



Unit 15

The Fundamentals of Finance

Learning Outcomes

By the end of this unit the learner will be able to:

- ✓ Define basic financial terminology
- ✓ Prepare a budget of any type or size
- ✓ Prepare a budget of any type or size
- ✓ Get your budget approved
- ✓ Perform basic ratio analysis
- ✓ Make better financial decisions
- ✓ Get your budget approved
- ✓ Perform basic ratio analysis

Unit 15

The Fundamentals of Finance

Basic Concepts

Recording Financial Transactions

A useful budget is prepared under the same umbrella of guidelines as the company's actual financial statements. There must be consistency in the way the numbers are prepared. As such, it is necessary to understand some key terms.

Bookkeeping is the exercise of recording all the transactions that take place in a business. Transactions take place between the business and:

- Customers, who buy products and services sold by the business
- Employees, who are paid wages and provided benefits
- Vendors, who sell services, equipment, and supplies to the business
- Government agencies, who collect taxes from the business
- Sources of equity capital (investors or owners who put money in and take it out of the business)
- Sources of debt capital (banks and lending institutions)

Accounting, on the other hand, is the methodology used to accomplish this goal and to prepare related statements and reports. Accounting guidelines govern how businesses record transactions. They also dictate the design of the recordkeeping system that a business uses and how reports are prepared, based on the information gathered and put into the system.

This brings us to another question. Often, we hear the terms “financial statements” and “financial reports” used interchangeably. Is there a difference?

For the purpose of our courses, yes, there is a major difference. A **financial report** is a document prepared for internal company use. It can come in many forms and be used for many purposes. A **financial statement** is a formal document prepared in a specific format as outlined by your region's Generally Accepted Accounting Principles (which we will discuss in a moment) or another governing organization (such as your tax legislation).

Types of Costs

There are two parts to a budget: sources of cash and uses of cash. When we think about uses of cash we can break them down as follows.

Sunk Costs

A sunk cost has already been incurred; it just needs to be paid. It is the result of a past irrevocable decision and is sunk in the sense that it cannot be avoided. As a result, sunk costs may not impact future decisions.

Recurring Costs

Quite simply, recurring costs recur and require a periodic outlay of funds. Material costs, supplies, heat, and lights are prime examples.

Generally Accepted Accounting Principles

Accounting forces people to measure things in a relatively consistent manner. A good budget is prepared based on consistent rules as well. Accountants refer to the rules in their rule book as **generally accepted accounting principles** (GAAP). The objective of GAAP is to ensure comparability among different companies and overall reliability of information.

While there can be slight differences between regions, GAAP typically includes the following principles:

- The **matching principle**: Earnings and expenses must be booked in the relevant accounting or budget period when one benefits the other. This is necessary to properly evaluate results.
- The **cost principle**: Assets and service, and the resulting liability, are taken into the accounting records at cost.
- The **consistency principle**: A company's accounting procedures need to remain consistent over time. If they are changed, the reasons for the change and the financial impact of the change must be documented in detail.
- The **objectivity principle**: Whenever possible, the amounts used in recording transactions are based upon objective evidence rather than on subjective judgments.
- The **realization principle**: This principle defines revenue as an inflow of assets (not necessarily cash) in exchange for goods or services. It requires the revenue to be recognized at the time, but not before it is earned.

Budgeting Terms

A **budget** is an operating plan that outlines projected revenue and expenses for a particular period of time.

A **projection** is a prediction for the future, based on past data, *extrapolation*, and summarizing key factors.

Forecasting is the process of putting together several *projections* to create a *projection* for the future. (Think of a weather forecast.)

Extrapolation is the process of applying past data to the future to arrive at a reasonable *projection*.

Your Role in Company Finances

What's My Role?

Understanding the cycle of finance will help you figure out where you fit into your company's financial structure. No matter what your role is, you can help save your company money. Small savings add up!

What if

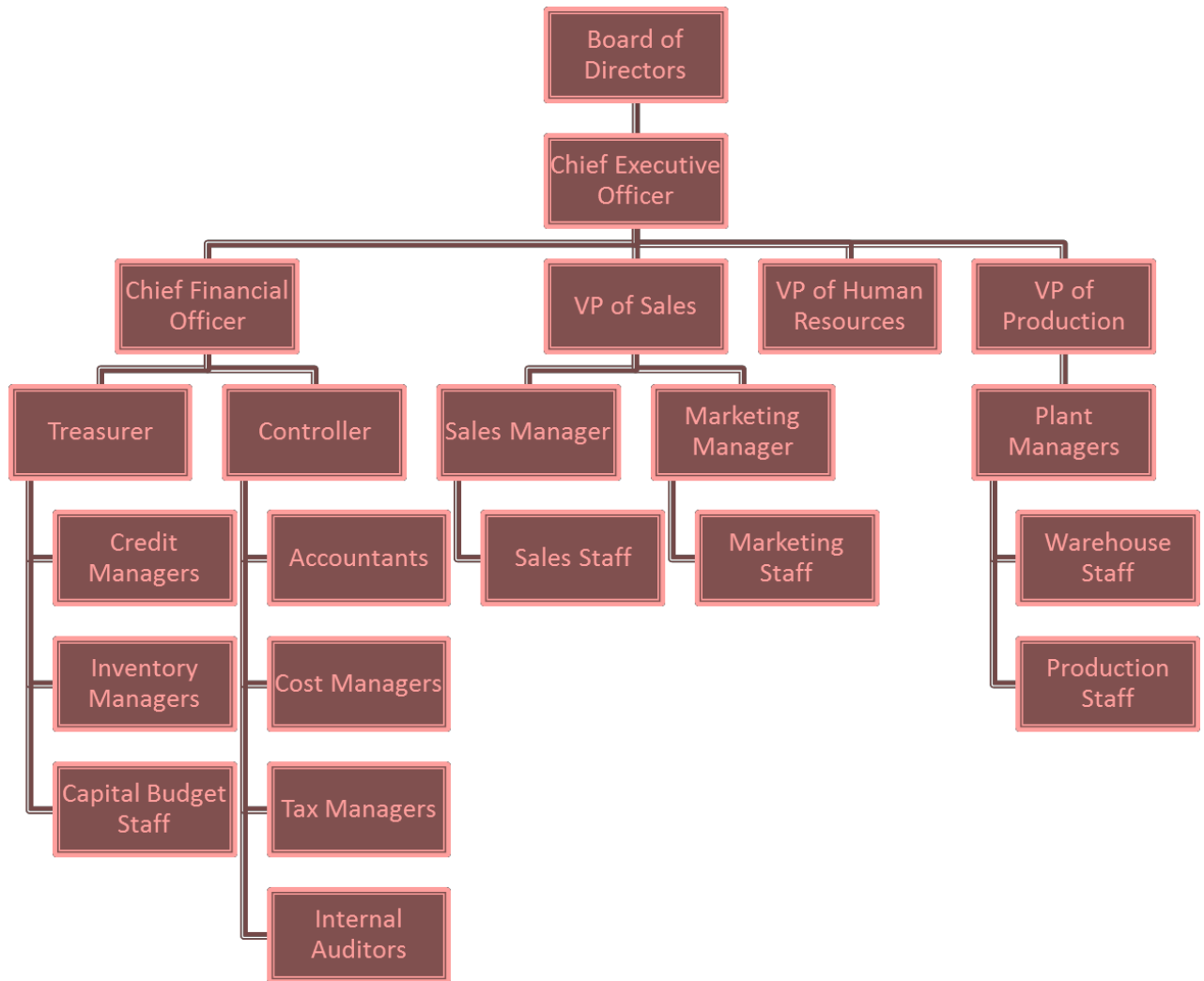
- You work in the company's payroll department and you could save \$2.50 per employee check, per payday? How much could you save your company over one pay period?
- You supervise a team that produces widgets and you find a way for them to produce two extra widgets a day without any extra cost? If they sell for \$49.99 each, how much income would the extra two items bring in per year?
- You find a new advertising method that has the same reach but saves \$30,000 a month. What else could you do with that money?

