

Good Management Practices for the State Highway Department

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By now you are all aware of the new highway legislation passed by the General Assembly. I shall not discuss it in detail, but possibly we should review its major features:

The legislation provides for a four-member part-time commission, with no more than two members from one political party, which shall determine the general policies of the department. It also greatly strengthens position of the executive director as the chief executive officer of the department.

The executive director, who is to be a registered engineer, shall serve for an indefinite term—Presumably so long as he performs creditably.

He shall have reporting to him:

1. The chief of the Division of Construction, who shall be a registered professional engineer with at least five years' road construction experience.
2. The chiefs of the Divisions of Maintenance, Planning, and Traffic—All of whom shall be registered professional engineers.
3. The chief of the Division of Accounting and Control, who shall be an experienced and competent accountant.
4. The chiefs of the Division of Land Acquisition and the Division of Purchases, who shall be qualified by experience. And if the chief of the Division of Purchase is not a registered engineer, he is required by the law to use a registered professional engineer to draw specifications for bids.
5. And, finally, the chief of a Division of Personnel, who shall be a college graduate with at least six years' experience in personnel work, with the training, experience, and ability to develop, install, and administer an effective personnel program. At least one of the assistant chiefs of personnel shall be a registered professional engineer having the training or experience in personnel work.

I cite these qualifications to indicate that it was the legislature's intention to make professional qualifications, rather than other qualifications, the basis for hiring the top staff of the department.

Reduced to its essence the new highway legislation, (1) by setting up a policy-making commission from both parties, (2) by strengthening the chief executive officer, (3) by requiring professional qualifications for its executive personnel, and (4) by setting up a professional personnel department, has created an opportunity for the governor, the new highway commission, and the executive director, to make the Indiana State Highway Department one of the best in the nation.

But it has only created the opportunity. In the next four years, the department can demonstrate that professional management can do the job. If it does, I am convinced that the state of Indiana can gain significantly. If it does not, the tremendous opportunity will be lost. It is with this preface in mind that I would like to review the work of the Job Evaluation Commission:

While I have had the benefit of working with the commission and staff, I think it should be recognized that I am not writing as a representative or in behalf of the Job Evaluation Commission—nor am I writing as a representative of Purdue University. I am, however, speaking as a citizen who has had the advantage of working closely with the commission and who is vitally concerned with the functioning and organization of one of our largest state departments.

As citizens we should not underestimate the important nature of the task we have assigned to the State Highway Department: in the state of Indiana there are approximately 98,000 miles of streets and roads; the State Highway Department is directly responsible for 11,000 and has some advisory duties for much of the other 87,000. These streets and roads are vital to the industrial growth of the state. A good road system can do much to help us attract new industry into the state and in this way spread some of the tax burden over more industrial enterprises. And this is of overwhelming importance if Indiana is to have a tax base capable of supporting the public services being demanded by citizens. It is hard to over-emphasize the importance of the State Highway Department in the economy of the state.

In addition, I think we should recognize that the State Highway Department activity is big business. Last year the dollar amount of contracts awarded was roughly \$144 million. During the last summer season the department employed about 5,000 people and during the last winter season about 4,200; its annual payroll was about \$19 million.

Of the 5,000 employees a little more than 500 are engineers and have some measure of job security.

I suspect there are few businesses in the state of Indiana whose cost structure exceeds that of the State Highway Department. In checking the records I find that Eli Lilly, with all of its Indiana establishments, is about the same size. Or we could combine P. R. Mallory and National Homes and have a company of comparable size. I think you could also compare the size of any company with which you are familiar with that of the State Highway Department to get some indication of the administrative problems the department faces.

The Job Evaluation Commission Act, passed by the last legislature, had bipartisan sponsorship; and it is to the credit of the last administration that it realized the importance of this task. It appointed a bipartisan group of commission members and urged the commission to bring in a report for transmission to the next legislature shortly after election. The Job Evaluation Commission was directed by the last legislature "to make a detailed and systematic job evaluation survey of all positions and job classifications within the divisions that are above the ranks of typists, clerks and common laborers. The survey (was to) include, but not be limited to, a logical and systematic analysis of specific job duties and qualifications that should be possessed by persons assigned to such jobs, together with determinations of the relative importance of each job in relation to other jobs within the various divisions of the State Highway Commission of Indiana. . . . Upon the completion of the survey, however, the results and recommendations evolved therefrom together with any and all other recommendations that may be made to improve the administrative functioning of the State Highway Commission of Indiana, shall be made available to the governor and to said highway commission for use and guidance in employing, classifying and assigning employees in keeping with their qualifications and in otherwise administering the affairs of said highway commission."

