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A PROPOSED FINANCIAL BUDGET
FOR SEVENTH-DAY ADVENTIST
EDUCATIONAL INSTITUTIONS

Thesis for the Degree of M. A.
MICHIGAN STATE COLLEGE

Robert K. Boyd
1938

THESIS

A PROPOSED FINANCIAL BUDGET FOR SEVENTH-DAY
ADVENTIST EDUCATIONAL INSTITUTIONS

A Thesis
Submitted to the Faculty of
MICHIGAN STATE COLLEGE
in partial fulfillment of the
requirements for the degree of
Master of Arts

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1938

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PREFACE

The Seventh-day Adventist denomination operates six senior colleges, six junior colleges, and 35 academies throughout North America. Similar institutions are operated on other continents as well. Virtually all these schools are boarding institutions. They receive no public aid, and only a small share of their operating funds are received from denominational organizations. Of necessity, they are very nearly self-sustaining.

The managing boards of these schools have therefore had a delicate problem of directing financial affairs. On the one hand, charges must be kept within the range of the parents' incomes, for they find the burden of board, room, and tuition a heavy one to bear throughout the high school and college years. On the other hand, a satisfactory school and housing program must be maintained, largely on direct operating revenues.

As a result, industries have been introduced to assist the parents in their problem. But the conduct of industries, while adding to the enrollment of these schools, can hardly be said to ease the burden of management. The reverse might well be true, for when industries are operated on a part-time basis, with young, inexperienced help, the problem of balancing income and outgo is greatly aggravated.

The solution of the problem, it seems to the writer, lies in planning. Budgeting, of course, should be the organized method of

forming and conducting these plans. However, the problem just outlined requires a different form of budgeting than any now in use in Seventh-day Adventist schools. Present budgeting has to do with expense and income. The completed budget tells the prospective profit or loss. It says nothing about what the cash receipts and payments will amount to, what the outstanding accounts receivable will total, or what the debts of the institution will be at the end of the year.

Yet it is essential that this be known, because of the wide discrepancy existing between cash receipts and income on the one hand, and cash disbursements and expense on the other. The total of student charges is income, but receipts are much lower, due to student labor being applied to the accounts. Similarly, expense includes labor and depreciation, items which do not ordinarily require a cash expenditure. The expense and income budget, then, cannot be used in planning receipts and expenditures.

Nevertheless, this is exactly what the average individual is most interested in knowing. Many times the writer has presented an unbalanced budget to a board, only to have a member ask the question, "Does this mean that your liabilities will increase during the year by \$_____ (naming the budgeted loss)?" While the answer was obviously a negative one, the writer knew full well that his questioner really wanted to know, "How will your liabilities stand at the close of the budgeted year?" He could only hope that the question would not be asked openly, for he was as ignorant as others regarding the answer. No budget of receipts and expenditures or purchases and collections had been made. Furthermore, no plan for such a budget existed, and the formulation of such a plan presented many problems.

It is to the solution of these problems and the presentation of this plan that this treatise is dedicated. It is not intended to do away with profit and loss budgeting, but it is intended to supplement the accepted budgeting practice by developing a Balance Sheet budget as well.

In formulating a plan for financial budgeting, study was first given to the literature dealing with the subject. Certain definite principles^{*} then became the basis for building a specific plan which would meet the peculiar circumstances present in the system of education under observation.

The plan itself is presented by means of an illustrative problem, which, it is felt, is typical of Seventh-day Adventist educational institutions. Attention is first given to the budgeting of purchases and the credit maturities thereon. Then the methods of determining probable cash receipts from all sources are outlined. This presentation is followed by a discussion of the complete disbursements program, involving not only the purchases but also the expenditures for salaries, commissions, and mileage. The loans program then is easily determined by integrating the two cash budgets. The treatise closes by outlining how a complete month-by-month budget of the Balance Sheet may be made, and by stating some principles upon which the completed financial budget may be appraised as an instrument of working policy.

The numerical figures used in the illustration are, of necessity, fictitious, but they nevertheless parallel closely actual conditions. The writer believes that his ten years' experience in

* The most complete statement of principles was found in the writings of J. O. McKinsey and Prior Sinclair, their works being listed in the bibliography.

three schools, together with his constant reference to financial statements and records, insures the reasonableness of the example.

No attempt to gather data from sources outside the author's immediate experience was made except as it related to the collection of student accounts. The writer corresponded with the managers of all Seventh-day Adventist colleges in North America in an endeavor to ascertain what efforts had been made and what practices were followed in forecasting cash collections from students. The replies indicated that these efforts were confined to the student budget plan, and the appraisal that is given of this plan is the result of this correspondence and of personal interviews.

The writer wishes to thank those office managers who cooperated in outlining their student account collection policies. He is also indebted to Mr. H. P. Bloum, auditor of the Lake Union Conference of Seventh-day Adventists, for having examined critically the plan in its entirety, though the author assumes full responsibility for what has been written.

Finally, appreciation is especially due those men in the department of economics of Michigan State College who have cooperated so faithfully in the solution of the problem. Professor C. R. Upham assisted greatly in procuring available literature on the subject, while the counsel of Professors E. A. Gee and H. Wyngarden in the preparation of the manuscript indebted the author to each of them.

R. K. B.

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Chapter I

THE NEED AND PURPOSE OF FINANCIAL BUDGETINGThe Proper Concept of Budgeting

In too many instances, budgeting is regarded as a formality. The practice is looked upon as an evidence of progressive management of business, but is followed more as a result of custom than from a realization of the great assistance it can be in the conduct of a business. This is not unnatural. Unless the manager reminds himself constantly of its real objectives, the practice may quickly degenerate into a system by which certain forecasts are made.

Even in its degenerated form budgeting is probably worth its cost in time and effort, but immensely greater benefits will accrue from a proper concept of the term. In essence, it is an attempt to provide the same direction to a business that is possessed by a small merchant who regulates his purchases of any item by his estimates of probable sales, or who plans to use the receipts from certain sources to pay specific obligations. The procedure becomes written and formal chiefly because of the complexities introduced by the increased size of the business and the inability of managers to give their personal attention and direction to all of its details. The purpose of budgeting, then, is to plan, direct, control. Professor J. O. McKinsey has stated it most tersely in the expression, "comprehensive planning".⁽¹⁾

Thus, true budgeting is primarily planning, and only secondarily forecasting. It is highly important that this conception of the

(1) McKinsey, J. O., Budgetary Control, p. 3.

term be constantly before the consciousness of the management, if the plan is to be efficient and is to be spared from mere formality. The difference is largely one of attitude, but it is fundamental as it relates to the solution of the problems of a business. In one instance, the budget becomes a planned attempt to correct certain undesirable tendencies, a course to be followed and a goal to be reached. In the other, it becomes a prophecy by the author of the budget, forming the basis of many "interesting comparisons" but only incidentally influencing the management of the business.

The Need for Financial Budgeting

Once the idea of budgeting becomes identical with planning, little justification is necessary for extending the practice into the financial operations of an institution. On the contrary, it is the only logical procedure. It is hardly less vital to a business that its operations be properly financed than that its program of purchases and sales be properly coordinated and administered. "Financial planning is the essence of financial administration. Without such planning the success of a business is a matter of accident. Many businesses, especially small ones, fail to plan ahead with reference to their finances and to this fact many of the business failures are due."⁽²⁾

"The forecast activities of the entire organization are summarized in the financial budget. Production, sales, management--every department in the organization--is dependent upon a proper planning for the money which it needs in order to do its work on schedule time so that all departments may work together. If finances

(2) McKinsey, J. O., op. cit., p. 295.

fall short, some department may be handicapped, and that will hamper the entire organization."⁽³⁾

Having been lead to the adoption of a financial budget by the very logic of the idea itself, there remain several very definite reasons why financial planning is especially necessary in the Seventh-day Adventist system of higher education.

For the most part this educational system is made up of boarding colleges and academies, which are guided in their program by the philosophy that the training of the hand ranks equally in importance with the scholastic and religious training which they offer. Not only has this manual education been fostered by the offering of vocational education, but also by permitting students to perform virtually all the necessary labor about each institution. This includes the cleaning and care of the classrooms and dormitories, and all the work in connection with the school culinary, laundry, farm or other essentially domestic departments. The firing of boilers and maintenance work is also done by students where possible. Virtually every dormitory student, even though his financial resources make it unnecessary for him to work, is expected to perform some labor for the institution. For this the student is paid a regular hourly wage, which is credited to his school expense account.

The amount of labor that can be furnished by the institution itself is limited, and is frequently inadequate to supply the demand for work on the part of those students who must work out a considerable share of their school expenses. As a result many institutions have organized one or more commercial industries. These supply increased work opportunities, and the marketing of the product in

(3) Rogers, Della Mae, "Development of the Modern Business Budget", The Journal of Accountancy, March 1932, p. 203.

the commercial world brings cash into the institution for the labor performed.

These two sources of income, namely, students and industries, constitute approximately 95 percent of the operating income of the institutions, as is shown by the following tabulation:

---*---*---

Operating Donations of Seventh-day Adventist⁽⁴⁾
Educational Institutions in North America.
1936--1937

	Total Operating Income*	Total Operating Donations	% Donations to Total
6 Senior colleges	\$2,399,430.46	\$84,474.38	3.5
6 Junior colleges	931,733.17	48,942.49	5.3
35 Academies	<u>1,355,136.15</u>	<u>94,742.63</u>	<u>6.9</u>
47 Schools	4,686,299.78	228,159.50	4.9

* Includes inter-department transfers. These transfers (probably less than 10 percent of the total income), however, represent goods and services which might have been marketed commercially had the institution not consumed them.

---*---*---

It thus becomes obvious that these institutions obtain less than five percent of their operating income from outside sources. This constitutes a delicate problem of financing, for the uncertainties of two types of businesses--educational and industrial--are combined into one problem. The management must meet this combination of problems at registration time, when it must choose how much labor it can use profitably on the one hand, and how much cash will be needed from students on the other. The management is usually under the temptation and pressure to commit itself to more work than it can use profitably. While the commitments may not be definite

(4) Conard, Claude, Financial Summaries of Educational Institutions in North America--1936 to 1937, annual auditor's report issued by General Conference of Seventh-day Adventists, p. 1.

contracts and the school may absolve itself of legal obligation to carry them out, yet the practical difficulties of breaking up an individual's school program make careful planning of student admissions an absolute essential. An error may mean that the institution will have to provide unprofitable labor or carry excessive accounts receivable. Either alternative will have a disastrous effect on the financial position of the institution.

A great deal of planning is also required by virtue of the seasonal aspects of operating a school. Cash receipts from students are largely confined to nine months of the year. Where summer schools are held, the receipts are smoothed out some, but even in this case the student receipts fall far short of the winter months. The expenditures, however, continue to be heavy throughout the summer. Intensive promotion work, attended by heavy traveling expense, will be carried on. It is during the summer, too, that major repairs and alterations are undertaken. Moreover, at the close of the vacation it becomes necessary to build up an inventory of supplies and merchandise to an operating basis for the school year.

The operation of industries increases the problem of financing. The products manufactured are frequently of a highly seasonal character--products which may be marketed over a comparatively short time, but which must be manufactured over a period of months. Investment in materials, together with the inability to realize immediate cash on the labor performed, may tie up the institution's funds for months before the merchandise is sold and collections have been made.

Finally, careful financial planning is made necessary because the institutions rarely operate at a profit. Losses are

frequent. That these losses do not result in a commensurate increase in liabilities is true principally because the depreciation expense of buildings and equipment does not require an immediate outlay of cash. Nevertheless, these losses do serve to narrow very materially the cash margins on which each institution must operate.

Financial planning, then, apart from being a desirable practice in the Seventh-day Adventist educational system on its own merits, is an essential of successful management for the following reasons:

1. Extreme care is necessary if too liberal commitments for labor are to be avoided in admitting students.
2. Student receipts are largely confined to nine months of the year, while heavy expenditures are required throughout the entire year.
3. The industries, by their seasonal character, may tie up funds for several months.
4. Low or negative profits result in a narrowed cash margin.

The Purpose of Financial Budgeting

The type of budgeting here outlined does not have to do with the estimating of the profit or loss of an institution or its departments. Its purpose is not to set up a prospective Profit and Loss Statement. The budgeting of profit and loss, which will be referred to hereafter as the operating budget, is an accepted practice in Seventh-day Adventist schools. Neither is the plan here offered to replace this practice. Rather is it to supplement the operating budget in order to facilitate more complete planning of institutional affairs.