What can you do to improve your organization's finances?

The Big Picture

Once you’ve thought about your role, think about your organization and look at what financial-based roles exist. Understanding their responsibilities will help you get a better picture of what your role is, and it will help you identify who to go to when you need help.

Here is how many mid-sized organizations are structured, although not all organizations will have all roles:



The board of directors usually leads the company’s financial direction. Their vision is usually carried out by the Chief Executive Officer (CEO).The CFO, or Chief Financial Officer of a company, is just behind the CEO.

Identifying the Key Players in Your Organization

Look at the top three to five levels of the organizational chart that you brought with you. List each person's finance-related activities next to their entry.

The Basics of Budgeting

Defining a Budget

A business shouldn't open its doors without having some idea of what to expect, and it shouldn't close its doors without knowing what happened. A business should also plan and prepare for its future. One way to do this is to budget, to plan ahead for future income and expenses.

Budgets provide the baseline against which to measure actual performance. The actual performance of an organization is documented by the accounting system and the reports it generates. Supervisors should compare expected performance against actual performance. With this information, supervisors with budget responsibilities act as physicians to assess the current financial health of their organization. They should look for areas where they have done well and areas that need attention.

If the latest report from the accounting office says sales are too low compared to budget, the sales manager has to figure out why. If overtime costs are running too high, the production manager has to figure out why. And if there are too many rejects on the shop floor, it may be up to the quality control officer to figure out why.

Why should we bother with budgets in this age of change? Sometimes, you go through all that work and then senior managers make changes that knock your whole budget for a loop. However, even though planning is difficult, we must plan in order to maintain focus and prevent wasting resources. A budget is an educated guess that reflects your long-term plans. Planning is the key characteristic of budgeting.

The Budget Committee

- Should one department be responsible for the budget?
- Should the budget be handed down from the executives?
- Should the budget for one department interact with another (e.g. sales and production)?

The Budget Period

- How small should a budget period be?
- Should it coincide with the fiscal period?
- Should a long range budget be in place? How accurate are they?

Types of Budgets

As companies grow, their budgeting process understandably becomes more complex. No matter how big it gets, however, you can prepare a budget for almost any singular aspect of the operation.

Sales Budget

Your sales budget incorporates the estimated number of products or services that you will sell in an upcoming period. Total revenues are estimated by simply calculated by multiplying the number of units by the price per unit.

The sales budget is normally the starting position for the budgeting season. The sales budget normally grows from a reconciliation of business forecasts, capacity estimates, proposed selling expenses (advertising, sales salaries, etc.) and the quantity of sales estimated for the period.

The sales budget drives a very important part of the expense budget: the Merchandise Purchases Budget. This budget would be used in a company that manufactures, builds, or further processes materials for future sale. This will also spill over into inventory level budgets, which assists in warehouse capacity planning, plant usage, and labor.

Expense Budget

Expense budgets include things like office equipment, stationary, travel, and refreshments for meetings.

Sales expense budgets should be derived almost directly from the sales budget. Overhead and general costs associated with the sales process can normally be estimated as a derivative of the sales volume in a variable budget.

General and administrative expenses usually are the responsibility of the office manager(s) who should base a budget on past history, with a forecast component that takes into account staff levels, inflation, new technology that may reduce or increase expenses, and other management policies (such as bonuses and raises).

Production Budget

The production budget is prepared after the sales budget, since this process takes the sales budget and estimated quantities to be sold and then calculates the cost of staffing, construction or manufacturing materials, and other expenses required to create the products. Often, production budgets are based solely on a per unit cost basis. So if production was to be 10,000 units and the budget was estimated at \$1,000,000 in expenses, there would be a unit cost budget of \$100/unit.

Manufacturing Budget

A manufacturing budget should include the cost of raw materials, direct labor, and manufacturing overheads. Many manufacturing firms prepare three sub-budgets that account for the three items mentioned: raw materials, direct labor, and manufacturing overhead.

Labor Budget

The labor budget includes the names and numbers of all positions within the company, and includes the salary, benefits, replacement, vacation, and pension contributions budgeted for each position. Some of the company's labor costs may not be captured here, such as direct sales or direct manufacturing costs.

Overall this is a large budget component because for most companies, labor is a large part of the overall expenses.

Capital Budget

This is the manager's plan to acquire fixed assets such as furniture, computers, and office space, to support the operations of a business. The capital expenditure budget lists equipment that will be scrapped within the budget period as well as replacement costs and acquisition prospects.

Plant capacity planning will play a role here. If the existing facilities are insufficient to handle forecasted capacity then new equipment and/or a plant may need to be acquired.

Cash Budget

Another budget that is normally performed once all of the other budgets are gathered and assembled is the cash budget. This is very important to highlight the flow of cash throughout the year to pinpoint when cash requirements may exceed existing cash resources.

If you find that you will be short on cash at a particular time, work can be performed now to plan for it. Excess cash forecasts can also be a problem: no one wants excess cash sitting unused if it could be invested and yield a greater return.

