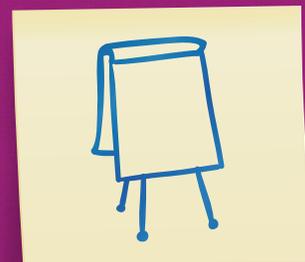
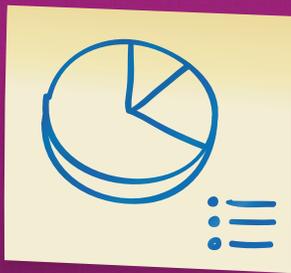


National Cooperative Grocers Association

# Retail Basics

## MANAGING KEY INDICATORS

A Workbook for Co-op Managers  
and complement to Retail Basics 102 workshop



by Wendy Flanigan

## Notes to Reader

The author has provided online references to resources that might be useful. Please note, though, that Web addresses frequently change. We will try to confirm and update links at regular intervals. Please tell us if a link is not working.

This workbook should not be construed as legal advice or as pertaining to specific factual situations.

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Many appendices included in this workbook are also available online, in electronic format, for simple adaptation and use.

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Portions of this manual were adapted from the *Basic Retail Operations Manual* published by the University of Wisconsin Urban Cooperative Initiative and from the *Financial Management Toolbox*, originally published by the Northcountry Cooperative Development Fund. The author wishes to acknowledge and thank Mel Braverman and Carol Collins for contributions to this manual.



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## Workbook Overview

Welcome to the *Retail Basics: Managing Key Indicators* workbook created by National Cooperative Grocers Association (NCGA).

This workbook introduces key indicators and provides tools and recommendations for managing key indicators for improved financial and operational performance at the department level. Readers will gain knowledge on the relationship between financial performance and the following interrelated key indicators:

- Margin
- Labor
- Sales growth
- Inventory turns

The workbook complements NCGA's Retail Basics 102 workshop. The Retail Basics (RB) program provides professional development and training in grocery retailing to co-op managers, focused primarily at the department manager level. The core RB curriculum reinforces managers' fluency in the basics of retail operations to enhance their skills and performance. Retail Basics 102 is the second of a three-part training program. RB 101 focuses on merchandising and store conditioning. RB 103 focuses on team building and basic supervisory skills.

In this workbook, we review the four key indicators that impact operations at the department level. These four key indicators will determine the operational success (or failure) of the department. Managers need to know how their departments are doing in these four areas and how to influence performance in them. The key indicators are described in detail in the following chapters:

**Margin (Chapter 2)**—The term “gross profit” refers to the money available from the sale of a product after the cost of the product is covered. “Gross margin” is that number expressed as a percentage of sales, and “gross profit margin” encompasses both concepts. Chapter 2 covers how to manage gross margin to achieve gross profit goals. After reviewing the chapter, you will understand how margin is defined, the basic margin formulas, the differences and similarities between margin and markup, and what factors might be affecting a department's margin. This chapter will also provide tools to help you compare margin performance with that of other co-ops and with the industry and will show you how to use these and other tools to improve margin.

**Labor and Personnel Costs** (Chapter 3)—Labor costs include everything paid for the labor to operate a department, including wages and salaries, benefits, taxes, insurance, and training. This chapter will help you understand the basic components of the cost of labor, different ways to measure labor costs, and factors that impact labor expenses. It will also give you tools for managing and forecasting labor.

**Sales Growth** (Chapter 4)—Sales growth is the increase (or decrease) in sales from a prior period to the current period. The period can be a day, a week, a month, a quarter, or a year. In chapter 4, you'll learn how sales growth is defined and measured, why sales growth is important, and what impact it has on gross profit. You'll also get suggestions for improving sales growth.

**Inventory Turnover** (Chapter 5)—Inventory turnover is the number of times the inventory in a department is sold in a certain period of time. The turnover for departments will depend on the department, with produce and prepared foods inventory turning a lot faster than grocery or wellness inventory. Chapter 5 covers basic tools for managing inventory in a department, an inventory effectiveness measure, and how inventory impacts cash flow and financial statements. You'll learn about inventory management effectiveness, how to measure inventory performance compared to the industry, and tools to impact turn rates.

None of these indicators can be considered totally in isolation, and it's important to understand how changing one will impact the others. As you learn about each, keep in mind that it is only one of the several key indicators that affect the overall performance of a department. It's important to review each indicator in context with others to see the full picture of a department's performance and to consider how plans will affect each factor as you prepare and implement them.

First, we begin in the next chapter with a basic overview of the key financial statements used by retail managers. This material will help you understand financial reports that show all four factors and will show you where to find data on your co-op's performance.



## Financial Statements

Three basic types of financial statements are important to co-op managers: the income statement, the balance sheet, and cash flow statements. Co-ops produce these statements quarterly, and each one paints a different picture of the co-op's financial situation. Accordingly, each statement is important for monitoring different aspects of the co-op's financial health.

### The Income Statement

The income statement (also called the profit and loss statement or P&L) shows the financial results of the co-op's operational performance for a specific period of time. It answers the question, "Did we make money from our business operations?" This answer is provided by the bottom line on the statement—the profit (or loss), also called net income. The income statement enables managers to view performance and to determine where the co-op is doing well and where attention is needed. It helps managers identify and assess the impact of operations on the business's financial performance in a number of areas.

Key areas reported on the income statement are sales, margin, gross profit, labor, all other expenses, and net income/loss. The income statement is typically presented in three ways:

1. Showing performance for a specific period (without any other information)
2. In comparison to budget for the period
3. In comparison to the previous year's performance for the same period

In addition to showing dollar values for each line item, income statements are helpful when they are "common sized"—that is, when specific items are expressed as a percentage of total sales. This information helps managers make comparisons to budget, to the prior year, and to peers.

Income statements are typically produced monthly, quarterly, and annually. Monthly income statements generally are not aligned with a physical inventory count, so information regarding margin, gross profit, and net income/loss might not be accurate (see chapter 2, "Margin Management"), but data on sales and expenses should be. Quarterly and annual income statements are typically produced after a physical inventory count. Therefore gross margin, gross profit, and net income/loss should be accurate on these statements.

All co-ops use slightly different formats for their income statements, but all contain the following categories:

### **Sales**

Total sales for the period.

### **Cost of Goods Sold (COGS)**

The cost of the products sold (determined by an inventory count).

### **Gross Profit or Gross Margin**

Subtracting COGS from sales results in gross profit, the total amount of dollars available to cover expenses. When gross profit is expressed as a percentage of sales, the most common term is “gross margin.”

### **Expenses**

All expenses for the period. These are typically presented in six major categories:

- Personnel (labor): wages and salaries, benefits, worker’s compensation insurance, taxes, and employee training
- Occupancy: rent, utilities, licenses, repairs, maintenance, insurance, building services, and property taxes
- Operating: store supplies, banking and finance costs (interest, as well as credit card fees), telephone/Internet, trash, nonmember discounts, vehicles, small equipment (noncapital assets), and overs/shorts. Operating expenses also include depreciation—the anticipated loss of value to property over the useful life of the property. (See “Equity,” below, for more information.)
- Administrative: professional services, office supplies, payroll/inventory services, dues and subscriptions
- Governance: board expenses, member linkage, including membership meetings
- Promotions: advertising, merchandising, newsletter, member services, senior discounts, contributions to other organizations

### **Net Operating Income**

Subtracting total expenses from gross profit margin will show the amount of profit, or loss, made on the co-op’s operations.

### **Other Income and Expenses**

Beyond net income, most co-ops have income and expenses not directly related to the co-op’s business or retail operations. These include:

- Other Income: donations to the co-op, member fees (not equity), interest income, rental income (from property the co-op rents or leases), patronage rebates from cooperative distributors and associations, and gains from the sale of assets (for example, equipment the co-op sells)
- Other expenses: losses on the sale of assets and other expenses not directly related to operations (for example, patronage refunds, penalties, and fees)

### Net Income or Profit

Adding any other income, then subtracting any other expenses from the co-op's net operating income will result in the co-op's net profit for the period. This is the true bottom line because it ultimately shows how much money the co-op made (or lost) during the period. However, it's important to note if the co-op's profit (or loss) is coming from operations or from nonoperational sources.

Managers use the income statement in several ways:

- Budget to actual: Compares current performance to the budget to show if projections are being met or if the co-op should use new strategies to change performance.
- Current to prior period: Compares current performance to a previous period's performance (for example, a quarter or year) to identify trends and changes in operations.
- Margin analysis: Tells if the co-op is selling all the products it is buying or if margin is being impacted by an unacceptable amount of shrink (see chapter 2, "Margin Management").
- Labor analysis: Shows if labor is in the acceptable range overall and if the dollars paid for labor are covered by sales (overall or by department; see chapter 3, "Labor Management").
- Sales growth analysis: Shows if the co-op is serving the needs of its members and the community at large, as demonstrated by their growing use of the co-op to obtain needed goods or services (see chapter 4, "Sales Growth").
- Overall review: Shows if any specific expense or item on the statement deviates from the norm.

### The Balance Sheet

The balance sheet provides a picture of the store's overall financial condition at one point in time and answers the question, "What are we worth?" It's important to note that the balance sheet gives a picture of the co-op's financial status at one specific point in time; the situation could be significantly different just one week later, depending on specific factors.

The balance sheet is so named because it shows two different pictures of the same thing: everything the co-op has in its possession (assets) and who has claim to those items, represented by liabilities (items others have claim to) and equity (items the co-op and its member/owners have claim to). The statement has to balance because everything the co-op has (assets) comes from either borrowing from creditors (liabilities) or from investment (enabled by profits or member investments).

The balance sheet provides valuable information that helps managers evaluate the health of the co-op. It shows how much of the co-op's assets are liquid (can easily be turned into cash) and can be used to meet short-term financial obligations. It also provides a picture of how the co-op has leveraged its assets to build its operations—how it has used its investment to gain credit and financing to put together assets for all operations. Finally, a balance sheet lets managers compare the co-op's debt to its equity—a measure of long-term solvency (the ability to meet long-term fixed expenses or to accomplish long-term expansion).

Key areas reported on a balance sheet are assets (current, fixed or long-term, and "other"), liabilities (current and long-term), and equity (the co-op's net earnings and member investment). A balance sheet is usually produced quarterly and can be viewed either on a stand-alone basis or in comparison to the previous year's balance sheet for the same time period. A statement showing the prior year allows managers to identify changes in the financial condition of the co-op.

Balance sheets are laid out with less variation than income statements. They contain the following categories:

### Assets

Assets represent everything the co-op has and fall into three categories:

- **Current assets:** those assets that we expect to be converted into cash within the next 12 months in the ordinary operation of the business. These include:
  - Cash on hand and in the bank
  - Inventory at wholesale value
  - Receivables: money owed by staff and other business accounts
  - Short-term securities or investments
- **Fixed assets:** Items that will continue to provide value to the co-op beyond the next 12 months. Most fixed assets are subject to depreciation. They include:
  - Equipment and fixtures
  - Vehicles
  - Leasehold improvements: changes the co-op has made to the store that cannot be moved (for example, a new floor, bathroom improvements, or an office remodel in rented property)
  - Land and buildings owned by the co-op
- **Other assets:** Assets generally under the control of other entities and whose liquidity is less certain, or assets whose ability to be turned into cash is dictated by others' policies.
- **Prepaid expenses:** Expenses the co-op has to pay for a year in advance (such as insurance); the “unused” portion of that payment shows as a prepaid expense.
- **Investments in other co-ops,** such as Frontier or NCGA.

### Liabilities

Liabilities are amounts owed to others outside the co-op and are presented in two main categories:

- **Current liabilities:** Debts and amounts owed to others within the next 12 months. This includes:
  - Accounts payable: supplier invoices
  - Accrued payroll/benefits: money owed to employees
  - Taxes: income, sales, payroll, worker's comp, and so on
  - Contracts payable in less than 12 months
  - The current year's portion of long-term debt
- **Long-term liabilities:** Debts and amounts owed to others more than 12 months in the future. These include:
  - Notes payable to members and others
  - Long-term contracts
  - Long-term loans, minus the current portion due

## Equity

Equity represents the value of assets “owned” by the co-op and its member/owners. Equity is made up of:

- Member investments: the equity investments required to be a member, as well as other share investments, as available. In addition, if the co-op distributes its surplus to members through patronage and doesn’t pay the full distribution in cash, any such “deferred patronage rebates” will be listed here.
- Retained earnings: the cumulative net income (profit/loss) the cooperative has earned from all prior years of operations
- Net income: income for the current fiscal year
- Donations

## Understanding the Balance Sheet

It’s important to understand that most fixed assets are subject to depreciation. Depreciation is the financial practice of allocating a portion of the cost of an asset over time until the total value of the asset has been depleted. This practice allows a co-op to spread the cost of an asset over the time that item is expected to provide value so that the bottom line in one time period is not negatively impacted by the investment all at once. The length of time an item is depreciated is called the depreciation schedule. It is determined by the IRS and is aligned with the expected useful life of the asset. Each asset’s value is reduced by depreciation over a specified number of years—which serves to recognize a portion of the value of that asset over its useful life.

Managers use the balance sheet in several ways:

- To assess liquidity: to understand if the co-op has enough cash for an equipment purchase or asset investment
- To assess leveraging capacity: to understand if the co-op is in a financial position to borrow funds from a lender
- To measure financial health: to identify if the co-op has the financial strength to weather a difficult period (for example, the opening of a competitor)

## The Cash Flow Statement

The cash flow statement tracks the flow of cash through the co-op’s operations by combining information from the income statement and the balance sheet. It identifies where money has come in (from operations and financing activities such as loans) and where money has gone out (though payment of expenses and debt). The result shows an increase (or decrease) in the co-op’s cash balance at the end of the period. Like an income statement, a cash flow statement shows how items have changed over a period of time.

The cash flow statement shows the net change in cash position from three types of activities: operations (Did the co-op make money on operations?), investments (Did the co-op acquire or dispose of assets? Did inventory increase or decrease?), and financing (Did the co-op take on new debt? Did credit to outside vendors increase or decrease?). Each activity can be either a “source” or a “use” of cash over the period of time represented. All businesses strive for a positive cash flow, as few businesses can survive over time without it. Inadequate cash is the number-one reason for the failure of businesses, and co-ops are no exception.

Most cash flow statements show the following information:

### **Cash Provided (or Used) by Operations**

An increase or decrease in cash as a result of:

- Profit (or loss). Profit adds cash; an operating loss reduces cash.
- A change in the value of items used for routine operations—prepaid expenses, inventory, accounts receivable, accounts payable, accrued payroll and taxes, and income taxes payable—will increase or decrease cash. (An increase in value means less cash, a decrease in value means more cash.)

### **Cash Provided (or Used) by Investments**

An increase or decrease in:

- Investments in other businesses, stocks, co-ops, and so on
- Fixtures and improvements used by the co-op
- Leasehold improvements

### **Cash Provided by Financing**

An increase or decrease in:

- Debt through a loan or line of credit. Payments made on a loan will decrease cash; taking out new loans will increase cash.
- Member investment (and retained patronage)
- Depreciation. Since depreciation is a noncash expense on the income statement (we don't write a check for the value of an asset each month or quarter), it increases cash. The co-op incurred an expense that didn't require cash.