The purpose of the financial budget will be to set up a prospective Balance Sheet. It will therefore sustain the same relation-

ship to the operating budget as the Balance Sheet does to the Profit and Loss Statement. Its purpose is to enable the management to plan the institutions's position with reference to the Balance Sheet accounts. The month-by-month balances of such vital accounts as cash, accounts receivable, supplies inventories, and accounts payable will be set up, and the manager will know that any undesirable deviation from the plan will cripple future operations unless immediate adjustment is made. He will also be fortified against making too optimistic expenditures at seasons when funds are apparently plentiful but when future needs have not been adequately appraised.

The nature of financial budgeting requires that it be the product of careful judgment to a much greater degree than is the operating budget. Some of the reliable ratios as that sustained by labor or purchases to sales are lacking in financial budgeting. And such ratios as may be developed are more sensitive to both internal and external factors, and are therefore less reliable. In spite of this, however, the budgeting can be done with sufficient accuracy as to form a valuable tool for management. Deviations from the financial budget are often more quickly discerned than are those of the operating budget. At the same time, remedial measures can frequently be centered more readily on the distressed condition without adversely affecting other factors. While it may be less accurate, the financial budget does possess fully as great potentialities for effective management as does its companion budget.

Chapter II

GENERAL CONSIDERATIONS OF THE PROBLEMDefinition of Terms

Accounting terminology is not standardized. In order that there may be no confusion of thought with reference to the terms that will be used hereafter, it is desirable to outline the sense in which some accounting terms will be employed.

The financial budget, as already indicated, is a Balance Sheet forecast. It is primarily concerned with the actual receipt and expenditure of cash, or the temporary delay of such cash movements in the form of accounts receivable and accounts payable.

The operating budget has also been defined as the forecast of the Profit and Loss Statement, of sales (or income) and expense. These budgets are widely used in Seventh-day Adventist educational institutions, and the subsequent discussion of the financial budget will be based on the assumption that the operating budget has already been constructed.

Receipts and expenditures refer to the actual receiving and paying out of cash.

Purchases will have reference to goods or services acquired from outside the institution. It should be understood that cash is not necessarily an immediate part of the transaction. If reference is made to a cash purchase, it will be designated as such. Otherwise, it will be understood that all purchases are to be recorded through entry in a Purchases Journal, the actual payment therefor to be made at a subsequent date.

Departmental transfers will be understood to cover sales from one department to another, thus differentiating between purchases without the institution and purchases within.

Student charges and sales will be used to designate sales to students and firms, respectively. Unless reference is made to cash sales, it will be understood that the sales are made on a credit basis.

Inasmuch as the term notes payable is used throughout the denomination to designate long-term borrowings, any short-term financing will be referred to as loans.

Principal Financial Factors

The primary problem of financial budgeting is the proper timing of sales and the collections therefrom on the one hand, and the timing of purchases and the payment therefor on the other, with a supplementary loans program to care for peak requirements. Ultimately, it becomes a question of cash receipts and expenditures.

In the schools under consideration, the principal sources of cash receipts are from students, firms and miscellaneous cash sales. Student receipts may be on current or old accounts, and may include money received from student aid funds. In addition to these operating receipts, the supporting denominational organization grants a regular operating subsidy. It is also the recommended procedure that all capital improvements, involving additions to present equipment (except for laboratory equipment and library books), shall be provided for through capital donations. The itemized procedure for budgeting these receipts will be given in Chapter IV.

The disbursements must cover such items as teaching salaries,

advances to students, and the vast program of purchases of departmental supplies as well as heating, lighting, repairs and miscellaneous overhead expense. Where salesmen are employed, commissions will have to be paid. Finally, equipment replacements and additions must be provided for. The procedure for timing these purchases will be outlined in Chapter III, while the entire disbursements program will be integrated with the receipts program in Chapter V.

When Should the Financial Budget Be Prepared?

It becomes quite impossible to determine what collections from sales will be or what expenditures for purchases will amount to until the sales or purchases are first known. It is therefore clear that the financial budget must be prepared after the operating budget. As M. A. Copeland has stated, "If the financial or cash budget is to be called a departmental budget, it is clearly the last of the departmental budgets to be made up".⁽¹⁾

On the other hand, it does not necessarily follow that the financial budget should be far removed from the operating budget. It is but a part of one integrated attempt to plan the future course of the business, and should be regarded as such if it is to accomplish its purpose. The financial budget may point out some necessary revisions of the operating budget, and so should be developed in connection with the latter.

But the matter of the time for making the budget (operating and financial) has a larger and more important aspect. When, with reference to the year budgeted, should the budget be made up? The

(1) Copeland, Morris A., "Seasonal Problems in Financial Administration", The Journal of Political Economy, Dec. 1920, p. 801.

answer cannot be made absolute, but must be stated in terms of principles. However, it would seem that the question is largely answered when it is considered that budgeting and planning are not to be divorced. They are synonymous concepts. The budget, then, should develop with, not independently from, the growth of plans. In some instances it may be advisable to plan further ahead than is the present practice, but recommendations in this respect are beyond the scope of this treatise.

Naturally, the development of the budget on this basis will require frequent revisions. But the budget will be more effective in that it will provide a more careful estimate of what the results of proposed plans may be, and revisions may be made accordingly. These plans should become definite, however, by the time the fiscal year opens (usually about June 1) and the budget goes into effect. This, of course, should not preclude later revisions; for as unexpected circumstances arise which necessitate a change of plans, so the budget should be brought into harmony with those circumstances. A revision will be particularly desirable at the opening of school, when enrollment data become more definite.

Who Should Prepare the Budget?

Fully as important as the time of preparation of the budget is the problem of who shall prepare it. But consistency would make it expedient that the question be answered in terms of principles already enunciated. The ones making the plans should also make the budget. This should include the management in particular and the board of trustees in a secondary role.

In this connection McKinsey says: "It is the opinion of

the author that though the controller and his staff may be able to prepare accurate estimates, it is not desirable for this task to be performed by them. One of the important results of budgetary control is the benefit derived by the executives in its installation and operation. If the major part of the work is performed by a central agency such as the controller, those who should benefit most from the budgetary program lose the opportunity of gaining this advantage."⁽²⁾

This is not to say that the accountant cannot be of valuable assistance in formulating the budget, but it should not be, primarily, his task. He is chiefly concerned neither with the making or the execution of plans; while if the ones who must execute the budget formulate it, they will assume greater responsibility in adhering to it as a plan. To permit the accountant to become responsible for the budget is a long step toward allowing it to degrade into a forecast, primarily, rather than remain a plan. The forecast may be accurate enough, but the budget will have lost one of its most important uses as a tool of management. The executives have had little or no part in its formulation, and they fail to recognize it as a goal to reach.

Guiding Factors in the Preparation of the Budget

The budget should be prepared in the light of three guiding factors: first, the general changes in plans or policies; second, general business conditions; and, third, accounting records of past operations. The first of these factors will be determined by the management and board of trustees, while the second can be determined only through observation or the reports of business forecasting services.

(2) McKinsey, J. O., Budgetary Control, p. 36.

A proper concept of the purpose of budgeting will aid in the proper use of the third of these factors. The accounting records can be used either as an accurate basis of forecasting, or to reveal basic conditions which need correcting--with the budget constituting the remedial plan. The latter use is the ideal one, and makes the most efficient use of accounting as an instrument of management.

It must be borne in mind, however, that to correct past tendencies will require positive and constant effort. Undesirable trends are probably not the result of carelessness as much as they are of strong forces which will be difficult to counteract, so such budgeted changes in trends should be faced realistically. The accounting records should also provide this needed realism.

What Fiscal Periods Should Be Used?

Seventh-day Adventist educational institutions generally have 28-day months throughout the school year, and at the close of each a complete financial statement is made up. While some of the larger institutions may continue this practice through the vacation period, many of the smaller ones regard the summer period as one month and issue a financial statement only at its close. The small amount of business embracing this period of time would probably make a change of policy inadvisable.

On the other hand, in view of the heavy purchases for repairs and improvements and other heavy expenditures occurring during the summer, the entire financial budget might be jeopardized by permitting one-third of the year to pass by without a check-up. Such a check-up should be possible without requiring complete financial statements. The method of accomplishing this will be pointed out in later chapters.

Assumed Policies of Subsequent Illustrations

Inasmuch as the later chapters will outline minutely the details of a financial budgeting plan, it is essential that the operating policies of our hypothetical school be stated. It will be assumed that the budget is for a boarding academy, having roughly three-fourths of its enrollment residing in the dormitories. The use of a college illustration would involve additional accounts but no essentially different principles would be introduced, so it will be unnecessary to give separate examples applicable to them.

It will be assumed that students shall be required to pay a guarantee deposit and entrance fee upon their admission. The former is not credited to the student until the final month he is in school each year. The latter item amounts to five dollars per student, two of which are to be used for library books, while the balance, being for various student services, goes into the school's operating fund. A two dollar laboratory fee per semester is charged each member of a laboratory science class, the proceeds from which are used for new equipment. Statements are issued each 28 days, on which a two percent cash discount on all regular monthly charges less labor credits is allowed if paid within ten days after the date of the statement.

The school departments are broadly classified into three groups: Instructional, Homes, and Industrial. The academy and music departments make up the instructional group; the culinary, dormitories, and laundry departments, the homes group; and the book-store, farm, print shop, and wood shop, the industrial group. Only direct purchases are charged to the above accounts. Overhead purchases such as coal, electricity, repairs, insurance, etc. are charged to

overhead accounts, and are later allocated to the above departments. However, this is done through the operating budget, and the financial budget will be concerned only with the purchases--not the distribution. Therefore, these overhead accounts will be listed separately in the budget of purchases.

Similarly, it will not be necessary to break up student charges into tuition, room rent, and board. This has already been done in the operating budget, and it is the total of these charges which becomes of financial concern.

The school begins the year--and plans to close it--with no current liabilities to firms. Except for the print shop and wood shop, the terms are largely net 30 days, with a fraction of the purchases being for cash. The terms on both purchases and sales for the print shop are 2% ten, net 30 days, while the wood shop has terms of 2% E. O. M., net 30 days on its purchases and sales. It is often possible to obtain advanced datings on the larger purchases for the wood shop. Freight on car-load deliveries is cash on arrival of the car. The wood shop sales are handled through salesmen, who receive their commission on the fifteenth of the month following the payment of the account by the customer.

The wood shop operates lightly in the early fall, but begins capacity operations in late October or early November, continuing through May. A seasonal product is marketed from the last of February until the first of June. The print shop enjoys a rather uniform operation throughout the entire year, with the late spring months supplying a larger business than normal.

It will be the policy of the institution to make its own repairs and alterations as well as ordinary replacements of equipment,

but improvements and additions to equipment are to be supplied through funds supplied by the supporting organization. This organization also pays the school a regular operating subsidy at the close of each calendar month.

Employees are largely housed in institutional houses. They are paid each two weeks, but from the last two weeks' salary is deducted rent and other charges. Payment must await issuance of statements, so the balance is therefore shown on the Balance Sheet as a liability, but is immediately due. Employees driving cars for the school have two cents per mile held in a mileage reserve account, to be withdrawn when the car is replaced.

This review of the major policies and circumstances existing in the hypothetical school will permit an intelligent approach to the succeeding illustrations. There yet remains a wide variation of assumptions which might be made with reference to details, but it is believed that these will become sufficiently clear from the context so that further amplification at this time will be unnecessary.

Chapter III

BUDGETING THE PURCHASES REQUIREMENTS

Objectives in Budgeting Purchases Requirements

As they relate to financial budgeting, purchasing plans must be made with the ultimate payment for the merchandise as the primary consideration. The manager must know how much money is going to be required to meet maturing obligations. To know this, it is necessary that the operating budget of supply needs be broken down into monthly requirements, and that these purchases be further analyzed as to credit maturities.

While the operating budget will provide information as to the supply needs of each department, these figures cannot be accepted at face value in every instance. For example, the culinary department receives a sizeable share of its food products from the farm, while the print shop supplies the printing needs of several departments. In other words, the departmental transfers and purchases will have to be segregated.

The accounting records should readily reveal what past ratios of departmental transfers to purchases have been for each department. If separate accounts of the two have not been maintained, they undoubtedly have been entered through different journals and can be easily segregated by reference thereto. These ratios would probably be an accurate basis for determining future requirements unless some changes of policy are contemplated.