Understanding Where Your Budget Fits In

Your budget should flow down from your company's plan, like this:



Parts of a Budget

Any plan should have four key parts:

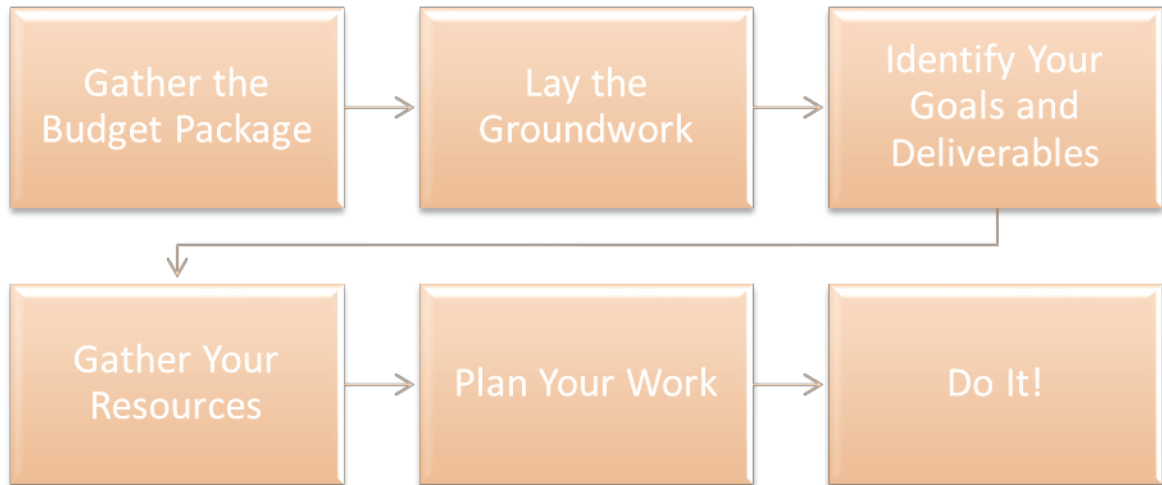


Identify these parts in the budget that you brought for a pre-assignment.

The Budgeting Process

Overview

The budgeting process typically has six steps.



Step One: Gather the Budget Package

If you are in charge of preparing a budget, your organization will usually give you a budget package. Typically this contains:

- Company-wide budget and goals
- Description of your department and its goals as laid out in the strategic plan
- Business or performance indicators
- Past financial statements and budgets
- List of accounts and profit and cost centers involved
- Proposed budget, if there is one
- Allocated budget amount, if there is one (sometimes you are given a pot of money to budget; at other times you need to determine what you need and then fight for it!)
- Templates for completing the budget

If you aren't given this information, then go out and find it!

Step Two: Lay the Groundwork

If you dive into the budget package right now, you won't be able to find your way out! Before you get into things, outline a few key pieces of information.

Standard of Precision

Find out how precise your budget should be.

- How detailed do you need to be with your numbers – down to the penny or rounded to thousands of dollars?
- What period of time should you budget for – the month, quarter, year, or beyond?
- What accounts do you need to budget for?
- Are there any special rules or formulas (such as depreciation) that are simplified for budgeting?

Line of Control

You will need to know what parts of the budget will be monitored and who will control them. This is a very important part of the plan and hard to get right. VP's certainly don't want to be counting every pencil, but line managers will probably need to report on more than the year's final figures.

Preparing for Monitoring

Make sure that you know:

- How will the budget be monitored?
- Will a review and adjustment take place at any point in the year?
- Is there an allocated budget amount given to you, or will you need to make a case to receive funds?
- What kind of evidence will you need to back up your budget?

Case Study (Part One)

Background Information

The Christmas Party at ABC Company always was the event of the year. People were still talking about the generosity of management well into the following summer. The company always rented the Windsor Lodge, a private and secluded property equipped with guest rooms, party rooms, exquisite food, and excellent entertainment for the party. Employees were provided with guest rooms, babysitting services, transportation, and an all-expense paid party. In addition, there were Christmas bonuses for everyone

handed out by Santa (who looked suspiciously like the old man himself). About \$50,000 was allotted for the party each year.

Unfortunately, this year the profits of the company have taken a serious drop and the budget for the party and bonuses has been drastically reduced to \$17,500. As a member of the management entertainment committee it is your job to allocate the available funds and develop a budget to provide the best party you can with the limited resources. Be creative!

Budget Template

Expense	Last Year's Expenses	Your Budget
Accommodations	\$6,000	
Evening Meals	\$4,000	
Beverages	\$10,000	
Entertainment	\$2,000	
Breakfast Meals	\$4,000	
Transportation Costs	\$3,600	
Sub-Total	\$29,600	
Bonuses of \$100 x 100 workers	\$10,000	
Bonuses of \$500 x 10 managers	\$5,000	
Grand Total	\$44,600	

Step Three: Identify Your Goals

You should also write down what high-level goals your budget must have. Some basic examples might be: increase sales by 20%, hire two new staff, or increase production by 5%. For best results, goals should have SPIRIT!

Specific

Be specific about what you want or don't want to achieve. The result should be tangible and measurable. "Increase production" is pretty ambiguous; "increase production by 5%" is specific.

Prizes

Reward yourself at different points in the goal, particularly if it's long-term. If your goal is to increase production by 5%, for example, you might order pizza for the team when you meet the halfway point, and again at the 5% mark.

Individual

The goal must be something that you want to do. If your boss wants you to increase production, and you aren't interested, you're not going to want to work towards the goal. Find something about it that you can link to and motivate yourself.

Review

Review your progress periodically. Does the goal make sense? Are you stuck? Do you need to adjust certain parts of it?

Inspiring

Frame the goal positively. Make it fun to accomplish. You could make a poster of the end result, frame it, and post it on the wall.

Time-Bound

Give yourself a deadline for achieving the goal. Even better, split the goal into small parts and give yourself a deadline for each item.

Case Study (Part Two)

Background Information

The Christmas Party at ABC Company always was the event of the year. People were still talking about the generosity of management well into the following summer. The company always rented the Windsor Lodge, a private and secluded property equipped with guest rooms, party rooms, exquisite food, and excellent entertainment for the party. Employees were provided with guest rooms, babysitting services, transportation, and an all-expense paid party. In addition, there were Christmas bonuses for everyone handed out by Santa (who looked suspiciously like the old man himself). About \$50,000 was allotted for the party each year.

Unfortunately, this year the profits of the company have taken a serious drop and the budget for the party and bonuses has been drastically reduced to \$17,500. As a member of the management entertainment committee it is your job to allocate the available funds and develop a budget to provide the best party you can with the limited resources. Be creative!

Set a SPIRIT goal for this special budget.