Managers use the cash flow statement in several ways:

- To identify cash use and needs: To determine how the co-op's operations and financing all contribute to its use of cash and whether financing will be needed.
- To analyze liquidity: To determine if the co-op will be able to meet its short-term cash obligations, such as wages, accounts payable, taxes, and loan payments.
- Planning: To determine how much cash will be available and how much might need to be borrowed for a purchase or project

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## **Accrued Expenses**

Accrued expenses are those incurred during the time period but not necessarily paid for. For instance, employees earn benefits for time worked but don't necessarily use them until later. Accrued expenses will show on the income statement, but since they are not yet paid, they need to be added back in as a source of cash. As with depreciation, accrued expenses are not added back into cash on the cash flow statement until they are actually paid.

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## Margin Management

An adequate gross profit is critical for the co-op because it provides the dollars needed to cover the costs of doing business. Without an adequate margin, the co-op will lose money, won't be able to pay staff adequately, will be forced to operate on a shoestring, or won't have sufficient income to replace equipment.

For department managers, margin is the starting point in analyzing a department's performance. Margin is the first key indicator and can be analyzed for a product, category, department, or whole store. There are many ways to describe margin, so it's important to know some basic terminology.

In its simplest form, margin is the difference between sales and the cost of goods. When that difference is expressed as a percentage, it is called gross margin. When it is expressed as a dollar value, it is called gross profit. Sometimes it is called gross profit margin (whether expressed as a percentage or dollar amount). Margin is the percentage of profit included in the selling price. Department managers will work with the general manager to determine department margin goals and to make sure these goals are consistent with overall store strategies.

Products come into the co-op with a known cost. Once the desired or target margin is established, a simple formula can be applied to determine the retail price needed to achieve the target margin:

Formula: retail price (based on a margin goal)  
 Wholesale cost  $\div$  (1 - margin %) = retail price

For instance, if a product from a vendor costs \$1.50 per unit and the department margin is 35 percent (0.35), divide the cost (\$1.50) by the complement of margin (1 minus the margin percent, or  $1.0 - 0.35 = 0.65$ ) to determine a retail price. In other words:

$\$1.50 \div (1.0 - 0.35)$   
 $\$1.50 \div 0.65 = \$2.31$  (\$2.29 if rounding down)

### Rounding

In the grocery industry, prices are often rounded. For example, if a calculated price ends in 0 through 4, grocers round down to 9. If the price ends in 5 through 8, they round up to 9. Check with other stores in your area to learn about their rounding policies.

Margin is a useful tool for improving and understanding a department's performance, but a good margin is not the final goal; improving gross profit is the co-op's primary operational objective. Gross profit is the total difference between the cost of goods and sales. It provides the cash to cover expenses such as labor, insurance, utilities, and taxes.

When a department margin remains within an established acceptable range, this is one indicator that things are going well for that department. Conversely, when margins fall below that range, this is a signal that something might be wrong.

As a key indicator for department performance, margin is a good guide. Once target margins are established for each department, managers can watch how margins fare using tools discussed in this chapter. Margin is not the only indicator, though, and it needs to be balanced with goals for labor, sales growth, and inventory to function optimally. For example, if a deli department has a target margin goal of 70 percent and that goal is achieved solely through pricing strategies, the result can be negative for the department's sales, spoilage, and inventory turns.

## Margin versus Markup

Markup is another common way to calculate the retail price of a product when it arrives from the vendor. While simple, markup has its disadvantages.

A markup, as the name implies, adds to (marks up) a product's cost. It is represented as a percentage added to the cost of goods. This is the formula used to calculate retail price using a markup:

$$\begin{aligned} &\text{Formula: retail price (based on a markup)} \\ &\text{Wholesale cost} \times (1 + \text{markup}) = \text{retail price} \end{aligned}$$

For instance, if the cost of an item is \$1.50, adding a 55 percent markup will result in a selling price of \$2.29. In other words:

$$\begin{aligned} &\$1.50 \times (1 + 55\%) \\ &\$1.50 \times 1.55 = \$2.33, \text{ or } \$2.29 \text{ (after rounding down)} \end{aligned}$$

Markup is useful for everyday pricing and stocking of product. It provides an accurate retail price fairly quickly and is easy for staff to use. However, while markup may be simpler than margin, it provides less information when it comes to understanding what's happening in a department. Markup must be converted to margin to find out what profit might be lost due to pricing or ringing errors, incorrect invoice coding, and spoilage or theft. The margin system is more accurate because it allows a department manager to budget for shrinkage (the difference between target margin and actual margin). Departments such as deli and produce have much higher shrink than departments like grocery and frozen. High-shrink departments require higher margins to buffer expected loss due to spoilage and ringing or pricing errors.

Margin calculates a percentage of profit into the selling price, while markup is simply adding on to the cost of a product. So although markup is a useful tool, margin provides a context in which to understand and evaluate a department's goals and performance in relation to product pricing.

It is prudent to understand both margin and markup formulas and when to choose one or the other. Products arriving from major distributors sometimes have case tags, pick labels, or invoices with suggested retail prices (SRPs) calculated using the markup method, so it's important to understand how markup works. Once a target margin is established for a department, a specific product, or a group of products, it can be converted to a markup for the receiving team if a product arrives without an SRP. See Appendix B for margin to markup conversions.

## Applied Margin

Applied margin is the margin used to price products to best suit a department, its products, and its goals. Choosing an applied margin depends on the category, competition, industry comparisons, department history, and merchandising tactics. It is a strategic decision that is often determined by the department manager in consultation with the general manager. Margin is applied at the product level to achieve desired department margins and ultimately store margins. When a margin is applied to a product, the retail price is created. The formula for applied margin is:

Formula: applied margin

Wholesale cost ÷ (1 – margin %) = suggested retail price (SRP)

See Appendix C for a table of margins and complements (1 – margin) used to create SRPs.

Once margin goals have been established, the true cost of goods (including any up-charges or discounts) must be determined before applying the target margin to calculate the retail price.

The wholesale cost or cost of goods equals the total price the vendor or distributor is paid for the product, including freight and fuel charges and vendor or volume discounts. Many vendors offer discounts for ordering a certain volume or dollar amount. For accuracy, this amount must be subtracted from the cost of goods before pricing. Other vendors use a “cost plus” system, with a base cost based on the distributor’s landed cost (the cost of products including additional charges for freight, fuel, and so on), with up-charges for delivery and volume level. No matter what system the distributor uses, all costs involved in procuring the product need to be included to arrive at landed cost.

Freight is the cost of shipping products to the co-op. Sometimes a supplier will assume responsibility for freight; this is something that should be negotiated in advance. When the supplier does not cover the freight, it is the department manager’s responsibility to include freight in the cost of goods before applying margin to calculate retail price. The method of adding freight charges to the wholesale cost depends on whether products in a shipment are purchased and sold by the unit or by the pound. See Appendix D for examples of calculating freight charges.

## Achieved Margin

One of a department manager’s many jobs is to keep track of and strive for an appropriate department margin. In conjunction with the general or finance manager, department managers determine the needs of departments and create department margin goals. Attaining margin goals correlates with generating the gross profit dollars the business needs from a department.

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## Shrinkage

Shrinkage, or shrink, is the difference between the profit anticipated from a target or applied margin and the profit received from an achieved margin. Shrinkage is also defined as the difference between the inventory on the books (the value of the products booked into an accounting or POS system) and the inventory on the shelves. The term refers to any loss of product that goes unrecorded.

When an item is lost due to shrink and that path is recorded, the event is a known loss and is not considered shrink. Some shrink is to be expected and can be recorded. Fresh food departments, such as produce and deli, must cull a high volume of products to make sure only the freshest and best-looking products are presented for sale. Deli departments can use culled but still fresh items from produce, meat, and cheese departments. Measures like this improve department margins.

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However, sometimes a product that is accurately priced and shelved never achieves its margin goal. The product might go past date or be damaged, stolen, or rung up incorrectly at the register. All these factors contribute to a loss of margin called shrinkage or shrink.

The margin that results is the achieved margin. It is gross profit expressed as a percentage of sales and can be completely known only after a physical inventory is done to determine the actual cost of goods sold. The period between physical counts (a week, month, quarter, or year) must be defined, with cutoff dates clearly identified. Cutoff dates are the beginning and ending dates for the time period reviewed and are usually set by the finance manager to ensure that both sales and COGS are accurately accounted for. The formula for determining achieved margin is:

$$\text{Formula: achieved margin} \\ (\text{Sales} - \text{COGS}) \div \text{sales}$$

This formula can be used to calculate achieved margin for products, categories of products, or a whole department. In center store departments like grocery, frozen, and wellness, the margin applied tends to be close to the margin achieved. That is, there is little shrinkage in these departments. In departments such as deli, produce, and bakery, shrink is calculated into the applied margin to cover the gap between applied and achieved margin.

Only two numbers are necessary to calculate achieved department margin: sales and COGS. However, determining COGS involves knowing many more numbers: beginning inventory at wholesale value, new purchases of product, credits for returned or damaged products that were not included on invoices, transfers of product into and out of the department, and ending inventory at wholesale value.

The income statement is used to compare financial performance from one period of time to another or to budget. Information is usually presented in both actual dollar amounts and in percentages. Using a percent of sales for each part of the income statement—a common-sized income statement—makes it possible to compare a store's operations with those of another co-op or a similar business whose actual sales are quite different. The gross profit margin that shows up on an income statement is the actual or achieved margin, the difference between sales and COGS before all other expenses.

## Calculating Margin

In the following example for Bliss Food Co-op, the grocery department's margin is calculated for the calendar quarter April 1 to June 30. The information for the items listed was gathered within the appropriate cutoff dates from the financial manager.

### Grocery Department Margin — Bliss Food Co-op

April 1–June 30

Sales.....			\$949,000
Less cost of goods sold (COGS):			
Beginning inventory	+	164,894	
Purchases	+	664,406	
Credits	–	3,850 <sup>a</sup>	
Transfers in	+	1,874	
Transfers out	–	1,560 <sup>b</sup>	
Ending inventory	–	168,536	
Cost of goods sold.....			<u>\$657,228</u>
Department margin.....			\$291,772

To express the department margin as a percentage of sales, department margin dollars are divided by sales:  $\$291,772 \div \$949,000 = .3075$ , or 30.75 percent. Compare this number to the applied margin to determine the amount of shrinkage. For instance, if the applied margin was 35 percent and the achieved margin was only 30.75 percent, shrink was 4.25 percent.

<sup>a</sup> No invoices currently include these credits. As a caveat, department margins must not count credits twice, since vendors can routinely charge them off subsequent invoices. Double counting of credits can overstate the margin.

<sup>b</sup> Product transfers must be adjusted from retail to wholesale values before insertion into the calculation.

## Gross Profit Margin

Gross profit margin for any product is equal to the retail price a customer pays for the product, less its cost to the store. Notice that when this number is expressed as a percentage of the price, it is called gross margin; when expressed as a dollar amount, it is called gross profit. The term “gross profit margin,” or simply “margin,” embraces both concepts. The formulas for determining gross profit are:

Formulas: determining gross profit

Option 1: sales x achieved margin

Option 2: sales – cost of goods sold

For example, if a product is sold for \$2.29 (priced using an applied 35 percent margin) and the product cost is \$1.50, then gross profit can be calculated by:

Option 1:  $\$2.29 \times 0.35 = .80$

Option 2:  $\$2.29 - \$1.50 = 0.79$

The penny differences with rounding up or down work themselves out, with some higher and some lower. In other words, cost of goods (\$1.50) plus gross profit (0.79 or 0.80) always equals the selling price (\$2.29 after rounding down). Similarly, COGS plus the co-op's gross profit equals sales.

The co-op's financial statements provide an overall picture of the combined elements that make a store profitable. Financial statements are full of information, but it is the gross profit margin that shows the cash or percentage of store sales available after paying for products. The general manager reviews the co-op's financial statements to monitor store operations and to watch areas that need support and attention, particularly whether departments have achieved their margins.

A healthy gross profit margin is every co-op's goal, and that is why it appears in the first major section of the financial statement.

## Contribution Margin

Every department's percentage of the co-op's sales is different. So when the achieved department margin is multiplied by its percentage of store sales, the result is the percentage a department contributes to the overall margin of the co-op. This number is called the contribution margin, and the margin contributions of all departments add up to the total co-op margin.

If a department's margin is 35 percent and it contributes 30 percent to total co-op sales, that department's contribution to overall co-op margin is 10 percent. For example:

$$35\% \times 30\% = 10.5\%$$

$$\text{or: } 0.35 \times 0.30 = 0.105$$

Contribution margin can also be calculated to show the percentage a product contributes to a category margin or the percentage a category contributes to a department margin.

Within a department, products are often placed into specific margin categories. In the produce department, for example, margin categories can include greens, roots, citrus, and bananas. Each category has different needs and selling potential. Categories are assigned margins that vary from the overall department margin. These are called variable margins and are discussed in detail later in this chapter. See Appendix E for a sample vitamin contribution margin worksheet.

A contribution margin spreadsheet is the most common tool for researching the relationship between sales and margins. This spreadsheet tracks an item, its sales in dollars, its percent of sales, its cost, its price, its margin percent, and its contribution to margin (as a percent). Before implementing a margin change, managers can alter margins in the spreadsheet to view what impact a change would have on a specific department.

The spreadsheet is also a useful tool when setting annual department budgets and planning for category or department changes. For example, if you want to introduce a line of house-made dips and spreads to the grab-and-go deli case, the margin on these items may need to be a bit lower than the department margin to keep retail prices in line with those of competitors. Use the contribution margin spreadsheet to examine what impact this lower margin would have on total department margin. Then look at high-labor and high-cost products, such as composed salads or entrées, to see if an increase in margin would benefit and balance the overall department margin. See Appendix F for a contribution margin example and Appendix G for a contribution margin tool.

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## Comparing Margins and Financial Results

Benchmarks or reference points for a store's overall gross margin can vary significantly depending on store size, marketing strategies, sales mix, and purchasing platforms with primary vendors (volume discount or cost plus). It's helpful to know how a department compares with similar departments in other co-ops.

CoopMetrics, a data services co-op, compiles and reports financial data for comparisons between food co-ops. The company's CoCoFiSt (Common Cooperative Financial Statements) system is a database created from participating food co-ops' financial statements. It is designed to help participating co-ops identify and achieve targeted improvements. Co-ops can use a tool called the Gap. This is an interactive Excel workbook that tests scenarios for projected margin, labor productivity, sales growth, and inventory turn numbers to show impacts on a department's, and ultimately a store's, overall financial performance. If your co-op is an NCGA member, it already has access to CoCoFiSt tools and reports. You can get more information, including a Gap workbook, at <http://ncga.coop/performance/cocofist>. If your co-op isn't submitting data to CoopMetrics, you can find out how to do so at <http://www.coopmetrics.coop>.