The timing of the purchases, if the objectives of financial budgeting are to be realized, must obviously be done by more accurate

methods than by merely spreading the purchases evenly over all the fiscal periods. An attempt must be made to plan the purchases according to the months in which they will actually occur. This will necessarily require much careful thought. While such prediction is subject to a wide margin of error, yet many of these errors will counteract one another and the estimate as a whole should prove to be sufficiently accurate as a reliable course of action. Fortunately, purchases usually follow rather closely the pattern of previous years, so the accounting records may be relied upon quite heavily in making these plans.

Determination of credit maturities will require the same detailed analysis as the monthly purchasing program. Not all purchases have the same terms, and there may result a consequent reduction in the correlation existing between the purchasing and financing programs. Therefore, the benefits of a most accurately planned purchasing policy might easily be neutralized by not giving this element in the budgetary procedure the careful consideration it deserves.

Planning the Monthly Purchases

A tabulation of the budgeted monthly purchases, by departments, is given in Form I. This outline of purchases is quite typical of Seventh-day Adventist educational institutions, and an examination of it will quickly demonstrate that reasonable accuracy in the timing of purchases is not difficult to achieve.

The first column of Form I shows the estimated purchases of each department for the year. As has already been explained the operating budget forms the basis for this estimate, but due allowance is made for departmental transfers. For instance, it is assumed the

FORM I

DISTRIBUTION OF DEPARTMENTAL PURCHASES BY FISCAL PERIODS

	Estimated Purchases For Year	Estimated Purchases For Period Ending:--											
		Jun 30	Jul 31	Sep 12	Oct 10	Nov 7	Dec 5	Jan 2	Jan 30	Feb 27	Mar 27	Apr 24	May 31
**Academy	\$ 75	\$	\$	\$ 5	\$ 45	\$	\$ 10	\$	\$	\$ 5	\$	\$	\$ 10
**Musio	65				20	20			15				10
*Culinary	2,800	120	75	125	350	280	280	250	280	280	280	280	200
*Dormitories	150			85	45				20				
*Laundry	50				25				25				
*Bookstore	520				450	25			45				
*Farm	600	75	50	50	45	20	20	20	20	20	50	80	150
**Print Shop	1,100	100	75	75	75	75	75	75	75	75	75	125	200
Wood Shop	7,500	50				(100	(200	200	(200	(200	(200	(200	200
						500	1500		500	1500	450	1500	
**Administra'n	150	5	10	15	30	6	6	6	30	6	6	10	20
**Coal	2,000				280		280	300	580	300	260		
*Electricity	700	40	40	40	50	60	65	70	70	70	65	65	65
*HL&W Supply	100				40		10	10	40				
*Insurance	800					275	150	250		125			
**Interest	127				25				55		10	8	29
*Sustentation	145	10	10	10	12	13	12	13	12	13	12	13	15
*Tel. & Tel.	180	15	15	15	15	15	15	15	15	15	15	15	15
*Repairs	(1,400	150	(600	550	10	10	10	20	10	10	10	10	10
* Cap. Impr.	300		(300										
*Equipment	(900				(300	200					50	350	
** Trust Fund	300				250								
Totals	19,962	565	1175	970	2067	1599	2633	1229	2042	2619	1483	2656	924

* Indicates 30-day terms on all purchases.

** Indicates varying degree of cash purchases, 30-day terms on credit purchases.

culinary department will get one-half its supplies from the farm in the form of milk, eggs, fruit, and vegetables. Therefore the culinary figure of \$2,800 represents only 50 percent of the operating budget estimate for supplies. Administration supplies would likewise need adjusting as a result of having much of the printing done locally. Other adjustments of this nature will depend on individual circumstances.

Accuracy also requires that an adjustment of a different character be made with reference to some of the figures in the operating budget before they are used in the financial budget. Telephone expenditures, for example, will very likely be greater than the expense budget allows, due to the charging of toll calls to student accounts. These calls do not enter into the telephone expense of the institution, but they do require a cash disbursement. The same correction would be necessary if there were electricity charges to students or employees, or if fuel were sold to cottage residents.

The remaining columns of Form I show the probable monthly distribution of purchases. As already indicated, it may seem inadvisable to issue complete statements of the summer operations at regular 28-day intervals, but it is essential that frequent check-ups of the financial budget be made. For this reason the summer has been divided into three periods, the first two closing with the calendar month, and the last closing with the vacation. These periods are arbitrarily chosen for purposes of illustration only. The division into such periods as will prove most practical is recommended, so long as the principle of frequent check-ups is maintained. The school year proper is divided into the regular

accounting periods of four weeks each with the exception of the last period, which closes on May 31, the close of the fiscal year.

The distribution of the purchases throughout the year is not a difficult task as it relates to the instructional and homes purchases. With the exception of the culinary department, the same general pattern is followed in all the departments. The purchases usually consist of supplies which will carry throughout the year, possibly requiring some replenishment during the year. Past experience will indicate when the mid-year purchases usually occur, but the bulk of the buying will come at the opening of the school year. Culinary requirements will be lighter in the summer, but will tend to be rather uniform throughout the school year after the inventory has been brought up to full operating level in September.

Industrial purchases will vary with seasonal requirements. Farm buying will be highest during the planting and harvesting seasons, but should be low during the winter months so long as the department produces its own feeds. The print shop purchases will tend to be uniform, except for certain peak periods such as the printing of large quantities of school annuals and advertising matter during the late spring months.

The buying program of mechanical industries, such as a wood shop, injects considerable uncertainty into the problem of planning the monthly purchases. This arises from the necessity of buying certain materials in large shipments. Possibly the segregation of major and minor purchases will facilitate the budgeting problem by revealing that the minor purchases follow a rather uniform pattern (similar to the top row of figures in Form I, opposite "Wood Shop"). The timing of major purchases, such as lumber and paint

(see lower row of figures, Form I, opposite "Wood Shop"), can then be accurately accomplished by giving careful thought to the production program.

With the exception of repairs, the overhead purchases are regulated by the nature of the item. Administration supply purchases are usually heavy at the beginning of each semester, with postage expense occurring at regular intervals throughout the year. Electricity is a monthly item, with seasonal variations. The due dates for interest and insurance premiums can be definitely ascertained by reference to notes, loan plans, and insurance policies. Similar considerations would direct in the timing of the remaining items in the list of overhead accounts.

The Budgeting and Control of Repairs

Separate treatment has been reserved for repairs because it has been found to be one of the greatest barriers in the way of accurate budgeting. This is probably due to an inadequate appraisal of repair needs in general and to an inadequate estimate of repair costs in particular. The first involves more careful foresight as to what repair jobs will be undertaken, and the second demands a more careful budgeting of the costs entering into these jobs.

This is essentially a weakness in the administration of the operating budget, but a failure in the administration of operating plans is bound to have an adverse effect on the financial budget as well. The situation therefore demands that estimates be prepared with greater care, and that these estimates be followed up with proper methods of control which will be easy to administer. This can be done advantageously by the use of Form II, which provides for an

FORM II (1)
REPAIR COST AND ESTIMATE SHEET

REPAIR ORDER COST SHEET									
Description			Authorized _____		Repair Order No. _____				
Location			Started _____		To Cost \$ _____				
			Completed _____		Charge _____ Acct. _____				
C H A R G E S									
Date	Ref.	Item	Labor		Dept. Transf.		Invoices		Total
			Estim.	Actual	Estim.	Actual	Estim.	Actual	

--*--*--

itemized estimate of costs and their comparison with the actual. The form also keeps the labor, invoice, and departmental charges separate, which facilitates the preparation and administration of the financial budget.

The cost data can most conveniently be entered on this sheet through the medium of a simple cost system. The Repair Order Cost Sheets can be kept in a separate ledger, controlled by a Repair Order Control account in the general ledger. Provision is made for regular ledger notations on the cost sheet, and the individual transactions can thus be posted to the proper cost sheet, while the totals are debited to the controlling account. When the repair job is completed, the proper account may be charged, and the Repair Order Control account can be credited with the total cost. The cost sheet can then be removed from the ledger and filed where it can be used as a reference source for estimating future repair jobs.

Once the repairs have been given the detailed estimates just outlined, it will not be difficult to determine when the purchases

(1) Lake, John R., Jr., "Budgetary Control of Capital Expenditures", The American Accountant, Sept. 1933, p. 272, (An adaptation).

will occur inasmuch as the repair work is quite definitely under the control of the management. The distribution can be made on Form I accordingly. In the illustrative distribution all major repairs have been budgeted for the summer, but provision is made throughout the school year for purchases arising from breakage and miscellaneous causes.

The item marked "Capital Improvement" represents the amount of improvement in the valuation of a building resulting from putting the repaired section in better condition than it was originally. A wood or composition shingle roof might be replaced by slate, and the difference in the cost of the two types of roofing material would represent the value of the improvement. According to the operating policy, this amount is to be raised by the supporting organization, so it will be understood that this improvement is made possible by a capital donation.

The Budgeting and Control of Equipment Purchases

The planning of monthly equipment purchases, like repairs, is largely under the control of the management, and should not be difficult to allocate. Form III is a convenient method of organizing this information. It outlines for each department the approximate date of each purchase, the estimated cost, and whether it is an addition to or replacement of present equipment. The additions to equipment, of course, should be made as a result of capital donations, and this will receive consideration in a later stage of our discussion of the financial budget. Unlike Form II, this form is kept as a subsidiary record.

Attention has already been called to the method of financing

FORM III (2)
BUDGET OF ESTIMATED EQUIPMENT EXPENDITURES

EQUIPMENT BUDGET						
Department _____			Authorized _____			
Item	Purchase Date	Estimated Cost	A c t u a l		Under-run	Over-run
			Addition	Replacement		

- * - * -

additions to laboratory equipment and the library, namely, by student fees. The funds thus raised are for a specified purpose, and should not be left with the regular operating funds, where there is likelihood that they will quickly lose their identity and be used for other purposes. To avoid the embarrassment which such a situation may create, it is essential that a trust fund be created for these moneys. This can be done by transferring the fees to a separate bank account as rapidly as they are recorded on the books. The effect on the operating fund will then be the same as though the fees were spent immediately for the proper purpose, but actually can be spent only by order of the proper committees.

It will not be necessary to budget the actual purchase of this equipment, as operating funds are no longer involved after the transfer to the trust fund has been made. When purchases of this equipment are actually made, they can be journalized in the regular manner, the only difference being that payment will be made from the trust fund. Care should be taken, though, that these latter entries are not given in any reports of purchases, explained below. Such an inclusion would constitute a duplication, inasmuch as the

(2) Lake, John R., Jr., op. cit., p. 270 (An adaptation).

operating fund bore the burden of the purchase when the fees were transferred to the trust fund.

Control of Purchases

It is not enough that careful plans be made through the medium of budgeting. It is the greater part of successful management to see to it that the plans are carried out. This can only be done when frequent comparisons are made between the budget and the actual. This can be done with the purchases through Form IV.

The "Budget for Month" column is for the period just closed, while the "Budget to Date" column is cumulative for the year since June 1. The actual figures can be obtained readily from the

---*---*---

FORM IV PURCHASES CONTROL SHEET For Period Ending _____

<u>DEPARTMENT</u>	<u>Budget For Month</u>	<u>Actual For Month</u>	<u>Budget To Date</u>	<u>Actual To Date</u>	<u>Budget For Year</u>
Academy	\$	\$	\$	\$	\$ 75.00
Music					65.00
Culinary					2,800.00
Dormitories					150.00
Laundry					50.00
Bookstore					520.00
Farm					600.00
Print Shop					1,100.00
Wood Shop					7,500.00
Administration					150.00
Coal					2,000.00
Electricity					700.00
HL&W Supplies					100.00
Insurance					800.00
Interest					127.00
Sustentation					145.00
Tel. & Tel.					180.00
Repairs					1,400.00
Cap. Impr.					300.00
Equipment					900.00
Trust Fund					300.00
TOTALS	_____	_____	_____	_____	19,962.00

Purchases Journal. It should be observed, too, that this report can be made up about as conveniently during the summer months as any other time, so regarding the summer as one financial period does not affect this phase of financial control.

While this form makes a convenient comparison of the actual with the budget possible, it is not an end in itself. It is only a means to an end. Comparison is not control. Control is an administrative matter, and the comparison only facilitates that control.