Step Four: Gathering Your Resources

Next, make sure you have all the information you will need. Make a list of additional sources of information and people who can help you out if you get stuck. We have included a basic checklist below. Feel free to customize it and use it for your next budget!

	Item	Typical Department
	Direct compensation policy, including pay grades, salary ranges, salary caps, and merit increases	Human Resources
	Indirect compensation policy, including benefits, bonuses, profit sharing, etc.	
	Promotion policy	
	Any policies on mandated raises, such as cost-of-living increases or union agreements	
	Legislation on mandated government payments (tax, insurance, etc.)	
	Organizational chart with head count for your departments	

	Item	Typical Department
	All relevant financial information (historical for three to five years plus current year)	Accounting
	Chart of accounts	
	Accounting policies	
	Capital asset registers	
	Templates or tools that they use	
	Organizational chart of cost and profit centers with your responsibilities clearly marked	

✓	Item	Typical Department
	All relevant sales information (historical for three to five years plus current year)	Marketing and Sales
	Projected sales for the following year	
	Information on expected trends, planned promotions, and other factors that could affect your budget	
	Economic forecast for the following year	Budget Management Team
	Strategic plan for the following year	
	Information on expected trends, planned events, and other factors that could affect your budget	
	Fiscal calendar with important events marked	
	Complete budget package	
	Policy on budget completion, reviews, monitoring, reporting, and management	
	Additional resources and tips	

✓	Item	Typical Department
	Goals for your team	Your Supervisor
	Their expectations of you	
	Their goals	Your Team
	Knowledge, ideas, or experience that will help you	
	Any relevant financial information	

Steps Five and Six: Planning and Doing

Step Five: Planning Your Work

Now you can create a detailed plan of what needs to be done, when it is due, and how you’re going to do it. Make sure you leave enough time to let the budget sit for a few days and then to do a thorough review.

Here is a template that you can use.

Task	Resources Required	Target Date	Due Date	Complete

Step Six: Do It!

Now that the groundwork is in place, you can start working through the budget package. (If you don't have a budget package, you should still have enough information about what is expected of you to complete the required documents.) Delegate tasks where appropriate, but make sure you maintain final control over decisions. And, always double-check the numbers (even your own!).

Where can you get your numbers from?

Where at all possible, gather historical data and extrapolate it. This means analyzing the data, identifying patterns if they exist, and then applying those lessons to next year's budget.

For example, let's say your office supplies expenses have increased by \$500 each year for the past three years. To arrive at a reasonable budget number, take last year's expenses and add \$500. Or, let's say that your marketing budget is always 25% of your sales revenue. Take the estimated sales revenue and calculate the percentage.

The next best choice is to take relevant historical data and use it in place of actual historical data. For example, let's say that you need to budget for a computer upgrade next year. Your department has never done one, but a department of similar size did upgrade last year. You can use their information to get a good idea of what your expenses will look like.

If no exact or relevant historical data exists, your next best choice is an expert's estimate. For the computer example, perhaps your IT department or the computer company can let you know approximately how much the upgrade will cost. Or, find information from industry averages or even competing companies.

You should always be able to find data and information from one or all of these sources. You should never put in a number just for the sake of putting something in that line. That's a recipe for disaster!

Case Study (Part Three)**Background Information**

The Christmas Party at ABC Company always was the event of the year. People were still talking about the generosity of management well into the following summer. The company always rented the Windsor Lodge, a private and secluded property equipped with guest rooms, party rooms, exquisite food, and excellent entertainment for the party. Employees were provided with guest rooms, babysitting services, transportation, and an all-expense paid party. In addition, there were Christmas bonuses for everyone

handed out by Santa (who looked suspiciously like the old man himself). About \$50,000 was allotted for the party each year.

Unfortunately, this year the profits of the company have taken a serious drop and the budget for the party and bonuses has been drastically reduced to \$17,500. As a member of the management entertainment committee it is your job to allocate the available funds and develop a budget to provide the best party you can with the limited resources. Be creative!

Budget Template

Expense	Last Year's Expenses	Your Budget
Accommodations	\$6,000	
Evening Meals	\$4,000	
Beverages	\$10,000	
Entertainment	\$2,000	
Breakfast Meals	\$4,000	
Transportation Costs	\$3,600	
Sub-Total	\$29,600	
Bonuses of \$100 x 100 workers	\$10,000	
Bonuses of \$500 x 10 managers	\$5,000	
Grand Total	\$44,600	

Budgeting Tips and Tricks

Top Ten Excuses for Being over Budget

1. Those reports are probably wrong.
2. I sent a revised budget; didn't you get it?
3. I didn't plan for a hurricane (or you can insert some other calamity)!
4. It's only a little over budget; 10% of a million dollars is just a drop in the bucket!
5. We can make it up next year.
6. My intern created that budget and obviously messed it up.
7. It's like buying a house – an investment in our future.
8. I was supposed to get a lot of help (or resources) from such and such a department, and they didn't come through.
9. Last year was worse, so I thought this would be okay!
10. I made budget the last two years, and two years out of three isn't bad!

Up-Front Budget Maneuvers

- Involve key people in your budget planning
- Do some selective padding in case of emergencies
- Tie your budget requests to your organization's values
- Create more requests than you need and give them up freely
- Shift the time frame
- Be prepared

Not-So-Nice Budget Maneuvers

- Threaten and blackmail your budget competition
- Be a dictator instead of a democrat
- Request things you don't need just so others don't get the money
- Inflate last year's expenses
- Trust no one!

Monitoring and Managing Budgets

In the chart below, record how budgets are monitored and managed in your organization. List the advantages and disadvantages of each method.

Method	Advantages	Disadvantages

Crunching the Numbers

Understanding Ratio Analysis

If you understand simple ratio and proportion analysis, you can get more information and exercise more control over departmental expenses. You can also use ratios to do final reality checks over your budgets by comparing your budgeted ratios to actual ratios from prior periods.

Ratio analysis sounds intimidating but it isn't. Ratios are simply numbers that let us compare. For example, if your car gives you 20 miles to a gallon of gas, and the new SUV you are looking at gives you 10 miles per gallon, you have just done a ratio analysis to compare the operating costs of the two vehicles.

Ratios measure relationships between particular numbers. By periodically plugging figures from your company's two central financial records (the profit and loss statement and the balance sheet) into certain simple ratio equations, you will be able to track certain aspects of the business. Ratios also

enable you to compare one company against industry standards.