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## Investigating Margin Problems

Margin is only one piece of the puzzle. Look at your co-op's income statement to monitor profit and loss and all that has contributed to the store's bottom line. Is your department providing adequate gross profit for the co-op? When department or store margins are not meeting targets based on industry benchmarks and a store's specific needs, it is time to investigate the causes.

The first step toward making a change is identifying problem areas. Set up a system to review margin on a regular (weekly or monthly) basis. Different margin problems will necessitate different types or levels of investigation. For instance, if storewide margins are on target but some department margins are too high or too low, the problem could be:

- An internal accounting problem, such as products being coded into departments incorrectly
- A significant number of items rung into the wrong department
- Purchases not being priced correctly by the department (for instance, a bottle of vitamins being priced at a grocery margin)
- Not including shipping charges, discounts, and other fees when setting the price
- Invoices coded to the wrong department

However, if the storewide margin is lower than the target, each department must be investigated. An internal accounting problem, such as an inventory miscount, might still be to blame. Looking at all potential sources of shrinkage in each department is essential. Also be sure to review the impact of recorded shrink on the margin. If recorded markdowns and damaged product account for the margin erosion, there is no need to look further, although a change in pricing strategy to accommodate known shrink might be necessary.

At times, lost margin can be regained by carefully watching vendor credits and price changes and by checking the quality of products that come into the store. You have the right and the responsibility to demand quality from vendors, including demanding credits for short-dated or damaged products and short case counts.

Be careful not to have too many vendors. In addition to the cost of researching and maintaining a larger vendor list, spreading purchases over a large number of vendors means buyers might be missing out on lower product costs because of low volume with a primary vendor. Paying higher costs directly decreases gross profit.

A general rule is that overall store shrinkage should be no more than 1 to 2 percent of store sales. However, this figure may vary based on store size and product mix (each department's percentage of sales). Smaller stores and stores with larger perishable departments (both in volume and as a percentage of store sales) usually have higher shrink. To see a list of acceptable shrinkage figures by department, see Appendix H.

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## Shrinkage Isn't All Bad

Although you might think it ideal to have no shrink at all, that is not the case. Abundance sells, and perishable departments without shrink are undoubtedly limiting their sales. Make sure your deli, produce, and dairy cases are full—so that shoppers don't feel they are taking the last of an item. The last one of anything seems less desirable, and fewer people will pick it up and take it home.

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Opportunities for shrink occur in a variety of ways:

### Buying

- Over-ordering (too much inventory; product doesn't sell before expiration date)
- Insufficient lead time to sell product (short-dated product)
- Under-ordering (creating out of stocks)
- Not enough new products; failure to discontinue slow sellers

### Receiving

- Invoices not accurately checked (to verify that the correct items and the correct number of items were delivered)
- Receiving short-dated items
- Credits and returns not handled correctly
- Failure to establish receiving procedures for a department

**Pricing**

- Incorrect pricing (not tracking and recognizing price increases or failure to cost out deli recipes)
- Price changes not made in a timely manner
- Failure to include freight or to deduct discounts (see “Price Audits,” below)

**Theft**

- Shoplifting
- Employee theft of product or of cash from the till
- Theft by delivery staff
- Security issues (inadequate backdoor/receiving area security)

**Product Handling**

- Unrecorded spoilage
- Spills
- In-store damage
- Poor packaging
- Improper rotation
- Equipment failures
- Unrecorded culling (in produce and deli departments)
- Lack of accurate systems and tracking for interdepartmental transfer of products

**Cash Register or Ringing Errors**

- Errors entering prices or departments
- PLU numbers misrepresented by customer (or miskeyed by cashier)
- Incorrect change given

**Credits**

- Credits not recorded
- No system to track vendor credits on spoiled or damaged products
- No financial system for filing and tracking credits (see “Receiving Logs,” below)

**Unexpected High Sales Volume**

- Imbalance of low and high margin items (refer to sections on variable margins, below)

Conducting price audits on a regular basis is critical for monitoring margin integrity. A price audit entails selecting a number of products from a particular category on a rotating basis to confirm the invoice cost, selling price, and applied margin.

Price audits help managers verify the accuracy of retail pricing, ensure the accuracy of pricing on shelf tags, signage, and scanning software, and discover whether inaccurate retail pricing is the source of margin loss when margin is below target.

Price audits are strongly recommended whenever there are frequent retail pricing errors or margin loss. Weekly audits are recommended in departments experiencing a high error percentage (anything over 10 percent). Once department managers implement corrective and effective measures to calculate and post accurate retail prices, audits can occur less frequently. To test the effectiveness of corrective measures, weekly price audits should be continued until the error rate is less than 10 percent. Pricing errors are not likely to occur in only one section or case. Therefore, corrective and effective measures will positively affect the whole department.

For occasional problems or routine checking, less frequent audits are acceptable. All department managers should test the retail prices of their departments every six months, record the results on a price audit schedule, and note the date and location to track the progress of storewide testing. Managers should file completed price audits in a central location to review performance history. See Appendix I for a sample price audit schedule.

## Understanding Variable Margin

Variable pricing is a strategic approach to increasing sales and maintaining competitive prices on a co-op's entire product line. Variable pricing involves using a range of margins on product groups categorized by customer demand. Customer demand can be assessed by conducting surveys and studying sales trends and through written and in-person customer requests and feedback. Products with the greatest demand or with high visibility (seen at other stores in your community) are often priced with lower margins, creating greater appeal and lower price image, while products with less customer demand are priced at relatively higher margins. Effective variable pricing is a balancing act. Department managers must price product groups with low, target, and high margins strategically to generate sales that achieve margin and gross profit goals. The steps to implementing variable pricing include:

- Study competitors and observe how they price products compared to the co-op. Conduct price comparisons on a frequent basis.
- Define product categories that can accept low, target, and high margins.
- Determine numeric values for low, target, and high margins.
- Price products and make sure that products are priced correctly.
- Monitor sales and margin goals by product groups and department.

## Price Comparisons

The first step toward improving price image is to conduct price comparisons with competitors and to maintain price comparison forms. It's best to compare prices *at least* every six months, as costs and trends change regularly. Most good retail operators conduct at least some price comparisons with local competitors monthly. Use these guidelines to conduct comparative pricing:

- Conduct comparisons at grocery and retail stores that are chief competitors in the co-op's market. To determine whether a store is a chief competitor, ask these questions:
  - Do the co-op's customers shop there as their primary or secondary grocery?
  - Are competitive grocery or retail stores convenient to the co-op's primary neighborhoods?
  - Are product lines comparable?
  - Is the emphasis on quality the same?

- Select a sample of items for comparison. A long list of products is too cumbersome to search for in competitors' stores and is probably not necessary.
- Select high- and medium-demand products with an eye toward sharpening price image and monitoring price position (price position is where the co-op fits along the continuum of price image).
- Compare only like items (do not compare canned garbanzo beans to kidney beans, or organic to conventional products, for example). Also consider:
  - Is the product the same brand or is it of comparable quality?
  - Is the product the same size, weight, or count?
- Conduct regular comparisons (weekly, monthly, or semimonthly) using a co-op employee familiar with products and product lines.
- Maintain price comparison forms for future comparisons.

### Defining Product Categories

When comparing prices, it's useful to identify three overall categories:

- High-demand products: Products that customers shop for intentionally. Customers know what these products should sell for and compare their prices in any grocery store they go into. Based upon informal comparisons, customers mentally decide whether each grocery store has high, reasonable, or low prices. High-demand items are usually priced with lower margins so that prices stay competitive.
- Target margin products: The majority of products—priced with margins that fall near the industry average or near the co-op's margin goal for the department or category.
- Higher-margin products: Products to which customers are not price sensitive. Customers do not necessarily compare prices among grocery stores for these products.

These three categories don't mean there are only three product groups. Individual products within a product group can also be priced with a range of margins. However, the more margins used, the more complicated it can be to price products and monitor margin goals.

When department managers create a budget for the year, they determine the gross profit needed to pay for all expenses. Each department has its own assigned margin and gross profit goal. The average of all department margins equals the total store margin. Medium to large stores often assign margins to sections or categories and to specific items within departments.

Often, stores will identify "market basket" items, which are basic products that most shoppers buy (such as bread, eggs, and dairy products). These items are usually priced at a lower margin than the department's goal. Reducing the margin a little on market basket items results in a lower price image and helps the store remain competitive.

The following sources can help you define product groups and margins:

- Spence Information Systems (SPINS) provides data on popular and high-volume items by region and store format.
- Purchase histories from order forms can help you identify items with high, medium, and low purchase rates. To create competitive prices, price high-volume products with low margins to attract customers. Products with low sales should be reviewed for discontinuation.
- Movement reports from wholesale suppliers show purchases by product groups and/or products. Suppliers can also produce product movement reports for individual retail customers.
- Many co-op employees, including buyers, stockers, and cashiers, handle products, observe what customers buy, and talk to customers while they work. Departments should gather this information from employees through written surveys, interviews, and focus groups. Employees work and shop at the co-op, but they also shop elsewhere and have opinions about service, products, and prices.
- Sales representatives from wholesale suppliers have the benefit of working with many retailers and can observe how products sell at various margins. Since sales representatives have basic information on wholesale unit costs, they might also be able to estimate margins based on SRPs and might have excellent information on products with high, medium, and low demand.

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## SPINS

Spence Information System (SPINS) is a market research and consulting firm for the natural products industry. For more information, visit [www.spins.com](http://www.spins.com).

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## Applying Variable Margin

With customer demand assessed, prices compared with those of competitors, and product categories defined, the next step is to assign numeric values to variable margins and to price those products. This step will be followed by monitoring for pricing accuracy, as well as for sales and margin goals by product group and department.

For example, if the margin goal for a department is 35 percent and all products are priced using that applied margin, notice whether several market basket or low-margin items have prices higher than the local competition. These products may need a variable margin to remain competitive.

Sources to help you select margin goals include:

- Industry standards for retail natural food groceries and cooperatives, published in trade magazines such as *Cooperative Grocer*, *Natural Foods Merchandiser*, and *Whole Foods* magazine

- Surveys of other food co-ops of similar size and in similar markets
- Wholesale suppliers
- Industry standards for conventional groceries, published in *Progressive Grocer* and Quaker Oats' *Self Study Program in Retail Food Store Operations*.
- Top quartile numbers found in Common Cooperative Financial Statements (CoCoFiSt) tools or reports

After a margin goal is selected, department managers can lower margins for high-demand products and increase margins for products that can tolerate higher prices. These margins can be 5 to 10 percentage points lower or higher than the margin goal.

Pricing products using variable margins is more complex than pricing products using fixed margins for the same category. Variable margin means that numerous product groups or individual products have different margins; fixed margin means that whole departments have the same margin.

In the natural foods market, many wholesale suppliers offer services to help stores price products, such as SRPs on invoices. Product categories on a supplier's invoice might differ somewhat from a co-op's product groups. Co-op employees must review invoices or margin reports to ensure that SRPs are accurate and adequate for the co-op's needs.

When an invoice arrives, employees can update the scanning database, shelf tags, and/or price tags on products. Many suppliers offer reports that reflect changes in unit costs and therefore SRPs before an invoice or delivery is received. These updates allow co-ops to keep prices current, so that new products are not sold at old prices. Updating prices is particularly important when costs increase.

Full-service deli or bakery departments use recipe costing to assign prices to products. For each recipe, cost of ingredients, unit cost, unit size, and quantity can be itemized in a spreadsheet or using food service recipe software to create a total batch cost for the recipe. The batch cost is divided by the selling unit (ounces, pounds, or each) to find the unit cost. The department margin is then applied to evaluate pricing opportunities (for example, increasing or lowering the price). See Appendix J for a sample deli cost-out variable pricing spreadsheet.

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## Strategies for Variable Margins

Sometimes prices need to be modified to fit in a particular pricing scheme. For example, if you have decided to sell premade sandwiches from the deli case for \$5.99 each and the applied margin on roasted turkey sandwiches creates an SRP of \$6.29, you might decide to use a variable margin to keep the price point more attractive and to keep the price of that sandwich in line with others on offer.

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Prices should not be determined without adjusting for waste, spoilage, and labor. Labor for a department is determined by looking at the department's size and difficulty of tasks, along with its margin-minus-labor (MML) target. (MML is discussed in detail in chapter 3.) See Appendix K for a sample produce pricer that incorporates anticipated spoilage into the variable pricing process.

To achieve effective variable pricing, it's important to monitor whether products or product groups you assumed would sell at expected volumes using particular margins do in fact sell in those amounts. If product groups priced at variable margins do not sell at expected volumes, gross margin goals will not be achieved.

The co-op's primary vendor might be able to produce a movement report specifically for the co-op to supplement internal point-of-sale (POS) reports. Although all products might not be supplied by a single supplier, this report will still help you evaluate product sales. Frequently, reports contain SRPs and total purchases by product category at wholesale and retail cost. This information allows you to calculate margins by product group and is therefore useful when monitoring margin goals. SPINS also produces reports that identify margin opportunities by category relative to a specific market. Of course, the final evaluation of whether margin goals are achieved comes after periodic inventory counts and financial statements are prepared.

Variable pricing can make a store competitive and more appealing to customers. Customer satisfaction generates sales, sales generate margin contributions, and margin contributions are needed to achieve gross margin goals. See Appendix L for information on implementing variable pricing.



## Labor Management

Labor is a measure of operational productivity or the efficiency of systems that affect the productivity of employees in generating sales. Co-ops use three ratios to monitor or control labor:

- Sales per labor hour (SPLH)
- Labor as a percent of sales (L/S)
- Margin minus labor (MML)

High labor numbers often imply that a reduction in hours is necessary, and while this is a common solution, it is not necessarily the most comprehensive one. As a key indicator for department performance, labor indicates when things are either in or out of balance. As you strive to maintain a beneficial gross margin, consider how the other key indicators (margin, sales growth, and inventory turns) can be adjusted to support labor needs. This section discusses labor efficiency tools that you can use to budget and fine-tune labor needs for a department while keeping an eye on overall gross profit margin goals.

### Basic Components of Labor

Labor is generally the co-op's second largest expense, next to the cost of goods sold. Like COGS, labor is necessary for the operation of the co-op. Monitoring and controlling this large expense category will have great impact on operations and profitability. A department has more potential to be profitable if it can maintain a low labor percentage and manage labor within its goals, even during periods of fluctuating sales.

Labor is directly connected to sales. When sales increase, labor increases. When products leave shelves at a faster rate, the co-op needs more staff and more labor hours to receive or make products and to stock the shelves. Departments need the labor hours to perform the work that generates sales. Sales fluctuations make labor a variable expense, yet most departments have set labor hours that increase or decrease only when departments experience sustained sales increases or decreases. Labor can be difficult to control because people, their work styles, and the tasks they perform are so variable.

If labor is a measure of the efficiency of employees in generating sales, then we must examine the components of efficiency. Elements that contribute to higher productivity and SPLH include systems, teamwork, individual performance, and the store's physical layout.

