Financial Reporting to Management

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•IN 1964 more than \$12 billion was spent in the United States on costs directly related to roads and streets. In at least two instances, a single state's expenditures approached one billion dollars. Was the money spent prudently and efficiently? Did highway users obtain maximum value for their money? Charged with responsibility for the great volume and variety of activities suggested by the foregoing figures, the highway manager must depend on reports, especially financial reports, to answer these questions.

The degree of administrative emphasis on fiscal matters is evident on all sides, and one need only refer to the activities of the Highway Research Board itself during the past few years to reinforce the point. Good financial reporting is vital to successful financial management.

IMPROVED FINANCIAL REPORTING NEED

There is ample evidence to suggest that the art of financial reporting to highway management has not kept pace with the greatly expanded highway programs and, therefore, with highway managers' requirements and desires. AASHO was keenly aware of the need for improved financial reporting and, in 1961, named a task force on financial reporting headed by A. H. Lawrence of Michigan to investigate financial reporting needs in highway departments and to recommend improvements in reporting procedures.

By means of questionnaires directed to the chief administrative officers and chief fiscal officers of all state highway departments, the task force gathered valuable data regarding the strengths and weaknesses of prevailing reporting practices and procedures, as well as many suggestions for improved reporting. A disturbingly large number of administrators stated that the financial reports they received were of little use to them in making managerial decisions. Their comments suggested that reporting could be improved in content, format, and timing. After Lawrence reported the findings of his group at the AASHO Convention in 1962, another task force, under the direction of Roger R. Shipley of Indiana, was appointed with the assignment of preparing material on the subject of financial reporting to management which would be suitable for incorporation in the AASHO Manual of Uniform Highway Accounting Procedures.

After examining the available material on the subject, Shipley's task force decided that research was needed in at least two areas of the subject: in determining the financial reporting needs and desires of highway administrative officals, and in developing a systematized approach to financial reporting. To perform the needed research, the Indiana State Highway Commission, with the support of the U.S. Bureau of Public Roads, entered into a research contract with the Graduate School of Business of Indiana University. The material which follows was developed under this research contract.

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RESEARCH PROCEDURES

To meet the general objective of the project, which was to develop financial reports and reporting techniques which would provide highway officials with better financial information for their use in planning, directing, and controlling operations for which they are responsible, the project research procedures included:

1. A review of the existing literature on the subject of financial reporting to management, from the point of view of both public and private enterprise, to glean any in-

formation applicable to financial reporting in highway departments.

2. Assembling and evaluating examples of current financial reports to state highway management. These reports were used to detect desirable as well as inferior reporting practices and procedures and to provide data for the development of pilot reports with a variety of content, form, analysis, and reporting techniques for use later in interviewing highway administrative officials.

- 3. Conducting interviews with those interested parties believed to be most able to provide data pertinent to the project. The study was based on the premise that highway management itself is in the best position to appreciate the type, format, content, and timing of financial reports essential to most effective administration. Therefore, the investigative emphasis was on detailed, depth type interviews with highway administrative officials to obtain their views, preferences, and reactions relating to the different types of reports and reporting techniques previously developed. No attempt was made develop statistical inferences from the interviewees' responses.
- 4. Conducting extensive correspondence with both administrative officials to gain further information regarding the impressions, problems, requirements, and desires of highway officials relating to financial reporting. This correspondence further served to provide all chief administrative officers of state highway departments with an opportunity to express their views and spell out their needs in financial reporting. Correspondence was also used to clear up points of confusion or misunderstanding, and to serve as a checkback on findings.

LITERATURE ON FINANCIAL REPORTING

The review of the literature confirmed the judgment that financial reporting is no simple task. Although elaborate, complete financial reporting systems have been developed for specific business enterprises, the research disclosed no systematized examples of financial reporting to management which would be suitable for application to highway reporting. However, the literature revealed a continual emphasis on the fundamentals of good reporting: basic purposes, general reporting principles, criteria for a desirable reporting system, and the proper use of a variety of reporting media.

Fundamental Purpose of Reporting

The fundamental purpose of financial reporting to management is to provide a sound basis for management decisions, by showing compliance with or deviation from adopted programs or approved policies. To accomplish this purpose, financial reports must do two things: portray the facts accurately, and motivate whatever management action is required.

The literature emphasized that an effective reporting system must "communicate information," which means a great deal more than merely providing a mass of figures for management to unscramble and interpret.

Reporting Principles

If reports are to communicate financial facts to management, they must present the necessary information in a clear, concise, forceful way, and in time to be of maximum use. A good report should have the following ten characteristics: 1. It shall contain all the essential facts of the situation reported, without extraenous information or unnecessary detail to waste the reader's time or confuse him.

2. It shall be presented in a format which allows quick and easy grasp of the essential information, and is expressed in terminology with which the reader is completely familiar.

3. It shall permit the executive to concentrate on exceptions by focusing attention on comparisons which highlight trends or deviations from targeted performances.

4. It shall be timely and, if routine, produced on a regular schedule, so that executives may expect reports at specific times and rely on them.

5. It shall be tailored to fit the requirements, personality, preferences, and capacity of the recipient as to format, amount of backup detail, and other report characteristics.

6. It shall be designed for eye appeal and easy reading, easy storage for reference, and shall be attractively packaged.

7. It shall facilitate the establishment and maintenance of rapport and communica-

tion in both directions between the reporter and the user.

8. It shall be distributed only to the executive charged with responsibility for the subject matter reported on, thus conserving user time and effort, as well as decreasing the danger that other recipients might take action outside the scope of their authority and responsibility.

9. It shall be supported by appropriate analysis of the financial information sup-

plied, and shall be accompanied by significant summaries.

10. It shall be sufficiently useful to justify completely the time and cost involved in its preparation and presentation.

Analysis and Interpretation in Reporting

The modern capacity for gathering and disseminating financial information has overwhelmed management's facilities for absorbing it. In this situation, analysis and interpretation are indispensable to complete reporting. No other highway official is in a better position than the financial officer to analyze and interpret the financial information reported, or to point out the alternatives available within the legal, financial, and policy limitations imposed upon the organization. According to the literature, the financial officer's report is not ready for submission to management until he has completed his evaluation of these alternatives and, when needed, his carefully supported recommendation for a course of action.

Management thought patterns involve basic relationships, not figures and statistics as such. The core of the analytical process is the establishment of relationships, i.e., comparisons. In analysis, a mass of figures is reduced to easily manageable proportions, and condensations of figures are compared with some predetermined acceptable standard, such as a budget, a goal, the achievement of previous periods, the achievement of other highway organizations, or even some preconceived notion of what should have been accomplished. The end product of analysis is the expression of valid relationships in a clear, simple thought or idea. Relationships provide the answer to a fundamental question: "What is the situation, and should something be done about it?"

