manager a sense of pride; it creates dynamism. The man has to be dynamic if he is going to carry out the assignment successfully. He has to be a leader, and he feels a very urgent responsibility to prove the worth of his leadership.

"Furthermore, that attitude permeates down through the entire organization. Everyone in that autonomously-operated facility, from the receptionist at the front door of the plant to the shipping clerk at the rear, knows that the local manager is running the show and sees that the actions of each individual have a direct effect on the success of the operation. Decentralization creates a sense of individualism—and of individual responsibility—in sharp contrast to the 'only-a-cog-in-the-wheel' feeling evinced by many employees of industries whose management gives on-paper orders from far away."

While the state portrayed by the above glowing comments have not been reached, this condition has been, however, closely approximated by district offices. Experience has shown that decentralization produces many of the advantages claimed for it. One of the great benefits is its flexibility and adaptability to any situation which may arise. Decentralization facilitates experimentation without committing the whole organization to an untried course of action. During the past several years a number of ideas on the use of personnel training, as well as strictly engineering techniques have been tried. In nearly all of these ventures, an experiment was carried out in a district or two where the results could be observed and evaluated. In this way it was possible to work the "bugs" out of the proposal before it was adopted generally. This is very helpful at a time when highway administrators are constantly searching for and applying whatever techniques or processes offer possibilities of improving operations and activities.

Under decentralized administration the "big bottleneck" can be avoided. It is a rather common experience in the more centralized systems that when something goes wrong at the center the effects are quickly felt and often the entire program may falter or even collapse. Moreover, it is usually an extremely complex and time-consuming matter to get the system back in working order. If, however, the program is being carried on by several separate and autonomous districts, difficulties are local-

¹Decentralization and Effective Management, by Don G. Mitchell, American Engineer, January 1956, p. 10.

ized and readily spotted and the remedy is usually not difficult. When production trouble arises in one of the districts it is possible to be alerted of the condition through this system of scheduling and reports often before a critical situation develops. This gives time to devise a proper remedy or at least bolster the local operation until a more permanent cure can be effected. In the meantime all other districts continue to operate and produce unaffected by a failure in one.

Perhaps one of the more beneficial aspects of decentralization which has been observed is that it develops competition between the operating units. There is nothing quite like competition to get the best out of an organization. In a decentralized plan, such as this, comparisons can be made readily between districts of performance of a particular activity or on an entire program of work, and such comparisons provide an effective incentive to the districts. Thus, the competition between districts is found to be very stimulating and the results are reflected in increased output which it has been possible to obtain several years in succession without any appreciable increase in personnel. If experience is any indication of the true situation there appears to be a large, latent potential in organizations which is remaining largely untapped by management.

True decentralization fixes responsibility and delegates authority and thus speeds up the processes immensely because there is no meticulous supervision by central office personnel miles from the scene. As a result, decisions are made quicker and faster action is taken. Districts do not sit idly by awaiting the next installment of instructions on how to proceed. Decentralization forces the districts to make their own engineering decisions—an important step in the elimination of duplication of engineering work and better use of engineering manpower. No one will question that districts strong in engineering "know-how" can deal most effectively with their own peculiar problems. Decentralization develops resourcefulness and self-respect on the part of district engineers who learn to make decisions based on their own operations and experience.

A system of decentralization brings operations closer to the site and as a result there is better opportunity for adaptation and adjustment. This applies equally to the technical and engineering aspects as well as those activities which may more directly affect the local people. The best place to coordinate is not in the top levels of the central organization but at the point where conflict arises. In general, for example, problems and decisions with respect to specific design can best be worked out on the ground at the site of the project rather than at a central office hundreds of miles away. Likewise problems involving local citizens can best be handled in most instances on the ground in the local area.

Under a truly decentralized system chances are immeasurably better for good public relations. Highways are still of considerable local concern even though the impression may have been nurtured in recent years that the state-wide and nation-wide aspects of highways were paramount. From an economic viewpoint such thinking may be justified, but the practical facts are that even the interstate highways have been judged to have local significance. The federal aid requirement for public hearings and the experiences of the states thereunder seem to bear this out.