## Systems

Reliable departmental systems go a long way toward improving efficiency. Systems include anything that standardizes work to be performed, such as job descriptions, order sheets, and opening and closing checklists. Department managers should reward employees for devising ways to improve systems and ways to remove barriers to completing work. Continuous improvement in operations creates quality performance. Efficiency and productivity systems can help keep labor costs down, whereas weak systems can have a negative effect on SPLH numbers.

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## Managing Labor in Delis

Deli departments use systems like par lists and production trigger lists to manage labor. While not directly related to scheduling, these lists can track how quickly a product sells or needs to be produced. Deli managers can increase batch sizes of fast-moving items (make more at one time), thus decreasing the labor needed to produce them.

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## Teamwork

All co-op employees contribute to labor productivity by working efficiently and wisely. They complete assigned jobs and tasks within their shifts and report uncompleted and necessary work to employees coming on shift.

A nonthreatening, safe environment allows employees to ask for training when necessary and to assist coworkers who need help. Managers who are skilled in training, coaching, and positive reinforcement can help create an atmosphere of teamwork and empowerment that will enable employees to do their best on the job.

## Individual Performance

Co-ops strive to create an atmosphere that invites customers to return and to tell friends about the co-op. A starting point for excellent customer service is staffing the store with approachable, friendly employees who have a lot of product knowledge. Factors such as frequent employee turnover, chronic lateness, negative customer interactions, lack of knowledge, or insufficient training can contribute to lost sales and poor efficiency.

## Physical Layout and Equipment

Wide aisles and open spaces are valuable resources in a co-op; managers must plan the best use of each inch of space to generate sales. Aisles should be at least 5 feet wide to accommodate pallets and to provide adequate space for two customers to pass each other with shopping carts. If customers feel crowded shopping at the co-op, they might shop elsewhere.

Store layout can influence labor efficiency. Suppose there is not enough space to process the level of production or sales, or the back-stock cooler is on the opposite side of the store from the display area. Productivity will suffer because the layout doesn't support efficient systems.

The right equipment for the job can save labor, time, and expense. For example, pallet jacks efficiently move pallets of products to the sales floor for stocking shelves and building displays. Two-tiered carts holding four to eight cases of products are no match for a pallet jack that can move a whole pallet at a time.

## Sales per Labor Hour (SPLH)

SPLH measures how many sales dollars were generated for every paid labor hour during the same period. SPLH numbers increase as sales increase in relation to labor costs. The formula used is:

$$\begin{aligned} &\text{Formula: sales per labor hour} \\ &\text{Sales dollars} \div \text{labor hours} = \text{SPLH} \end{aligned}$$

Managers use SPLH when scheduling staff. They divide projected sales for a period by the SPLH target to determine how many labor hours are available in that period. The formula is:

$$\begin{aligned} &\text{Formula: determining labor hours} \\ &\text{Projected sales} \div \text{SPLH} \end{aligned}$$

In analyzing labor costs and productivity, SPLH is useful because it eliminates the variables of pay rates and benefit levels. Payroll hours count the same whether the department manager or a stocking clerk works them. Managers can examine department efficiency by using the SPLH formula. Generally, a high figure is better. However, too high a number can indicate that a department is understaffed for its level of sales. Conversely, a low number indicates that a department might be overstaffed or that labor is not efficient.

## Labor as a Percent of Sales (L/S)

L/S reveals how much of a department's sales are used for paying the employees of that department. This is the dollar amount of wages and benefits that shows up in the income statement. When expressed as a percentage of sales, labor costs can be compared to those of other stores. Generally, a department has more opportunity to be profitable if its labor percentage remains in the lower part of the range. The formula is:

$$\begin{aligned} &\text{Formula: labor as a percent of sales} \\ &\text{labor dollars} \div \text{sales dollars} \end{aligned}$$

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## Calculating Labor Ratios

To calculate SPLH and L/S, department managers must gather data on department sales, labor hours, and payroll dollars, all over the same period of time. For example, suppose total weekly sales are \$42,577, total gross pay is \$4,269, regular hours worked are 446.5, and overtime hours worked are 5. To calculate SPLH:

Weekly department sales ÷ payroll hours for the week

$$\$42,577 \div (446.5 + 5.0)$$

$$\$42,577 \div 451.5 = \$94.30$$

This means that each hour worked by department staff generated \$94.30 in sales.

To calculate L/S:

Labor in dollars ÷ weekly department sales

$$\$4,269 \div \$42,577 = .10, \text{ or } 10\%$$

This means that 10 percent of the department's sales were spent on labor.

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To control the labor expense, it's important to pay attention to the number of part-time and full-time hourly workers, the number of salaried employees, employee discounts, health insurance costs, worker's compensation insurance costs, unemployment insurance costs for turnover, and member labor discounts. Consider the number of hours worked versus scheduled and the amount of overtime typically needed, since overtime for hourly employees is taxed at a different rate (for example, time and a half) and increases the labor ratio.

It's hard to define a single, good target labor expense for a co-op since so much depends on the size of the store and the sales mix. If a co-op has a high percentage of store sales in service departments, such as deli or bakery, labor costs will be higher, but these departments also have higher margin targets to cover that additional labor cost—making it especially important to achieve target margins.

Comparing labor between departments will be more challenging for small stores where staff work in multiple departments during a shift. If that's your situation, track hours in only the most labor-intensive departments, like deli and produce, or periodically ask employees to estimate the amount of time they spend in each department to get a handle on departmental labor costs. See Appendix M for acceptable labor benchmarks by department for SPLH and L/S.

Wages are complicated and deserve to be looked at closely. Wages in financial statements reflect not just what someone gets paid per hour but the number of workers the co-op has and how many hours they work. When wages are viewed as a percentage of total sales, they indicate how efficient staff and staffing plans are. Efficiency can be evaluated for an entire staff or for a specific department to determine whether labor in that department is justified.

Both SPLH and L/S are valuable in measuring labor efficiency and in supporting department sales. SPLH shows whether staffing is adequate for the anticipated sales level or if labor is too high relative to the budget or too low to provide good customer service. L/S shows the total cost of labor a manager can pay for with a department's achieved margin. The relationship between margin and labor is significant and will be explored in more detail below (see "Margin Minus Labor").

Neither SPLH nor L/S is an all-purpose indicator. They do not measure employee knowledge or customer service courtesy, for example. But they do measure the relationships among sales, payroll hours, and pay rates. In summary:

- SPLH increases with increasing sales and/or decreasing payroll hours.
- When SPLH increases, productivity increases.
- When L/S expense percentage decreases, productivity increases.
- L/S decreases with increasing sales, decreasing payroll hours, and/or decreasing pay rates.

See Appendix N for a sample sales/labor analysis worksheet.

## Margin Minus Labor (MML)

MML is a measure of the margin remaining after labor is paid for. It is calculated by subtracting the labor percentage from the achieved gross margin. Since MML reflects both margin and labor, it is a good place to start when comparing different departments and evaluating whether there is enough dollar profit to support overhead. The formula is:

Formula: margin minus labor  
 Gross margin % – labor as a % of sales

Rather than looking at margin and labor independently, MML offers a way to compare performance with that of other co-ops. MML measures the amount of income remaining, after labor is paid, for use in covering all other expenses. Generally, anything less than 11 percent is considered problematic; that means that less than 11 percent of the store's income is available to pay all other business expenses. Removing the largest variable expense (labor) enables a consistent comparison to be made between the co-op and other stores that may have a different focus or product mix.

This measure can be applied to departments as well, and benchmarks vary widely by department. For instance, if a store has a service deli, both margin and labor might be higher than their benchmarks, but the MML should stay in the range of its benchmark.

MML helps managers plan profitability goals and labor budgets, as it shows that higher margins need to be achieved by departments with higher labor. Let's look at an example from a deli department that achieves 53.9 percent gross margin and 29.3 percent labor. So MML can be calculated as  $53.9 - 29.3 = 24.6\%$  MML.

By comparison, a wellness department would likely achieve 49.6 percent gross margin and 6.1 percent labor. In other words,  $49.6 - 6.1 = 43.5\%$  MML.

In these examples, the deli department has 24.6 percent remaining MML to cover all department overhead; the wellness department has a higher 43.5 percent MML remaining. The deli department has a higher labor figure than the wellness department, making it important to also maintain a higher gross margin. The wellness department has a higher MML since the department doesn't turn as frequently as the deli and doesn't generate cash for the co-op as quickly.

## Controlling Labor

After reviewing each of the three ratios for a department's labor productivity, a manager must assess whether the labor numbers are optimal. Common gauges used to determine labor productivity include:

- Whether the department is achieving its budgeted contribution to the store's overhead after COGS and labor are subtracted from sales
- Whether staffing is sufficient to serve customers well and to perform all department work
- Whether results for labor productivity measures are on target or within range for comparable data from other stores or industry standards

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## Labor Productivity

In evaluating labor productivity, it is useful to compare department metrics with the industry to create standards or benchmarks for the department. Industry information is available in publications such as *Cooperative Grocer* and *Natural Foods Merchandiser*.

If your co-op submits data to CoopMetrics, you can use the Gap workbook to see how a department's labor percentage and MML figures compare with benchmark or top-quartile figures. Gap is a great tool for comparing departments to those of similar sizes to get good benchmarks for improvement.

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Labor is variable and controlling it can be challenging. Sometimes the income statement will reveal that labor numbers are not optimal and are negatively affecting a department's MML. When this happens (and it will from time to time), it's important to evaluate factors that may be contributing to high labor numbers:

- Overstaffing: too many workers for the department's or co-op's sales level
- Poorly trained or inefficient workers
- Departments that require more labor
- Low sales: seasonal fluctuations or chronically low sales
- Poor customer service: staff not familiar with products, reluctant to sell, or having a bad attitude

- Inefficient systems: cumbersome processes, equipment, or store layout
- Low employee turnover: many workers at the high end of the pay scale
- High employee turnover: associated training costs, low morale, inefficiencies of new workers, experienced staff working overtime
- Short-term staffing adjustment after an expansion of the business
- Pay or benefits too high for sales level

When labor numbers on the income statement are too high, responses can include streamlining store systems to improve efficiency, increasing sales, decreasing payroll hours, and lowering pay rates. These are all commonsense responses, but at times they can be reactionary, with little thought for how any one of these changes might alter the other key indicators. For example, if you discover high labor numbers in a deli department and react by cutting a prep or cook shift, you might create a series of out-of-stocks, which will have a negative impact on sales.

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### **Planning for Higher Labor Costs**

Suppose you're planning a reset of your baking goods section to accommodate new products and to highlight sweeteners. You'll have to schedule extra labor to get the work done as quickly as possible, without interrupting business. You can proactively keep SPLH numbers at acceptable levels by balancing the short-term extra labor costs with an equal amount of short-term savings. Examples include increasing margins on some non-price-sensitive products (such as gourmet cooking sauces, spices, or specialty condiments) or reducing expectations for restocking on particular shifts for a short time.

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When a response takes into account all factors that may be affected by the change, you can successfully alter SPLH, MML, and L/S. Generally, proactive rather than reactive measures are likely to be the most effective. Streamlining store systems and improving work routines are some of the best approaches to improving labor ratios without jeopardizing the strength of a workforce. Examples include:

- Eliminating physical barriers that slow work
- Improving store layout to move staff and equipment efficiently and effectively
- Providing the right equipment and maintaining it
- Training employees in store systems and processes, product knowledge, and customer service

To improve (decrease) labor as a percentage of sales, department managers can either increase sales, decrease payroll hours, or decrease pay rates. Pay rates generally increase over time as employees remain on the job. If expertise increases with time on the job, hopefully labor expenses will remain in a reasonable range, since employees with expertise work efficiently and effectively. Pay rates should be examined on a storewide basis to ensure they are in line with the store's sales.

Employee turnover also affects the L/S ratio, and department managers must anticipate some turnover. High turnover is costly, since hiring, training, and bringing trainees up to speed is an expensive activity. Efforts to increase employee satisfaction and retention will help keep this cost down.

The following labor scheduling and budgeting tools allow department managers to use planning and forecasting measures to control SPLH and labor expense percentages.

### **SPLH Scheduler**

Labor schedulers offer a simple way for managers to ensure that labor expenses stay within budget. Set or fixed department labor hours provide employees with stable work routines, but sales can change quickly and labor schedules need to reflect those changes. Appendix O provides an SPLH scheduler that allows managers to enter a department labor schedule and to calculate the sales volume needed to meet the SPLH goal.

### **Weekly Budgeting Tool**

Appendix P provides a weekly budgeting tool. The manager can input projected weekly department labor hours from the budget or with numbers approved by the general manager. The worksheet enables managers to compare projected to actual labor hours worked. The difference is an efficiency measure that shows how well department managers meet weekly labor goals.

### **Annual Labor Budgeting Tool**

The annual labor budgeting tool calculates a department's projected L/S percentage and SPLH for the year. The manager enters employee names, budgeted hours, pay rates, annual budgeted sales, and budgeted percent of sales, and the spreadsheet calculates a projected L/S and SPLH for each quarter. Since the spreadsheet is organized into quarters, managers can plan for projected raises and changes in staffing as the year moves forward. The tool is useful for looking ahead, planning labor budgets for anticipated events, and monitoring how a department is doing compared to projections. See Appendix Q for a labor budgeting tool.



## Sales Growth

Sales growth is the increase or decrease in sales from one period to the next. Steady or improving sales, along with evidence of customer satisfaction, are signs of a healthy co-op. Sales are directly connected to product selection, store location, ambience, effective merchandising, marketing strategies, and customer service training.

Higher sales generally bring higher gross profit dollars—assuming you can maintain control over the other key indicators (margin, labor, and inventory) at the same time. When sales are growing, other expenses are too. For example, if a department's sales are steadily rising and you are hiring to meet the increasing need, you could unknowingly be affecting MML dollars in a negative way. Examine how higher labor to meet increased sales looks in relation to margin. There is always a balance to be achieved.

At the other end of the spectrum are steady or declining sales. When things go in this direction, it can feel like there is little you can do to control it. If customers are shopping elsewhere or tightening their budgets and buying less, it is time to reassess strategies.

### Measuring Sales Growth

Customer satisfaction can be measured through comments left in a customer comment box, customer surveys, and in-person feedback. When sales are steady or declining, feedback from customers can be a valuable source of information. Listening to cashiers' impressions can be a quick way to gain valuable information about customers, but getting solid data from shoppers themselves, while more time-consuming, is even more beneficial.

A customer survey is the fastest and most economic diagnostic test to employ. It is best to hire an outside consultant to design, administer, and interpret the results, but you can do it yourself if you follow established guidelines and have a professional critique your survey design. Be sure to consider design (short surveys with logical categories yield better results), content (narrow in on a topic area and base questions accordingly), and demographics (location, income, education, family size) when creating a customer survey. Understanding why customers shop the way they do is crucial to developing an effective strategy to improve sales growth.

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## Customer Survey Resource

If your co-op is an NCGA member, you can find information about the latest trends and make use of a standardized shopper survey at <http://ncga.coop/marketing/research>. Note: NCGA website log-in is required.