Nor should the control be exercised only at monthly intervals, but constantly. The budgetary program has been adopted as a plan to be followed, a working policy for the period covered. It needs to be referred to constantly if it is to perform its intended function. While formal comparisons are issued by the accounting office monthly, most of the institutions under consideration are small enough so the manager can keep himself informed as to the extent of purchases within the month without the aid of formal reports. In some of the larger institutions, a more frequent report of purchase orders issued or of invoices received may be advisable, but individual circumstances will dictate such details.

Planning the Credit Maturities

The planning and control of the monthly purchases is a very important part of financial budgeting, but it is important largely because of the problems of financing it brings before the management. The analysis is not complete until a schedule of payments has been made out.

Such analysis requires a careful review of the credit terms of the purchases for each department. Any illustration that may be

given here, of necessity, must be quite arbitrary. In order to avoid an item-by-item discussion of the problem, the symbols appearing on Form I will greatly abbreviate the treatment of the method used.

A single asterisk preceding the account indicates that all purchases are for 30 days, and will consequently fall due for payment the following month. A double asterisk preceding the account indicates (except for the print shop, interest, and trust fund) that part of the purchases are cash purchases and part are on a 30-day basis. The cash purchases are principally from local business men. The ratio of cash purchases to the total is small in any event, but the extent to which the practice of making cash purchases is carried on will depend on management policies. In some places the practice is virtually non-existent. But frequently, under such circumstances, local merchants issue statements very irregularly, even six months or more often elapsing between their issuance. This can have no other effect than to jeopardize the operation of a well-planned financial budget. Unless some other means of regulating the situation is possible, it is recommended that such purchases be on a cash basis.

The print shop purchases are made on terms of 2% 10 days, so if it is contemplated that the discount will be taken, most payments will have to be made during the month of purchase. In the case of interest, payment becomes due on a specific date, and that date is within the month that the interest was budgeted as a purchase. The trust fund payments, as well as interest, are on a strictly cash basis.

WOOD SHOP. Having summarized the credit maturities for the institution as a whole, a more detailed analysis of the wood shop purchases now seems timely. This analysis is made by means of Form V.

FORM V

ANALYSIS OF CREDIT MATURITIES FOR

Wood Shop DEPARTMENT

Obligations For Period Ending:	Amount	Payment Falls Due During Period Ending:--											
		Jun 30	Jul 31	Sep 12	Oct 10	Nov 7	Dec 5	Jan 2	Jan 30	Feb 27	Mar 27	Apr 24	May 31
June 30	\$ 50	\$	\$ 50	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
July 31	..	..	..	..	..	..	..	..	..	..	..	..	..
Sept. 12	..	..	..	..	..	..	..	..	..	..	..	..	..
Oct. 10	..	..	..	..	..	..	..	..	..	..	..	..	..
Nov. 7	100	..	..	..	..	..	100	..	..	..	..	..	..
Dec. 5	500	..	..	..	..	..	..	500	..	..	..	..	..
	200	..	..	..	..	..	200	..	..	..	..	..	..
	1,500	..	..	..	..	..	500	..	1,000	..	..	..	..
Jan. 2	200	..	..	..	..	..	..	200	..	..	..	..	..
Jan. 30	200	..	..	..	..	..	..	..	200	..	..	..	..
	500	..	..	..	..	..	..	..	..	500	..	..	..
Feb. 27	200	..	..	..	..	..	..	..	..	200	..	..	..
	1,500	..	..	..	..	..	..	..	..	..	1,000	..	..
Mar. 27	200	..	..	..	..	..	..	..	..	..	200	..	..
	450	..	..	..	..	..	..	..	..	..	..	450	..
Apr. 24	200	..	..	..	..	..	..	..	..	..	..	200	..
	1,500	..	..	..	..	..	..	..	..	..	..	..	1,000
May 31	200	..	..	..	..	..	..	..	..	..	..	..	200
Totals	7,500	50					600	200	1,700	700	200	2,200	1,850

As was done in Form I, the wood shop purchases have been separated into major and minor purchases. The upper figure represents the aggregate of minor purchases each month, which bear the terms of 2% E. O. M., net 30 days. They will therefore have to be paid by the tenth of the month following purchase, if they are discounted.

The lower figures represent the major purchases each month, the \$1,500 items being car-load purchases of lumber, and the other items constituting paint purchases. The freight on the car-load shipments falls due upon the arrival of the car, so a payment of about \$500 must be made during the month of purchase. The maturities for the lumber and paint are regulated by the advanced datings on the invoices. As it is the intention to have all current liabilities paid by the end of the fiscal year, nothing is scheduled for maturity after May 31.

THE RECAPITULATION. In actual practice, it might be advisable to apply Form V to the purchases of a number of departments, particularly to the purchases of coal, where the freight must be paid immediately while terms are enjoyed on the coal. However, the use of the form is a matter of expediency, and is recommended only in cases where it will be most practical.

Once the credit maturities for each department have been determined, the task of recapitulation is a simple one. This is done in Form VI. As in the case of the wood shop, no purchases are scheduled for payment after May 31. The totals of Form VI will give the monthly cash requirements for purchases. The disbursements program is now complete except for the determination of the salary, mileage, commission, and student withdrawal requirements. The latter appraisals will not be made, however, until the cash receipts have been estimated.

FORM VI

SCHEDULE OF PAYMENTS FOR PURCHASES, BY FISCAL PERIODS

	Total	Obligations Falling Due During Period Ending:--												
		Jun 30	Jul 31	Sep 12	Oct 10	Nov 7	Dec 5	Jan 2	Jan 30	Feb 27	Mar 27	Apr 24	May 31	
Academy	\$ 75	\$	\$	\$	\$ 15	\$ 35	\$	\$ 10	\$	\$	\$ 5	\$	\$ 10	
Musio	65					30	10			15			10	
Culinary	2,800	120	75	125	280	350	280	280	250	280	280	280	480	
Dormitories	150			85		45				20				
Laundry	50					25				25				
Bookstore	520					450	25			45				
Farm	600	75	50	50	20	45	20	20	20	20	20	50	230	
Print Shop	1,100	100	75	75	75	75	75	75	75	75	75	125	200	
Wood Shop	7,500	50	50		600	600	200	1700	700	200	200	2200	1850	
Administra'n	150	5	10	6	15	30	6	6	6	30	6	6	24	
Coal	2,000		40	160	120	160	280	460	420	300	100			
Electricity	700		40	40	50	60	65	70	70	70	65	130		
HL&W Supply	100				40		10	10	40					
Insurance	800					275	150	250		125				
Interest	127			25			55			10	8		29	
Sustentation	145	10	10	10	12	13	13	12	13	13	12	28		
Tel. & Tel.	180	15	15	15	15	15	15	15	15	15	15	30		
Repairs and	1,700	150	900	550	10	10	10	20	20	10	10	10	20	
Cap. Impr.														
Equipment	900					300	200					50	350	
Trust Fund	300			250				50						
Totals	19,962	105	545	1171	1415	1632	1749	1133	2994	1777	1129	2921	3391	

Chapter IV

BUDGETING CASH RECEIPTSBudgeting Student Receipts

BY STUDENT BUDGETS. A logical approach to the problem of budgeting receipts from students is through individual budgets with the students. The school, by reference to the operating budget, will be able to determine how much labor it can profitably offer. It will then be in a position to accept students on this basis, and can make budgets, or agreements, with the students accordingly. These agreements, of course, need to be definite with regard to the work that is to be performed. They must also be definite with reference to the cash that will be available.

It may be contended by some that the practice of making budgets with students is already a widely followed practice, and that many managers would not place much reliance in the budgets as a basis of estimating cash receipts. There is some truth to the charge. Many times circumstances arise which require a change in the budget with the student. But while these changes are frequent, they also often counteract one another in their effects. Thus the change resulting from a student having to work more because of financial reverses at home is often offset by the student who pays a larger share in cash in order to take additional class work.

The greatest weakness in the student budget program does not arise from the frequent changes in budgets, but from a failure to sense the implication of the word "budget". After the plans

have been laid, they must be followed. This is just as true with student budgets as with any other budget. In this connection, Mr. L. N. Holm, business manager of Emmanuel Missionary College, Berrien Springs, Michigan, writes in a letter to the author: "My experience is that a budget is not worth the paper it is written on unless there is someone who is willing to put forth the effort to see that it is lived up to. It is not a pleasant task, but it does make for good collections, . . . keeping both the student and the institution out of financial difficulty."

Mr. Holm, in a personal interview, expressed the opinion that, in his institution, the coefficient of error of the student budgets was not more than five percent either way from actual receipts. This conclusion is given support by a statement taken from a letter from Mr. C. E. Kellogg, manager of Atlantic Union College, South Lancaster, Massachusetts, in which he says: "The individual budget can be quite fully relied upon on an average. On one occasion we checked our student budget face value for \$249 per capita. They actually turned in \$250 per capita." In each of these institutions, provision is made for adjustment of budgets, indicating that the program may be flexible without sacrificing accuracy.

Student budgets, then, can be made the basis for estimating receipts, if administered properly. Constant follow-up work is necessary, however. Ordinarily, it would seem preferable to have the budget prepared some time before registration takes place in order to avoid a hurried consideration of the problem. The parent, of course, should be a party to the agreement, particularly if the students are of high school age. No particular form is here recommended, it being

more essential that greater diligence be exercised in using the forms already in use.

The principal failing of this method of budgeting collections from students is that the data is not available until fall, whereas the budget should be in complete form by June 1. The method can be of value in making budget revisions at the opening of school, however.

BY PAST COLLECTIONS. Fortunately, it is not necessary to rely wholly on the student budget for collection estimates. Entire reliance on this source might be unwise, especially until its reliability had been established for the individual institution. Moreover, it is possible to obtain accurate data on past collection trends which can be used as a basis for forecasting. This is done by computing the percentage of monthly charges collected in cash. Thus, if a month's charges were \$2,500 and collections were \$1,500, there would be a 60 percent cash collection. Of course, this is technically incorrect, for the collections of one month are in payment of the previous month's charges. But the method does permit cash received the first school month to enter into the computation in a way that would be difficult otherwise. So long as the method is followed uniformly, the value of the information gained thereby is not affected.

The use that can be made of this information will be obvious upon examination of Form VII. It will be assumed that the data found therein is the collection record of the illustrative institution with which we are dealing. Summer collections have been omitted. This is because such collections are usually for the past school year, and bear no relationship to the summer charges

FORM VII
PERCENTAGE OF CASH COLLECTIONS TO STUDENT CHARGES
1931-1938

	1931-2	1932-3	1933-4	1934-5	1935-6	1936-7	1937-8	Monthly Average
Sept.	73	72	53	44	40	61	53	57
Oct.	61	39	33	39	40	37	46	42
Nov.	45	38	25	26	36	43	56	38
Dec.	36	40	36	40	38	48	46	41
Jan.	46	30	35	41	40	44	37	39
Feb.	36	31	27	51	43	29	38	36
Mar.	33	64	29	42	41	41	33	40
Apr.	29	37	21	45	37	49	33	36
May	<u>75</u>	<u>66</u>	<u>51</u>	<u>54</u>	<u>62</u>	<u>77</u>	<u>50</u>	<u>62</u>
Average								
For Year	48	46	34	42	42	48	44	43.44
								(Aver. for period)

-*-*-*

of work students.

The yearly average is the arithmetic mean of each year's percentages, and is not the percentage of the total receipts to total charges. (The two calculations will not agree, because both the monthly charges and collections are variable factors.) But either method of calculation will be effective in indicating the effect of general business conditions on collections. In the illustration, collections reached the lowest point in 1933-1934, and recovered to a new high in 1936-1937, only to recede in 1937-1938. This correlates closely with general business conditions. The monthly averages indicate the average seasonal variation in collections. Thus, the two end months are the best for receipts, while collections for the remaining seven months tend to be stronger during the first semester than during the second.

In making the receipts budget, the management, after studying business conditions and other factors, determines to raise the collection percentage to 46 percent during the coming year. In

order to do this a budget of monthly percentages will have to be computed. This can be done by finding the product of each monthly average and the proposed annual average, and dividing by the average for the entire period. In this particular case, the solution would be: $\frac{46}{43.44} \times \text{Each Monthly Average}$.

But there is also a variation in the monthly charges. This variation, however, should follow rather closely the pattern of previous years. The operating budget calls for a total of \$24,700 in student charges for the coming year. Of this, it is believed that \$2,200 will come during the summer, leaving a total of \$22,500 for the school year.