General Criteria

The financial officer must know for what purposes highway managers need financial information and must provide reports which satisfactorily cover these needs.

In designing his reporting system, the financial officer must provide for both information reports and control reports. He must also distinguish between reporting for external purposes and reporting for internal purposes. For internal purposes, reporting should be provided along the lines of authority and responsibility as shown by the organization chart. Coordination of the reporting system with the organization plan will prevent gaps or overlaps in the coverage of reporting by functions, and will permit the reporter to direct to each manager specific information pertaining to that user's duties and responsibilities.

The reporting system should provide for the continuing study of measures for evaluating performance, and should have a built-in mechanism for report review and change. The system should have sufficient flexibility to handle unusual informational requirements. Where absolute accuracy of certain figures is not as important as quick preliminary estimates, the reporting system should be geared to provide reliable estimates promptly.

Related reports should be carefully coordinated, and their relationships be made clear. The reporting system should be such that the reporter will know the financial effects of decisions made as a result of his reports so that he can, in turn, provide re-

ports of the results of these decisions.

The individual reports should be clear and concise. The place to start establishing these qualities is in the title of the report. All pertinent facts should be presented in such a manner that important data and relationships are clearly set forth and emphasized. Insofar as possible, information should flow from one part of the statement to the next. Reports should be designed to provide for comparsions—yardsticks for evaluation of progress or costs. Excessive detail, which obscures significant facts and relationships and may delay report completion to the extent of affecting its timeliness for management, must be avoided. Unless the report is to be considered an historical record, the figures in it should be rounded to the significant digits, so that the reader's mind is not cluttered or encumbered with useless detail.

In planning report layouts, financial officers should always provide significant sum-

maries. Management should not be expected to make its own summaries.

In reporting, technical vocabulary and unidentified code designations should be avoided whenever possible. The financial officer may be so completely familiar with certain terminology and special coding that he may incorrectly assume that all of the users of the financial reports will be equally familiar with them. Many persons beginning administrative duties may find financial reports, in their usual form, almost incomprehensible.

Reporting Media

Effective reporting requires the selection and skillful use of reporting devices which will best present the financial information involved. The reporting vehicle chosen

should make the data clear and should convey ideas smoothly and rapidly.

Essentially, there are five distinct methods of presenting financial information: (a) oral presentations, (b) narrative reports, (c) conventional financial statements, (d) tabular presentations, and (e) graphic presentations. Depending on the type of data and the purposes of the reports, the financial officer is likely to find that a skillful blending of all of these methods will prove most effective in his reporting. Each method has a significant place in financial reporting to highway management; each has certain merits and defects as a financial reporting medium.

Oral Presentations.—The reporter will find many situations in which oral reporting may be especially appropriate, either by itself or combined with other media. The reporter is able, on the spot, to interpret and emphasize significant material, clear up questions, and save managers considerable time and effort in studying reports. The oral report may easily be adapted to fit the wishes, interests, and personality of the manager involved. Oral reporting fits neatly into the pattern of management by ex-

ception.

However, oral reporting has certain inherent limitations. It may be time-consuming, and scheduling problems may cause reporting delays. Many administrators "want it in writing." Regularity in reporting may be difficult, and not all financial officers are effective in making oral presentations.

Narrative Reports. —Certain financial information may be communicated most effectively in narrative form, especially in situations in which it is desirable to recommend specific action. Narrative memoranda are likely to be very useful in summarizing data and in drawing comparisons, presenting recommendations, and as a followup procedure.

The narrative report should be presented in a clear, simple style; it must be carefully organized and designed to permit the reader to locate the key points quickly, without looking back. It must be easy for the reader to grasp the basic outline and master the summaries.

Conventional Financial Statements.—These statements form the backbone of any reporting system. They should follow professionally acceptable accounting principles and are designed to present, in summary fashion, the results of operations and the situation which has developed from these operations. The statements should be designed for quick comparisons. For greatest usefulness, the data should be organized into homogeneous groupings, and should flow smoothly from detail to final summaries, so that the user may quickly and easily select information of immediate concern to him.

Tabular Presentations. —With tables more data may be organized for inclusion in reports than is likely to be true if only other forms of presentation are employed. When carefully prepared, tabulations are almost indispensable as documentation or backup

material.

When included in a report, tabular presentations should contribute significantly to the process of analysis and interpretation. The most important task in the construction of tables is to arrange the data in such a way that the significant relationships can be most easily studied. The reporter must avoid the construction of overly complicated tables, because a table must be easy to understand if its purpose of effective presentation of financial data is to be served.

Graphic Presentations.—The purpose of graphics is to show comparisons quickly in visual form; they should be used chiefly to supplement other forms of presentation. In a world oriented to speed and pictorial presentations, well-designed graphics and charts lend clarity, appeal, and dramatic impact to financial reports. In general, graphic presentations make effective comparisons and contrasts; they are also effective in attracting and retaining the reader's interest and attention. Thus, the relationships portrayed in charts and graphs are easily grasped, understood, and remembered. Problems may be more clearly identified and defined.

In the use of graphics, certain principles are very important. The reporter must be thoroughly familiar with his data. He must carefully plan the number and type of graphics to include, and must be sure that there is a clear and convincing reason for each. He must select the graphic type which best fits the reporting job to be done. He must have sufficient knowledge of graphic techniques to get the effect he wants.

The bar chart is a very simple and popular means of making comparisons and illustrating relationships, by size, among comparable items. Depending on the reporter's purposes, he may use one or more of many variations of the bar chart, such as the grouped bar chart, the component bar chart, the subdivided one hundred percent bar chart, the paired bar chart, and the deviation bar chart. The column chart (in which the bars are arranged vertically instead of horizontally) is another useful reporting device. The column chart is more suitable than the bar chart for presenting data running over a period of time. As in the case of the bar chart, there are many possible variations of the column chart which the reporter may find useful.

The line chart is probably the simplest, best known, and most versatile visual device for presenting statistical information. When emphasis is to be placed on changes over time rather than simply on the quantities themselves, the line chart is unequaled. It is useful in presenting estimates and forecasts, and can be used to show cumulative amounts over time. Pie charts are frequently used to show the percentage breakdown of the components of a total, such as total revenues or total expenditures. Since the pie chart possesses more weaknesses than most other graphic forms, it should be used sparingly. The most effective device for portraying relationships on a geographical basis is the map chart. When data are to be compared and analyzed by geographic areas, maps are indispensable.

In general, graphic aids should be limited to main points, and not applied to side issues. They must be simple enough to be readily comprehended, otherwise they will not accomplish the reporter's purpose. For best effect, the reporter must strive for a satisfactory balance between graphic aids and other devices for the presentation and analysis of data.