Sample Balance Sheet

Acme Widgets Inc. Balance Sheet For the Month Ended February 28, 2020			
Assets		Equity	
Cash	\$2,500	Owner's Capital	\$5,000
Accounts Receivable	7,500	Cumulative Net Income	3,300
Supplies	1,500	Less Withdrawals and Dividends	(1,300)
Total Assets	\$11,500	Total Equity	\$7,000
Liabilities			
Accounts Payable	\$500		
Notes Payable	4,000		
Total Liabilities	\$4,500		

Additional Facts and Figures

- Gross Sales: \$22,000
- Net Sales: \$17,000
- Gross Profit: \$15,000
- Net Profit: \$10,500

Current Ratio

This is possibly the most common ratio used in the business world. It's usually presented like any other ratio, with two numbers separated by a colon. This ratio compares assets to liabilities – in other words, what the company owns vs. what it owes. This can give you a quick picture of the health of a company.

The formula for current ratio is:

$$\frac{\textit{Current Assets}}{\textit{Current Liabilities}}$$

So if we used the numbers from our sample balance sheet, we could calculate that Acme Widgets Inc. has a current ratio of about 2.6:1.

A current ratio of about 2 is considered adequate for most businesses. If a business has a relatively unstable cash flow, however, it might be necessary to maintain a current ratio of more than 2.

Quick Ratio

This ratio is very similar to Current Ratio, except that it removes inventory from the calculation of assets, on the assumption that inventory is harder to liquidate than other assets. Anything above 1.5:1 is considered acceptable.

The formula for the quick ratio is:

$$\frac{\textit{Current Assets} - \textit{Inventory}}{\textit{Current Liabilities}}$$

Debt Ratio

The equation for debt ratio looks like this:

$$\frac{\textit{Liabilities}}{\textit{Assets}}$$

You can then multiply the result by 100 to get a percentage.

Take the business example of Acme Widgets. It has \$11,500 in assets and total liabilities (current plus long-term) of \$4,500. So, for this business, the debt ratio is about 39%. This is a very stable situation – Acme Widgets probably wouldn't have any trouble borrowing money from the bank, and its shareholders would probably be comfortable with this percentage of debt.

Net and Gross Profit Margin

These two ratios measure the amount of money that the business earns as a percentage of overall revenue.

Gross profit margin takes into account only the cost of making the product or service. Therefore, its equation looks like this:

$$\frac{\textit{Gross Profit}}{\textit{Gross Sales}}$$

The net profit margin shows what the business has earned after selling its products and paying all expenses – the true bottom line. Its equation is:

$$\frac{\textit{Net Profit (After Interest and Taxes)}}{\textit{Gross Sales}}$$

The results of both equations are expressed as a percentage.

Return on Sales Ratio

Return on Sales Ratio allows a business to determine how much net profit was derived from its gross sales. This ratio is very similar to the Net Profit Margin but it factors in all expenses, including interest.

$$\frac{\textit{Net Income (Before Interest and Taxes)}}{\textit{Gross Sales}}$$

This ratio tells us whether expenses are under control and whether the business is actually generating enough revenue to pay for its costs. The higher the Return on Sales Ratio, the better it is for the

business.

Debt to Net Worth Ratio

Debt to Net Worth Ratio indicates the relationship between a business' net worth and the debt which a business carries. It can be calculated with this formula:

$$\frac{\textit{Total Debt}}{\textit{Net Worth}}$$

The result of this calculation is an indication to banks and other creditors whether a business can handle additional debt. It is a determination of risk, where a high debt ratio can indicate that the business is carrying a lot of obligation and likely to be hampered in borrowing any additional money. Too low a ratio, however, may indicate that a business is too conservative and could effectively borrow more money to generate more profits. When the ratio is higher than 1, it is an indication that there is too much debt for net worth.

Cash Turnover Ratio

Cash Turnover Ratio provides an indication of how often cash flow turns over to finance your sales. It can be calculated with this formula:

$$\frac{\textit{Gross Sales}}{\textit{Current Assets} - \textit{Current Debt}}$$

When your cash supply is tight, you are having trouble meeting obligations related to business operations like salaries, utilities, paying suppliers, and purchasing inventory. Generally, your cash turnover ratio should be between 4 and 7.

Collection Ratio

Collection Ratio shows the number of days it takes for your business to get paid for sales where you are providing credit.

Here is the formula:

$$\frac{\textit{Accounts Receivable} \times 365}{\textit{Gross Sales}}$$

This figure should be near the point at which you declare an account overdue. Too long a period means that you are overextending your credit and basically becoming a banker for your slow-paying customers. The period should be no more than 1.5 times your credit overdue period.

Investment Turnover

Investment Turnover Ratio shows the ability of your business to use its assets to generate sales income. Calculate it with this formula:

$$\frac{\textit{Gross Sales}}{\textit{Fixed Assets}}$$

A good indicator of the strength of your business is your ability to generate more and more sales from a stable asset base. If the ratio is declining, it can indicate that the growth of the business is not being met with a matching growth in sales proportionate to your investment in assets. In general, the higher the ratio, the stronger the business.

Return on Investment

Return on Investment analysis provides a clear indication of business profitability. It shows how much profit a business is able to generate in proportion to its net worth.

The formula is:

$$\frac{\textit{Net Profit}}{\textit{Net Worth}}$$

This figure shows what level of actual return you are getting on the money which you have invested in your company. Unless you are actively working toward a healthy return on your business investment, your business has little chance to grow and thrive. A respectable goal is to aim for a 12% return in order to remain healthy and viable.

Text your Knowledge

Calculate the current ratio based on the financial information that you brought to the workshop.

Now, choose three additional ratios and calculate them.

Ratio	Result

Getting Your Budget Approved

At some point, you will have to build a case to support your budget and present it. Or, you may need to participate in a full-fledged budget review. Engage participants in a discussion of what happens in your organization.

Building a business case is worth a workshop all on its own, so we won't have time to go through the entire process here. However, we do have a few tips to help you create a powerful presentation to get your budget approved.

Know what to expect.

Get as much information about the presentation as you can.

- When and where will it be held?
- Who will be there?
- Who else will be presenting?
- What do they expect? (Handouts, summaries, graphs, etc.)
- What format should your presentation be in? (PowerPoint presentation, speech, overheads, etc.)
- What do you need to bring? (Tip: Always bring extra copies of handouts.)

Make sure you provide what they expect.

Double-check your budget to make sure it's in the proper format and that all of the elements in the budget package are complete. Make sure that you don't need to complete anything else for your

presentation.

Be prepared.

Your presentation should cover the basic points of your case. However, you should also have a well-organized notebook or electronic document handy with all the supporting information. (Another method is to create extra slides in PowerPoint and keep them hidden unless you need them.) This way, you won't overwhelm your audience, but you'll be prepared for tough questions.