The first month's charges will be the heaviest, due to the charging of books, and other items. There will be some shrinkage through the first semester, followed by a steadying during the second semester. Once the probable monthly charges have been decided upon, they can be multiplied by the budgeted percentages of collections as computed above in order to determine the probable collections. This computation is shown below, to which is appended the estimated summer receipts, based on previous experience:

Month Ending	Estimated Charges	Probable Percentage of Collections	Estimated Receipts
Oct. 10	\$3,330	60.4	\$2,010
Nov. 7	2,670	44.5	1,190
Dec. 5	2,500	40.2	1,005
Jan. 2	2,500	43.4	1,085
Jan. 30	2,350	41.3	970
Feb. 27	2,300	38.1	875
Mar. 27	2,300	42.4	975
Apr. 24	2,250	38.1	860
May 31	2,300	65.7	1,510
	<u>22,500</u>	<u>46 (Av.)</u>	<u>10,480</u>
June 30			70
July 31			150
Sept. 12			<u>300</u>
Estimated Total for Year			11,000

OLD ACCOUNTS. The year's collections on old accounts has been budgeted at \$1,500. Not much can be done to determine the monthly distribution, except that the months of largest receipts usually follow times when the greatest collection effort has been put forth. It is therefore planned to make a special effort at collection the first of the months of July, October, November, and April. As a result, it is anticipated that collections will be about as follows:

June 30	\$75
July 31	150
Sept. 12	150
Oct. 10	75
Nov. 7	150
Dec. 5	150
Jan. 2	75
Jan. 30	150
Feb. 27	150
Mar. 27	75
Apr. 24	150
May 31	150

STUDENT AID. Many of the supporting organizations maintain a fund for aiding worthy students. The budgeting of student aid fund receipts will depend on the policies on which the fund is administered, as well as on the accounting procedure followed. It is possible, of course, to credit such receipts to the proper students in the same manner as other student remittances are handled. In this event, the budgeting of student aid would not need to be done independently, but would automatically be included in the budgeting of current account receipts.

However, this method of accounting for these receipts results in the loss of the fund's identity as such. It is frequently more desirable to credit the actual receipts to a Student Aid account, and transfer this credit to the personal accounts by means of a

journal entry.

For purposes of this illustration, it is assumed that the student aid fund, of which the supporting organization is trustee, will be able to provide aid to worthy students to the extent of \$50 per school month. With the exception of the May remittance, this will be received after the close of each month.

Budgeting Receipts from Commercial Industries

PRINT SHOP. It has already been stated that the print shop is assumed to operate rather uniformly throughout the year, except for a peak period in the late spring. It is believed that the commercial business of \$1,600 will likewise be evenly distributed for all periods other than the first two and last months. Concentration on institutional printing in the early summer will limit receipts to \$50 in June and \$100 during July. Thereafter it is expected that receipts will average \$125 per month until May, when receipts from the printing of the school annual will raise the month's total to \$325.

Inasmuch as sales are largely to a local market, collections are usually made on delivery of the printing. Even when credit is granted to the larger customers, the discount is an incentive to pay promptly. Most of the collections, therefore, occur during the month of sale. The cash discount will be treated later.

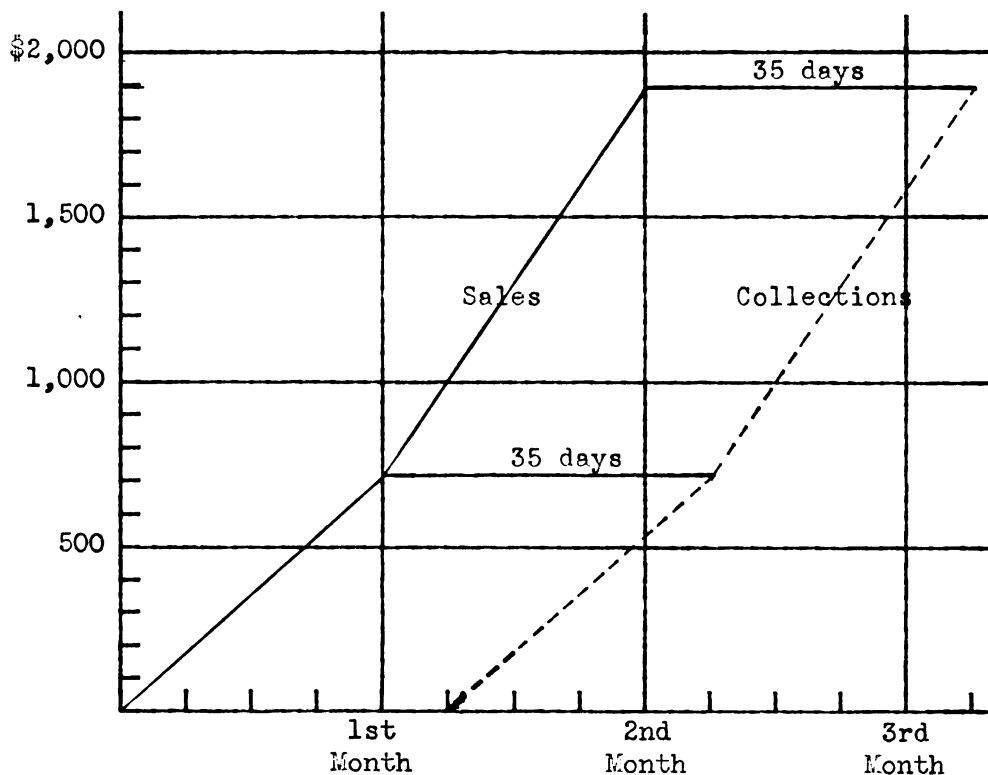
WOOD SHOP. An accurate estimate of monthly cash receipts from the wood shop is not only dependent on the probable schedule of sales, but also upon an accurate estimate of the collection period, or the "lag" between sales and receipts. The latter is most commonly determined by dividing the accounts receivable by

the average sales per day, the figures being taken from the annual financial statement. The quotient will be the average number of days elapsing between sales and collections. In our hypothetical problem, the collection period has been computed to be 28 days. In other words the sales of one month are, roughly, the collections of the next month.

The above method of estimating collections, obviously, is made much more difficult if the collection period is of different length than the fiscal period. In this event, the most convenient method of estimating collections is by means of a cumulative graph. This is illustrated in Form VIII, although the data used therein is not intended to illustrate wood shop sales and collections.

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FORM VIII
CUMULATIVE GRAPH OF SALES AND COLLECTIONS



Taking 35 days as the collection period, it is clear from the illustration that collections for the first month's sales will not begin until the second week of the second month. Furthermore, only slightly more than \$500 can be expected the second month as remittances on the \$700 sales of the first month. And while sales for the second month would be \$1,200, collections the third month would be a little short of \$1,100. The graph would be read similarly throughout the remainder of the year.

However, there are reasons why this calculation cannot be used to give the most reliable monthly estimates of cash receipts. Only in the event that the collection period remained, in fact, "average" throughout the year could it be said to be truly reliable. But frequently this is not the case. There are usually seasonal fluctuations in the collection period. An accurate forecast of collections must therefore take this fluctuation into account.

Perhaps this adjustment can best be made by means of a rough correction, as has been done with the wood shop collections below:

<u>Month Ending</u>	<u>Estimated Sales</u>	<u>Collections as per 28- day period</u>	<u>Collections as Adjusted</u>
June 30	\$ 550		
July 31	50	\$ 550	\$ 400
Sept. 12	50	50	225
Oct. 10	50	50	50
Nov. 7	50	50	50
Dec. 5	50	50	50
Jan. 2	50	50	50
Jan. 30	50	50	50
Feb. 27	2,000	50	50
Mar. 27	2,500	2,000	1,575
Apr. 24	2,800	2,500	3,085
May 31	<u>2,200</u>	<u>3,500</u>	<u>3,725</u>
Totals	10,400	8,900	9,310
Add: Estimated June collections on present year			<u>690</u>
			10,000

Thus, past experience indicates that collections of June sales tend to be slower than average. Collections of February sales likewise tend to be slow, while March sales are above average. May is a five-week month, and receipts can be expected to be five-fourths of April sales. Experience, however, shows that collections usually exceed even this amount, and so May receipts are budgeted for \$3,725. A June collection of \$690 is anticipated on the previous year's business. The fall sales are for custom work, and are usually collected promptly.

Budgeting Receipts from Miscellaneous Departmental Sales

CULINARY. Past experience would indicate that there will be approximately \$300 cash sales for the culinary department during the coming year. It is believed that these sales will average about \$10 for each of the summer periods, and \$30 per month thereafter.

BOOKSTORE. Many of the bookstore sales will be charged, but it is believed that \$220 in cash sales is a conservative estimate. There will be virtually no sales during the summer, but cash sales the first school month should be about \$110. The second month should be about \$20 and the fifth about \$30, while the remaining months should be about \$10 each.

FARM. It is believed that the farm will produce foodstuffs in excess of domestic needs so that \$1,000 in cash sales will result. There will be a surplus of dairy and poultry products during the summer, which can be marketed along with the small fruit and truck gardening crops. Late garden crops, potatoes, and the late tree fruits will be marketed in the early fall. In view of these consid-

erations, it is felt that there will be \$150 in cash sales during each of the first two periods, \$250 during August, \$300 during September, and \$150 during October. Thereafter no sales are budgeted.

Budgeting Operating and Capital Donations

It should not be difficult to make the monthly distribution of donations. Except for May, the operating subsidy is received shortly after the close of each calendar month. It will be received late so long as the institution's periods close with or before the calendar month. This item will be budgeted at \$3,000 for the year, or \$250 per month.

As for the capital donations, the budgeting of purchases was predicated on receiving the donations before the maturity of the purchases. Therefore, the \$300 improvement in connection with repairs (Form I, page 19) should be received during the month ending September 12. The donations to cover equipment additions (Form III, page 25) should likewise be received before the purchases fall due. Two hundred dollars will then be budgeted for the month ending December 5, and \$350 for the final month of the year.

Recapitulation of the Cash Receipts Program

Having determined the cash receipts by months from each of the sources, the remaining problem is solely one of recapitulating this information in order that the data may be used in planning the financial program of the school. This is done in Form IX.

It needs to be borne in mind, however, that the receivables from firms and current students may be discounted. This will require

FORM IX

ESTIMATE OF MONTHLY CASH RECEIPTS FROM ALL SOURCES

	Estimated Total For Year	Estimate For Fiscal Period Ending:--											
		Jun 30	Jul 31	Sep 12	Oct 10	Nov 7	Dec 5	Jan 2	Jan 30	Feb 27	Mar 27	Apr 24	May 31
Students--Cur.	\$11,000	\$ 70	\$150	\$300	\$2010	\$1190	\$1005	\$1085	\$970	\$875	\$975	\$860	\$1510
Students--Old	1,500	75	150	150	75	150	150	75	150	150	75	150	150
Student Aid	450					50	50	50	50	50	50	50	100
Print Shop	1,600	50	100	125	125	125	125	125	125	125	125	125	325
Wood Shop	10,000	690	400	225	50	50	50	50	50	50	1575	3085	3725
Culinary	300	10	10	10	30	30	30	30	30	30	30	30	30
Bookstore	220				110	20	10	10	30	10	10	10	10
Farm	1,000	150	150	250	300	150			250	250	250	250	500
Op. Subsidy	3,000		250	500	250	250	200						350
Capital Don.	850			300									
Totals	29,920	1045	1210	1860	2950	2015	1870	1425	1655	1540	3090	4560	6700
LESS:													
Com'l Disc.	180	15	2	2	2	2	2	2	2	2	27	57	65
Student Disc.	200					30	30	30	30	25	20	20	15
Net Receipts	29,540	1030	1208	1858	2948	1983	1838	1393	1623	1513	3043	4483	6620

an adjustment of the estimates, if the net receipts are to be determined. Past experience will have to be relied on heavily in ascertaining the extent to which advantage will be taken of discounts.

As a rule, student discounts will become smaller as the year progresses, while commercial discounts will tend to be quite uniform. Deductions of estimated discounts have been made in Form IX.

Chapter V

PLANNING THE FINANCING PROGRAMDetermining the Disbursement Requirements

Having determined the probable monthly receipts, it now becomes appropriate to determine the disbursement requirements. While this was done in Chapter III as it related to purchases, it by no means comprises the entire disbursements program. The requirements for salary and mileage payments have not been appraised as yet, and no provision has been made for salesmen's commissions.