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To monitor progress and stagnation, you must also measure sales growth formulaically. To do so, you'll need to review the data on an income statement. The growth rate will help you gauge your current situation and plan for the future. The basic formula used to determine sales growth is:

Formula: sales growth  
 $(\text{Sales during this period} - \text{sales in the prior period}) \div \text{sales in the prior period}$

For example, if a department's sales are \$325,000 this quarter and were \$312,000 last quarter, the equation would be:

$(\$325,000 - \$312,000) \div \$312,000$ , or  
 $\$13,000 \div \$312,000 = 0.04$ , or 4%

In this example, department sales grew 4 percent in the current quarter in comparison to the previous quarter.

Sales growth numbers convey a variety of information. On one hand, increasing sales indicates a healthy, prospering store. On the other hand, depending on the techniques used to gain those sales (such as lowering prices and margin), sales growth can indicate a loss of gross profit. Of the resources available to help you interpret sales growth numbers, the income statement and industry standards are among the most important.

Sales growth on an income statement shows sales compared to a prior period, often the same period from the previous year. Growth is a benchmark crucial to every major plan or strategy of a co-op. Compare actual growth to the projected or budgeted growth rate. A high number may indicate rapid growth, which presents its own problems, such as inventory planning, staffing, sales space, and product merchandising. A low figure may indicate a mature market or, if inflationary price adjustments are considered, even a declining market. For a store with minimal competition, a slightly lower figure might be acceptable. Benchmarks for sales growth can be 20 to 40 percent after an expansion, 10 to 20 percent for a young store, and 3 to 10 percent for a mature store.

## Interpreting Sales Growth Numbers

After establishing sales growth benchmarks for a department and store, it's useful to compare numbers to those from other stores. Numbers will be more meaningful if you also analyze specific strategies used to achieve goals.

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## Benchmarks

If your co-op subscribes to CoopMetrics, you can use the Gap workbook to learn how your department's sales growth figures compare with benchmark or top-quartile figures. You can set sales growth targets for your department and alter them in the spreadsheets to see what total dollar impact a new goal would have.

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Sales per square foot is a measure of the effective use of a store's space. Since rent and occupancy rates are generally fixed expenses, this is a critical measure. It shows how well products are paying for the space they occupy on shelves and indicates growth potential in the current store. A high figure might signal that it's time to consider an expansion or a move. A low figure might reflect a recent move into a larger space or show that an expensive resource is being underutilized. A low figure means generating additional sales is crucial. Benchmarks for sales per square foot per year vary significantly, depending on the store. Generally, anything above \$1,200 per square foot per year indicates that a store is reaching its capacity. The formula for sales per square foot (per year) is:

Formula: sales per square foot (per year)  
 Annual sales ÷ retail square feet

For example, if a store's annual sales are \$1,500,000 and retail space is 5,000 square feet, sales per square foot will be calculated as follows:

$$1,500,000 \div 5,000 = \$300$$

In other words, the store is generating \$300 per square foot of retail space.

## Strategies for Sales Growth

Sales growth is largely a result of successful marketing, merchandising, and training programs. Co-ops that know their markets and reach out accordingly, use merchandising to capture customers' attention, and implement strong customer service training programs are likely to improve sales.

### Marketing

Marketing involves analyzing customer needs and implementing programs and strategies that create customer loyalty. Successful marketing strategies lean toward the customer, seeking out what regular shoppers and potential new shoppers want from their neighborhood co-op.

If sales in a department or store seem to be declining, it might be time to reevaluate your marketing scheme. Much of marketing involves advertising, which is an essential piece of creating a store's image but can be costly. When marketing funds are minimal, take a fresh look at education and outreach programs. Are there areas that could use some attention? Many marketing strategies are low cost but can still make a strong impression. Marketing strategies might include:

- Customer surveys to help you assess whether a store is meeting customer and member needs
- Store audits to help you see the store from a new point of view: How does a department or store present itself to customers?

- In-store education in the form of messages, resources, classes, store tours, events, and so on.
- Outreach and education to local schools, community and senior housing centers, hospitals, and community events, with the intention of drawing in new (nonmember) customers
- Using local newspapers, online media, and radio to promote the co-op
- Weekly e-mails to customers that list specials, deli menus, current events, and upcoming classes

### Merchandising

Effective merchandising will go a long way toward improving sales. Presenting products in a visually pleasing way, providing accurate and appealing signage, promoting products through sales and samplings, and keeping up with customer demand are a few aspects of successful merchandising. The goal of merchandising is to make the customer's shopping experience pleasant and as free of obstacles as possible.

Product selection, product placement, and shelf allocation (how much space is designated to each product) need to be carefully considered for their ability to generate sales and profits. When sales are slow, it might be time to look at whether product selection and placement are meeting customer demand. Co-ops can respond to member needs by providing products that members want to buy as opposed to products staff wants to sell.

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## Margin Dollars versus Margin Percentage

There might be times when to boost sales, you need to let go of a margin goal. Say your target margin for a department is 35 percent, but product movement reports and sales trends reveal that customers have shifted their buying patterns and are purchasing market basket, or low-margin, items. Support this customer behavior by running aggressive promotions, improving product visibility for those items through signage and product information, and offering frequent samples with tie-ins to higher margin products. A department margin might lose a few points, but by using techniques to keep customers coming in the door, you can boost overall gross profit.

Merchandising techniques can include:

- Studying consumer trends to learn what products will move well
- Using category management to maximize the impact that products have in their allotted shelf space
- Increasing attention to top sellers by reducing the number of SKUs per category
- Reviewing product movement reports to clear out slow-moving products
- Keeping up with demand; minimizing out-of-stocks
- Offering plenty of specials or promotions at all times
- Making sure end cap displays promote products and good value in a visually pleasing way
- Using attractive and informative signs throughout the store

- Offering samples and food demonstrations for items on sale, as well as for seasonal or new products
- Doing a daily walk-through of the store to assess its condition, clean up as needed, replace old signs, and note out-of-stocks
- Resetting categories to introduce customers to products they may not have noticed before

### Customer Service

Excellent customer service sets the bar for a shopper's experience in the co-op. When customer satisfaction is ensured through a friendly greeting, assistance in finding a product, or a product recommendation, the likelihood that the customer will return increases. While all staff must be well versed in customer service etiquette, the produce and front-end staff have especially crucial roles in creating a positive experience for shoppers. The produce department is usually the first place customers encounter staff—they can set the tone for a great customer experience. The front end has the last chance to handle any problems and make things right, so that the customer wants to come back.

Customer service training programs should already be part of the basic training schedule in your departments and store. Systems to hold staff accountable for exceptional customer service are important. Many managers revisit customer service training on a regular basis to ensure that staff members become experts on the topic.

Co-op staffers need leadership, support, and open lines of communication with their supervisors. When employees feel good about the workplace, customers will feel good about the shopping experience. Methods to foster satisfied customers, invite customer feedback, and create a sustained, customer-focused feel to a store include:

- A warm, friendly greeting when a customer enters the store
- A customer suggestion box in a prominent place to invite feedback. Customers feel listened to when timely responses are provided.
- Regular customer satisfaction surveys
- Customer complaints handled graciously and quickly
- Telephone courtesy
- Staff trained to answer product questions and to make product recommendations

## Chapter 5



# Inventory Management

Inventory is all the product in your store—on the shelves, in back stock, in cartons on the delivery room floor. It comes into the store as cost of goods and is both the co-op’s largest expense and one of its greatest assets. (Equipment is another.)

Inventory needs to be monitored closely through monthly and quarterly counts. Taking inventory means physically counting or weighing all salable goods in a store at a specific time and then calculating the wholesale value of those goods. After you determine what is actually in the store at a given point in time and ascertain the specific value of the product, the total cost of that inventory becomes COGS. As one of the store’s greatest assets, inventory must be monitored for cash flow, turnover, and sales per square foot, all of which contribute to the financial future of the co-op.

## Understanding Inventory Numbers

The term “inventory turns” refers to the number of times a department or a store’s entire inventory sells, or turns, in one year. A department is most effective when its inventory turns quickly. A product can’t be sold and generate cash for the co-op if it is sitting on a shelf in the back room. Perishable departments need to be especially vigilant with ordering and promoting products. Too much back stock in the dairy cooler or the bakery section equals spoilage and past-date products.

The inventory turns formula measures how many times inventory sells in one year. This benchmark usually covers a store’s total inventory, but it can be calculated for each department within a store. If a store has a substantial portion of sales in health and beauty aids or supplements, the turns will be fairly low. On the other hand, if a store has a lot of perishable items (in a deli or a bakery), the turns will be quite high. Produce should turn every few days, with total turns over 100 per year. Very high total store turns might indicate an out-of-stock problem or might result in high associated labor costs to keep shelves full. Very low turns might indicate a cash flow problem or lots of “dead,” or spoiled, inventory on the shelves and in the back room. The formula for calculating inventory turns is:

Formula: inventory turns  
 Annual cost of goods sold ÷ average inventory

For example, if a wellness department’s annual cost of goods is \$500,000 and its average inventory is \$60,000, inventory turns would be:

$$\$500,000 \div \$60,000 = 8.33$$

In other words, the department's entire inventory is sold 8.33 times per year, or approximately once every 44 days.

To determine the cost of goods sold, use this formula:

Formula: determine cost of goods sold  
 (Beginning inventory + purchases – credits +/- transfers in/out) – ending inventory

To determine average inventory, use this formula:

Formula: average inventory  
 Last five inventories ÷ 5

For example, if the last five inventories for a department added up to \$300,000, the calculation would be:  $\$300,000 \div 5 = \$60,000$  average inventory.

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## Standards for Inventory Turns

Industry standards for total store inventory turns are based on store size and product mix. For example, stores with high wellness sales generally expect low turns, while stores with strong deli and produce sales can expect higher turns.

If your co-op submits department inventory numbers to CoopMetrics, you can compare your data against those of other co-ops of similar size. To build an improvement plan, review your inventory turns history and calculate how achieving inventory turns near the top-quartile benchmark would affect margin, labor, or sales growth. See Appendix R for a list of current industry standards for store and department turns.

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There is a strong correlation between department margins and department inventory turns. Departments with low inventory turns, such as bulk herbs and spices, have higher margins to compensate for the fact that they turn so slowly. They don't sell often, but when they do, they "pay the rent" for their space on the shelves by contributing a higher gross profit (less frequently). Other departments, such as dairy, need to move products quickly because they are so perishable. People buy these products frequently. The margin is set lower to keep the prices attractive. When turned often, although they generate a lower gross profit per product, these products generate cash more frequently.

## Inventory per Square Foot

Inventory-per-square-foot data evaluate appropriate levels of total inventory (current assets) and help determine whether:

- The business needs to expand
- Shelf space is being used effectively (can more products be fit into an existing shelf or cooler?)
- A department or the whole store needs a reset

You can determine inventory per square foot by dividing total inventory value by total retail square footage. (You can also apply this formula to a single department.) The formula is:

$$\text{Formula: inventory per square foot} \\ \text{Annualized inventory} \div \text{retail square footage}$$

Industry standards for total store inventory per square foot vary based on store or department size, product mix, and the number of deliveries from primary vendors per week. If inventory turns are low for a particular department (such as bulk herbs and spices), its inventory-per-square-foot figure will likely be higher than that of the grocery department, which turns frequently. A higher figure for the total store probably indicates a larger portion of wellness or general merchandise sales. A lower figure reflects a more conventional grocery store mix of products.

## Inventory Impact on Financials

Inventory is a snapshot of the store's cost of goods at a moment in time. This information is used to monitor cash flow, inventory turnover, and inventory per square foot. There is a tight relationship between a co-op's inventory level and cash in the bank, or cash flow. Too much inventory or inventory that doesn't sell quickly can limit the store's cash flow, which is vital for paying bills and for funding new projects and expansions. Reducing average inventory is a good goal. But remember that the other key indicators can take up some of the slack. For example, if your focus is on increasing sales, inventory turns will also increase. Assuming the department is kept well stocked, higher turns will lead to more profitability for the co-op.

The co-op's balance sheet is the financial statement that holds inventory data. Whether accurately accounted for or not, inventory has an effect on the balance sheet. Mistaken inventory numbers can lead to false inventory turns and incorrect gross margin numbers. If counts have been off for several quarters in a row and you suddenly conduct an accurate count, the variance will throw off the balance sheet as well as the income statement. The corresponding accounting adjustment to an inventory increase or decrease is a COGS decrease or increase. Inaccurate inventory numbers on the balance sheet are often caused by irregular counts, incorrect coding or bookkeeping, or errors at the cash register.

## Common Practices and Methods

The following section reviews basic practices for taking an inventory count and any follow-up that needs to take place. These are only guidelines. Each store will have its own specific policies and methods.

You should take a whole-store inventory *at least* four times a year (quarterly). If you have just expanded or relocated, you should do whole-store counts monthly, until you have three to six reliable, consistent counts. Conduct the count on the last day of the accounting quarter, after the store is closed for the day (or very early in the morning), so you won't be confused by deliveries or sales transactions.

If applied margins are consistent throughout the categories counted, you will count most inventory at retail (shelf) price. Once inventory is counted at retail, you can “back out,” or calculate an estimated average gross margin for each department. This practice, established by the grocery industry decades ago, makes it simpler to account for the large number of items in a store. Bulk products are usually just weighed, and extensions are simplified by special worksheets. Produce and deli departments usually count inventory at cost, using the most recent invoices to obtain costs. Some departments use “the box,” an electronic data interface (EDI) ordering unit, to count inventory at cost.

Inventory of perishable departments (produce, deli, meat, refrigerated grocery, and bakery), or departments with problem margins, should be counted monthly. Department counts give managers a more detailed picture of a store’s performance and a better understanding of each department’s contributions and weaknesses.

Each time you take inventory, it must be done thoroughly and using the same methods and assumptions. Consistency allows you to generate credible gross profit figures and to track the progress of inventory levels over time. During months when you don’t make an actual count, inventory levels are estimated on financial statements, which may result in long periods of inaccurate information. Remember, COGS is known only after a physical count has determined what is in the store and its actual value. Only then can you know your real gross profit margin for the period. See Appendix S for tips for successful inventory counts and follow-up.

## Controlling Inventory

Basic methods of inventory control with the potential to improve gross margin include:

- **Investment buying or margin buys:** Investment buying involves buying extra product when it is discounted or offered on sale by the vendor and then selling it later at a regular retail price. This tactic gains margin points for a department but decreases inventory turns. The method works best when focused on top sellers and when the co-op has adequate storage space and cash.
- **Reorder points:** Keep accurate order sheets to stay on top of product movement. Establish the point at which a product needs to be reordered to minimize out-of-stocks. For example, if you sell six cases of apple juice per week and the supplier lead time (the time it takes for the product to arrive after an order has been placed) is one week, your reorder point is six cases. So when your stock (including back stock) reaches six cases, it is time to reorder. Deli and bakery departments use par sheets to determine how much to keep on hand for a particular product based on demand and production.
- **Frequent deliveries:** Negotiate with suppliers for more frequent deliveries (some major distributors deliver three or four times per week). Buy only enough product for the shelf, to eliminate excess back stock. Aim for a balance between low inventory and out-of-stocks.
- **Shelf space:** Make sure there is sufficient shelf space in retail areas. Shelves that can hold full cases are optimal.
- **Product movement reports:** Review product movement reports; eliminate slow sellers and increase top sellers.