Stay calm.

When presenting, go slowly. Pause frequently and ask for questions. Most people have a tendency to talk faster when they are nervous, so make a conscious effort to slow your speech down. If you're presented with a tough question, take a deep breath and collect your thoughts. Don't be afraid to ask for a moment to gather that information – although it shouldn't take too long if you have a document already prepared with extra information. If you don't have the answer, tell the committee the truth – and let them know when they can expect the information.

Do a mock presentation.

Find someone that you trust to give you constructive criticism. Do the entire presentation just the way you will for the budget committee. Ask your judge what things went well and what things you could improve on. In the end, would they approve your budget?

Comparing Investment Opportunities

Every day, senior management must evaluate investment opportunities (such as an opportunity to build a new plant or to purchase new equipment). Big decisions require information, and information is based on planning. This is capital budgeting. Cash is always sacred so every project requires a thorough analysis to see if it is feasible, and ultimately profitable to the company.

Payback Period

Generally an investment in new equipment or a new plant will result in a net cash flow (through a decrease in annual operating costs). The payback period is the time it takes to recover the initial investment through this net cash flow.

Example:

Cost of machine	\$16 000
Annual net cash flow	\$3,500

Over a period of 4.6 years this machine will have paid for itself. This is based on the budgeted annual operating costs being accurate and shows how important an accurate budget is. In choosing investment opportunities, a short payback period is desirable. The shorter period also reduces the risk of premature obsolescence as well as changes in the business environment that may reduce the usefulness of the purchase.

Break-Even Point

Identifying the break-even point for a particular project is a good way to evaluate whether or not a new idea has the ability to make money. The formula is:

$$\text{Break Even Point} = \text{Fixed Costs} + \text{Variable Costs}$$

Fixed costs are those that remain the same regardless of the level of production, like rent or office equipment. Variable costs encompass the materials and labor required for the product. These items are used more or less depending on how much product is produced.

Let's say that you want to make a new kind of gadget. The fixed cost for each gadget will be \$50. The variable costs will be \$5.56 for each gadget. The break-even sales point, therefore, is \$55.56. Selling your product for any less than this would result in a loss.

Cost-Benefit Analysis

Another type of analysis that can be as simple or complex as required is cost-benefit analysis. This allows you to compare what an opportunity will cost versus the expected payoff.

Let's say that you're trying to decide between two robots to help you make widgets.

	Robbie the Robot	Rachel the Robot
Widgets Produced Per Hour	75	60
Value of Widgets Produced Per Hour (\$5 sale price each)	75 x 5 = 375	60 x 5 = 300
Cost of Units Produced	75 x 1.5 = 112.50	60 x .25 = 15
Total Value – Total Cost = Estimated Benefit	375 – 112.50 = 262.50	300 – 15 = 285.00

Initially, Robbie seems like the better choice if we just look at how many widgets produced per hour. However, Rachel has an overall better benefit, and therefore seems to be the better buy.

Return on Investment

This calculation enables you to see what a particular investment has returned, giving you a percentage that easily allows you to see how this investment has performed. The basic equation is:

$$\frac{\text{Payback} - \text{Investment}}{\text{Investment}}$$

The result is then expressed as a percentage, which gives you the return on investment.

Let's say that you put \$100 into a savings account. Over a period of 20 years, you got \$10 back in interest.

$$\frac{110 - 100}{100}$$

Your return on investment, then, is 10%. Please note that when performing this calculation in the real world, there can be many other factors affecting it and therefore complicating it. This is only the basic formula.

ISO 9001:2008

What is ISO 9001:2008?

“Say what you do and do what you say,” is the oft-quoted slogan that epitomizes the ISO philosophy.

Originating in Europe, ISO (International Organization for Standardization) came across the Atlantic in the late 1980's and has developed firm roots in North America. Its goal is to offer international standards for various types of businesses, including manufacturing and government agencies. Their standards are updated periodically, so it's important to make sure that you have the latest information.

A main motivation for engaging in the ISO certification process is to measure up to your customers' quality standards and to keep them happy, or at least keep them. ISO 9001:2008 is extremely customer focused, and that can be justification alone for committing the energy and the resources to the process.

ISO 9001:2008 is a structured process through which a company can raise the quality of the products and services it provides, and then maintain that level. This is the set of standards that outlines the structure

for quality management systems, customer-related processes, product design and development, purchasing processes, production and service processes, and continuous improvement.

If your company is ISO certified or plans to become certified, make sure you are familiar with the standards as they can greatly impact how your budget is prepared and what it contains.

Test your

Knowledge

Company One

Peerless Data Corp. is a service organization. Its main service is providing information on companies and organizations of every size and type. Each regional office serves as a center for collecting and processing data. Information is collected from field reporters, credit agencies, the companies and their customers, and various research sources. All of this data is then organized and processed and eventually packaged in its own file. Your office is therefore involved in producing research files as efficiently as possible. Each office operates as a profit center with the Operations Director making all decisions independently.

Does ISO 9001:2008 make good sense for this organization?

Why or why not?

What benefits might this company see?

Company Two

Acme Widgets is a manufacturing company. It has seven employees right now, although it plans to triple that in the next five years. They have one manufacturing plant that delivers to wholesalers.

Does ISO 9001:2008 make good sense for this organization?

Why or why not?

What benefits might this company see?

Company Three

Super Training has a thousand employees. They deliver computer training worldwide to Fortune 500 companies. Their business is based on contract work. However, they only deal with the training departments of the individual companies; they don't provide the training themselves.

Does ISO 9001:2008 make good sense for this organization?

Why or why not?

What benefits might this company see?

Decision Making

Task Explanation

In essence, preparing a budget comes down to making financial decisions that will affect all members of the company. This exercise will test the decision-making capacity of the group.

About Decision Making

Your team will be playing the role of a manager who has been challenged to turn an unprofitable operation into a profitable one. Each decision requires thoughtful analysis of the information available so that you can evolve and/or evaluate alternatives. Your objective is to make the best decisions, and your pay-off, naturally, will be in profit dollars. We will make five decisions one at a time and debrief after each decision.

Decision-making is one of the most important measures of your ability as a manager. Decisions don't just happen. Good decisions require planning and thinking through. They are an integral part of your job, the price you pay for leadership.

In your workday you deal with two kinds of decisions: the routine and the strategic. In the first, the conditions of the situation which the solution has to satisfy are known, and the job is simply to choose between a few obvious alternatives. The routine decision is often governed by which alternative will accomplish the goal with the minimum effort and disturbance. Not so for the strategic. Strategic decisions are more complex. They involve either finding out what the situation is or changing it. The ramifications of strategic decisions are broader: they can affect productivity, organization, capital expenditures, and so forth.