I must say that the commission—Robert Gramelspacher and Ralph Waltz from the House, Clifford Maschmeyer and John Rees from the Senate, Charles Dawson and Carl Vogelgesang from the Department, Dr. John Mee, head of the Department of Management, School of Business at Indiana University, Donald Rhodes of Pitman-Moore Company in Indianapolis, and myself as chairman—were just a little dismayed when we realized the enormity of our task. We had no staff, but here we were faced with the job of reviewing the organizational procedures and describing the positions in one of the largest

businesses in the state of Indiana—and we were asked to do this within the year.

We were indeed fortunate in getting the services of Ralph Phelps as director. Phelps is one of the past presidents of the Indiana Personnel Association, and had had some forty years' experience with Link Belt Company as personnel director. He brought to his assignment a thorough knowledge of modern personnel practices in industry, excellent judgment, contacts all over the state with other personnel men, and a willingness to examine the facts before arriving at conclusions.

Director Phelps, in turn, employed three professional job analysts—James Paradise and William Shanner, both former personnel directors with wide experience in wage and salary administration, and Charles Cassidy who was deputy director of the State Personnel Bureau, and who has been engaged for several years in developing job specifications and classifications with the State Personnel Bureau.

These staff members, under Phelps' direction, have done a tremendous amount of work. (1) They have prepared over 600 job descriptions after interviewing the bulk of the professional staff in the Highway Department. These job descriptions state in detail the responsibilities assigned to each individual and the qualifications that the individual must have to discharge these responsibilities. They also indicate the organizational relationships between these positions, so that the administrator will know precisely to whom each man reports. The analysts determined the relative importance of each job for the purpose of salary administration. To do this they assigned points indicating the amount of responsibility and kinds of skills required for each position. This provided a basis on which to evaluate the importance of each job in the structure of positions. (2) In the process they examined the organizational structure of the department. (3) They made surveys of the salary structure and personnel practices of highway departments of other states in the Union. And (4) they made a survey of salaries for comparable positions in industry. I doubt seriously that with respect to personnel practices and organization any department in the state has been gone over with such a fine-tooth comb in 20 years.

The results of this massive inquiry have been presented to the governor in summary form (consisting of about twenty pages of printed material) and have been transmitted to the legislature and other interested parties. The job descriptions and other detailed information have been reproduced in several hundred pages of mimeographed materials.

While this is probably the most intensive and detailed survey of the personnel function of the State Highway Department, I hasten to add that it is not the first; there has been a whole series of inquiries concerned with personnel practices in the department. In 1951 the Highway Investigating Committee of the Senate made a careful study of the Highway Department—in 1952 the Little Hoover Commission on Organization studied the Highway Department—in 1955 the *Heller Report* reviewed the organizational structure of the Highway Department—and in 1959 we and the Highway Study Committee concurrently were working on the personnel practices of the Highway Department.

The Indiana State Highway Department probably has the distinction of being the most thoroughly studied, and the least changed, governmental department in the nation. From what our staff could see, there have been very few changes in the personnel practices during the last twenty years. I do hope, however, that in view of the time and effort we have put into this—and the real problems facing us in the Highway Department—our commission's recommendations will have the impact that the reorganization implies it could have. I suspect that this will depend largely, as I have noted, on the governor, the new commission, and on the executive director.

It is important to emphasize that these studies reveal that criticisms of the State Highway Department have been generously bestowed on both political parties and all administrations since the middle 30s. (In the 20s and early 30s our Highway Department was considered one of the best in the nation. Many other states sent groups here to study it and it was during this time that the Highway Department recruited its fine group of engineers, many of whom are now near retirement age.) While our survey is in much greater detail and provides the factual data necessary for the establishment of a modern personnel system, the general conclusions we have reached do not differ greatly from the general conclusions reached by our predecessors.

The thread which runs through all these reports, and which I do not think we can ignore, is that the State Highway Department deserves to be organized so that it can recruit and hold competent personnel. In the end—and I am sure you will all agree with me no organization is better than the people who are in it, and an activity which is as important for the state of Indiana as our Highway Department must provide *career opportunities* for competent people if it is to live up to its potential in promoting the growth and development of our state.

In view of the size and importance of the Highway Department in the economy of the state, we can start from the premise that it deserves the same kind of professional management which we have come to expect from our leading industries in the state. It is with this thought in mind that we have examined the current personnel practices of the Highway Department to see if these practices were, in fact, creating career opportunities.

