CHAPTER 36

Analysis of Practice Economics and Growth

Lawrence Thal and John Larcabal

Living well is the best revenge.
George Herbert *Jacula Prudentum*

The ability to develop a systematic, universal method for determining the economic status of a professional practice is essential for survival in today's competitive atmosphere. Optometric practice economics is the process of data gathering, formulation, and analysis of all financial information related to the running of a professional practice. It is the basis from which one can derive pertinent information to determine the economic status of a business. Without the ability to formulate and analyze financial data, the practicing independent optometrist would not be able to easily survive in today's business world.

A specialized vocabulary is used in financial transactions, and the optometrist should understand this vocabulary. Just as the language of clinical care is learned, so also must the language of business be learned to better communicate with business professionals, colleagues, and other individuals in the business world. Box 36-1 provides a limited list of basic terms that are the foundation for many of the business financial statements used in the day-to-day operations of a professional practice.

The day-to-day recordkeeping of financial transactions in a professional practice can be a nightmare for the poorly organized optometrist. If an accurate means of tracking income and expenses is not used, a practitioner cannot manage the practice profitably and must rely on chance alone. Optometrists have developed sophisticated methods for maintaining patient records to ensure that proper care is rendered and provide protection from potential liability. Yet, all too often the average optometrist does not maintain an accurate and efficient method of financial recordkeeping. This deficiency obviously leads to poor financial management and increases the risk of incurring financial liability. Documentation of financial records is an essential component of a successful practice. Greater profitability, enhanced financial security, and reduced risk of financial liability are all benefits of proper financial management.

BASIC FINANCIAL STATEMENT CONSTRUCTION

In organizing the financial records of a practice, the optometrist should prepare a balance sheet and an income statement (see Chapter 11).

The Balance Sheet

The balance sheet is a financial document that summarily depicts a company's or an individual's financial status at a specific point in time. It balances the amount of assets a business has against its liabilities and the owner's equity. In simple terms, it shows how much a company owns vs. how much a company owes. The difference between the two is the net worth of the company.

The balance sheet is composed of four basic areas: title, assets, liabilities, and net worth (Figure 36-1).

Title

The title area contains the name of the business, the specific date the information was valid, and the title of the financial document.

Assets

The asset area usually is on the left side of the document or on the top. The asset section is divided into subsections that itemize "fixed" and "current" assets. These subsections list the specific items within each category and then added into subtotals. At the bottom of the asset section is the sum total of all fixed and current assets for the business.

Liabilities

The liabilities area is located either on the right side of the balance sheet or under the asset section. Like the asset section the liability section is divided into two subsections that consist of "fixed" and "current" liabilities. These subsections are again further subdivided by individual components that constitute the total. The subtotals for fixed and current liabilities are added together at the bottom of this section to provide a sum for total liabilities.

Net Worth

The net worth area also is referred to as the owner's equity. The net worth figure represents the financial contribution the owner or owners have made to the business both in terms of equity and retained earnings. It is determined by calculating the mathematical difference between the total assets and the total liabilities. If a business owns more than it owes, it has a positive net worth. If a business has incurred more debt than

BOX 36-1

Common Business Terms

Accounts payable: Money owed by the business to some other business or individual for goods and services already received by the business.

Accounts receivable: Money owed to the business by patients or customers for goods and services they have already received.

Accrual basis of accounting: The most commonly used accounting method, which reports income when earned and expenses when incurred, as opposed to cash basis accounting, which reports income when received and expenses when paid. In accrual basis accounting, income is reported in the fiscal period it is earned, regardless of when it is received, and expenses are deducted in the fiscal period they are incurred, whether they are paid or not. In other words, using accrual basis accounting, you record both revenues and expenses when they occur.

Amortization schedule: A financial statement that summarizes a loan by showing the principal borrowed, the interest rate charged, the payment frequency, and the payment-by-payment allocation of principal and interest throughout the term of the loan.

Assets : Items of value owned by a business, including cash and bank accounts, material inventory, equipment, buildings, and land. Fixed assets are items of value that have a useful lifetime of greater than 1 year. Current assets are items of value that have a useful lifetime of less than 1 year.

Balance sheet: A financial statement that shows business assets, liabilities, and the owner's equity at a particular point in time. A balance sheet provides a snapshot in time of the company's asset-to-debt status.

Business: A series of activities that are coordinated and integrated toward the production of goods or services, the end purpose being the generation of profit.

Cash basis of accounting: A form of accounting that is strictly determined by the amount of cash received and cash paid out. In cash basis accounting, revenues are recorded when cash is actually received and expenses are recorded when they are actually paid (no matter when they were actually invoiced).

Cash flow: A term that refers to the flow of funds within a company, reflecting actual funds received and actual funds expended for a specific time period. Cash flow is usually calculated on a daily or monthly basis.