Decision-making, in brief, is about selecting a course of action from alternatives. In actual practice, decision-making should be thought of as a process which includes five steps:

Define the problem

Gather the facts and data

Organize the information

Develop options

Analyze the alternatives and make your decision

Define the problem.

When we are examining our business closely, it can be very challenging to identify the problems we are having; often, the symptoms are more apparent than causes. Symptoms will offer valuable clues to underlying problems, so they are important, but until you have identified the real problem, or problems, you're not ready for Step 2.

Gather the facts and data.

Do the analysis and gather all the data that could possibly be contributing to the problem. Data can comprise facts, opinions, assumptions, records, reports, and information from other people. If key

information is not available, delay your decision until you get it. In some cases, however, decisions have to be made on the basis of incomplete knowledge, either because the information is not obtainable or because it would be too costly to get.

Organize the information.

Organize the information so it can be compared and analyzed in a straightforward manner. If you are working with a lot of information, an early task will include sorting what's important from what isn't. To simplify things a little, look for relationships between different factors such as like pros and cons, costs across departments, growth and so on.

Develop options.

This is the guts of the decision-making process: developing as many good options as possible. Quality and quantity are equally important. It is rare for a problem to have only one solution, so don't be deceived. The important thing is to keep an open mind, let your imagination roam freely over the facts you've

collected, and jot down the possible solutions that occur to you.

Analyze the choices and make your decision.

With the previous groundwork laid, you are now in a position to compare the different options generated, and make decisions based on what is available. Making the best decision you can relies upon testing the options against specific, strong criteria, including the risk involved, permanent nature of the remedy, timing, achievability, your strategic plan, etc. Sometimes you can quickly eliminate the unacceptable options and focus on a few alternatives with fewer shortcomings. Ultimately, you will arrive at the best possible decision.

Background

Congratulations! You have just been promoted to Operations Director and assigned to the Bigtown office of the Peerless Data Corp. Previous to this move you held a similar position in a smaller office. You're now ready to move into this more challenging job with higher pay and increased responsibility. "Challenging" is hardly the word to describe the Bigtown office. You've been warned that it's a can of worms; the lowest performing operation of its kind in the country. You've been given a mandate to make this unit profitable.

Peerless Data Corp. is a service organization. Its main service is providing information on companies and organizations of every size and type. Each regional office serves as a center for collecting and processing data. Information is collected from field reporters, credit agencies, the companies and their customers, and various research sources. All of this data is then organized and processed and eventually packaged in its own file. Your office is therefore involved in producing research files as efficiently as possible. Each office (yours included) operates as a profit center with the Operations Director making all decisions independently.

You have inherited a staff of ten people. Morale is low, that's obvious. Supervision has been neglected in the past. The office itself is inadequate and overcrowded. Staff and equipment are not being used efficiently. As a result of these problems, production is at a low of 40 files per day (where it should be 60 per day), growth is stagnant, and the office is operating at a loss.

Your objective is to build annual profits to \$100,000 within a year's time. You can only accomplish this by increasing file production from 40 units per day to 75 per day, while keeping expenditures at minimum. As a secondary, long-term objective, you should give adequate consideration to growth, making sure that none of your decisions provide immediate gains at the expense of future profits.

Company Information

This is general information designed to give you a better grasp of your operation. You won't use all the information, but you may need to refer to some segments of it during the game.

The Home Office activates the process by requesting data compilation on a specific account. When the request is received, the Coordinator sets up a file, directs the appropriate field office to visit the account and collect local information. (Field Offices are not under your control.) While the Field Office is completing its assignment, the new file is forwarded to the Researcher where a search for pertinent data is made in the library and existing records. Relative information is combined with the input from the field office; the data is organized, and a variety of calculations, ratings, and adjustments are made. The file is then passed on to the Reporter, where a formal report is dictated, summarizing all findings. (The Reporter has two secretaries who transcribe reports.) The final report and file then go to the Quality Controller for review. The Q.C. verifies accuracy and completeness, and then forwards everything to the Reproduction Aid. The RA copies every item in the file (copy goes to home office, original remains here). Before the original is filed it goes to Data Entry Clerks who transfer data to the Computer. The Computer stores the information for demand availability. The Expediter follows files from station to station, controls movement, and fills in when employees are absent. Here is the list of employees you have inherited, shown by title and salary.

Position	Salary
Coordinator	\$45,600
Researcher	\$46,000
Adjuster	\$48,000
Reporter	\$48,000
Steno 1	\$42,000
Steno 2	\$43,500
Quality Controller	\$50,000
Reproduction Aid	\$42,000
Data Entry Clerk	\$48,000
Expediter	\$50,000

Your salary is \$75,000.

Peerless Data has established four different salary grades which are reflected in the figures given above.

Grade	Salary Range	Description
Grade 1	\$40,000 to \$45,000	Clerical jobs
Grade 2	\$45,001 to \$48,000	Staff performing one function
Grade 3	\$48,001 to \$52,000	Staff performing more than one function
Grade 4	\$52,001 and up	Supervisor or executive

Employees cannot move from one pay level to another unless they are promoted or a job is broadened to include more than one function.

Decision One: Office Relocation

You currently occupy 4,000 square feet of office space which is barely adequate for your staff, files, and operating equipment. There's no doubt that the cramped quarters contribute to the low level of production. With your present lease about to expire (in 60 days), you commissioned a local real estate broker to find the four best locations available, according to guidelines you provided.

You would like to meet your needs for at least three years, preferably five. The normal rate of business growth is about 20% a year with a commensurate increase in personnel and space; your office should eventually conform to this pattern. As a rule of thumb, total space usually allocated is 500 square feet (per employee). Your current lease will revert to a month-to-month basis at the end of the 60 days. Right now, you pay \$6,000 a year; when your lease expires, your monthly rent will be \$700. A recent poll of your employees indicated that all of them would stay with your company if the move didn't increase the commute from your present location more than 15 minutes each way.

Below are the four locations recommended by the real estate broker.

Location A

This location offers 9,000 square feet of operating space at an annual rental of \$10,000. The owner requires a five-year lease. He will provide required painting and renovation work at no cost. You like this space because it's adjacent to your present location, so the staff would not be inconvenienced. The cost of your move to Location A would be \$1,500. This space is available in 30 days, at which time you'll be committed to paying rent (assuming you decide on this spot).

