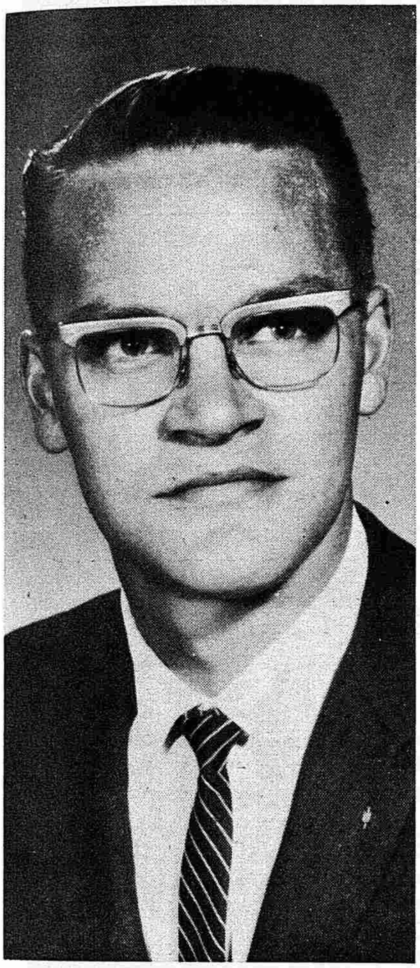

THE MASTER BUDGET IN INDUSTRIA MANAGEMENT

by Dr. Sherman Tingey

This article presents the research findings of a study of budgeting practices in small manufacturing companies in Arizona. The results indicate few do a comprehensive master budget. Much improvement is needed.

About the Author

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In a small manufacturing firm the chief executive is usually personally responsible for achieving effective managerial planning and control in all the functional areas of manufacturing, marketing, finance, engineering, and industrial relations. To be successful in his planning and control efforts, and thus to maintain profitable operations in today's highly competitive environment, he must understand and use all the man-

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agerial tools and techniques available in each functional area.

Most of the chief executives of small manufacturing firms, however, have accumulated the bulk of their experience and training in either the manufacturing area and possess only limited expertise in the proper preparation and utilization of financial managerial tools. Yet, disregard for, and ineffective utilization of such important and useful tools as the master budget can and often does result in failure of the business.

The purpose of this article is twofold:

1. To highlight the role of the master budget as a potential aid in managerial planning, and
2. To report the results of a survey which indicate the extent to which the chief executives of small manufacturing firms in Arizona utilize the master budget.[1]

Managerial Planning and Control

What are the traditional responses to budgets and the budgeting process? The following notions—usually half-truths—indicate misformed, traditional viewpoints held by many individuals toward budgets.

1. The purpose of the budget is to control people—a pressure device to be used against employees. Of course, the budget facilitates the controlling of operations, but this is just one of several functions it serves. Rather than being viewed as a pressure device, it should be thought of as a guide to decision making.

2. The purpose of the budget is to minimize expenses. Any successful business must watch expenditures closely, whether or not a formal budget is prepared. The budget simply formalizes a previously determined course of action. It assists the manager in getting the broad picture—in seeing how his specific operations affect overall results. In addition, it assists him in determining priorities among his various expenditure alternatives. Finally, it is most useful in maximizing profits than in minimizing expenses—an entirely different and broader perspective.

3. Budgeting is strictly a financial process which often hinders accomplishment of other organizational activities and objectives. No concept could be further from the proper way budgets should be viewed and utilized. The modern executive views a budget as a rationally conceived, well developed, documented plan of action designed to assist the manager in achieving his stated objectives—**regardless of his sphere of activity and influence.**[2]

Budgeting is more than a financial process. The completed master budget represents the final step in the planning process. First, realistic and clearly defined objectives are established. Second, specific action plans which will achieve the stated objectives are developed. Third, these several plans are consolidated and translated into an overall financial master plan—**the master budget.** The master budget can thus be viewed as a roadmap or blueprint which shows the plans selected by management to accomplish stated objectives.

Budgets, if properly utilized, can also be effective tools for generating cooperation within an organization. Proper budget preparation requires open channels and effective methods of communication. Budgets provide superiors and subordinates an opportunity to counsel together in establishing goals and work standards. This procedure provides organizational members with the opportunity to participate in making decisions which affect them. Such participation is not only good human relations, but usually improves the quality of decisions made and develops the managerial talents and viewpoints of the subordinates.[3]

Finally, the budget is a managerial tool used in effecting control. Although not a complete control system in itself, the master budget is a basic ingredient in an effective overall control system. In order to achieve managerial control in the firm, the manager must:

1. **Determine results to be achieved and establish acceptable standards of work performance (the yardsticks).**
2. **Measure actual results achieved.**
3. **Analyze, compare, and evaluate actual performance with planned performance.**
4. **Take the necessary preventative or corrective action to bring actual performance in line with desired results.**

The master budget provides the financial yardsticks required in step number 1. With these yardsticks meaningful measurements can be made, intelligent evaluations formulated, and effective action implemented. Without an adequate guide to future operations, such as the master budget, control efforts become almost meaningless.