SALARY. In making the schedule of salary payments, the average monthly deduction of employees' charges must be determined. This is estimated to be about \$200 during the school year, and about \$160 for each four-week month during the summer. It must also be borne in mind that salary payments are to be bi-monthly, the charges for the month being deducted from the second check. Form V, as used in Chapter III, lends itself readily to this distribution. Without reproducing the form, the method of determining the salary requirements for the most difficult portion of the year is shown below:

Date of Salary Payment		Payment Falls Due During Period Ending:--				
	Amount	June 30	July 31	Sept. 12	Oct. 10	Nov. 7
June 13	\$314	\$314				
27	154 . . .	154 . . .				
July 11	314		\$314			
25	154		154			
Aug. 8	314			\$314		
22	154			154		
Sept. 5	314			314		
12	120				\$120	
26	500				500	
Oct. 10	300					\$300.
Totals	Incomplete	468	468	782	620	Incomplete

It is believed that \$468 cash per four-week month will be sufficient for the summer payroll, except that some additional salary will need to be assumed the final week of the vacation period. There will therefore be two salary payments totaling \$468 during each of the first two fiscal periods. The final period of the summer is virtually seven weeks long, and will have three salary payments scheduled, two of which will have no deductions. These two, of \$314 each, plus a third from which four weeks' charges are deducted, make total cash payments of \$782 for the period. The \$120 item, carried over into the next month is for one week's salary, from which three weeks' charges are deducted.

With the opening of the school year, the pattern becomes more uniform. A salary payment of \$500, having no deductions, falls due the middle of the month. Immediately after the close of the month, the second payment of \$300 comes due, having had \$200 in charges deducted from it. This continues without variation until May, a five-week month, but at the close of which it is planned that all salaries shall be paid.

During the month of May it will be necessary to pay the \$300 carried over from the eighth school month as well as the two regular salary payments for the final month totaling \$800. In addition to this, the fifth week, having the status of a summer period, will have a salary charge of \$157, from which one week's charges to employees are to be deducted. The week's cash requirements will then be \$117. This will bring the total for the month to \$1,217, while \$9,155 is the estimated cash needed for salary purposes throughout the year.

MILEAGE. It is estimated that the mileage expense will

be about \$90 during both June and July, and about \$150 during the final summer period. Thereafter it is planned that \$30 per month shall be sufficient. With the exception of June, July, August, and May, payment will fall due immediately after the fiscal month closes. Reports rendered June 27, July 25, August 22, and May 31 will be paid within those periods.

It will be recalled that two cents per mile is to go to a mileage reserve account. This need not alter our disbursement plans, however. This is a fund similar to the library book and laboratory equipment funds. Consistency would require that it be treated as such, and that remittances from the operating funds to the special cash fund be made as frequently as mileage reports are made.

STUDENT ADVANCES. It is believed that student withdrawals of cash will be about \$10 per month throughout the school year, and that a similar sum will take care of the entire summer if divided on a three-three-four basis.

COMMISSIONS. Inasmuch as about 75 percent of all sales of production items in the wood shop are made by salesmen, the budget for commissions calls for \$730. The commission rate is 10 percent, so the commission payments will amount to about seven and one-half percent of wood shop collections.

Furthermore, the commissions are to be paid the salesmen on all accounts paid as of the fifteenth of the month. This involves collections made over a portion of two fiscal periods. Moreover, the discount terms of 2% E. O. M. results in about 75 percent of the collections being made during the first half of the month. Therefore, it will be necessary to multiply seven and one-half percent by

75 percent to obtain the fraction of collections that must be paid out in commissions the first half of the month, and to multiply the same figure by 25 percent to obtain the proper fraction for the last half of the month. These decimals are .05625 and .01875, respectively. The calculation, based on the estimate of collections given on page 40, would be as follows:

June 15	\$690 (June)	x .05625		\$40
July 15	690 (June)	x .01875	\$13	
	400 (July)	x .05625	<u>23</u>	36
Aug. 15	400 (July)	x .01875	8	
	225 (Aug.)	x .05625	<u>13</u>	21
Sept. 15	225 (Aug.)	x .01875		4
Mar. 15	1575 (Mar.)	x .05625		89
Apr. 15	1575 (Mar.)	x .01875	30	
	3085 (Apr.)	x .05625	<u>172</u>	202
May 15	3085 (Apr.)	x .01875	60	
	3725 (May)	x .05625	<u>210</u>	270
31	3725 (May)	x .01875		<u>68</u>
	Total			730

The sales of custom work, not being on a commission basis, do not enter into the computation. It should be noted, too, that the above extensions are only approximately correct.

Recapitulation of the Cash Disbursements

As was done with the cash receipts, it now becomes appropriate to recapitulate the month-by-month disbursements from the estimates decided upon above. This is done in Form X.

In this case, too, recognition must be made of the cash discount. Inasmuch as the financing is so planned that the discounts are to be taken, the amount of the discount will be roughly two percent of the maturing print shop and wood shop purchases. The discount, of course, should not be computed on the freight items entering into the purchases.

FORM X

ESTIMATE OF MONTHLY CASH DISBURSEMENTS

	Estimated Total For Year	Estimate For Fiscal Period Ending:--											
		Jun 30	Jul 31	Sep 12	Oct 10	Nov 7	Dec 5	Jan 2	Jan 30	Feb 27	Mar 27	Apr 24	May 31
Employees	\$9,155	\$468	\$468	\$782	\$620	\$800	\$800	\$800	\$800	\$800	\$800	\$800	\$1217
Mileage	600	90	90	100	50	30	30	30	30	30	30	30	60
Student Adv'ces	100	3	3	4	10	10	10	10	10	10	10	10	10
Commissions	730	40	36	21	4						89	202	338
Purchases	19,962	105	545	1171	1415	1632	1749	1133	2994	1777	1129	2921	3391
(See Form VI)													
Totals	30,547	706	1142	2078	2099	2472	2589	1973	3834	2617	2058	3963	5016
LESS:													
Discounts	140	2	2	2	1	2	3	6	35	5	5	36	41
Net													
Disburse- ments	30,407	704	1140	2076	2098	2470	2586	1967	3799	2612	2053	3927	4975

Determining the Loan Requirements

The determination of loan requirements now becomes largely a work of integrating Forms IX and X, the cash receipts and cash expenditures. The only additional information that will be necessary is the beginning cash balance for the year. Obviously, this will have to be a matter of estimate through the early stages of budget development, but with the close of the old year it becomes a known quantity.

Having either a known or estimated beginning cash balance, one can quickly compute the monthly cash balances. This is done in Form XI. The months requiring loans, and the months in which loans may be paid off then show up clearly.

Control of the Cash Budget

What was said in connection with the need for control of purchases applies fully to the control of cash. It is therefore necessary only to present a form by which the control may be maintained. This is done in Form XII, the data for which is readily obtainable from the cash journals.

After the faculty has been elected, virtually the only avenue open for appreciable control of disbursements is through purchases. In view of the consideration already given to this subject, it is unnecessary to discuss it further except to point out its importance as the key factor in the internal control of finances.

In this connection, it should be noted that no comparative form was developed for purchase maturities, because it was felt that such a form would be redundant in most cases. Effective control is

FORM XI

CASH BUDGET SUMMARY and LOAN REQUIREMENTS

Estimates For Fiscal Period Ending:--													
	Jun 30	Jul 31	Sep 12	Oct 10	Nov 7	Dec 5	Jan 2	Jan 30	Feb 27	Mar 27	Apr 24	May 31	
	\$1000	\$1326	\$1394	\$1176	\$2026	\$1539	\$791	\$217	\$241	\$142	\$132	\$188	
Cash on Hand, Beginning of Month													
Receipts	1030	1208	1858	2948	1983	1838	1393	1623	1513	3043	4483	6620	
Disbursements	704	1140	2076	2098	2470	2586	2967	3799	2612	2053	3927	4975	
Excess of Receipts	326	68		850						990	556	1645	
Excess of Disbursements			218		487	748	574	2176	1099				
Cash Balance, End of Month	1326	1394	1176	2026	1539	791	217	--1959	--858	1132	688	1833	
Loans Required During Month								2200	1000				
Loans Paid Off During Month										1000	500	1700	

FORM XII
CASH BUDGET CONTROL SHEET

for Period Ending _____

<u>RECEIPTS</u>	<u>Budget For Month</u>	<u>Actual For Month</u>	<u>Budget To Date</u>	<u>Actual To Date</u>	<u>Budget For Year</u>
Students--Current					\$11,000.00
Students--Old					1,500.00
Student Aid					450.00
Print Shop					1,600.00
Wood Shop					10,000.00
Culinary					300.00
Bookstore					220.00
Farm					1,000.00
Operating Subs.					3,000.00
Capital Donations					850.00
Totals					29,920.00
LESS:					
Com'l Discount					180.00
Student Disc.					200.00
<u>Net Receipts</u>					29,540.00
<u>DISBURSEMENTS</u>					
Employees					9,155.00
Mileage					600.00
Student Advances					100.00
Commissions					730.00
Purchases (Form VI)					19,962.00
Totals					30,547.00
LESS:					
Cash Discount					140.00
<u>Net Disbursements</u>					30,407.00
- * - * -					
Beginning Cash Bal.					1,000.00
Excess of Receipts					
Excess of Disburse.					867.00
Loans Made or Paid					
Closing Cash Balance					133.00

possible at the time of purchase, not at maturity. However, Form IV, page 26, may be used for this purpose where special circumstances may require, but the data will likely need to be recapitulated from ledger records.

Receipts are largely from external sources, and so their control must be directed outside the institution. An analysis of the control sheet will reveal in what respects receipts fall short of expectations. These, in turn, must be analyzed as to cause--whether the collection rate has fallen or whether sales have declined. Proper remedial efforts can then be instituted.

Frequently, however, these external factors can be controlled only to a limited degree, and attention will once more need to be directed to control from within. This will involve a revision of plans, a revision of the budget.

This treatment of the cash budget would not be complete without noting that the control may be administered just as effectively during the summer as at any other time. The data is obtained directly from the journals, and not from formal accounting reports. Financial budgeting as developed thusfar, then, can be thoroughly efficient as a financial control measure throughout the summer period without adding materially to the accounting work.

But inasmuch as the objective of maintaining control over summer expenditures is adequately cared for by these methods, it will no longer be necessary to divide the summer vacation into several periods. There is no reason why the practice could not be continued, if desired, but succeeding comment will regard the summer as one period.

Chapter VI

BUDGETING THE BALANCE SHEET

Much of the framework for budgeting the Balance Sheet has already been laid. It is not necessary to carry the analysis a great deal further in order to have a complete month-by-month budget of assets, liabilities, and proprietorship. This further analysis has to do chiefly with the estimates of supplies inventories and of the labor credit on student accounts.

Budgeting Supplies Inventories

WOOD SHOP. One of the most difficult inventories to estimate is that dealing with a mechanical industry such as a wood shop. Particularly is this true when the task is one of estimating its month-by-month status. The problem is aggravated greatly if the business is highly seasonal. Where sales are uniformly spread throughout the year, the inventory becomes fairly stabilized; but when the sales period is comparatively short and the production period long, the inventory fluctuates widely. The inventory becomes a constantly growing factor throughout the manufacturing period, accumulating costs to itself much as does a rolling snow-ball.

Moreover, the analogy of the rolling snow-ball is itself the basis for its solution. The inventory might be likened to a reservoir for all costs. This can readily be illustrated from an assumed situation in the wood shop.

Assuming, for the time being, that the management faces the manufacturing season about November first with the hope of only

breaking even on the last six months' operations. Then the inventory becomes simply an accumulation of material, labor, and overhead costs, to be canceled at the end of the season by sales. In these circumstances, the procedure for estimating the monthly inventories would be as follows:

ADD --- Beginning inventory (actual or estimated).
 Estimated purchases for the month.
 Estimated labor for the month.
 Estimated overhead for the month.
 SUBTRACT--Estimated sales for the month.

The procedure is not greatly altered when a margin of profit is allowed. In this case the estimate of sales will have to be discounted to a cost basis. Thus, if the profit margin is 10 percent of costs, estimated sales of \$1,100 would have to be reduced to \$1,000 before entering the above calculation. Extreme care should be taken in deciding this margin, however. It should be decided upon only after a truly realistic study, for on its reliability largely depends the accuracy of the estimate.