EVALUATION OF CURRENT REPORTING PROCEDURES

One of the important aspects of the research project was a critical examination and evaluation of current financial reporting practices, as evidenced by reports now being prepared by state highway financial officers. For this purpose, reports from more than three-fourths of the highway departments were reviewed.

Judging from the principles enunciated in the literature, the impressions of the researchers, and the expressions of opinion of highway administrators, current financial

reporting practices could be improved in the following important respects:

1. Enormous quantities of detail should be eliminated. In too many cases reports contained an indigestible amount of information spread over too many columns of too many pages.

2. More numerous and adequate summaries should be included with the reports.

3. The information in the reports should flow so that it would be easy to follow the

manipulation of the figures across the page to the significant amounts.

4. There should be much more clarity and consistency in the use of terminology. Highly technical terminology should be avoided. In many cases, the terminology employed was entirely too complicated and, therefore, incomprehensible to management personnel.

5. Far fewer cost accounts should be used, thus conserving operational time and eliminating proliferation of detail in reporting. The greater the number of cost ac-

counts used, the greater the inaccuracies in the reports.

- 6. Interpretation or evaluation should have been supplied, thus making the reports submitted much more usable. Interpretation and evaluation were almost completely lacking.
- 7. More comparative information should be included. When such information was included, insufficient use was made of the comparisons.
- 8. There should be greater use made of the variety of reporting media, especially to provide quick, convincing explanations of financial situations.

THE ADMINISTRATORS' POINT OF VIEW

As previously indicated, the chief thrust of the research investigation involved obtaining the opinions of highway administrative officials regarding their needs and desires in the area of financial reports. Their views were solicited in both personal interviews and through extensive correspondence. Interviews were conducted with persons representing a considerable range of administrative responsibility: from subdistrict personnel all the way up the line, including chief administrative officers, members of a part-time commission reporting directly to the governor of the state, and officials of the U.S. Burcau of Public Roads. All chief administrative officers of the various state highway departments were invited to express their views, by letter, regarding financial reporting, and considerable correspondence was conducted with them.

Administrators' General Observations

Possibly the most striking and frequently expressed comment was that financial reports should not be cluttered with detail, but should be properly analyzed and summarized for quick assimilation by the administrator. A sampling of such comments is presented below.

Reports must be brief, concise, and readily interpretable to other officials in high positions; supporting information is definitely not warranted if I am going to rely on the competence of those preparing the reports for me.

Except when analyzing specific problems, I do not need supporting information beyond summary statements. . . . The data submitted to this office become so voluminous that the detail cannot be comprehended by one individual.

There is a tendency to allow financial reporting to become a mere takeoff of data-processed records and the resulting summary information forwarded to management in a perfunctory manner without comment.

Voluminous reports transmitted to a chief administrative officer generally do not serve a useful purpose. . . . The Commissioner should not receive a report which is cluttered with extraneous information which may be essential to the support of the report but which, per se, is not essential to his grasp of the conclusions.

The problems which top management encounters in attempting to use finnancial statements are too many details, time-consuming analysis required to decipher the pertinent information, and implied budgetary problems rather than specifics

Excessive detail results in no one paying any attention to the report.

Detailed reports must be summarized on a single letter-size sheet, with supporting evidence available on call, but not attached.

Several respondents indicated that a mistake frequently made is to attempt to cover too much in a single report; they suggest that it is far better to have several reports, each bringing out one or two central facts, and that each should be confined to a single page whenever possible. Another point stressed is that management is interested in exceptions and problems, and that reports should carry recommendations for corrective action in these cases.

Certain chief administrative officers made a plea for standardized reporting and terminology, which they hoped would lead to greater exchange of data among the various states for purposes of better communication, comparisons, and the development of standards for operating performance.

Administrators appeared less united in their preferences regarding oral and narrative reporting. Most administrative officials apparently do not want to rely to any great degree on narrative and oral reports. Many believe that such reports should be confined to special situations and not included in the reporting routine. One commissioner stated: "Verbal and narrative reporting are not particularly useful unless on a specific project or problem area." Another administrator wrote that "verbal reports are acceptable for minor items only, and all major report items should be made available in writing." Another indicated that verbal and narrative reports have a useful function at lower levels only. Several said that short summary statements amplified by verbal explanations are helpful. Others pointed out that verbal reports are difficult to recall if the same information is needed at a later date. One commissioner pointed out that narrative comments pertaining to conventional statements should be helpful, but should not repeat the obvious. Another suggestion was that a one-page narrative report should accompany each quarterly report, presenting in capsule form what has taken place during the quarter.

In general, it appears that most administrators favor the employment of graphics to supplement conventional reports and for limited purposes, such as for showing long-term trends, showing expenditure peaks, helping in predicting exenditures in succeeding years, presentations to legislative committees, training purposes within the highway department, comparing expenditures of one period with another or of one district with another, and comparisons of actual income and expenditures with budgeted amounts for the appropriate period. One administrator stated that graphics were not required for his personal consumption, but they were handy items to have in his briefcase to be shown to other state officials and for limited or public consumption. In one state "a liberal use of graphic presentation provides a descriptive view of our operations in prior years and projection estimates for the future. Statistical tables support the graphs."

Most administrators favoring graphics appear to want them used in combination with other reporting devices. Statements such as the following were made:

We prefer graphic presentations supplemented by terse, explanatory narrative. A busy administrator will carefully examine a meaningful abstract supplemented with graphics and be guided by its message much more than if he must wade through a compilation of statistics that he does not have time to digest.

Graphs and charts combined with short pointed statements are, I think, the most effective method of presenting a status of affairs and circumstances, regardless of the subject matter.

Graphic illustrations accompanying the reports are definitely an assist.

Graphs are very helpful and are easily understood by most people. We have experimented with several types of monthly financial reports and are now using one which is a combination of current information, statistical data, and graph.

Other administrators stressed the need for research within each highway department to find better, easier, and more accurate methods of financial reporting. One administrator noted that he must be in a position to interpret financial reports for various individuals who may not be very conversant with highway operations or accounting procedures.

In summary, simplicity, brevity, and ease of use appear to be the keys to successful financial reporting to highway administrators.

Specific Reporting Requirements

1. Long-Range Planning. Most highway officials stressed the need for good financial information for long-range planning. The concept of what constitutes an appropriate forecasting period appears to vary considerably among administrative officials, apparently depending on the situation within the respective states. Although a few administrators believe that projections of revenues and expenditures beyond a 5-yr period are completely worthless ("conditions change too rapidly"), others were convinced that 10- to 15-yr projections are an absolute necessity. One commissioner reported that he had required the development of a short-range 12-yr program, which was being updated every 2 yr. Several interviewees expressed approval of a model of a 5-yr program, revised and updated annually.