Other tools to manage inventory levels and improve inventory turns are purchasing budgets and purchase budget calculators. If a department has too much inventory or low inventory turns, these tools can help reduce inventory and improve cash flow.

### **The Purchasing Budget**

The purchasing budget is a spreadsheet that tracks projected sales against actual sales and budgeted purchases against actual purchases. The goal of this spreadsheet is to help track the distance between weekly or monthly sales and purchases. If purchases and sales grow apart from each other, this indicates a healthy margin. Conversely, if purchases and sales come closer together, you must take action to improve margin. The ultimate goal is to achieve zero variance between the two so that purchases are always commensurate with sales at a healthy margin. Perishable departments, where shelf stability is an issue, can especially benefit from having margin information delivered in this efficient way. See Appendix T for a sample purchasing budget tool.

### **The Purchasing Budget Calculator**

The purchasing budget calculator regulates the amount purchased weekly in departments with too much inventory or low inventory turns. The calculator has two sections. One, the turns target calculator, figures out a purchasing budget based on reaching the turns target over the course of a year. The other, the inventory reduction calculator, determines a weekly purchasing budget based on an inventory reduction goal. See Appendix U for a sample purchasing budget calculator.

### **Receiving Logs**

Receiving logs help managers monitor invoice movement and purchasing activity within a department. A receiving log is a spreadsheet with a running record of vendor invoices, delivery dates, invoice amounts, and credits due for products purchased or returned. It can also be formatted to track cost of goods and margin for those invoices.

Receiving logs ensure that the co-op doesn't receive something it didn't order. They provide a cross-check to the purchase-to-sales journal to ensure that costs and credits are all reflected accurately. They reconcile what actually comes in the back door with the information received by the accounting department. See Appendix V for a sample receiving log.



## Overview and Wrap-up

The four key indicators for operational performance—margin, labor, sales growth, and inventory turns—are guides that help managers forecast, maintain, and adjust overall gross profit goals. On department income statements, these indicators serve as benchmarks that can allow you to take control of a department's performance.

To review, margin is the percentage of sales available after the cost of products has been covered. It is derived by calculating the difference between sales and cost of goods. Labor is a measure of employees' efficiency in generating sales. It is measured in three ways: sales per labor hour, labor as a percentage of sales, and margin minus labor. Sales growth measures whether sales are declining or improving from year to year. It is calculated by dividing the difference between sales from the current period and the prior period by the prior period's sales. Inventory is the cost of goods, or the product in the store at a given point in time. The inventory turn rate shows how many times per year an inventory turns over. It is measured by dividing the annual cost of goods sold by the average inventory.

The key indicators are interrelated. Performance in one area affects performance in other areas. Exclusive or reactionary attempts to control one indicator can create an imbalance that can eventually throw off the other indicators. For example, if an entire department margin is increased to meet rising costs due to inflation, prices will go up and sales might come down. Alternatively, if labor hours are decreased to improve the labor percentage, sales might be weakened due to fewer staff to serve customer needs. When inventory is drastically reduced to reach a quarterly inventory goal, out-of-stocks and lower turn rates might result. Consider the effect each action can have on the other indicators.

The co-op's financial statements report the status of margin, labor, sales, and inventory. Glean as much information as possible from the numbers. Establish benchmarks for departments and use tools for forecasting and adjusting variables to determine how the four indicators can support each other.

Finally, establish a weekly or monthly schedule to review the performance of the key indicators. Changes can occur frequently, particularly in perishable departments, and monitoring progress is essential. Experiment by altering variables to come up with a balanced view of the department, one that has gross profit enhancement at its center.



## Appendix A

# Glossary of Terms

**achieved margin:** the margin reported on financial statements, including all impacting factors, both positive (for example, purchase discounts) and negative (all forms of shrink)

**accrue:** to recognize an increase or accumulation over a period of time through accounting. Expenses, debt, and assets can all accrue. For example, interest accrues between payments (a portion of the interest is due for each day between payments). Some payroll expenses, such as vacation and sick leave, accrue until they are taken. They are recognized on financial statements until they are “paid.”

**amortize:** to write off a portion of the cost of an asset over time. By amortizing the cost of an asset, financial statements recognize the value of that asset over time. For example, the cost of a new cooler is spread over a five-year period instead of showing up in one financial period.

**applied margin:** margin applied to a product through the formula “wholesale cost ÷ (1 – margin %)” to determine its retail price

**assets:** all tangible and intangible properties (such as cash, inventory, equipment, property, and goodwill) that are owned and may be applied, directly or indirectly, to cover the liabilities of the co-op

**average inventory:** the value of the last five physical count inventories, divided by five

**back-out margin:** margin used to back out of retail pricing to arrive at wholesale value; usually used in conjunction with inventory

**capital:** also called equity or net worth; the value of the business that has been contributed by owner investment (member shares in a co-op), as well as the cumulative surplus or profit of the business. Capital is also the value of the assets of the co-op after all liabilities have been deducted.

**capital improvements:** improvements made to the co-op that add to its net worth or that provide value over time, such as significant investments into the physical plant or equipment. Capital improvements require special planning, given that they sometimes involve board approval or financing and will involve depreciation.

**capitalized:** used as or converted into capital; converted from debt into capital stock/shares

**cash flow:** the availability of cash for use in paying off current debt. Positive cash flow is usually generated by operations but may be supplemented by a short-term loan or with a line of credit. A negative cash flow indicates that more cash is going out of the business than is being taken in.

**category margin:** a margin goal strategically applied to a specific product category

**complement of margin (or margin complement):** The number divided into a wholesale cost to determine the suggested retail price. The margin complement is determined by subtracting the desired margin from 1. For example, for a 35 percent margin, subtract 0.35 from 1.00, giving a margin complement of 0.65.

**contribution margin:** the margin from a product, subcategory, category, or department that feeds into the total margin. The formula is: % sales x achieved margin = contribution margin.

**contribution margin spreadsheet:** a spreadsheet used to determine the effect of variable margins on total margin

**cost of goods:** the cost of all your product purchases

**cost of goods sold (COGS):** the accurate cost of the products purchased or used to produce your sales, as determined by physical inventory counts.

**current assets:** all assets that are in cash or are convertible to cash within the next 12 months. Examples include cash, accounts receivables, inventory, and prepaid expenses.

**current liabilities:** all debts to be paid within the next 12 months, including accounts payable, accrued taxes/expenses, and the portion of long-term debt due within the 12-month period

**depreciation:** an estimate of the decrease or loss in value of an asset because of age, wear, or market conditions; usually refers to assets having an expected life beyond one year (for example, equipment and buildings)

**EBITDAP:** earnings before interest, taxes, depreciation, amortization, and patronage rebates; a ratio that reflects core earnings of the business, regardless of debt, tax levies, depreciation/amortization, and patronage rebates

**electronic data interchange (EDI):** the structured transmission of data between organizations by electronic means; used to transfer electronic documents or business data from one computer system to another (that is, from one trading partner to another trading partner) without human intervention

**equity:** that portion of the financing of assets that comes from members (stock, capital contributions, or grants), retained earnings, and the current year's profit or loss

**fixed assets:** those assets (equipment, fixtures, improvements, land) that are necessary to conduct business but that will not be converted to cash within one year of their acquisition

**gross profit margin:** the difference between sales and cost of goods sold. When expressed as a dollar amount, it is called gross profit. When expressed as a percentage, it is called gross margin.

**inventory:** the value, at cost, of goods and materials (on the floor and in the back room or any storage areas) that are available for resale or necessary for production or repackaging; a detailed, itemized list, report, or record of things in one's possession, especially a periodic survey of all goods and materials in stock

**landed cost:** the cost of your products, including all additional charges for freight, fuel, surcharges, and so on

**lenders:** businesses (such as banks) or individuals (such as members) who loan money to the co-op on the condition that it will be returned, usually with an interest fee

**liabilities:** financial obligations for payments to other businesses (see “long-term debt”; “short-term debt”)

**liquidity:** cash; money readily available to pay current debts, including cash generated during daily business, short-term investments (of less than three months), and money in a checking or savings account; assets, including cash, inventory for sale, and short-term investments

**long-term debt:** the portion of a loan or mortgage that is due and payable after the current 12 months

**margin:** the difference between sales and cost of goods sold for a product, category, or department. The formula to express this as a percentage of sales is:  $(\text{sales} - \text{COGS}) \div \text{sales}$ .

**patronage refund:** a portion of profit resulting from sales to members that is returned to members in the form of cash or cash equivalents and equity

**net profit:** the amount of revenue (income) remaining after all operating expenses, including taxes, have been deducted; sometimes referred to as net savings or net earnings

**realized margin:** achieved margin; the gross profit margin that remains after accounting for all impacting factors, both positive (for example, purchase discounts) and negative (all forms of shrink)

**retail square feet:** the amount of space in a store that is open to the public. Measurements are taken in linear feet, from the inside walls.

**retained earnings:** net profit accumulated, and not distributed to members, over the life of the co-op

**short-term debt:** the portion of operating expenses that is due and payable during the current financial cycle (usually the month or quarter but always less than one year)

**shrinkage or shrink:** the loss in value of salable products or expected margin (profit). Shrink results from theft, spoilage, careless handling, mis-rings, and intentional culling of perishable products. It articulates the gap between applied and achieved margin.

**stock:** capital the co-op raises through the sale of shares, entitling stockholders to rights of ownership, such as voting rights

**top quartile:** the number at the 75th percentile in any set of data. In CoCoFiSt rankings, if 100 stores provided gross margin for the refrigerated grocery section, the store ranked 25th from the top would provide the top-quartile gross margin for comparison purposes.

**turns:** the number of times an entire inventory of products is bought by the co-op and sold to customers over a particular time period (usually one year)

**variable margin:** the application of different margin targets to specific products or categories within a department

**vendors:** companies or individuals who sell products to the co-op for resale to customers

**weighted margin:** contribution margin

**working capital:** the difference between current assets and current liabilities

## Appendix B

# Margin to Markup Conversions

The formulas for margin and markup to calculate retail price from wholesale cost are:

- When margin is used to calculate retail price (R), the formula is:

$$R = \text{wholesale cost} \div (1 - \text{margin})$$

- When markup is used to calculate retail price (R), the formula is:

$$R = \text{wholesale cost} \times (1 + \text{markup})$$

There is a mathematical relationship between margin and markup. Since the retail price and the wholesale cost in each example below are the same, the formulas can be set equal to each other to show how they are related. For these examples, assume the wholesale cost after discounts is \$6 and the retail price is \$10.

### 1. When the wholesale cost and retail price are known:

#### CALCULATING MARKUP

$$\text{Retail} \div \text{wholesale} = \text{markup}$$

$$\$10 \div \$6 = 1.667 \text{ markup}$$

#### CALCULATING MARGIN

$$1 - (\text{wholesale} \div \text{retail}) = \text{margin}$$

$$1 - (\$6 \div \$10) = 40\% \text{ margin}$$

or

$$(\text{retail} - \text{wholesale}) \div \text{retail} = \text{margin}$$

$$(\$10 - \$6) \div \$10 = 40\% \text{ margin}$$

### 2. When the markup is known:

#### CALCULATING THE RETAIL PRICE FROM WHOLESALE COST

$$\text{Wholesale} \times \text{markup} = \text{retail}$$

$$\$6 \times 1.667 = \$10$$

#### CALCULATING WHOLESALE COST FROM RETAIL PRICE

$$\text{Retail} \div \text{markup} = \text{wholesale}$$

$$\$10 \div 1.667 = \$6$$

#### CONVERTING MARKUP TO MARGIN

$$(\text{Markup} - 1) \div \text{markup} = \text{margin}$$

$$(1.667 - 1) \div 1.667 = .40, \text{ or } 40\% \text{ margin}$$

### 3. When the margin is known:

#### CALCULATING WHOLESALE FROM RETAIL

$$\text{Retail} \times (1 - \text{margin}) = \text{wholesale}$$

$$\$10 \times (1 - .40) = \$6$$

#### CALCULATING RETAIL FROM WHOLESALE

$$\text{Wholesale} \div (1 - \text{margin}) = \text{retail}$$

$$\$6 \div (1 - .40) = \$10$$

#### CONVERTING MARGIN TO MARKUP

$$1 \div (1 - \text{margin}) = \text{markup}$$

$$1 \div (1 - .40) = 1.667$$

## Appendix C

# Applying Margin to Create SRP

The formula for calculating an SRP is cost of unit ÷ complement of margin.

Margin	Complement	Divide Cost By
20%	80%	0.8
21%	79%	0.79
22%	78%	0.78
23%	77%	0.77
24%	76%	0.76
25%	75%	0.75
26%	74%	0.74
27%	73%	0.73
28%	72%	0.72
29%	71%	0.71
30%	70%	0.7
31%	69%	0.69
32%	68%	0.68
33%	67%	0.67
34%	66%	0.66
35%	65%	0.65
36%	64%	0.64
37%	63%	0.63
38%	62%	0.62
39%	61%	0.61
40%	60%	0.6
41%	59%	0.59
42%	58%	0.58
43%	57%	0.57
44%	56%	0.56
45%	55%	0.55

Margin	Complement	Divide Cost By
46%	54%	0.54
47%	53%	0.53
48%	52%	0.52
49%	51%	0.51
50%	50%	0.5
51%	49%	0.49
52%	48%	0.48
53%	47%	0.47
54%	46%	0.46
55%	45%	0.45
56%	44%	0.44
57%	43%	0.43
58%	42%	0.42
59%	41%	0.41
60%	40%	0.4
61%	39%	0.39
62%	38%	0.38
63%	37%	0.37
64%	36%	0.36
65%	35%	0.35
66%	34%	0.34
67%	33%	0.33
68%	32%	0.32
69%	31%	0.31
70%	30%	0.3
71%	29%	0.29
72%	28%	0.28
73%	27%	0.27
74%	26%	0.26
75%	25%	0.25
75%	25%	0.25

## Appendix D

# Calculating Freight Charges

When a supplier charges freight or shipping, the total wholesale cost is incomplete until freight charges are included. Methods for adding freight charges to wholesale cost depend on whether products are purchased or sold by the pound or by the item.

For the following examples, the invoice total is \$2,000 and the freight charge is \$108.