Co-signer: An individual who assumes liability for a debt in the event of a default by the primary borrower.

Credit risk: The rating factor used by lenders to judge a borrower for the purpose of determining credit terms for that borrower. If an individual or business is a high risk, the loan terms will be less favorable; the lower the risk, the more favorable the loan terms will be.

Credit terms: The terms by which money is either owed to or by a business. Terms include principal amount, interest rate, and the time period in which the money is due.

Effective interest rate: The actual interest rate calculated by incorporating the associated services fees into the total cost of borrowing the principal amount. The effective service rate generally differs from the stated interest rate of a loan.

Income statement: A financial statement that summarizes all the revenue and expense transactions that will result in a profit or loss over a specific period of time. The income statement provides an assessment of the company's financial profitability status over time.

Interest rate: The percentage rate fee that is charged by a lender for the funds that are borrowed. Legal requirements obligate lenders to express the interest rate as an annual percentage rate.

Liabilities: Claims of creditors against the assets of a business. Fixed liabilities are claims of creditors that last for longer than 1 year. Current liabilities are claims of creditors that last for less than 1 year.

Loan maturity: The time that a loan is to be fully paid or at which time the loan must be renegotiated.

Loan term: The time period that is used for calculation of payments based on interest rate and amount of principal borrowed.

Owner's equity: Items of value or money contributed that the owner or owners have invested in the business.

Points: A service fee charged by a lender to process a loan that is usually expressed in the form of a percentage based on the principal amount of the loan.

Principal: When borrowing or loaning money, the principal is the amount of money either borrowed or loaned.

Profit and loss statement: A financial analysis related to the income statement that shows total received income compared against total actual expenditures for a given period. The profit and loss statement does not take into consideration noncash expenditures that are included in an income statement.

it owns in assets, it has a negative net worth. Therefore the sum of the total liabilities and the net worth must equal the total assets of the business. This relationship is why the document is called a *balance sheet*.

The Income Statement

The income statement, or *profit and loss statement,* is one of the most informative of all financial statements. It provides a summary of all revenues and expenses that occur in a business that ultimately will result in a profit or loss. The construction of this statement is significantly more complex than that of the balance sheet, but when properly constructed can offer a wealth of information at a glance. The income statement is divided into four major sections: income, operating expenses, profit or loss, and break-even analysis.

Income

In the practice of optometry, income (revenue) is derived from the services provided and the materials sold. It is important to specify which income is generated by services and which is generated by materials. Services revenue and materials revenue

Acme Vision Clinic, P.C.					
30-Jun-2009					
Balance Sheet					
ASSETS			**LIABILITIES**		
Current Assets			**Current Liabilities**		
Bank Accounts	$ 12,000.00		Accounts Payable	$ 27,500.00	
Cash On Hand	2000.00		Contracts Payable	4,000.00	
Merchandise Inventory	35,000.00		Short-Term Note Payable	5,000.00	
Accounts Receivable	30,000.00				
Total Current Assets		$ 79,000.00	**Total Current Liabilities**		$ 36,500.00
Fixed Assets			**Fixed Liabilities**		
Store fixtures		$ 47,500.00	Personal notes payable	$ 56,000.00	
Office furniture		25,000.00	Equipment notes payable	25,000.00	
Optometric equipment		87,000.00	Line of credit payable	5,000.00	
Computer equipment		15,000.00			
Total Fixed Assets		$ 174,500.00	**Total Fixed Liabilities**		$ 86,000.00
Total Assets		$ 253,500.00	**Total Liabilities**		$ 122,500.00
			Net Worth		
			Owners Equity		$ 131,000.00
			Total Liabilities and Net Worth		$ 253,500.00

FIGURE 36-1 Balance sheet—assets and liabilities.

are both subsections of the category termed *gross sales revenue* (Figure 36-2). When services and materials revenues for a given month are added together, the total gross income for the specified time period is obtained. Credits and adjustments are then subtracted from this figure to obtain the *net sales revenue.* This figure represents the actual amount of income that was earned after all credits and adjustments to gross income were made.

The next item incorporated into the income statement is the *cost of goods sold,* which represents the actual costs of all items purchased for retail sales in the practice. In a typical practice, these expenditures would represent optical laboratory bills, purchases of contact lenses, frame inventory purchases, purchases of ophthalmic solutions, and any accessory items. These are all variable costs as the amount spent on these items *varies* with the number of patients seen. The difference between net sales revenue and the cost of goods sold is called the gross margin on sales. This figure represents the amount of income that remains after payments for material costs have been made. The *gross margin on sales* is the last figure in the income section of the income statement.