Location B

Score: _____

Decision Two: Reproduction Backlog

One of the problems you have observed is a consistent back-up, or bottleneck, created by the reproduction station. Your Reproduction Aid can handle approximately 500 copies per day, since each one requires about one minute for processing. (It takes about 30 seconds to remove each document from its file, position in copier, return to file, and about 30 seconds for machine to process the copy.) Each file contains an average of 15 documents (ten of 8 1/2 x 11, and five of 5 x 8). At the current rate of 40 files per day there is a substantial accumulation of copy work throughout the week; when the operator is out sick, or the equipment is down, the problem becomes more acute. The cost per copy on your present copier is six cents per page. It's completely paid for and in good working condition.

You've considered two broad courses of action. One would be to add another Reproduction Aid at the same pay level as the first. This would expedite the operation, increasing production 50%, to about 750 copies per day. The other course is to replace the present equipment with a more sophisticated copier which, hopefully, would enable you to keep reproduction in concert with the rest of the operation. To pursue this further, you invited three copy machine manufacturers to demonstrate their hardware. Your notes follow.

Transfax

Each copy takes ten seconds of machine time; handling time is cut in half, to 15 seconds. Cost per copy comes to four cents. The Transfax is sold at a price of \$1,500 with a year's free service guarantee. After the first year, a service contract of \$250 per year is required.

Reprodata

Makes a copy in five seconds and cuts handling time to 10 seconds. Machine is leased rather than sold outright. Three-year lease would be \$3,000. Cost per copy determined by monthly volume: first 10,000 copies at 10 cents, next 10,000 at five cents, any additional copies above 20,000 made during month would cost three cents each. A service contract is desirable: it is \$500 a year, and would be needed immediately.

Flocopy

because they spread themselves too thin. Your staff really need a personable, high quality, full-time supervisor, and this need for someone strong will become more important as the operation grows and the staff numbers increase.

There are lots of ways that you can fulfill this need. You could promote Brad Matters to the role of Supervisor; he has been working as your Expediter. Brad knows all the staff well, and also has a strong working knowledge of the different roles within the warehouse. Brad has been with the company for five years and is well liked by his colleagues. He's trustworthy, reliable, and would probably enjoy the raise in salary that comes with the job (\$6000 per year). When you initially interviewed Brad before the take-over, you noted that he was quite content with his job, and though he didn't have any clear career goals that he shared with you, he has a good knowledge of the operation, and got along well with his peers. Brad is in his late forties, a committed family man, and active member of the community.

A second option would be to hire a suitable candidate from an outside source. The human resources department keeps a list of people who have appropriate strengths and could be candidates, including Peter Hunt who works as an Assistant Supervisor at a large and successful operation although is at quite a distance being over 2,000 miles away. Peter is 40, and comes with good recommendations. You met him once at a conference and were impressed by his experience, personality, and ambition. If you decide to hire Peter, you'll have to wait about two months before he can start so that he can get moved to a new city with his family, plus you'll have to be prepared to pay his \$5000 in relocation expenses. Since he's already at the supervisory level he'll also want a raise from \$53,000 to \$59,000 for his new job.

A third option available is for you to hire someone locally. There is a possibility that you could find a suitable supervisor with some experience that you could poach from another company. The chance you take with this includes a limited number of competitors in the region, so you'd be more likely to find someone in a related field who would require training, but there are probably some great potential candidates. You estimate that the recruiting, hiring, and training would take 50% of your time for the next three months. Assuming you can find the right person, the starting salary is \$55,000 - \$60,000.

What will be your hiring decision?

Score: _____

Decision Four: Job Enrichment

The morale problem that plagued you when you first took over has improved, but it's far from being solved. Part of it, no doubt, stems from the specialized and often monotonous nature of the jobs. You would like to cross-train certain staffers so that instead of handling a piece of a process, they can get more involved in different activities; this will provide greater responsibility and sense of achievement. You feel that job enrichment will also provide substantial production gains. You have now reached a level of 50 files per day (1,000 per month) and estimate that a successfully implemented job enrichment program will enable you to reach 60 a day at a gross profit of \$15 each. As a result, you are planning to combine four jobs (Coordinator, Researcher, Adjuster, and Reporter) into one new position called Programmer. The four programmers would do their own coordinating, researching, adjusting, and reporting; they would also share the two secretaries, who will transcribe their reports on an equal-time basis.

In implementing this new program, one of your major problems will be training. A number of alternatives are available. One would be to have your new supervisor, Peter Hunt, do it. Peter did a study and came up with the following projections. It will take him three months of on-the-job training to accomplish the transition; production can be expected to drop by 10% during this period. After the training phase, he estimates that it will take three months of adjustment, during which time production will function at current levels (50 per day). After six months, a permanent increase of 60 files per day should be achieved.

On the other hand, you can have the home office staff do the training for you. They could accomplish the training faster since they are running intensive one-day schools continuously. For example, on Monday of each week they conduct a Coordinator's school, on Tuesday they cover the Researcher's job, Wednesday is devoted to Adjusters, and on Thursday they concentrate on the Reporter's function. You could only send one staffer at a time to the appropriate schools.

During the week you have incomplete staff on hand; you can expect a 25% drop in productivity. When your four staffers are trained, the production level should rise to normal in a week, maintain that level for a month, and then gradually improve at a rate of 40 files a month until you reach your objective of 60 files per day.

A third alternative would involve handing off the job to a consulting firm specializing in job enrichment. Their fee for taking care of the entire job would be \$6,000. To accomplish the task, they plan to make a study of the jobs involved, and then construct a program that would permit the involved employees to

learn on the job. By using their own personnel as backup during the training period, the consulting firm will guarantee to maintain the current production level. Their timetable is as follows: one month to make the study and preparations (they can start immediately), one month to accomplish the training, and then a 20% increase in production (which will be permanently maintained).

What is your decision?

Score: _____

Decision Five: Staff Expansion

You've now achieved a production level of 60 files per day, reaching the company-wide average of six files produced for each employee (excluding supervisors). Your geographic area of operation is capable of generating 75 accounts (files) per day, however, and you'd like to step up to this new level as quickly as possible. Since many of your people are apparently operating at, or near, capacity, you'll have to

increase your staff to accomplish this new performance objective. Your decision concerns the number of people required and the jobs which the additional staffers will perform. The addition of extra people will not affect your own personal workload or that of Peter Hunt, your Supervisor.

A recent study of workload/production utilization made by Peter Hunt showed how close to operating capacity some of the staffers were:

Staff	Operating Capacity
Four Programmers	90% each
Quality Controller	75%
Expediter	80%
Data Entry Clerk	75%