Products by the Pound	Products by the Item
<p>If the shipment consists of bulk herbs weighing 405 pounds:</p> <p>Divide the freight charge (\$108) by the weight (405) to calculate the freight charge per pound.</p> <p>Freight ÷ weight = freight per pound</p> <p><math>\\$108 \div 405 = \\$0.267</math> per pound</p>	<p>If the shipment consists of bottles of vitamins:</p> <p>Divide the freight charge (\$108) by the invoice total (\$2,000) to calculate the freight charge percentage.</p> <p>Freight ÷ invoice total = freight percentage</p> <p><math>\\$108 \div \\$2,000 = .054</math>, or 5.4%</p>

### Freight Charge with Wholesale Unit Cost

Include the freight charge per pound or per item in the wholesale unit cost.

Products by the Pound	Products by the Item
<p>If the <i>per pound cost</i> of a product is \$3.87, add the freight charge per pound to the wholesale cost per pound.</p> <p>Cost per pound + freight per pound = cost per pound with freight, or</p> <p><math>\\$3.87 + \\$0.267 = \\$4.137</math>, or \$4.14</p>	<p>If the <i>per item cost</i> is \$3.87, add freight charges by multiplying the wholesale cost per item by 1, plus the percentage for freight charges.</p> <p>Wholesale cost per item x (1 + freight percentage) = wholesale cost per item with freight, or</p> <p><math>\\$3.87 \times 1.054 = \\$4.079</math>, or \$4.08</p>

### Retail Price from Wholesale Cost with Freight Charge

Calculate the retail price from the wholesale unit cost with freight using margin or markup.

Products by the Pound	Products by the Item
<p><b>By the Pound Using Margin</b></p> <p>Wholesale cost with freight <math>\div</math> (1 – margin) = retail price</p> <p><math>(\\$3.87 + \\$0.267) \div (1 - 40\%) = \\$6.895</math></p> <p><math>\\$4.137 \div (1 - 40\%) = \\$6.90</math></p>	<p><b>By the Item Using Margin</b></p> <p>Wholesale cost with freight <math>\div</math> (1 – margin) = retail price</p> <p><math>(\\$3.87 \times 1.054) \div (1 - 40\%) = \\$6.798</math></p> <p><math>\\$4.08 \div (1 - 40\%) = \\$6.80</math></p>
<p><b>By the Pound Using Markup</b></p> <p>Wholesale cost with freight <math>\times</math> (1 + markup) = retail price</p> <p><math>(\\$3.87 + \\$0.267) \times (1.667) = \\$6.896</math></p> <p><math>\\$4.137 \times (1.667) = \\$6.90</math></p>	<p><b>By the Item Using Markup</b></p> <p>Wholesale cost with freight <math>\times</math> (1 + markup) = retail price</p> <p><math>(\\$3.87 \times 1.054) \times (1.667) = \\$6.798</math></p> <p><math>\\$4.08 \times (1.667) = \\$6.80</math></p>

## Appendix E

## Vitamin Contribution Margin

Subcategory	Retail Dollars	Wholesale Dollars	Percent of Sales	Margin Percentage	Gross Profit Dollars (Retail – Wholesale)	Contribution Margin
EfAs	\$117,177.11	\$60,932.10	10.91%	48.0%	\$56,245.01	5.24%
Seasonal support	\$68,107.25	\$36,096.84	6.34%	47.0%	\$32,010.41	2.98%
Cardio	\$67,997.31	\$38,758.47	6.33%	43.0%	\$29,238.84	2.72%
Multivitamins	\$67,628.84	\$37,195.86	6.30%	45.0%	\$30,432.98	2.83%
Cleansing/fiber	\$55,011.71	\$31,356.67	5.12%	43.0%	\$23,655.04	2.20%
Vitamin C	\$51,854.82	\$27,483.05	4.83%	47.0%	\$24,371.77	2.27%
Protein powder	\$46,805.76	\$26,679.28	4.36%	43.0%	\$20,126.48	1.87%
Joint health	\$46,230.40	\$26,351.33	4.30%	43.0%	\$19,879.07	1.85%
Mental well-being	\$42,658.87	\$22,609.20	3.97%	47.0%	\$20,049.67	1.87%
Herb	\$41,972.53	\$22,245.44	3.91%	47.0%	\$19,727.09	1.84%
Women's health	\$41,542.38	\$22,017.46	3.87%	47.0%	\$19,524.92	1.82%
Multi-minerals	\$39,927.92	\$21,161.80	3.72%	47.0%	\$18,766.12	1.75%
Probiotics	\$36,752.91	\$19,479.04	3.42%	47.0%	\$17,273.87	1.61%
Antioxidants	\$34,389.77	\$18,226.58	3.20%	47.0%	\$16,163.19	1.50%
Vitamin B	\$31,034.55	\$16,448.31	2.89%	47.0%	\$14,586.24	1.36%
Green food	\$30,105.61	\$15,955.97	2.80%	47.0%	\$14,149.64	1.32%
Amino acids	\$26,848.36	\$14,229.63	2.50%	47.0%	\$12,618.73	1.17%
Diet/energy	\$26,739.03	\$14,171.69	2.49%	47.0%	\$12,567.34	1.17%
Children's	\$25,909.63	\$15,545.78	2.41%	40.0%	\$10,363.85	0.96%
Digestion	\$23,103.87	\$13,169.21	2.15%	43.0%	\$9,934.66	0.92%
Single minerals	\$20,678.22	\$10,959.46	1.93%	47.0%	\$9,718.76	0.90%
Men's health	\$20,559.43	\$10,896.50	1.91%	47.0%	\$9,662.93	0.90%
Tincture	\$19,994.53	\$10,597.10	1.86%	47.0%	\$9,397.43	0.87%
Homeopathic	\$13,483.05	\$7,146.02	1.26%	47.0%	\$6,337.03	0.59%
Eye health	\$13,477.50	\$7,682.18	1.25%	43.0%	\$5,795.33	0.54%
Sleep	\$12,655.50	\$6,707.42	1.18%	47.0%	\$5,948.09	0.55%
Vitamin E	\$12,384.20	\$6,563.63	1.15%	47.0%	\$5,820.57	0.54%
Glandular/blood sugar	\$9,416.13	\$4,990.55	0.88%	47.0%	\$4,425.58	0.41%
Flower essence	\$8,766.33	\$4,646.15	0.82%	47.0%	\$4,120.18	0.38%
Lecithin/yeast	\$5,981.85	\$3,170.38	0.56%	47.0%	\$2,811.47	0.26%
Urinary	\$5,678.81	\$3,009.77	0.53%	47.0%	\$2,669.04	0.25%
Vitamins A, D, K	\$5,651.53	\$2,995.31	0.53%	47.0%	\$2,656.22	0.25%
Hair/skin/nails	\$2,601.41	\$1,378.75	0.24%	47.0%	\$1,222.66	0.11%
Pet/miscellaneous	\$928.73	\$492.23	0.09%	47.0%	\$436.50	0.04%
	<b>\$1,074,055.85</b>	<b>\$581,349.14</b>	<b>100.00%</b>	<b>46.1%</b>	<b>\$492,706.71</b>	<b>45.87%</b>

## Appendix F

# Contribution Margin Example

(WORKSHEET AVAILABLE AS AN EXCEL DOCUMENT)

This Excel workbook demonstrates experimentation with a contribution margin spreadsheet. The first tab shows the current dairy department products with corresponding applied margin, percentage of department sales, and achieved contribution margin. The second tab highlights selectively changing prices to improve overall department margin.

## Appendix G

# Contribution Margin Tool

(WORKSHEET AVAILABLE AS AN EXCEL DOCUMENT)

This spreadsheet has an instructions tab and a worksheet tab. It uses POS data to help forecast results from a co-op's margin management approach. It can be used to show where margin dollars are coming from or to determine appropriate category margins.

## Appendix H

# Shrink by Department

Typical overall store shrinkage should be no more than 1 or 2 percent of store sales.

**Acceptable Shrink Figures by Department**

Department	Acceptable Shrink
Grocery	0.25–50%
Dairy	1.0–2.0%
Bulk	0.5–1.0%
Frozen	0.25–50%
Produce	2.5–4.0%
Bakery	3.0–6.0%
Wellness	.50–1.0%
Supplements	.50–1.0%
Herbs/spices	0.5–1.0%
Deli	3.0–5.0%
Café	3.0–5.0%
Cheese	1.0–3.0%
General Merchandise	0.5–1.0%
Meat	1.0 – 5.0%



## Appendix J

# Sample Deli Cost Worksheet

(WORKSHEET AVAILABLE AS AN EXCEL DOCUMENT)

This file shows how to use simple spreadsheets to cost out deli recipes. One tab has an ingredients list that, when updated, also updates the cost in the recipe tabs to allow you to evaluate the applied margin.

For example, on the left we see ingredient costs. On the right we see how these costs are applied to a recipe to show cost, margin goal, and suggested retail price (SRP).

Product	Unit	Wholesale Cost
Avocado	ea	0.42
Basil	lb	6.54
Butternut squash	lb	1.21
Bread, whole wheat	slice	15
Canola oil	oz	0.34
Cauliflower	lb	1.76
Cheddar cheese, sharp	lb	2.45
Cream	oz	0.19
Cucumber	lb	1.23
Dill, dried	oz	0.22
Dill, fresh	oz	0.24
Ham	lb	3.31
Hubbard squash	lb	0.73
Lasagna noodles	lb	1.05
Lettuce	lb	1.04
Mayonnaise	oz	0.27
Milk	qt	1.31
Olive oil	oz	0.49
Onion, yellow	lb	0.41
Potato, red	lb	0.45
Salt	tsp	0.04
Pepper	tsp	0.07
Tuna	oz	0.27
Tomato	lb	1.42
Organic canned tomatoes	32 oz	4.43
Zucchini	lb	1.57

TOMATO SOUP		Batch Size: 2 Quarts/64 Ounces	
Ingredients	Unit	Quantity	Cost
Tomatoes	32 oz	2	8.86
Olive oil	oz	2	0.98
Cream	oz	4	0.74
Dill, fresh	oz	1	0.24
Salt	tsp	2	0.08
Pepper	tsp	1	0.07
Zucchini	lb	2	3.14
<b>Total</b>			<b>14.11</b>
Unit size	6 oz	10.67	
Batch size/unit size			
Unit cost			1.32
With 70% margin applied			4.41
<b>Your SRP</b>			<b>\$3.99</b>
<b>Applied margin</b>			<b>66.8%</b>

## Appendix K

# Produce Pricer

(WORKSHEET AVAILABLE AS AN EXCEL DOCUMENT)

This multiple-spreadsheet pricing tool can be used for every order placed and received in the produce department. It has several interesting features that allow the manager to:

- See the weighted or contribution margin by product
- Price products taking into account their particular shrink percentage
- Review suggested margin targets
- See the weighted or contribution margin by vendor

The workbook contains the following tabs:

- Instructions
- Vendors—there are six tabs (more can be inserted and copied)
- History—there are six companion tabs that save the order history for vendors
- Total—sums up the contribution to margin by vendor for each order placed.

## Appendix L

# Implementing Variable Pricing

The examples below present approaches to working with product groups priced with different margins in the produce and cheese departments. The methods described and applied will work in every department. The margins used are for purposes of illustration only.

### Variable Pricing for Produce

The challenges in variable pricing are to determine margins that create attractive prices, to determine which products or product groups to price using which margin, and to monitor sales to ensure adequate contribution to margin. Typically, variable pricing in produce uses three levels:

- 10 to 20 percent of produce priced *below the target margin*
- 60 to 80 percent of produce priced *at target margin*
- 10 to 20 percent of produce priced *above the target margin*

The produce items priced below the target margin are high-demand items that customers return to buy again and again. Some produce managers price high-cost produce with low margins to reduce sticker shock. To balance sales of produce priced below the target margin, managers price other produce items above the target margin. Items priced with a high margin are price tolerant. That is, they appear well priced to the customer.

In this example, the target margin for the produce department is 32.5 percent. Margins are:

- 32.5 percent—target margin. Sixty to eighty percent of produce is priced using this margin.
- 24.5 percent—below the target margin. Through sales analysis, bananas, lettuce, and tomatoes are identified as top sellers. Customers buy them quickly when they are priced with a 24.5 percent margin.
- 41.5 percent—above the target margin. Comparison shopping reveals that potatoes and onions tolerate higher prices. These are priced with a 41.5 percent margin.

### Possible Sales and Margins

This is a possible breakdown of margin percentages and how they combine to achieve the margin goal.

Produce Items	Product Groups	Percent of Sales Volume	Margin Used to Price	Contribution to Margin
Bananas, lettuce, tomatoes	High demand, low margin	15%	x 24.5%	= 3.68%
Potatoes, onions	High margin, price tolerant	15%	x 41.5%	= 6.23%
Everything else	Target margin	70%	x 32.5%	= 22.75%
<b>Total sales</b>		<b>100%</b>	<b>margin goal</b>	<b>32.66%</b>

This chart will help you plan variable pricing scenarios and evaluate sales performance. Purchasing histories from co-op order forms, scanning reports, or supplier movement reports will assist you in tracking sales by product and product groups and possibly in monitoring margin performance before an inventory count.

If the margin goal is not realized, each margin group must be reviewed for pricing adjustments or marketing/merchandising changes. Higher sales than expected in the high-demand/low-margin product groups can result in lower achieved margin goals.

### Variable Pricing from the Cheese Department

Shining Example Natural Foods Co-op sells 90 different kinds of cheeses and prices them all using a 30 percent fixed margin. The co-op's price image is damaged because prices on Monterey Jack and sharp cheddar seem high to customers. Consequently, sales are lower than expected on these cheeses.

Here are the weekly sales:

Cheese Type	Weekly Sales
Jack and cheddar	\$100
Most other cheeses	\$800
Fancy gourmet cheeses	\$100
<b>Total sales</b>	<b>\$1,000</b>

Gross margin dollars at 30% = \$300

Shining Example Co-op decides to become competitive on Monterey Jack and sharp cheddar, undercutting its competition. This requires the cheese department to:

- Price these two cheeses at a 23 percent margin and
- Compensate by raising margins on regular cheeses to 33 percent and on fancy cheeses to 42 percent.

After a few weeks, weekly cheese sales adjust to:

Cheese	Sales	Gross Profit/Margin Realized or Earned
Jack and cheddar	\$ 300	\$66
Most other cheeses	\$800	\$264
Fancy gourmet cheeses	\$100	\$42
<b>Totals</b>	<b>\$1,200</b>	<b>\$372</b>
Realized margin goal is 31% = $\$372 \div \$1,200$ (Total margin dollars divided by total sales)		

These results show that Shining Example Co-op accomplished three things:

- The cheese department created a lower price image by reducing the price on two popular cheeses.
- The lower margin percentage that created a lower price image resulted in more sales of these cheeses.
- The co-op earned a higher margin on less price-sensitive cheeses, resulting in higher gross profit and achieved margin.