Short summaries and the use of state maps showing locations of projects within the long-range program appeared to be very desirable from the administrators' point of view.

2. Budgetary Reports. Few chief administrative officials indicated a significant interest in the process of budget formulation, apparently considering budget preparation as a clerical job within a general policy framework. Almost without exception, however, these officials were seriously concerned with budget status reports. In one case, the commissioner apparently had successfully delegated budgetary control to a subordinate. All of the other administrators were concerned with monthly summaries of expenditures against budget for maintenance, administration, and construction, by major object. Most of these men emphasized the usefulness of budget status reports as an important guide to management. One commissioner reported:

I am much concerned with the status of the fiscal year budget which is used for monitoring the state's overall expenditure program. Expenditure lags or excesses beyond acceptable limits are compared with the amounts expected on a time basis and action taken to the extent required.

Most officials wanted budget status information on a comparative basis. Suggested comparisons were: the percentage of funds spent to percentage of budget period elapsed; amounts in the current period against amounts for corresponding period of the previous year; or estimated expenditures and receipts as presented in the budget against actual data. Several men wanted a budget status report shortly after the end of the third quarter to compare free balances against fourth-quarter requirements.

There were complaints registered that budget status reports were too late in reaching management to be useful and that the reports were broken down into too many minor

categories.

3. General Purpose Statements. Interest in these statements centered chiefly in revenue and expenditure statements, especially maintenance cost expenditures. Several administrators wanted reports of trends of major types of engineering costs, and a few found statements of garage and/or equipment operation revolving funds useful. There appeared to be little interest in balance sheets as such, which suggests that financial officers have not fully informed administrative officials of the value of such statements.

- 4. Special Purpose Statements. In this area, interest appeared to center in reports reflecting the status of Federal-aid programs. The information needed concerned the status of Federal-aid apportionments and obligations, both ABC and Interstate, progress in programming with the U.S. Bureau of Public Roads, status of Federal-aid billing, and amounts available for programming, agreement, and reimbursement. Areas of lesser importance in which the administrators expressed interest were project control reports to show status of project programs, including the availability of funds for construction projects, and various types of inventories. There was little mention of debt financing reports, even though debt programs are significant in many states.
- 5. Unclassified Schedules and Exhibits. Several administrators expressed at least mild interest in reports of contract awards, perhaps with some comparative feature built in, such as awards for the year to date. Certain subordinate administrators could make use of monthly listings of awards, with engineers' estimates. A few administrators liked to receive, at selected times, employment counts, totals of wages and salaries by major classifications, and other information with comparisons on a time basis.

REPORTS FOR PLANNING, OPERATIONS, AND CONTROL

State highway department accounting and reporting is unique, both in comparison with that of any industry or other governmental organization and within the fifty state highway organizations themselves. Because of differences in legislation, personnel, geographical and demographic conditions, natural resources, commerce and industry, and other factors, no present state highway department and no present state highway accounting and reporting system would be suitable, without extensive modification, for another state. However, there are many financial circumstances, conditions, and requirements which are common to most of them.

Based on the results of the research as well as the researchers' background and observations, selected examples of financial reporting to highway administrators have been developed for presentation in this study. The chief purpose of including these illustrations is to show how the financial data may be presented to management and, in certain of the examples, to provide illustrative narrative comment of the type the financial officer might choose to include with his reports. It is not the intent, in this paper, to discuss or illustrate how the amounts were derived for the exhibits and

figures included herein.

Long-Range Planning.—From several examples available to the researchers, a sample report of a long-range program has been developed. Exhibit 1 (Appendix) shows the financial picture of an 8-yr program—three years of actual experience as a springboard for five years of projected costs and revenues. Figure 1 shows the same information in graphic form. In line with the frequently made suggestion that summaries should be prepared for the chief administrative official and backup schedules supplied on demand, the researchers prepared a sample schedule, the construction component of the 8-yr program (Exhibit 1A, Appendix).

Budgetary Reports.—In addition to financial forecasting, the budget function involves the interrelated processes of budget formulation and budget administration. Exhibit 2 (Appendix) illustrates a biennial budget request form, all of which, except the column for Budget Request for the 1965-1967 biennium, is filled out in the financial section before routing to the appropriate administrative officer charged with budgetary responsibility for the budget unit. Exhibit 3 (Appendix) shows a budget status report in-

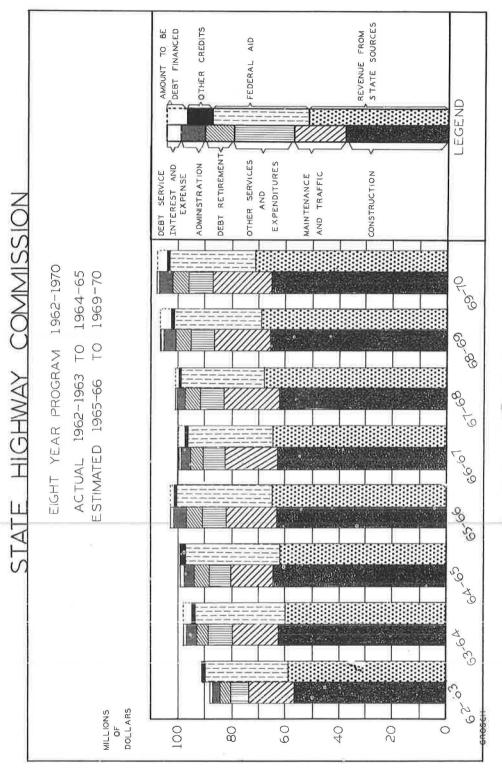


Figure 1. Financial picture for 8-year program.

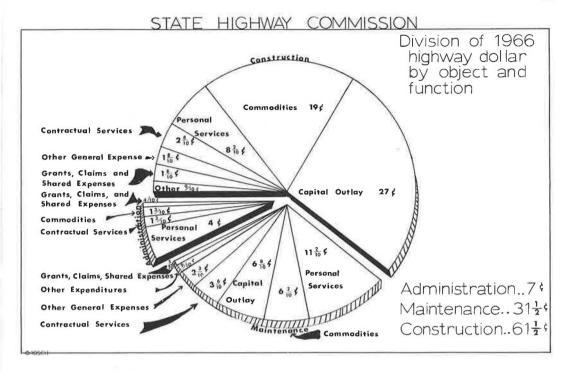


Figure 2. Pie chart illustrating relationships among budgetary items.