Despite classifications and designations to the contrary, highways have retained important local aspects. Inasmuch as highways so intimately affect the lives and welfare of all the people, it appears logical that administration should be as close to the people as possible—physically as well as conceptually. It is preferable to have field offices conveniently located where people may carry their problems and get to a top man in the department and avoid the necessity of dragging their troubles hundreds of miles away to a central office often less concerned and less familiar with specific situations.

One additional but extremely important consideration is worth mentioning here. Governmental agencies can get too large for optimum efficiency just as industries have discovered. Decentralization is not entirely dictated by field requirements, but frequently it is required because of congestion at the center. In any expanding industry there is a tendency to over-expand and add unnecessary management levels, and highway organizations likewise are growing rapidly in width and depth. This kind of development is constantly being propagated from within the organization as well as by clientele and other interests on the outside. It is extremely hard to combat because of the

rather common presumption that additional employees and added levels are a guarantee of adequate management and supervision. Actually there is little basis in fact for the theory. The guide in all cases should be a minimum number of management levels. In other words, the organization should be kept as "flat" as possible. This principle has been followed rigidly in the organization plan in Wisconsin.

In industry similar thinking prevails and the following comment is cited as typical of what is occurring in the business world.²

"As one important aid, we have tried to minimize the number of management levels; we have tried to keep the organization 'flat.' The more management levels you have, we feel, the more friction, inertia, and slack you have to overcome, and the greater distortion of objectives and misdirection of attention. In this you must always be on your guard because levels of management, like tree rings, grow with age. As one company president put it, 'If all an executive does is agree with his subordinate executive, you don't need both of them'."

Highway administrators could profitably heed the counsel of this studied observation. It should be added here that this wise observation and sound advice does not merely apply to top management levels but throughout the organization.

Although the purpose of this paper is to present the case for decentralized administration, it seems desirable to give briefly some of the disadvantages. Other than those mentioned earlier, disadvantages usually cited are the lack of or difficulty in establishing a uniform policy, weakened lines of technical control, and the lack of qualified personnel to man a decentralized system. With respect to these so-called shortcomings, it should suffice to point out that with the improvement in the caliber and increased numbers of competent personnel, and the development of new administrative techniques and devices, it appears they are losing a large part of their validity.

In the business world decentralized administration appears to be the current top matter of concern. An examination of business reports and literature shows great activity in that direction. Scores of the largest companies are taking or have recently taken a serious look at this newly-rediscovered administrative system which permits streamlining of central organizations that have become massive and cumbersome. These enterprising managements are trying to cure ailing top-heavy and outmoded management systems which have failed to keep pace with physical growth. There is no doubt that the larger companies at least are expecting a fiercely competitive situation and they are girding themselves accordingly.

Most business men are familiar with what the economists refer to as "diseconomies of large-scale production." Simply stated it means that as size increases unit costs go down until a point is reached where further growth introduces so many complications that costs per unit rise again. This experience lends support to the idea that there is an optimum size for a business to work at maximum efficiency. Apparently this theory applies best when a single product is involved, but diversification and the resultant complexities have tended to invalidate the theory somewhat. In any event many of the larger businesses are undergoing a similar experience and the management of these enterprises is looking to decentralized administration as the answer to their problem.

Now what are the main purposes of business reorganizations and what does management hope to achieve. All hope to trim fat and boost earnings while at the same time creating a more favorable environment for management development. In general these are the things which are more or less common to all reorganizations:

1. A major degree of autonomy for the several divisions of the companies.
2. Central staff is reduced and kept small.
3. Coordination of production, sales and research.
4. Central staff control of fiscal, legal, public relations, and planning activities.

² Ernest C. Arbuckle, "Diversification," Management for Growth, edited by Gayton E. Germane, Stanford University, Graduate School of Business, 1957, pp. 85-86, as reported in Harvard Business Review, Sept.-Oct. 1957, p. 124.