Role of the Chief Executive

If the master budget is an effective managerial aid in the decision making process of establishing objectives, developing plans of actions, measuring results, effecting control, generating organizational cooperation, and motivating individual performance, who should be primarily involved in its preparation and use? Everyone in the organization who is directly affected by the budget or who is responsible for achieving the above results should be involved.

In a small manufacturing firm the chief executive is the person who possesses ultimate responsibility, and often operating responsibility, for accomplishing these results. Therefore, he should exercise the initiative in preparing the master budget, and he should be the person who follows through and utilizes the budget effectively to improve organizational planning and control. He may be assisted by a staff man, such as the controller, but the ultimate responsibility is a line responsibility.

Too often the chief executive has had only limited training and/or experience in the preparation and utilization of budgets, and frequently he has had no experience with master budgets. What few budgetary experiences he may have had were often unfavorable experiences which did not teach him how to use budgets effectively—especially in the managerial planning function and in generating cooperation and coordination among organizational units and members. As a result some chief executives shy away from the fearful "big bad wolf" of a budget and fail to profit from its use.

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1 The author wishes to thank Arizona State University for providing financial support for this study through a research fellowship.

2 For a more detailed explanation of this approach to budgeting and its application at Chrysler Corporation, see E. H. Graham, "The Role of the Budget Executive," **Budgeting** (Sept.-Oct., 1966), pp. 1-6.

3 Raymond L. Meyer, in "Cooperation and Coordination Generated by Budgets," **Budgeting** (November/December 1966), pp. 17-21, concludes that businessmen do not fully understand the budgetary process and do not use budgeting effectively in generating cooperation and coordination within the organization.

Research Methodology

Since the chief executive in a small manufacturing firm is the person with ultimate and often operating responsibility for the planning and control system, the research reported here measured the **chief executive's** utilization of the master budget, rather than that of the controller or other administrative personnel. An unbiased, representative sample of 228 small manufacturing firms with home offices in Arizona was chosen. Businesses that were divisions of larger companies operating outside the state were excluded since they might have a special advantage over others in obtaining managerial assistance in budgeting.

For purposes of this study, small manufacturers were defined as those companies employing from ten to ninety-nine persons as listed in the Arizona Directory of Manufacturers. The decision to use these size limitations stemmed from three considerations.

First, there was a desire to exclude from the sample such establishments as the two- or three-man machine shops and similar extremely small operations. Reasonable assurance existed that these firms would not be utilizing the master budget.

Second, the companies in the size group of ten to ninety-nine employees represent a significant part of Arizona manufacturers. This group comprised approximately 40 percent of the total number of manufacturing firms in the state and about 80 percent of those manufacturing companies with ten or more employees.[4]

Third, it was desired that the senior executive be in close touch with operations. The chief executive of a company with more than one hundred employees would probably not be able to maintain this closeness to actual operations of the company.

The mailed questionnaires were returned by 120 firms. Of these, 112 were usable (a usable return of 49 percent). A distribution of the sample firms by size of firm (using number of employees as an indicator of size) is shown in *Table* 1.

A wide range of manufacturing classifications is represented in the companies that provided data for this study. The typical company was an incorporated firm with a sales volume of less than one million dollars per year.

Most of the chief executives were over forty years of age and had accumulated a substantial number of years experience as senior officers of their firm and in their general line of business. Although almost 70 percent of the chief executives had received some college or university training, their formal *business education* was quite limited. About 45 percent of them had never taken a business course.

Research Findings— The Master Budget

Overall Evidence of Utilization

There was little evidence of master budget utilization among participating companies, as indicated in *Table* 2. Only 29 companies, or about one-fourth of the respondents, reported the prep-

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TABLE 1

DISTRIBUTION OF SAMPLE FIRMS BY NUMBER OF EMPLOYEES

Number of Employees	Number of Respondent Firms	Percent of of 112
10-19	30	26.8%
20-49	48	42.8
50-99	34	30.4
Totals	112	100.0%

TABLE 2

PREPARATION OF A WRITTEN MASTER BUDGET AND THE IMPORTANCE OF THE MASTER BUDGET TO THE CHIEF EXECUTIVES WHO USED THEM

	Number of respondents	Per cent of total
Master budget was prepared	29	25.9
Master budget was **not** prepared	83	74.1
Totals	112	100.0
Importance to 29 chief executives		
Extremely important	15	51.7
Quite important	12	41.4
Somewhat important	2	6.9
Not very important	0	0
Totals	29	100.0