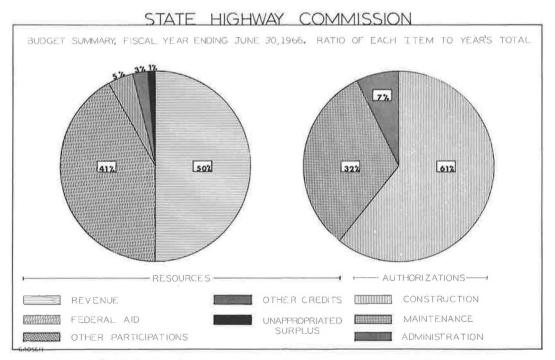


Figure 3. Pie chart illustrating relationships among budgetary items.

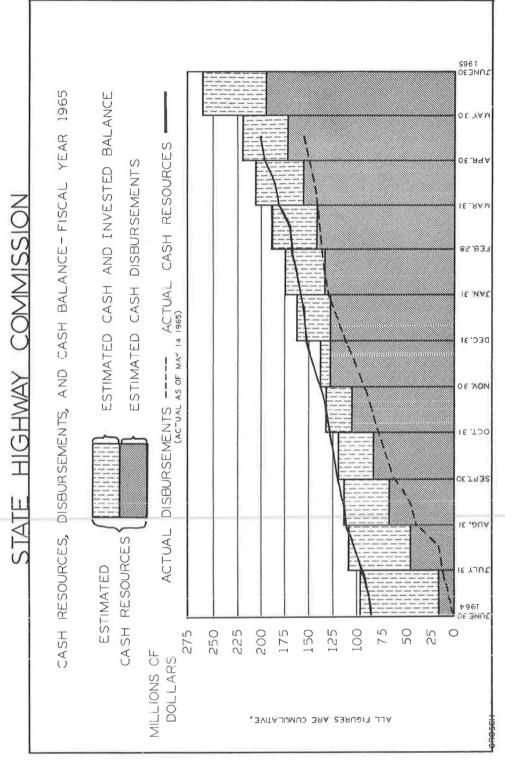


Figure 4. Chart showing estimated and actual cash resources, disbursements, and cash balances.

volving the financial information for the same budget unit—administration. Most highway administrators indicated that the most useful information in a budget status report was the comparison of total budget and free balances, together with percentages spent or obligated against percentage of the time elapsed in the period. These comparisons are facilitated in Exhibits 2 and 3 (Appendix).

Figures 2 and 3 are pie charts, unrelated to the previously mentioned exhibits, illustrating graphic aids which may be employed to provide at-a-glance relationships among budgetary items. These visualizations might be useful for public relations, conferences with officials of other governmental agencies, and legislative committees.

General Purpose Statements.—To illustrate financial reporting in this category, general fund year-end comparative balance sheets are shown in the Appendix as Exhibit 4. Quick comparisons of the general situation at the end of fiscal 1965 may be made with that which prevailed at the end of 1964. Included are narrative comments which the financial officer might make.

Figure 4 (not related to Exhibit 4) shows amounts involving cash resources, disbursements, and cash balances, both estimated and actual, and also illustrates the possibility of an "open-end" chart, in which data for a succeeding month may be added as appropriate.

Special Purpose Statements. —Exhibit 5 (Appendix) shows the format of an equipment operating fund, following which are pointed out the kinds of questions which can be answered through a perusal of this statement. Comparative statements of general bonded debt and interest are presented as Exhibit 6 (Appendix) followed by observations indicative of the purpose and usefulness of this type of statement.

Exhibit 7 (Appendix) clearly discloses the two amounts of Federal-aid funds in which many highway administrators have indicated the greatest interest, i.e., (a) the amount available for programming, and (b) the unprogrammed balance.

Exhibit 8 (Appendix) combines the status of the primary program with a forecast of unprogrammed balance as of December 31, 1965. Such a report would be updated periodically. A similar report would be prepared for each class of highway. Inclusion in the report of amounts that must be placed under agreement by certain dates lessens the possibility of inadvertent lapse of any part of an apportionment. Details regarding individual projects would be supplied in a supplementary schedule, either accompanying the summarized form, or available on request, as preferred by the recipient of the report.

Exhibit 9 (Appendix) is a small section of 23 pages of an actual state report listing status of Federal-aid appropriations by class of highway, county and project number. Highway management personnel who desired to know state-wide totals for each stage of Federal-aid as of February 28, 1965, could have found the separate totals of each of the above classes of highway on several pages of the original report, but these totals apparently were not brought together at any point.

A condensed summary of the information contained in the original report is given in Exhibit 10 (Appendix), which brings together in one place the essential facts the administrator needs to know.

SUMMARY

Each financial report to management should be specifically tailored to provide in the clearest possible manner the essential financial information needed by management for its specific purposes: decision-making, planning, or evaluating performance.

Management personnel should not be expected to be able to detect all the significant elements and relationships in a financial statement with the same readiness that a financial official would, any more than the latter would be expected to understand the intricacies of engineering design.

Too many financial reports submitted to management obscure the significant data by cluttering the report with detail needed by the accounting department but not essential to the recipient.

Exhibit 1

		X St	ate Highw Eight-Yea (\$'0	X State Highway Commission Eight-Year Program (\$1000's)	ion				
	Actual 1962-63	Actual 1963-64	Actual 1964-65	Est. 1965-66	Est. 1966-67	Est. 1967-68	Est. 1968-69	Est. 1969-70	Est. 8-yr. Total
	57,092 17,263 2,976	62,404 17,250 3,445	64,685 18,050 3,099	65,651 19,100 3,700	63,160 19,900 3,875	63,558 20,700 3,900	65,744 21,500 4,075	65,858 22,400 4,125	508,152 156,163 29,195
Other Services and Expenditures Sub-Total	7,537	92,587	8,064 93,898	8,115E 96,909	8,020 94,955	8,370	9,070	9,120	68,127
Debt Service, interest and Expense Debt Retirement Total Costs	515 4,162 89,545	4,080 4,080 97,157	389 4,146 98,433	400 5,000 102,309	400 5,000 100,355	400 5,000 101,928	105,789	106,903	3,394 37,388 802,419
Evenue from State Sources Frederal Aid	58,602 32,241	59,986 34,331	62,791 35,342	64,500 36,338	66,000 32,250	67,500 32,250	69,000	70,500 31,350	518,879 265,452
ing Debt Financing)	261	230	300	300	300	300	300	300	2,291
Total Income Excess of Income over Costs	91,104	94,547	98,433	101,138	98,550	100,050	100,650	102,150	786,622 (1,559)
Prior Fear's Surplus	i.	1,559	Ē	Ē	Ļ	Ē	Ī	ł	1,559
Debt Financing (Minimum)	*	1,051	1	1,171	1,805	1,878	5,139	4,753	15,797
Total Sources	89,545	97,157	98,433	102,309	100,355	101,928	105,789	106,903	802,419

For the purpose of this example, zero fund balance at the beginning of fiscal 1963 has been assumed.