5. Central office does not enter operations. It tests for weak points and helps solve the problem.

6. Delegation of responsibility to divisions with authority to act—with wide latitude.

7. Accountability for performance which is periodically reviewed.

8. Long range planning which is expected to bring handsome dividends in large production orders and profits.

Notable among the things management expects to achieve from decentralized operations are the following:

1. Trimming fat and boosting earnings.

2. Freeing of top men to do the job they are pair for—long-range planning and policy determination.

3. A more flexible organization to handle growth already experienced and that which lies ahead.

4. Creation of an environment for management development.

The central theme of management's complaint is that the business is so big it is impossible for the executive to worry about both "the sum of the parts and the parts themselves." Furthermore, the structure of the central organizations has become massive and cumbersome and to a large extent business management had become a "one-man show." Decentralization and consolidation are the tools being used to effect a turnabout in management philosophy.

Similarly in government and more particularly in the federal service, there is evidence of the need for more rapid, accurate, and personal dealings instead of the slow, cumbersome relations more or less enmeshed in red tape now in vogue. Although it would appear that a relentless movement toward greater centralization is inevitable in view of the superior and strategic position of the federal government, there are hopeful indications that some federal agencies are becoming more responsive to the demands of those whom they serve and are seeking workable administrative arrangements. Decentralization of administration of various types and degrees has resulted.

In the Bureau of Public Roads, for example, recent reorganizations have had decentralization aspects. According to reports, delegation of responsibility and authority to Regional and Division offices has taken place in a number of activities formerly the prerogative of the Washington Office. Perhaps the outstanding effort in decentralization on the part of the Bureau was the adoption of the secondary roads plan in 1955. This plan, which shifted more or less complete responsibility for administration to the states and eliminated much detailed federal supervision, is now in successful operation in nearly all of the states according to reports. This change in federal-state supervision is one of the most progressive administrative steps taken by the Bureau, and the formula could be applied to material advantage in other areas.

Admittedly, the problems of federal highway administration are not identical with those of the states. The Bureau is largely concerned with planning, coordination, and supervision of the aid program. They also operate within a different legal framework and under national legislation, and of late under rather searching scrutiny of Congress. It is significant to note, however, that decentralization is an important factor in their plans for administrative revision.

The foregoing exposition of the merits of decentralization is not all-inclusive—only some of the more significant advantages could be covered in this paper. Also, it should be noted that all of the advantages adduced cannot be claimed exclusively for decentralization. Undoubtedly some of them may also be claimed for centralized administration. It is this observer's opinion, however, that decentralized administration provides a better environment in which the advantages may be fully exploited and the benefits more likely to be realized.

Efficient handling of the accelerated highway program demands changes in past administrative concepts which take into account the important background changes and trends. Management skills of the highest order are needed to meet today's executive and administrative responsibilities—to convert ideas into plans and to translate plans

into action and results. Highway management cannot expect to operate successfully with administrative systems and concepts which were satisfactory a generation ago.

If anything is clear it is that the complexities of modern business and government, and highway administration in particular, require the ability to get things done through other people. This means better use of executive and management talent to bring the best efforts out of people. Leadership is essential. These requisites are more easily attainable under a system of decentralized administration than under centralization. Additionally, decentralization eliminates the big bottleneck and duplication of engineering work. It forces engineering decisions to be made at lower levels—an important step in the effective use and development of capable manpower.

Administrative and management concepts have been altered considerably under the impact of the highway programs and the technical manpower shortage. The trend is now toward administrative systems and organization plans which maximize individual efforts and production. Decentralized administration fits neatly into this pattern. If all of the leadership capabilities and the latent potential of the organizations could be tapped, many of the critical problems facing highway departments would be solved. Highway administrators who are looking for the utmost in performance would do well to follow the lead of industry and give serious consideration to a system of decentralized administration and similarly capitalize on its potential benefits.

REFERENCES

1. Mitchell, Don G., "Decentralization and Effective Management," *American Engineer*, Jan. 1956, p. 9.
2. Benson, C.S., "A Plan for Administrative Decentralization," *Public Administration Review*, Summer 1947, p. 170.
3. Ohmann, O.A., "Search for a Managerial Philosophy," *Harvard Business Review*, Sept.-Oct. 1957, p. 41.
4. Plummer, Harold L., "Administration Under the Expanded Highway Program," *Highway Research Abstracts*, Vol. 27, July 1957, p. 23.
5. Plummer, Harold L., "Highway Administrative Reorganization," *Highway Research Abstracts*, June 1954, p. 19.