TABLE 3

METHODS BY WHICH MASTER BUDGET RESPONSIBILITIES WERE CONVEYED TO SUBORDINATES

Methods	Respondents Number of	of Total Per cent
Formal conference	4	13.8
Informal conference	22	75.9
Copy of master budget only	3	10.3
Totals	29	100.0

4 Arizona Directory of Manufacturers, A report prepared by the Employment Security Commission of Arizona, Unemployment Compensation Division (Phoenix: Arizona Development Board, 1965).

aration of a written master budget. The small number of companies that prepared a master budget is probably attributable to several factors. First, the preparation of a master budget characterizes a "complete" budget program. Apparently, a large number of small firms do not feel the need for such an extensive budgetary program. Second, the master budget is difficult and time consuming to prepare—particularly for one without technical training or experience. This analysis indicates a relationship between the preparation of a master budget and the availability of time and managerial ability. Some companies are undoubtedly hindered by one or both of these factors in attempting to develop a master budget.

The fact that a large number of companies did not prepare a master budget should not be taken as an indication that there was a lack of *any* formalized budgeting among these firms. Some partial budgeting quite probably occurred in some of these firms with respect to cash, sales, expenses, and possibly other areas. One author noted that while "complete budgeting is the mark of an intelligent, progressive, and seasoned management, . . . partial budgeting is the sign of a growing up, of a gradual awakening to the need for careful planning."[5]

Importance to Chief Executive

In some companies it is not unusual to find accounting reports prepared on a regular basis, but of little importance or use to management. This certainly is not the case with the master budget. Those chief executives who indicated the preparation of the master budget were asked to specify its importance to them on a four-point scale ranging from "extremely important" to "not very important." In the 29 cases in which the master budget was prepared, 15 chief executives considered it "extremely important" and 12 indicated that it was "quite important" (*Table* 2). Only two senior officers specified "somewhat important" and *no* responses were recorded in the "not very important" category. Thus, the chief executives of companies that prepared a written master budget considered it a valuable technique.

Conveyance of Responsibilities

A basic principle of sound budgeting states that executives and supervisors should have a clear understanding of that portion of the master budget for which they will be held responsible. A comparison of the practices found in the twenty-nine companies that prepared master budgets indicated that the informal conference was used by the chief executives of 22 firms to convey these responsibilities (*Table* 3). Senior officers of only four companies specified the use of the formal conference, while three indicated that responsibilities were conveyed by the simple act of providing a copy of the master budget to those concerned. Although not shown in *Table* 3, two chief executives used the "Other" category on the questionnaire to indicate that subordinate participation in master budget preparation was an additional method used to convey responsibilities.

The high incidence of companies that reported the use of the informal conference appears to indicate a relationship between firm size and the method used to convey responsibilities of the master budget. The formal conference would seem to have increasing application as company size increases while the informal conference would be utilized more extensively in smaller firms. This relationship appears logical since the various levels of management are in closer contact in smaller companies, and this close contact is generally conducive to a more informal relationship.

In summary, few companies indicated the preparation of a master budget. When it was prepared, however, chief executives considered it very important in the decision-making process. The conveyance to key managers of their master budget responsibilities was primarily accomplished informally.

Research Findings—Written Reports

Development of budget objectives or standards of performance does not itself provide control. Control is accomplished only when these objectives or standards are appraised in relation to actual current perofrmance and the significant deviations corrected. Written performance reports comparing current performance with standards of performance or budget objectives can highlight these significant deviations. Highlighting the deviations through written reports assists management in determining the cause(s) and prepares the way for needed corrective action.

There questions were asked to determine the extent to which chief executives used written reports. First, did they receive written reports comparing current performance with standards or

TABLE 4

CHIEF EXECUTIVES' USE OF WRITTEN REPORTS WHICH COMPARE ACTUAL CURRENT PERFORMANCE WITH STANDARDS OF PERFORMANCE OR BUDGET OBJECTIVES

	Number of Respondents	Percent of Total
Written reports **were** used	55	49.1
Written reports **were not** used	57	50.9
Totals	112	100.0
Treatment required by 55 chief executives when a significant deviation from planned standards of performance or budget occurred		
Written explanation of the cause(s) of the deviation	9	16.4*
An oral explanation	39	70.9
An indication of action to be taken	31	56.4
Number and percent of 55 chief executives who held regular meetings with key personnel to discuss and compare actual and planned performance		
Regular meetings **were** held	43	78.2
Regular meetings **were not** held	12	21.8
Totals	55	100.0

* Percentage analysis will not add to 100 because more than one answer could be checked.

5 Herman C. Heiser, **Budgeting: Principles and Practices** (New York: The Ronald Press Company, 1959), p. 352.

budget objectives. Second, if they did, what treatment was accorded significant deviations. Third, did they have regular meetings with key personnel in which actual and planned performance was discussed. (A staff assistant may have prepared reports and initiated some follow through, but this study was not concerned with that action. Of interest here was the involvement of the **chief executive** only.)