**Appendix M:****Labor Benchmarks 2010**

(WORKSHEET AVAILABLE AS AN EXCEL DOCUMENT)

**Payroll/Sales Percent** (does not include taxes and benefits)

Store Size	Produce	Wellness	Prepared Foods	Packaged Grocery	Frozen	Refrigerated	Bulk
XL	8.3	7.1	29.3	5.3	2.9	4.7	4.8
L	8.7	6.7	23.9	5.2	2.9	3.9	5.0
LM	9.3	6.3	26.3	5.9	2.7	3.5	6.5
ML	9.7	6.1	32.0	6.3	2.6	3.2	5.1
M	9.9	6.5	31.3	6.5	3.1	3.4	4.9
SM	15.4	5.9	29.5	4.8	2.7	3.2	5.1
S	12.0	3.1	26.3	5.3	2.9	3.9	4.9

**SPLH**

Store Size	Produce	Wellness	Prepared Foods	Packaged Grocery	Frozen	Refrigerated	Bulk
XL	158	217	42	252	373	261	277
L	144	206	55	286	373	321	354
LM	142	206	53	240	373	314	541
ML	147	230	39	240	373	314	234
M	113	191	39	182	442	314	222
SM	75	163	36	230	354	311	231
S	72	208	38	240	373	314	250

**Appendix N:**

# Departmental Sales/ Labor Analysis Worksheet

(WORKSHEET AVAILABLE AS AN EXCEL DOCUMENT)

Month and Year \_\_\_\_\_

Department	Dollar Amount	% of Total Sales	Labor Hours	Wages in Dollars	Sales per Labor Hour	Labor as % of Sales
Total						

Floor Manager				
Cashiers				
Administration				
Other				
Total Store Labor <i>(including taxes, benefits, and member labor)</i>				

Discount amount (if applicable)	
Total customer count	
Customer count per day	
Average sales per customer	(Total sales) ÷ (total number of customers)
Average discount	(Total discount dollars) ÷ (total number of discounted transactions)
Annual inventory turns	(Annual COGS) ÷ (average inventory)
Sales per square foot	(Total sales) ÷ (total retail square feet)

## Appendix O

# SPLH Scheduler

(WORKSHEET AVAILABLE AS AN EXCEL DOCUMENT)

Enter a department schedule into this spreadsheet, and it calculates the sales volume needed to meet the SPLH goal. If the sales result is higher than you budgeted, you might need to adjust the schedule to reduce hours.

The example below is for a produce department, but it can be used as a template for any department.

### Produce Department Schedule

	Sunday		Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Total
Manager	8:00 AM	4:00 PM	7:00 AM	4:00 PM	7:00 AM	4:00 PM	7:00 AM	4:00 PM	7:00 AM	4:00 PM					44.00
Worker					10:00 AM	5:30 PM			10:00 AM	5:30 PM	10:00 AM	5:30 PM	10:00 AM	5:30 PM	30.00
Worker	7:00 AM	4:00 PM	7:00 AM	4:00 PM							7:00 AM	4:00 PM	7:00 AM	4:00 PM	36.00
Worker	12:00 PM	8:30 PM	12:00 PM	8:30 PM					12:00 PM	8:30 PM	12:00 PM	8:30 PM			34.00
Worker															0.00
Worker	7:00 AM	4:00 PM			7:00 AM	4:00 PM			7:00 AM	4:00 PM			12:00 PM	8:30 PM	35.50
Worker			7:00 AM	4:00 PM	7:00 AM	4:00 PM	7:00 AM	4:00 PM					7:00 AM	4:00 PM	36.00
Worker			10:00 AM	3:00 PM			10:00 AM	3:00 PM			10:00 AM	3:00 PM			15.00
Worker			6:00 AM	12:00 PM			6:00 AM	12:00 PM			6:00 AM	12:00 PM			18.00
Worker															0.00
Worker															0.00
Worker															0.00
Worker															0.00
Weekly Total														248.50	
SPLH Goal														220	

**Sales needed for this schedule      \$54,670**

## Appendix P

# SPLH Budgeting Tool

(WORKSHEET AVAILABLE AS AN EXCEL DOCUMENT)

This workbook includes an instructions tab and one tab for each quarter. It can be used to establish the maximum weekly hours to schedule to achieve the desired SPLH target. To use this workbook, managers must update the file with SPLH goals, sales forecasts, and weekly actual sales.

1Q FORECAST				ACTUAL		
Weekly Budgeted Sales	SPLH Target	Weekly Hours Available	Week of	Actual Weekly Sales	SPLH	Weekly Hours Used
23,000	180	128	3 Jan	22,155	167	133
22,000	180	122	10 Jan	21,112	150	141
35,500	180	197	17 Jan	37,089	202	184
		#DIV/0!			#DIV/0!	
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80,500	180	149		80,356		458
Quarterly sales	SPLH target	Total hours/ quarter		Quarterly sales		Actual hours
Note: This is set for a 13-week quarter.						
Note: Numbers in 1Q are sample data.				SPLH-QTD \$175.45		

## Appendix Q

# Labor Budgeting Tool

(WORKSHEET AVAILABLE AS AN EXCEL DOCUMENT)

This tool allows managers to enter staff hours and wages so the labor-to-sales percentage and SPLH are projected for the year. The tool includes an instructions tab and four quarterly tabs and keeps a running year-to-date total so that management can plan for projected raises and monitor department goals and performance as the year progresses. The example below illustrates how this tool works: when you enter data into the shaded cells, it calculates the rest.

LABOR EXPENSE PROJECTIONS				QUARTERLY
Department	Weekly Hours	Hourly Wage Rate	Weekly Total Pay	1st Quarter
Manager	40		\$0.00	\$0
Employee 1			0	\$0
Employee 2			0	\$0
Employee 3			0	\$0
Employee 4			0	\$0
Employee 5			0	\$0
Employee 6			0	\$0
Employee 7			0	\$0
Employee 8			0	\$0
Employee 9			0	\$0
Employee 10			0	\$0
Employee 11			0	\$0
Employee 12			0	\$0
Employee 13			0	\$0
Employee 14			0	\$0
Employee 15			0	\$0
Total	40			0
Projected quarterly sales		\$0	Labor %	#DIV/0!
% of total sales			SPLH	\$0.00
Total annual sales			Labor % goal	
			SPLH goal	

## Appendix R

# Inventory Turns

(WORKSHEET AVAILABLE AS AN EXCEL DOCUMENT)

### Store Data

Store Size	Annual Sales (millions)	Inventory Turns (top quartile)
Extra large	> \$12	23
Large	\$8.5–\$12	21
Large medium	\$6–\$8.5	18
Medium large	\$3.5–\$6	18
Medium	\$2.4–\$3.5	15
Small medium	\$1.2–\$2.4	13
Small	< \$1.2	12

### Department Data

Size	Produce	Wellness	Prepared Food	Packaged	Frozen	Refrigerated	Bulk
XL	104	8.2	50	21.5	30	70	30
L	95	8.1	45	21	29.5	63.5	25
LM	92	7.7	35	17.5	28	54.5	24.5
ML	84	6.2	35	16	22.5	50	18
M	59	5.2	34	13	17	47	16
SM	56.5	4.6	30	10.5	15.5	42.5	14.5
S	53	4.3	26.5	8.6	12.3	35	11

## Appendix S

# Tips for Successful Inventory Counts and Follow-up

- Set a date and time for your inventory count. Inform your customers well ahead of time if store hours will be altered due to inventory.
- Schedule staff to take inventory. Many stores use an inventory service to take inventory of all price-marked or scanned items in the retail area of the store. This leaves the back room, refrigerated storage, special orders, and all variable weight products (bulk, cheese, produce, meat), either on the retail floor or in back rooms, for store personnel to count.
- Identify an inventory coordinator. Determine this person's level of both accountability and responsibility.
- Create inventory worksheets for categories in specific locations. Make sure worksheets include the department or section, names of the counters, and columns for tare weights (the weight of the bins or containers).
- Isolate all unsalable products and make sure they have been recorded, credited by vendors, and thrown out or returned.
- Make sure back room stock areas are clean and organized. Uncut back-stock cases should be counted at retail.
- Count from the shelf to the sheet and not the reverse. You do not want to miss counting something that might not have been entered into the system and is thus not listed as a product in that location.

## Back Room Inventories

- On inventory day, you can take back room inventory while the store is open for business. However, no product should be received into or stocked from the back room once inventory has begun.
- If it is necessary to receive an order during the time of the count, make sure the delivery is clearly marked and not counted, opened, or stocked until the inventory count has been completed for the whole store. Make sure the invoice is pulled out and postdated or clearly marked, "Not Counted in Inventory."
- Back room items are usually recorded at retail, except for full cases of produce and uncut, unpacked meats and cheeses. For those items, count and weigh only. Costs will be taken from invoices.
- Electronic data interchanges, (EDIs) which can easily download data to your computer, hold information by SKU at cost, facilitating determination of the value of inventory at wholesale. This tool is especially handy for promotional items.

## Sales Floor Inventories

- Ideally, the store should be closed for the duration of the entire sales floor count.
- The inventory coordinator should allocate people to sections of the store and give them appropriate worksheets.
- If possible, work in teams of two, with names recorded on the worksheets. One person should be the counter; the other the recorder. Switch roles with each worksheet.
- Once a section has been counted, tape or otherwise mark the shelves to ensure that product is counted only once. This is especially important when a section of shelves contains products with very different margins.
- The inventory coordinator should spot-check the thoroughness and accuracy of teams and request recounts of sections if problems are found.
- Once everything appears to be counted, the coordinator should take everyone on a tour of the store to verify that all sections have in fact been counted.

## Follow-up to the Inventory Count

- The bookkeeper or department manager extends the inventory worksheets by multiplying counts and weights by retail prices. When recording bulk or produce items, the weight of products can be recorded at wholesale, thus eliminating the need to extend prices to match invoices.
- Department managers should assign margins to each sheet. Margins are then backed out to get the value of products.
- Department sheets are totaled to get department inventories. Department inventories are totaled to get the store inventory.

## Cutoffs

- Fluctuating margins are often attributable to cut-off problems.
- If a delivery comes in at inventory time and the invoice is attributed to that month, but the product is not counted at inventory time, your margin may appear to have fallen. Good bookkeeping systems and accuracy in coding invoices are essential to control this problem.
- Whenever an order is received, the invoice should be initialed and dated. This is especially important near the end and beginning of the month. If you receive an order during inventory, make sure the invoice is postdated to the next day and the product is not included in the count.
- If you must conduct an inventory more than one day from the end of the accounting period, you must back out or add sales transactions as appropriate. Accurate sales data and clerking functions are essential. You must add or back out sales (at wholesale) for each department for each day before or after month-end.

- If you must conduct an inventory more than one day from month-end, make sure all invoices that arrive between your count and the cut-off date are separated, signed, dated, and easily available for your accounting department to make the necessary adjustments.
- A form that allows you to account for sales and cost of goods before or after an inventory count will help you arrive at the most accurate ending figure. Because you will not be able to actually count the products sold during this time, you must use a correction factor in your calculations. The achieved margin for each department from the period counted is the figure you plug in as the correction factor.



## Appendix U

# Purchasing Budget Calculator

(WORKSHEET AVAILABLE AS AN EXCEL DOCUMENT)

This spreadsheet calculates the weekly purchasing budget for a specific department to help you reduce inventory or achieve inventory turn goals. Look for Appendix U in the Worksheet Files folder.

<b>Department:</b> Wellness (Supplements and Body Care)	
<b>Period:</b> 52 Weeks	
<b>Turns Target Calculator</b>	
Current annual sales	\$115,137
Current COGS	\$57,569
Expected sales growth/target	32%
Expected annual sales	\$151,981
Expected gross margin	50.0%
Expected COGS	\$75,990
Current turns	2.7
Target turns (turns goal)	6.0
Current average annual inventory	\$21,322
Annual inventory target	\$12,665
Annual inventory reduction	\$8,657
Weekly inventory reduction	\$166
Weekly purchase budget	\$1,295
Expected weekly sales	\$2,923
<b>Allowance per \$500 above average weekly sales</b>	<b>\$222</b>

<b>Inventory Reduction Calculator</b>	
Current inventory	\$21,322
Desired inventory reduction	\$8,657
Number of weeks till goal	26
Reduction per week	\$333
Expected weekly sales	\$2,923
Gross margin	50.0%
Weekly purchase budget	\$1,129
Achieved turns	6.0
<b>Allowance per \$500 above average weekly sales</b>	<b>\$193</b>

### Instructions

Weekly purchase budgets may be necessary to regulate the amount purchased weekly in departments with too much inventory or low inventory turns. This tool can help you reduce inventory to meet set goals and thus preserve cash.

- To figure out a weekly purchase budget based on a turns target goal, use the Turns Target Calculator.
- To figure out a weekly purchase budget based on an inventory reduction goal, use the Inventory Reduction Calculator.
- Using your store data or data from CoCoFiSt, fill out the yellow cells only. To figure out targets for sales growth, margin, turns, and inventory, use CoCoGap data available for your co-op, using Top Quartile for Comparison Stores as a benchmark for your goals. You can also use the Industry Standards for Department Turns as a guide. These numbers may be lower for smaller stores and higher for larger stores.
- The Turns Target Calculator figures out a purchase budget based on reaching your turns target over a year. If you want to figure out a budget for a shorter period of time, fill out the Turns Target Calculator and transfer that data into the appropriate cells in the Inventory Reduction Calculator. You can adjust the number of weeks to reach your goal and calculate a new purchase budget based on that time period.
- Allowance per \$500 above Average Weekly Sales allows you to adjust your purchase budget based on fluctuations in sales to allow increased purchases for periods of higher sales.



# Resources

## Articles

“Cooperative Finance: Translating Operations into Financial Statements,” by Scott Beers and Margaret Lund. *Cooperative Grocer* magazine, March/April 1997.

<http://www.cooperativegrocer.coop/articles/2004-01-09/translating-operations-financial-statements>

“Managing Key Indicators,” by Mel Braverman. *Cooperative Grocer* magazine, July/August 2008.

<http://www.cooperativegrocer.coop/articles/2009-01-19/managing-key-indicators>

## Books

John Leslie Livingstone and Theodore Grossman. *The Portable MBA in Finance and Accounting*. 4th ed. New York: Wiley, 2009.

Quaker Oats’ Self Study Program in Retail Food Store Operations, <http://s.coop/5f5>

## Magazines

*Cooperative Grocer*: <http://www.cooperativegrocer.coop>

*Natural Foods Merchandiser*: <http://naturalfoodsmerchandiser.com>

*Progressive Grocer*: <http://www.progressivegrocer.com>

*Produce Merchandiser*: <http://www.producemerchandising.com>

*Whole Foods*: <http://www.wholefoodsmagazineonline.com>

## National Cooperative Grocers Association Materials

Category Management: [http://ncga.coop/CM\\_tools](http://ncga.coop/CM_tools)

Deli Operations: <http://ncga.coop/food/operations>

Training Resources: <http://ncga.coop/training/resources>

Produce Manager’s Toolbox: [http://ncga.coop/produce\\_manager\\_toolbox](http://ncga.coop/produce_manager_toolbox)

## Other Web Resources

Cooperative Grocers Information Network (CGIN): <http://www.cgin.coop>

CoopMetrics: <http://www.coopmetrics.coop>

Food Marketing Institute: <http://www.fmi.org>

SPINS: <http://www.spins.com>



## Notes