I don't think this is the place to review in detail all of our findings, but we did find that the department has *not* created career expectations for either its present or prospective employees. This is not due to the fact that our salary structure is inadequate. So far as its minimum and maximum salaries are concerned for each classification, our Highway Department ranks fourth in the nation; only California, Illinois and Michigan surpass us. The reason must be found in something other than salary structure. Consider the evidence that our personnel practices are deficient:

1. We are not getting our share of the graduates from our own state universities. Most of the young men studying civil engineering at Purdue have come to us from farm families and small communities in the state of Indiana. They would like to stay in Indiana, but they are not accepting employment in the State Highway Department. This grieves us. But the word has filtered back that the State Highway Department does not offer good career opportunities, despite satisfactory salaries.
2. There is a serious age gap in our professional engineering staff. About 43 per cent of our employees in the engineering department are over 50 years of age. (Incidentally, we were surprised to learn the department has no mandatory retirement age; 6 per cent are over 65.) Less than one-fifth of our employees are between the ages of 35 and 50, and this is the group we shall have to turn to for leadership in the near future. The plain fact is that many of our most promising engineers have left the department to work for consulting firms and other groups associated with road building.
3. Over half of highway-design work normally done by the Highway Department is now being done by consultants; the engineers now in the Highway Department are largely involved in checking the work done by consultants—and in controlling the actual construction. This has made the work in the department less interesting to career engineers and more difficult to attract and hold them.

Our staff, after examining these facts and making detailed job descriptions, has come to the conclusion that what we need in the

State Highway Department is a personnel system managed by a capable personnel director who will be required by his boss to create career opportunities for competent young men. This is what this personnel system would consist of:

1. *Recruiting*—the department, under the leadership of a professional personnel director would develop an extensive and hard-hitting recruiting program which would compete with the skilled recruiters who come to our campuses from other states and some businesses. Increasingly, governmental organizations are realizing the importance of feeding high-quality people into their personnel pipelines. The federal government, for example, has professional recruiters who are going to the graduate schools of business and public administration to convince young men of the opportunities in the federal government. It is all the more important that we in the state of Indiana convince our own young men and women who are being educated in our state universities that they have career opportunities in state government. Certainly political affiliations should not govern the employment of professionally-trained young people; nor should they be asked to indicate political affiliation when they are being interviewed.
2. A vital part of a well-conceived and well-executed personnel program is a *good training program*. The states which have had the most success in hiring and retaining employees have well-established training programs. One form of training is job-rotation. Instead of being stuck in one routine and narrow field the young engineer or professional man should be exposed to a wide range of activities. In the Highway Department, if this were done, the new employees could get over-all knowledge and experience and would be less likely to have a feeling that they are in a "blind alley." At the end of this period both the engineer and his supervisor are better able to determine his aptitudes and interests and where he will serve best.

Experience in industry has shown that such training cannot be left to the individual supervisors. It should be the responsibility of a central personnel department which can in turn be held accountable for its effectiveness in up-grading young professional people.

3. Third, and possibly the most important part of a good personnel system, is a *salary and promotion program* based on a careful statement of each man's responsibilities and an appraisal of how well he has carried out the duties assigned to him. This goes to the heart of

the work our staff has done. There are a number of steps involved in this:

- a. The Highway Department needs to maintain through its personnel division a complete set of job specifications which should explicitly indicate what is expected of the person in each position. They should also state the necessary qualifications—sometimes called entrance requirements—that the incumbent must have to do his job, and they should clearly indicate the organizational lines of responsibility. Our staff has prepared job descriptions for most of the professional positions, but this is only a beginning. Only a modern personnel department can keep these job descriptions up-to-date.
- b. Once the work of the department is embodied in these job descriptions some type of appraisal system is necessary to evaluate the performance of people holding the jobs.

I think that in the interests of efficiency and good management, in-grade salary adjustments, as well as promotions, should be made on the basis of performance. When other criteria are used for salary and promotion decisions the work of the department will necessarily suffer. Generally, people do whatever is necessary to get ahead, and in a well-run organization the personnel department and the chief executive are careful to make it understood that it is performance that is the criterion for salary adjustment and promotion. This is the only way to maintain the health of an organization.

To insure the effectiveness of the appraisal system some type of central personnel administration is usually necessary. It is always difficult, in a face-to-face situation, for a supervisor to discuss a subordinate's performance with him. And it is easy to put off this job unless a personnel officer is constantly urging supervisors to make such appraisals and discuss them with their subordinates.