X State Highway Commission Eight-Year Construction Program (\$'000's)

	Actual 1962-63	Actual 1963-64	Actual 1964–65	Est. 1965-66	Est. 1966-67	Est. 1967-68	Est. 1968-69	Est. 1969-70	Est. 8-yr. Total
<pre>Interstate, Federal Aid</pre>	20,667 2,333 23,000	22,389 2,488 21,877	23,132 2,570 25,702	23,989 2,665 26,654	19,800 2,200 22,000	19,800 2,200 22,000	18,900 2,100 21,000	18,900 2,100 21,000	167,577 18,656 186,233
Primary/Urban, Federal Aid ", State Funds " , Total	6,890 9,110 16,000	7,108 10,892 18,000	7,269 11,431 18,700	7,350 7,350 114,700	7,350 7,350	7,350 7,350 14,700	7,350	7,350 7,350 14,700	58,017 68,183 126,200
Secondary, Federal Aid ", State Funds ", Total	4,581 12,819 17,400	4,726 14,074 18,800	4,833 14,667 19,500	4,900 13,200 18,100	5,000 13,400 18,400	5,000 13,600 18,600	5,000 13,800 18,800	5,000 11,000 19,000	39,040 109,560 148,600
Forest Highways, Federal Aid ", State Funds ", Total	103	108	108	100	100	100	100	100	819 828 1,647
Unallocated, State Funds Indirect Construction Costs, State Funds	787	507	563	5,427	7,280	7,468	009 प्राप्त (01	10,358	40,977 4,495
Total Federal Aid Total State Funds	32,241 24,851	34,331	35,342 29,343	36,339	32,250	32,250	31,350 34,394	31,350	265,453 242,699
Grand Total	57,092	62,404	64,685	65,651	63,160	63,558	4 * * * * *	65,858 * * * *	508,152
		:							:

The projected requirements of state funds to match Primary/Urban Federal Aid in Exhibit 1A appears to be Example of Narrative Comment:

inadequate, if the experience during the fiscal years 1962-1965 is a fair criterion. Based on this experience, the estimate of required matching state funds may be several millions of dollars short. This point, in turn, suggests that the estimated total state funds of \$242,699,000 required for the eight-year period may be seriously inadequate and that the minimum debt financing estimate of Exhibit 1 may be much too low. Jan. 15, 1965

Date __

STATE HIGHWAY COMMISSION

BIENNIAL BUDGET REQUEST FORM

Budget Unit Administration

		BUDGET	BUDGET INFORMATION SUMMARY	MMARY			BUDGET REQUEST
Item	Fiscal (Previo	Fiscal 1963-1964 (Převious year)	Fiscal 1964-1965 (Current year)		50 % of Period Expired	pə	1965-1967
Code	Budgeted	Expendi tures	Budgeted	Expenditures to Date	Encumbrances to Date	Spent or Obligated to Date	
넊	\$1,229,300	\$1,217,150	\$1,339,788	\$ 609,153	-	45.5%	\$ 3,188,200
2,5	266,330		322,716	144,919	8	6,44	777 500
m.	851,200		840,766	592,505	59,789	77.6	1.820,600
7.	364,630		263,201	118,754	68,148	71.0	581,000
ů,	222,000	215,185	263,865	198,184	13,687	80.2	627,300
9.	í O .	16,876	152,500	71,406	12,600	55.1	72,500
. 7	2,022,700	1,898,764	1,182,741	744,616	. 1	63.0	2,946,900
Total	\$4,956,150	\$4,828,405	\$4,365,577	\$2,479,537	\$154,224	60.3%	\$10,011,000

Signature

X State Highway Commission Fiscal Year 1964-1965 Budget Status as of Dec. 31, 1964

udget	Budget Unit Administration	ation	50 % of Period Expired		Date Jan. 15, 1965	.965
Item or Code	Total Appropriation	Allotment to Date	Expenditures to Date	Outstanding Encumbrances and Requisitions	Percent Spent or Obligated to Date	Free Balance
г.	\$1,339,788	\$ 621,700	\$ 609,153	I	45.5%	\$ 730,635
6	322,716	136,900	916,441	I	6.44	177,797
ŗ.	840,766	726,900	592,505	\$ 59,789	9.77	188,472
4.	263,201	209,700	118,754	68,148	71.0	76,299
πŽ	263,865	219,400	198,184	13,687	80.2	51,994
9.	152,500	85,000	71,406	12,600	55.1	464,89
.7	1,182,741	1,168,900	7144,616	ŀ	63.0	438,125
Total	\$4,365,577	\$3,168,500	\$2,479,537	\$154,224	60.3%	\$1,731,816

Exhibit 4

X State Highway Commission General Fund Comparative Balance Sheets June 30, 1964 and 1965

Ju	ine 30, 1904 an	a 1905		
			Increase-I	ecrease*
Assets	1965	1964	Amount	Percent
	2707	27.04		- 02 0 0 0 0
Current Assets:				
	d a 961, and	\$10 060 000	¢ 000 000×	0.04
Cash with state treasurer	\$ 9,864,000	\$10,069,000	\$ 205,000*	2.0*
Cash in bank and on hand	1,721,000	1,498,000	223,000	14.9
Receivables:				
Federal aid	\$11,432,000	\$ 9,671,000	\$1,761,000	18.2
Due from motor vehicle	()	1 29	1-911-911	
tax fund	1,659,000	1,207,000	452,000	37.4
	T,059,000	1,207,000	452,000	2104
Due from other governmental	- 1	0.1		
units	794,000	814,000	20,000*	2.5*
Other receivables (less esti-	•			
mated uncollectibles: 1965)			
\$21,000; 1964, \$19,000)	633,000	504,000	129,000	25.6
4 mm m Man m 2 mm m 15			An 200 000	
Total Receivables	\$14,518,000	\$12,196,000	\$2,322,000	19.0
Total Current Assets	\$26,103,000	\$23,763,000	\$2,340,000	9.B
Non-current Assets:				
Condemnation deposits	\$ 9,871,000	\$ 9,065,000	\$ 806,000	8.9
Materials and supplies	3,765,000	4,001,000	236,000*	5.9*
Prepaid expenses	61,000	77,000	16,000*	20.8*
Total Non-current Assets	\$13,697,000	\$13,143,000	\$ 554,000	4.2
Total Assets	\$39,800,000	\$36,906,000	\$2,894,000	7.8
LOUGE NOODO	457,000,000	Ψ 20 ξ 2000	Ψ2,074,000	1.0
Liabilities, Reserves and Fund	Balance			
Tinhiliting				
Liabilities				
Vouchers payable	\$ 1,769,000	\$ 2,066,000	\$ 297,000*	14.4*
Due to other governmental units				
and funds	1,869,000	955,000	914,000	95.7
Contracts payableretained	1,007,000	7,7,000	المام و بسدر	7201
	0 01.2 000	7 909 000	025 000	13.0
percentage	2,043,000-	1,808,000	235,000	
Withholding taxes payable	964,000	988,000	24,000*	2.4*
Other liabilities	173,000	213,000	40,000*	18.8*
Total Liabilities	\$ 6,818,000	\$ 6,030,000	\$ 788,000	13.1
	7 0,020,000	Ψ 0,00,000	100,000	=
D1 D 3				
Reserves and Fund Balance				
	92 790		737 S F	
Reserve for condemnation deposits	\$ 9,871,000	\$ 9,065,000	\$ 806,000	8.9
Reserve for inventory of materi-				
als and supplies	3,765,000	4,001,000	236,000*	5.9*
Reserve for encumbrances	15,691,000	16,703,000	1,012,000*	6.1*
				Section and Administration of the last of
Total Reserves	\$29,327,000	\$29,769,000	\$ 442,000*	1.5*
Fund Balance	\$ 3,655,000	\$ 1,107,000	\$2,548,000	230.1
Total Liabilities, Reserves				
and Fund Balance	\$20 800 000	¢26 004 000	¢a 9al acc	7 0
and rund barance	\$39,800,000	\$36,906,000	\$2,894,000	7.8