In view of this the estimate of the wood shop inventory would proceed about as follows. The \$1,800 inventory at the beginning of the year will probably decline during the summer to about \$1,400 as a result of sales and departmental transfers for repairs. There may be another decline of \$50 during the first two school months as a result of custom work, leaving a balance of \$1,350. To this must be added a \$600 purchase, as shown on Form I, page 19, bringing the November 7 inventory to \$1,950. The remaining monthly inventories will be computed in the manner shown below, in which sales estimates have been discounted five percent on the production items only:

	<u>Dec 5</u>	<u>Jan 2</u>	<u>Jan 30</u>	<u>Feb 27</u>	<u>Mar 27</u>	<u>Apr 24</u>	<u>May 31</u>
Beginning Inv.	\$1950	\$4025	\$4700	\$5900	\$6560	\$5810	\$5775
Estim. Purchases (Form I)	1700	200	700	1700	650	1700	200
Estim. Labor (Op. budget)	250	350	375	425	600	525	375
Estim. Overhead (Op. budget)	175	175	175	435	375	400	350
Total Costs	<u>4075</u>	<u>4750</u>	<u>5950</u>	<u>8460</u>	<u>8185</u>	<u>8435</u>	<u>6700</u>
Less Sales, disc'd	<u>50</u>	<u>50</u>	<u>50</u>	<u>1900</u>	<u>2375</u>	<u>2560</u>	<u>2090</u>
Closing Inventory	4025	4700	5900	6560	5810	5775	4610

FARM. Farm inventories fluctuate widely for the same reason that wood shop inventories do, namely, because of the seasonal character of the business. Throughout the spring and summer, expenditure of labor and funds go into the planting and care of crops. The inventory reaches a maximum at harvest time, then declines as a result of sales and the consumption of feeds through the winter.

It would therefore appear that the farm inventories should be estimated on the same basis as the wood shop. But while this would be logical, it is hardly practical under ordinary circumstances. The production and marketing of farm produce is not on the standardized basis that manufacturing is. So many factors have to be weighed and considered that the increased accuracy, if any, resulting from the endeavor would be negligible.

Generally speaking, the inventory pattern of other years should be fully as reliable. By and large, given the same weather conditions, a farm will produce about the same inventory of supplies year after year. Corrections resulting from improved methods, and probable weather and price changes, of course, are not precluded. The farm inventory, then, will be assumed to follow other years, and will be estimated as follows:

June 1	\$1200	Dec. 5	\$1500	Mar. 27	\$ 950
Sept. 12	1700	Jan. 2	1300	Apr. 24	700
Oct. 10	1800	Jan. 30	1250	May 31	1200
Nov. 7	1800	Feb. 27	1050		

OTHER INVENTORIES. The remaining inventories of the institution do not fluctuate greatly, either within the year or from one year to another. They will be lowest during the summer, rising gradually to their highest level about mid-year, and declining once more during the closing months of the year. Guided by past experience, it is believed that the monthly status of these inventories will be about as follows:

June 1	\$ 700	Dec. 5	\$1300	Mar. 27	\$1200
Sept. 12	900	Jan. 2	1350	Apr. 24	900
Oct. 10	1050	Jan. 30	1350	May 31	700
Nov. 7	1100	Feb. 27	1200		

RECAPITULATION. The total inventory for each month will be a total of the three estimates listed above. This will constitute the estimate that appears on the Balance Sheet budget, and so these totals are listed below:

June 1	\$3700	Dec. 5	\$6825	Mar. 27	\$7960
Sept. 12	4000	Jan. 2	7350	Apr. 24	7375
Oct. 10	4225	Jan. 30	8500	May 31	6510
Nov. 7	4850	Feb. 27	8810		

Budgeting Accounts Receivable

CURRENT. The month-by-month estimates of the current student controlling account balances can be readily computed from data already at hand after the monthly labor credits have been determined. The monthly charges and collections have been listed on page 36. The cash withdrawals of \$10 per period should be added to the charges, and the labor credits will be the result of careful analysis of the operating budget. The monthly balances will

then be as computed below:

	<u>Charges and Cash Advances</u>	<u>Cash Collections</u>	<u>Labor Credits</u>	<u>Balance</u>
June 1	\$	\$	\$	\$2000
Sept. 12	Transfer to Old Accounts			1500
				500
Sept. 12	2210	520	3000	810 Cr.
Oct. 10	3340	210	1000	1320
		(1800 Deposits, credited May 31)		
Nov. 7	2680	1190	900	1910
Dec. 5	2510	1005	850	2565
Jan. 2	2510	1085	1000	2990
Jan. 30	2360	970	950	3430
Feb. 27	2310	875	1100	3765
Mar. 27	2310	975	1200	3900
Apr. 24	2260	860	1000	4300
May 31	2310	1510	1100	4000
	Credit \$1800 Deposits, received Oct. 10			2200

The transfer to old accounts is a transfer of the past year's balances from the current ledger to the old account ledger. The amount of this entry is estimated to be about \$1,500. It is also believed that \$1,800 of the receipts for the month ending October 10 will be in the form of guarantee deposits, and will therefore be carried as a liability until the final month, when they will be credited to student accounts.

Owing to the large number of factors that have entered into the estimates dealing with student accounts, it would be advisable to have a more unified control over each of these factors than is possible with any of the forms previously mentioned. Form XIII is given to supply this need, the data for which can conveniently be taken from the proper controlling account in the general ledger. The form provides not only for a convenient comparison of the totals affecting the controlling account balance, but also allows for a check-up of the percentage of cash collections to the total charges.

FORM XIII
STUDENT CONTROLLING ACCOUNT CONTROL SHEET
for Period Ending _____

	<u>Budget</u>	<u>Actual</u>	<u>Over</u>	<u>Under</u>
Beginning Balance				
Charges for Month				
Cash Withdrawals for Month	_____	_____	_____	_____
Totals				
Cash Credits for Month				
% of Month's Charges				
Labor Credits for Month				
% of Month's Charges	_____	_____	_____	_____
Total Credits				
Closing Balance				
-*-*-*				
Charges to Date				
Cash Withdrawals to Date				
Cash Credits to Date				
Labor Credits to Date				

-*-*-*

OLD ACCOUNTS. Virtually the only charge to the account controlling old student accounts is the transfer from current accounts which takes place at the close of the summer. The amount of this transfer has been determined to be \$1,500. Therefore, given the beginning balance of \$1,800, the monthly balances can easily be derived from the data in Form IX, page 43.

FIRMS. It has been assumed that practically all print shop sales are cash sales, so that only wood shop business need enter into the calculation of accounts receivable from firms. The monthly balance of this controlling account can be computed from the schedule of sales and payments listed on page 40, once the beginning balance of \$800 is known.

The Budgeted Balance Sheet

The information which has been organized in this and previous chapters is now ready for a quick and easy assembly into a Budgeted Balance Sheet. This has been done in Form XIV.

The monthly cash balances can be quickly discerned by reference to Form XI, page 51. In the estimates of cash receipts which were made in Form IX, page 43, the monthly subsidy check was budgeted to arrive after the close of the fiscal month beginning with January and continuing through April. The subsidy will therefore be budgeted as a receivable during these months.

The estimates of accounts receivable balances and supplies inventories have been made above. Only one or two further observations need be made at this time. The balances of the current student accounts, as determined above, are merely the monthly balances of the controlling account. Actually, there may be a number of credit balances on individual accounts, with the result that the debit balances will have a greater total than the controlling account balance. Correct accounting procedure would require that the total of the debit balances be shown on the Balance Sheet as accounts receivable, and the credit totals be shown as accounts payable. However, it is hardly profitable to make this segregation in advance. It is suggested that only the controlling account balance be budgeted at this time. Later, when it is desired to make comparisons, the segregation can be arbitrarily made. For instance, in a month showing actual credit balances totaling \$200, the budget for the month could read the same so long as the accounts receivable were increased a commensurate amount.

The balance of the Allowance for Bad Accounts will increase

FORM XIV

ESTIMATED MONTHLY BALANCE SHEET

ASSETS	Beginning Balances May 31	Estimated Balances For Period Ending:--									
		Sept 12	Oct 10	Nov 7	Dec 5	Jan 2	Jan 30	Feb 27	Mar 27	Apr 24	May 31
Current											
Cash	\$1,000	\$1176	\$2026	\$1539	\$791	\$217	\$241	\$142	\$132	\$188	\$133
Subsidy not Rec'd						250	250	250	250	250	
Accounts Receivable											
Students--Current	2,000			1910	2565	2990	3430	3765	3900	4300	2200
Students--Old	1,800	2925	2850	2700	2550	2475	2325	2175	2100	1950	1800
Firms	800	135	135	135	135	135	135	2085	3010	2725	1200
Total Accts. Rec.	4,600	3060	4305	4745	5250	5600	5890	8025	9010	8975	5200
Less--Allowance	2,900	2970	3040	3110	3180	3250	3320	3390	3460	3530	3600
	1,700	90	1265	1635	2070	2350	2570	5635	5550	5445	1600
Supplies Inventories	3,700	4000	4225	4850	6825	7350	8500	8810	7960	7375	6510
Unexpired Insurance	400	320	240	435	505	675	595	640	560	480	400
Current Assets	6,800	5586	7756	8459	10191	10842	12156	15477	14452	13738	8643
Trust Fund											
Library Books			200	200	200	200	200	200	200	200	200
Laboratory Equipment			50	50	50	50	100	100	100	100	100
Mileage Reserve	100	212	232	244	256	268	280	292	304	316	340
Trust Fund Cash	100	212	482	494	506	518	580	592	604	616	640
Fixed											
Equipment	30,000	30000	30300	30500	30500	30500	30500	30500	30550	30900	30900
Less--Dep'n Allow.	15,000	15250	15500	15750	16000	16250	16500	16750	17000	17250	17500
	15,000	14750	14800	14750	14500	14250	14000	13750	13550	13650	13400
Land and Buildings	110,000	110300	110300	110300	110300	110300	110300	110300	110300	110300	110300
Less--Dep'n Allow.	30,000	30300	30600	30900	31200	31500	31800	32100	32400	32700	33000
	80,000	80900	79700	79400	79100	78800	78500	78200	77900	77600	77300
Fixed Assets	95,000	94750	94500	94150	93600	93050	92500	91950	91450	91250	90700
TOTAL ASSETS	101,900	100548	102738	103103	104297	104410	105236	108019	106506	105604	99983

FORM XIV (Cont'd)

ESTIMATED MONTHLY BALANCE SHEET

LIABILITIES	Beginning Balances May 31	Estimated Balances For Period Ending:--									
		Sept 12	Oct 10	Nov 7	Dec 5	Jan 2	Jan 30	Feb 27	Mar 27	Apr 24	May 31
Current											
Accounts Payable	\$	\$ 810	\$ 300	\$ 300	\$ 300	\$ 300	\$ 300	\$ 300	\$ 300	\$ 300	\$
Students--Current		120	300	300	300	300	300	300	300	300	
Employees		889	1541	1508	2392	2488	1536	2378	2732	2467	
Firms							2200	3200	2200	1700	
Loans		<u>1819</u>	<u>1841</u>	<u>1808</u>	<u>2692</u>	<u>2788</u>	<u>4036</u>	<u>5878</u>	<u>5232</u>	<u>4467</u>	
Guarantee Deposits			1800	1800	1800	1800	1800	1800	1800	1800	
Deferred Income, Fees			445	390	335	280	225	170	115	60	
Accrued Comm. Payable	60	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>	<u>156</u>	<u>226</u>	<u>205</u>	<u>90</u>
Current Liab'ties	60	<u>1825</u>	<u>4092</u>	<u>4004</u>	<u>4833</u>	<u>4874</u>	<u>6067</u>	<u>8004</u>	<u>7373</u>	<u>6532</u>	<u>90</u>
Trust Funds											
Mileage Reserve	100	212	232	244	256	268	280	292	304	316	340
Fixed											
Notes Payable	2,250	<u>2250</u>	<u>2250</u>	<u>2250</u>	<u>2250</u>	<u>2250</u>	<u>2250</u>	<u>2250</u>	<u>2250</u>	<u>2250</u>	<u>2250</u>
TOTAL LIABILITIES	2,410	<u>4287</u>	<u>6574</u>	<u>6498</u>	<u>7339</u>	<u>7392</u>	<u>8597</u>	<u>10546</u>	<u>9927</u>	<u>9098</u>	<u>2680</u>
NET WORTH	99,490	96261	96164	96605	96958	97018	96639	97473	96579	96506	97303

each month by the amount of a regular adjustment entry. The amount will be determined from the operating budget.