With such a review system it should not be difficult to get salary changes through the State Budget Committee. Once a personnel system for appraising personnel on the basis of their performance of clearly-defined jobs is established, I would guess that the state budget director and his committee would be more sympathetic with proposed changes coming from the department, and this would make it possible to make such salary changes as would improve the morale of the organization. Until such a personnel system is established the State Highway

Department is seriously handicapped in justifying the proposed salary changes to the budget director.

4. A fourth important function of a personnel department is to maintain a complete personnel file on all employees. This file should contain the employee's personnel record, show his background, education, experience, previous employment, supervisor's appraisals, transfers, promotions, salary adjustments, and all other relevant matters. Were such files maintained they could be used to give a supervisor who has an opening a chance to review all of the promotable people in the organization. This would assure employees that they would not be "lost" and would give supervisors a chance to consider a larger panel of experienced persons when there is an opening to fill or a promotion to make.
5. The fifth important function of a personnel department would be to administer fringe benefits. At the present time the fringe benefits (like the salary scale) are roughly competitive with the other highway departments in the nation. The one exception is that the Indiana State Highway Department does not make group life insurance available to its employees, but this is a relatively small item. However, it is important that a program be worked out to administer the fringe benefits which are currently available.

These are the contributions which a well-conceived personnel system can make to the State Highway Department. Boiled down to its essentials—the challenge we face is this: *CAN WE CREATE CAREER OPPORTUNITIES FOR COMPETENT YOUNG MEN AND WOMEN IN OUR STATE HIGHWAY DEPARTMENT?*

This is particularly important if we look ahead five to ten years. Not only will about one-third of our current engineering staff (and those on whom we have been depending so heavily) reach the usual retirement age, but the Highway Department will need an entirely new type of engineer. Increasingly, our better civil engineers are staying on for their master's degree. They are learning to use photogrammetry and high-speed computers in the designing of roads and bridges. They will bring more science and less rule-of-thumb thinking to the design and construction of highway facilities. This new-type engineer will be a much-sought-after individual, and if we are going to run a successful highway department we must be in a position to offer these highly-trained engineers and scientists real career opportunities.

Those of you who have considered what American industries have done to create *career opportunities* know what kind of competition the

State Highway Department faces. In fact, one of the important contributions of modern professional management—and one that is frequently missed—is that it has opened the way to young men and women to advance in American industry on the basis of ability and performance, from modest beginnings, to jobs of real responsibility. It has made it possible for persons to get ahead regardless of wealth, background, and political affiliation.

Because American industry has done this so well it is all the more important, if the State Highway Department is going to compete with other employers, that it be primarily concerned with the development of career opportunities for competent young men and women. Our commission has been largely concerned with this problem. We have laid the foundation for this job by the development of our job descriptions, but we have only laid the foundation. Our work, like that of our predecessors, will go down the drain unless the new commission and the executive director are prepared to create an organization in which professional management, aided by a *strong personnel department*, can do its job effectively. This personnel department—and I might add in passing that a personnel department is no stronger than the chief executive to which it reports—could then be in a position to install a modern personnel system. This means hiring competent people regardless of political affiliation. If this is not done the problem of attracting and holding the kinds of people who can make the State Highway Department function effectively will get worse. If this is done the State Highway Department can do a great deal to reduce the costs of doing business and to help us attract more industry to the state.

It is sometimes said that it is impossible to create satisfactory career opportunities within the framework of state government. As a part of its job, our staff surveyed the highway departments in the other states in the Union to see what kinds of organizational practices were followed. Our staff also visited Washington, Oregon, California, Wisconsin, Michigan, Missouri, Illinois, New York, Maryland, and New Jersey. They found that these states are attracting and holding competent people. Rather than being faced with a shortage of professional personnel, as we are, they have too many people who are ready for promotion. In fact, over half the state highway departments in the nation have managed—using the techniques of professional management—to create career opportunities for competent people—and for the most part they are doing this on a salary scale no higher and in many

cases lower than our own. *It can be done within the framework of state government.*

The problem which our State Highway Department faces is not complicated. It boils down to what you and I already know has to be done in any organization which is going to succeed. An organization consists of people, and people have to feel they have challenging jobs and that they will be rewarded on the basis of performance. The question we face is this: can the new commission and the executive director create an organization in which modern personnel practices can be used successfully? If they can do this (and many other states have) we can again have a State Highway Department which will be one of the best in the nation. And if we don't—in view of the technological changes which lie ahead—we are in for serious trouble.