Exhibit 4 (continued)

Example of narrative comment:

- The general fund had, at the end of each year, enough cash to pay all of its liabilities.
- Year-end inventory of materials and supplies declined during 1965. This shows the results of the inventory control plan for reducing loss from obsolescence and for minimizing investments in supplies and materials.
- 3. Total liabilities were more than three-fourths of a million dollars greater at the end of 1965 than they were a year earlier, even though cash greatly exceeded the total of liabilities.
- 4. The fund balance increased during fiscal 1965, indicating that not all available funds for the year were used. The fund more than "held its own" during 1965.
- 5. Receivables increased during the year to such an extent that an investigation for the reason seems in order. (Of all balance sheet items, receivables is probably the one most in need of being analyzed in a supporting schedule. The analysis should, above all, show the ages of receivables and indicate known reasons for delay in collection.)
- Money held by county courts in connection with condemnation proceedings, and drawing no interest, increased by a sizable amount.
- 7. Although free assets, as represented by the fund balance, increased by a large percentage, neither of the amounts carried over to the following year was excessive.

X State Highway Commission Equipment Operating Fund Comparative Operating Statements Fiscal Years Ended June 30, 1964 and 1965

			Increase-	Decrease
	1965	1964	Amount	Percent
Revenues:	di era ele	he 000 /0/	dr 00 (()	2.2
Equipment rentals	\$4,017,340	\$3,887,676	\$129,664	3.3
Miscellaneous income	566,181	540,921	25,260	4.7
Total Revenues	\$4,583,521	\$4,428,597	\$154,924	3.5
Direct Costs:	4 (A (00 00)	A = 0 01 /	
Direct labor	\$ 652,950	\$ 633,004	\$ 19,946	3.2
Supervision	144,003	43,218 695,030	785 6,688	1.8 1.0
Parts and supplies used Fuels and lubricants	701,718 982,823	976,001	6,822	•7
Heat, light and power	21,666	22,734	1,068*	4.7*
Depreciation of equipment	2,059,718	1,915,836	143,882	7.5
Miscellaneous direct costs	11,418	19,805	8,387*	42.3*
Total Direct Costs	\$4,474,296	\$4,305,628	\$168,668	3.9
Excess of Revenues over Direct Costs	\$ 109,225	\$ 122,969	\$ 13,744*	11.2*
Indirect Costs:		4		
Administrative salaries	\$ 63,043	\$ 61,071	\$ 1,972	3.2
Depreciation buildings	17,332	17,332	7 77 6	0) 1711
Office expense	3,407	4,522	1,115*	24.7* 81.7*
Miscellaneous expense	1,539	8,392		
Total Indirect Costs	\$ 85,321	\$ 91,317	\$ 5,996*	6.6*
Excess of Revenues over Total Costs	\$ 23,904	\$ 31,652	\$ 7,748*	24.5×

As was stated to be true of a warehouse fund operating statement, such a statement of an equipment fund serves as an indicator of trends and conditions, but management must decide by use of supplementary schedules and other data, what were the causes and what action, if any, is called for.

Was the increase in rentals due to greater usage, higher rates, or some combination of the two? Is enough being spent on supervision or would a larger outlay for this cost bring about a reduction in other costs? Are accurate records being kept to show the "down" time of each major piece of equipment, to the end of determining the cause and suggested remedy? Is maximum value being obtained from retired equipment or is some of it disposed of prematurely? Or, on the contrary, is some equipment being kept in service after physical or functional obsolescence has rendered it inefficient, in comparison with an available substitute?

The operating statements which have been illustrated above are not independent parts of the reporting structure of state highway departments but relate closely to the balance sheet, statement of cash receipts and disbursements, and statement of changes in fund balance which are prepared for working capital funds, to portray their total activity and financial condition.

X State Highway Commission Bonded Debt and Interest Group Comparative Statements of General Bonded Debt and Interest June 30, 1964 and 1965 (000's omitted)

Amount Available and to be Provided for Payment of Bond Principal and Interest	<u> 1965</u>	1964	Increase-	Decrease* Percent
Bond Principal: Amount in debt service fund Amount to be provided in future years Total Available and to Be Provided	\$ 53,027 126,973 \$180,000	\$ 50,450 159,550 \$210,000	\$ 2,577 32,577* \$30,000*	5.1 20.4* 14.3*
Bond Interest: Amount in debt service fund Amount to be provided in future years Total Available and to be Provided Total Available and to Be Provided for	\$ 8,400 9,500 \$ 17,900	\$ 10,100 13,275 \$ 23,375	\$ 1,700* 3,775* \$ 5,475*	16.8* 28.4* 23.4*
Payment of Bonds and Interest Bonds and Interest Payable in Future Years	\$ <u>197,900</u>	\$ <u>233,375</u>	Ψ <u>333,413</u> *	19,62
Bond Principal: Highway construction bonds Highway refunding bonds Total Bonds Payable in Future Years	\$100,000 80,000 \$180,000	\$110,000 100,000 \$210,000	\$10,000* 20,000* \$30,000	9.1* 20.0* 14.3*
Interest: Highway construction bonds Highway refunding bonds Total Interest Payable in Future	\$ 12,500 5,400	\$ 15,125 	\$ 2,625* 2,850*	17.4* 34.5*
Years Total Bonds and Interest Payable in Future Years	\$ 17,900 \$197,900	\$ 23,375 \$233,375	\$ <u>5,475</u> * \$ <u>35,475</u> *	23.4* 15.2*