Overall Evidence of Utilization

About 49 percent of the chief executives indicated that they did receive written reports comparing actual current performance with standards of performance or budget objectives (*Table* 4). The considerably higher percentage of senior officers who reported the use of written reports (49 percent) as compared to the master budget (26 percent) indicated that a number of companies that did not prepare the master budget did do some "partial" budgeting.

Although the use of **written** reports was emphasized, it should not be assumed that all 51 percent of the companies not using them were completely lacking in the identification and treatment of significant variations. The possibility always exists that the chief executive of a small firm can maintain control without a system of formalized reports. Two main advantages exist, however, when the report system is formalized. First, written records preserve an account of what has happened in the past for future use, whereas verbal explanations do not. Second, reports reduced to writing provide a sound basis for follow-up or corrective action.

Treatment of Significant Deviations

When management receives a written report showing a significant deviation, two steps must be taken to insure effective control. First, before management can decide whether or not action is called for, the cause(s) of the deviation must be determined. The National Association of Cost Accountants, in a study of company practices, concluded that accounting reports generally contain little information as to variance causes.[6] Their conclusion is given further support by the findings of this study. Of the chief executives who indicated that they did receive written reports, only 16 percent required a written explanation of the cause(s) of the deviation (*Table* 4). In contrast, 71 percent of the senior executives who received reports specified that an oral explanation of the cause(s) was required.

After the cause(s) of the deviation has been determined, it is necessary for management to decide the type of action required to treat the variance. In some instances, the policy followed may be one of "no action." For example, no action would be taken if the variance is considered temporary and operations are expected to be within the budget or standard for the whole period. In numerous cases, however, some corrective action is needed. Koontz and O'Donnell make the following statement about corrective action:

> A control system that detects failures or deviations from plans will be little more than an interesting exercise if it does not show the way to corrective action. An adequate system should disclose where failures are occurring, who is responsible for them, and what should be done about them.[7]

The chief executives of this study who indicated that they did receive written reports, generally placed a high value on the corrective aspect of deviation treatment. About 56 percent of the executives reported that they **did** require an indication of action to be taken in treating a significant deviation (Table 4).

Regular Meetings

Of the 55 chief executives who received written reports, about 80 percent held regular meetings to compare actual performance with planned performance, while 20 percent of the executives did not hold regular meetings (*Table* 4). The inference should not be drawn, however, that 20 percent of the executives do not hold meetings to discuss actual and planned performance. The possibility exists that these 20 percent **do** hold meetings but not on a regular or formalized basis. Another important point to be noted is that significant deviations may be detected, reported, and corrected **before** formal reports are issued, thus making regular meetings unnecessary.

In summary, about 50 percent of the chief executives indicated that they did receive written reports comparing actual and planned performance, and a high percentage of these executives held regular meetings for the same purpose. Few senior officers required a written explanation of the cause(s) of a significant deviation, but a larger number did insist on an indication of action to be taken in treating the deviation.

Summary

In small manufacturing firms the direct responsibility for managerial planning and control is often exercised by the chief executive himself. Frequently he is unskilled in the functional area of finance and is not an expert in the preparation and utilization of such important managerial tools as the master budget and follow-up reports. In fact, he may even possess misinformed, traditional laymen concepts as to the uses and values of budgets. For example, he may view the budget as a device to control and pressure employees or as an instrument used primarily to minimize expenses. Or he may view the budget as strictly a financial process which hinders the achievement of organizational goals.

The modern executive views the master budget as a rationally conceived, well developed plan of action. Furthermore, the preparation of the master budget can be an effective means of generating cooperation and coordination within the organization. Finally, the master budget is a basic ingredient in an overall control system.

A survey of 112 chief executives of small manufacturing firms in Arizona indicates that a master budget is prepared in only 26 percent of the firms. In those firms where it was prepared, the chief executives considered it very important in the decision making process.

Approximately half of the chief executives receive written reports which compare actual performance with planned performance. Over 78 percent of those who received written reports also had regular meetings with key personnel to discuss and compare actual and planned performance.

The master budget is a very useful tool for effective planning and control in small manufacturing firms. However, the potential of the master budget still remains an untapped resource for many small manufacturing firms today. Chief executives of these firms could profit from (1) training in the preparation and use of the master budget and (2) the conviction that benefits can be derived from its utilization. For only with this training and conviction can they hope to benefit from the assistance a master budget is capable of giving them in achieving more profitable and successful operations. •

6 "The Analysis of Manufacturing Cost Variances," **N.A.C.A. Bulletin**, Research Series Number 22 (August, 1952), p. 1572.

7 Harold Koontz and Cyril O'Donnell, **Principles of Management**, third edition (New York: McGraw-Hill Book Company, Inc., 1964), p. 544.