The Unexpired Insurance, except for the increases resulting from the purchases listed in Form I, page 19, will decline a definite amount each month, as determined from the operating budget.

The Trust Fund has already been explained quite fully. The equipment funds increase either at the beginning of the year or at the beginning of each semester, according as the fees are charged. The mileage fund increases with each report. It has already been stated that no attempt to budget the expenditure of these funds need be made, for no advantage would be gained thereby. If an employee replaces his car, then the reduction in cash is accompanied by a similar reduction in a comparable liability account. On the other hand, expenditures for equipment are accompanied by an increase in the asset equipment. In this connection, it should be pointed out that all other funds which the school may hold as trustee should be handled through this account, but no budget need be made of these.

The equipment accounts increase according to the purchases listed in Form I, page 19, but the trust fund purchases are not included inasmuch as they are carried as an asset in the Trust Fund. The buildings account will increase by the amount of the capital improvement. The Allowance for Depreciation accounts will increase from monthly adjustment entries as determined from the operating budget.

The monthly balance owing employees is readily obtainable from page 45, Form V being used in practice to record this data. Each month's liability to firms can be obtained by subtracting the

monthly payments to firms (Form VI, page 31) from the purchases (Form I, page 19), after adding the previous month's balance. The amount owed for loans can be discerned from Form XI, page 51.

On page 58 it was estimated that \$1,800 of the first school month's receipts would be in the form of guarantee deposits. This amount will be carried as a liability until the final month, when it is credited to the individual accounts.

The initial income from entrance fees can best be determined from the operating budget, and this will be carried as deferred income--one-ninth of it being credited to income each month as a result of a regular adjustment entry.

Accrued Commission represents commission that is earned, but is not due until the customer's account has been paid. The amount of the commission has previously been determined as being about seven and one-half percent of the charge sales. Similarly, the accrued portion will be approximately seven and one-half percent of the accounts receivable from firms, after deducting the amount due on custom jobs.

The mileage reserve account has already been dealt with, and the balance of the notes payable account remains unchanged by any contemplated action.

When properly totaled, the Net Worth may be obtained and the gain or loss ascertained. The latter result, of course, should be in agreement with the operating budget, when allowance is made for capital donations.

Balance Sheet Control

No special form for the comparison of the actual and bud-

geted Balance Sheets need be produced here. The regular Balance Sheet outline may be used, and the actual and budgeted balances be placed side by side in vertical columns. Inasmuch as this will require only two columns, there will be plenty of room on the sheet for indication as to whether the actual is over or under the budget.

With the completion of the Budgeted Balance Sheet comes a completion of the mechanical construction of the financial budget. But earlier comment pointed out that true budgeting is more than a mechanical process. Thusfar, discussion, of necessity, has had to do largely with the mechanical phase. Some larger aspects of the problem will receive consideration in the following chapter.

Chapter VII

RE-CONSIDERING THE FINANCIAL BUDGET

In the discussion of A PROPOSED FINANCIAL BUDGET FOR SEVENTH-DAY ADVENTIST EDUCATIONAL INSTITUTIONS, attention has been centered primarily on the method of procedure and the forms that should be followed. It has been a presentation of the technical aspect of the problem, in which the accountant can be of invaluable service.

Important as the mechanics of budgeting may be, the most important part of the planning program still remains to be performed. There must follow a work of analysis and appraisal of the results indicated by the budget, in order to determine whether or not it is a satisfactory program for the year ahead. In short, the management must answer the question, "Should we adopt this budget?" Then, after a budget has been adopted, the management is faced with the task of carrying it out.

It was pointed out in Chapter I that the relationship that management sustains to these problems is quite definitely dependent on the correct attitude toward the budgeting program. A proper mental approach is more effective in bringing about financial control in an institution than any budgeting "system" can ever be. The system is for the purpose of lending organization to the attack.

But while the mechanics of budgeting can be set forth in itemized detail, it is impossible to be as specific in pointing out how the budget should be administered. Only general suggestions

911

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and broad principles can be set forth. Administrators will have to exercise their initiative in seeking out remedies for individual circumstances.

Considerations in Adopting a Budget

The question of the adoption of the budget is the first to be faced. The budget which has been used for an illustration, for instance, would force an institution to operate on a narrow cash margin.

Nevertheless, the budget has much to recommend it. It shows that no debts will be created during the year. While the cash shows a decline from \$1,000 to nearly \$100, there is an inventory increase of nearly \$3,000. It is probably safe to assume that these results would not be attained in the absence of a financial budget. A manager would invariably over-reach during the summer and fall when funds appear to be so plentiful, even though he knows that winter and spring demands will be great. The definiteness of the budget will prevent such unwise expenditure. Therefore, it might easily be adopted in view of probable results if no budget existed.

This attitude is a negative one, however, and fails to consider what additional benefits may be derived from further planning. There are other questions that need to be considered. Some of them are: Are repairs adequate? Are sufficient equipment replacements being made? What provision is made for the replacement of large items of equipment in future years? Furthermore, it will be observed that no provision was made in the budget for the retirement of any portion of the note indebtedness. Would an adequate financing program overlook this? These are some of the questions that must

be faced by the management in deciding whether or not a budget should be adopted.

The Necessity of Long-Range Budgeting

Obviously, the adoption of the illustrative budget will "get by", but the questions just raised do emphasize the necessity of long-range planning. This has to do largely with the program of repairs and equipment replacements. Every manager can foresee the day when some expensive repair or replacement job is going to be urgent. The business-like method of meeting the situation would be to plan, or budget, ahead for the emergency.

These plans need not be written or formal, but they may be nonetheless real. They may guide in the make-up of the annual budget, so that provision will be made for the future. The low cash balance in the illustrative budget, for instance, will very likely be too small to begin another year's operations--especially if a heavy repair program is anticipated. In case, too, that the increase in inventories is in anticipation of an expanding business, plans would also have to be laid for an increase in working capital.

It thus becomes clear that the most successful year-by-year budgeting is dependent upon an adequate appraisal of the long-range program as well.

Revising the Budget

Once it is decided that a budget is inadequate for present or future needs, the management must make necessary revisions. Such revisions, it must be clear, should constitute more than a "wish" or a "feeling" that earlier estimates may have been wrong. If ever

budgeting means planning, it is when revisions are contemplated, for these revisions will never be interpolated into results unless accompanied by untiring effort.

The most obvious approach to the problem of increasing the financial resources of an institution is to improve the operating budget, either by bringing it into balance or by increasing its profit showing. Some progress may be made in this direction by making economies, but the most likely course is through increased business. This may be through larger enrollment or through increased industrial sales. Often the inter-relation between the two will require an increase in both.

A second approach to the problem is to re-study the labor program in order to avoid too liberal commitments to prospective students. Closely related to this are the returns that will come as a result of a more careful follow-up program in connection with the admission arrangements of students.

A third method is to become more self-contained as far as foodstuffs are concerned. Frequently, farm produce can be sold to better advantage through the dining hall than by any other means. At the same time the labor required in the handling of these products may be instrumental in maintaining enrollment. Such a policy should be pursued cautiously, however, that it may be carried on only insofar as it is profitable.

The collection of old accounts often is a fruitful source of revenue. Increased efforts in this direction require no internal adjustments and very little expense. The liquidation of inventories frequently offers similar advantages. Sometimes, manufacture of an item has been discontinued, leaving certain stocks on hand. Disposal

of these will realize cash. Furthermore, reduction of the regular inventory may be possible, even desirable, at certain times.

With whatever course is followed, the financial budget will have to be revised so that it will be in harmony with the plans. The procedure for the revision, however, will differ very little from the original procedure.

Using the Budget for Control

After the budget has been adopted, it becomes the working policy of the institution for the ensuing year. The test of successful management then lies in how closely actual operations can be brought in line with the budget. Frequent comparisons become essential, and certain control sheets have been designed on which to present these comparisons.

But it has already been emphasized that comparison does not constitute control. Neither is budget control an end-of-the-month instrument only. It must be exercised continuously, for the best way to keep the actual in line with the budget is to prevent any deviation before it has had a chance to develop. Throughout the month check-ups should be made of purchases and collections, and immediate corrective measures instituted.

Nor should the diligence with which this follow-up work is carried on be relinquished when the financial pressure is lightest. The principal of our hypothetical academy, for instance, would be under great temptation to relax some from the budgeted plan during the fall months when funds were so plentiful. It would be easy to submit to the request to purchase some unbudgeted item, or to permit purchases to exceed the budget limits. But the picture of the future

makes it clear that such exceptions cannot be permitted if the desired objectives are to be realized.

Likewise, it takes a great deal of will power to press for collections with the same insistence when the bank balance is large as when it approaches zero. Yet a lenient tendency must not be indulged at such times, for this, too, will be disastrous to the budgeted aims. Control, then, of both receipts and purchases must be exercised with diligence throughout the entire year, if budgeting is to be successful.

This should not be interpreted to mean that an absolute control can always be maintained under all circumstances. This would be presumptuous. Control over receipts is restricted, and deviations may develop which cannot be corrected. Uncontrollable emergency purchases may create a similar situation. Either of these situations, however, should not be permitted to defeat the management in its objectives as set forth in the budget. Resort must be made in such circumstances to a curtailing of purchases, a stimulation of industrial sales, or some other expedient if the desired goal is to be reached. The result of a single battle need not determine the outcome of the war.

Only as financial budgeting is thus regarded as an ever-present tool of management that must guide in every decision, and as a continuous standard by which every transaction is measured, can the optimum of results be obtained. But if this attitude is consistently adhered to, the results will tell for greatly increased efficiency in the use of the financial resources of Seventh-day Adventist educational institutions as they relate to the educational and industrial program in general as well as to the upkeep of the physical plant in particular.

BIBLIOGRAPHY

- Barber, Joseph H., "The Monthly Financial Budget--How the Walworth Company Looks Ahead", Management and Administration, Vol. 6, October 1923, pp. 453-457.
- Breyer, E. W., "Financial Forecasts Are Being Adopted More Slowly Than Other Budgets", The American Accountant, Vol. 16, August 1931, pp. 230-233.
- Conard, Claude, Annual reports, Financial Summaries of Educational Institutions in North America, General Conference of Seventh-day Adventists, Washington, D. C. (not a publication).
- Copeland, Morris A., "Seasonal Problems in Financial Administration", The Journal of Political Economy, Vol. 28, December 1920, pp. 793-826.
- Henry, R. A. C., "Budgeting Financial Requirements", New York: American Management Association, Convention Series No. 30, 1925, 8 p.
- Howell, Harry E., "The Accounting Mechanics of Budgetary Control for Small Companies", 1933 Year Book National Association of Cost Accountants, pp. 210-250.
- Lake, John R., Jr., "Budgetary Control of Capital Expenditures", The American Accountant, Vol. 18, September 1933, pp. 270-275.
- LaRose, E. S., "Establishing Control Through the Budget", New York: 1931 Year Book National Association of Cost Accountants, pp. 191-269.
- Lutterbach, A. J., "The Financial Budget", New York: Report of Proceedings Ninth National Convention of The Society of Industrial Engineers, 1923, pp. 86-95.
- McKinsey, James O., Budgetary Control, New York: The Ronald Press Company, 1922, 474 p.
- McKinsey, J. O. and Palmer, J. L., Management's Handbook (L. P. Alford, editor), New York: The Ronald Press Company, 1924, pp. 1269-1312.
- Paton, W. A. (editor), Accountants' Handbook, Second Edition, New York: The Ronald Press Company, 1932, pp. 1226-1236.
- Rogers, Della Mae, "Development of the Modern Business Budget", The Journal of Accountancy, Vol. 53, March 1932, pp. 186-205.
- Sinclair, Prior, Budgeting, New York: The Ronald Press Company, 1934, pp. 57-89, 176-193.
- White, Percival, Forecasting, Planning and Budgeting in Business Management, New York: McGraw-Hill Book Company, Inc., 1926, pp. 167-212.
- Williams, John H., The Flexible Budget, How to Use It, to Organize, to Coordinate, and to Stimulate the Activities of Executives, as Well as to Control Expense, New York: McGraw-Hill Book Company, Inc., 1934, 288 p.

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