The following observations indicate the nature and purpose of the above statement:

- 1. Although having the form of a balance sheet, it does not technically qualify as such. It is a summary including some information from a statement of debt service requirements and some from a balance sheet of a debt service fund which shows amounts and kinds of assets held for debt service requirements. This statement should be used in conjunction with the other two statements mentioned. With no alteration of form it can be used to summarize the same kind of information about a large number of bond issues.
- 2. Amounts to be provided for payment of principal and interest are significant for long-range planning of a highway program because they reveal the amount of future revenue not available for construction and maintenance.
- 3. Statements of this type are sometimes prepared without including any information about future interest requirements. This seems to detract somewhat from the value of the statement which, when both principal and interest are included, conveys a better idea of the total cost of highways built by means of debt financing.
- 4. This statement is not a major item in the financial management of a state highway department. Its value derives from the fact that it summarizes in brief form a considerable amount of information about the department's long-term debt position and requirements.

X State Highway Commission Status of Federal Apportionments by Classes of Highway as of Oct. 31, 1964 (Including Federal Apportionments for Fiscal 1966) (\$1000's)

	Interstate	Frimary	Secondary	Trban	Total	
Balance of 1966 and Prior Apportionments to Be Placed inder Agreement	\$216,462	10,487	14,592	19,322	\$260,863	
PSG	\$44,425	1,001	164,4	405,6	\$56,421	
Available for for Programming as of Oct.31, 1964	\$172,037	9,486	10,101	12,818	\$204,442	
Reserved for HPR	\$2,721	213	133	202	\$3,269	
Program Approved	\$26,479	955	1	3,068	\$30,502	
Unprogrammed	\$142,837	8,318	8966	9,548	\$170,671	

171,761

\$ 32,681

Inobligated balance available under reimbursement planning, as of Oct. 31, 1964

Amount deferred under Federal Government

reimbursement schedule

Exhibit 8

X State Highway Commission Federal Aid Primary Program Status as of July 6, 1965 With Forecast of Unprogrammed Balance as of December 31, 1965 (to nearest \$1,000)

Apportionment	which	must	be und	der a	greement	prior	to	6/30/66	
17	u	11	H	11	n	It	If	6/30/67	\$2,110,000
11	11	11	11	п	11	п	Ħ	6/30/68	5,124,000
Apportionment	s (inc	luding	g 1966	appo	rtionmen	t)		\$1	12,547,000
Less: Un	nder a	greeme	ent					2	37,423,000
Balance Availa	able f	or Agi	reemen	t				\$	5,124,000
Less: Un	nder P	.S. &	E.					_	602,000
Unobligated Ba	alance	, July	76,1	965				\$	4,522,000
Less: Pr	rogram	s appi	coved,	Stag	e 2			_	2,500,000
Unprogrammed 1	Balanc	е						\$	2,022,000
Less: Pr	ropose	d prog	grams,	July	6-Augus	t 31, :	L96!	5 _	1,520,000
Anticipated Un	nprogr	ammed	Balan	ce, A	ugust 31	, 1965		\$	502,000
Anticipated 19	967 Ap	portio	onment	in S	eptember	, 1965		_	3,100,000
Estimated New	Balan	ce						\$	3,602,000
Less: Re	es erv e	for H	HPR-PR	- 1(3)	and HPR	-1(75)		_	62,000
Estimated Unp	rogram	med Ba	alance	as o	f Decembe	er 31,	190	55 \$ _	3,540,000

							() TOTTING
	st.	(Disgustatus of Federal		(Disguised excerpt from actual report) X State Highway Commission deral Aid Appropriations as of Februar Postwar Secondary	ised excerpt from actual report) X State Highway Commission Aid Appropriations as of February 28, 1965 Postwar Secondary	596	
Project No.	Location	Unprogrammed	Program	PS&E	Progress	Final	Total
	ADAMS COUNTY						
A 686 A 687	Kelley Hill Road Putney Road	-1-1	1.1	1 1	\$ 138,650.00	↔	
	Orchard Ed-Mason Rd Rt. 67-Oak Road	۱ ۱ ص	1 1	176.500.00	196,460.00	. 1	176,500.00
	Completed Projects	•			ı	\$ 1,016,872.17	1,016,872.17
			4/3	176,500.00	\$ 518,110.00 \$	518,110.00 \$ 1,016,872.17 \$	\$ 1,711,482.17
	ALLEN COUNTY						
	Uniondals-Osceola	. 1	1	1	\$ 15,865.00	()	15,865,00
AL 451X	River Road	1	1	ı	26,977,00	,	26,977.00
	Railroad Road	1	ı	ī		1	
	Completed Projects	1	-		ı	15,440.00 \$	
					\$ 58,714.00 \$	15,440.00 \$	74,154.00
	STATE ROADS PROJECTS	IS					
01-843-1-270	D1-843-1-270 Shady Park Road	ı	€	113,400.00		1	
R-467-1-420	Valley Route 34	1	ı	768 783 00	\$ 531,100.00		531,100.00
1-407-T-407-W	Completed Projects	1 1		00.601.001	⊕	\$ 9,988,135.12	9,988,135.12
			49	882,183.00	\$ 531,100.00 \$	\$ 9,988,135.12 \$	\$11,401,418.12
UNPROGRAMMED BALANCE) BALANCE	\$6,461,582.98			\	•	\$ 6,461,582.98
TOTALS FOR STATE	STATE	\$6,461,582.98	\$45,900.00	\$2,480,253.00	\$6,461,582.98 \$45,900.00 \$2,480,253.00 \$5,176,036.71 \$22,171,425.31 \$36,335,248.00	22,171,425.31 \$	36,335,248.00

X State Highway Commission Status of Federal Aid Appropriations as of Feb. 28, 1965 (\$1000's)

				Under Agr	eement	
	Unprogrammed	Programmed	P.S. and E.	In Progress	Final	Total
Primary	\$ 3,823	\$ 4,027	\$ 1,10	\$ 15,788	\$ 33,088	\$ 57,136
Secondary	6,462	917	2,480	5,176	22,171	36,335
Urban	10,332	1,373	1,532	19,327	27,704	60,268
Interstate	109,754	25,796	5,900	204,842	19,051	395,343
Total	\$130,371	\$31,242	\$10,322	\$245,133	\$132,014	\$549,082