Operating Expenses

The operating expenses area of the financial statement is divided into two subsets, fixed and variable expenses (Figure 36-2). *Fixed expenses* are those expenses that are independent of the number of patients seen or amount of business done. *Variable expenses* are those expenses that depend on the number of patients seen or the volume of business done. Typical examples of fixed expenses are rent, salaries, utilities, and insurance premiums. Typical examples of variable expenses are laboratory bills and supplies. Both the fixed and variable expenses are listed, and a total for the two categories is obtained, called *total expenses*. The mathematical difference between the gross margin on sales and the total operating expenses yields the *net income on operations.*

In a practice without debt, this figure is the bottom line net income (Figure 36-2). However, most practices have incurred some debt, which is described in a different section and is termed *debt service*. This section breaks down the principal and interest portion of each payment according to the amortization schedule that is created for the loan. It is important that the interest portion is itemized separately because of its tax deductibility. The sum of the principal paid and interest paid should equal *the total debt service*.

The difference between the net income on operations and the total debt service will result in the true net income of the business.

Cash Flow Statement

The cash flow statement is a condensation of the income statement, sharing most of the same information (Figure 36-3), but the profit and loss statement provides a more timely and

Acme Vision Clinic, P.C
2009 Income Statement
1 January - 31 March 2009
Quarterly Report
GROSS SALES REVENUE:

Practice Revenue	January	February	March	Quarterly Grand Total	Percentage of Gross Income
Services:	$22,000.00	$23,500.00	$24,750.00	$70,250.00	56.09%
Materials:	$15,000.00	$18,000.00	$22,000.00	S55,000.00	43.91%
Subtotal	$37,000.00	$41,500.00	$46,750.00	$125,250.00	100.00%
Less credit/adjust	$2,405.00	$2,697.50	$3,038.75	$8,141.25	6.50%
Net Sales Revenue	$34,595.00	$38,802.00	$43,711.25	$117,108.75	93.50%
Cost of Goods Sold	$12,210.00	$13,695.00	$15,427.50	$41,332.50	33.00%
Gross Margin Sales	$22,385.00	$25,107.50	$28,283.75	$75,776.25	60.50%
OPERATING EXPENSES:					
Fixed Expenses:					
Advertising Yellow Pages	$500.00	$500.00	$500.00	$1,500.00	1.20%
Depreciation	$1,200.00	$1,200.00	$1,200.00	$3,600.00	2.87%
Dues AOA	$100.00	$100.00	$100.00	$300.00	0.24%
Dues Employees	$0.00	$0.00	$0.00	$0.00	0.00%
Dues Business Club	$75.00	$75.00	$75.00	$225.00	0.18%
Dues Athletic Club	$75.00	$75.00	$75.00	$225.00	0.18%
Insurance Basic Overhead	$100.00	$100.00	$100.00	$300.00	0.24%
Insurance Disability	$50.00	$50.00	$50.00	$150.00	0.12%
Insurance Major Medical	$250.00	$250.00	$250.00	$750.00	0.60%
Insurance Property/Liability	$100.00	$100.00	$100.00	$300.00	0.24%
Insurance Worker's Compensation	$50.00	$50.00	$50.00	$150.00	0.12%
Lease Professional Equipment	$548.00	$548.00	$548.00	$1644.00	1.31%
Lease Office Equipment	$200.00	$200.00	$200.00	$600.00	0.48%
Licenses	$6.67	$6.67	$6.67	$20.00	0.02%
Plant Service	$65.00	$65.00	$65.00	$195.00	0.16%
Rent (including utilities)	$3,000.00	$3,000.00	$3,000.00	$9,000.00	7.19%
Salary Dr. Acme	$5,000.00	$5,000.00	$5,000.00	$15,000.00	11.98%
Salary Staff #1	$1239.58	$1239.58	$1239.58	$3,718.75	2.97%
Salary Staff #2	$1,097.92	$1,097.92	$1,097.92	$3,293.75	2.63%
Taxes Federal Income	$900.00	$900.00	$900.00	$2,700.00	2.16%
Taxes State Income	$400.00	$400.00	$400.00	$1,200.00	0.96%
Taxes Personal Property	$395.00	$395.00	$395.00	$1,185.00	0.95%
Taxes Payroll Federal	$3,283.75	$3,283.75	$3,283.75	$9,851.25	7.87%
Taxes Payroll State	$798.75	$798.75	$798.75	$2396.25	1.91%
Telephone Basic Service	$65.00	$65.00	$65.00	$195.00	0.16%
Telephone Cellular	$50.00	$50.00	$50.00	$150.00	0.12%
Telephone Long Distance	$35.00	$35.00	$35.00	$105.00	0.08%
Telephone Maintenance	$29.00	$29.00	$29.00	$87.00	0.07%
Total Fixed Expenses:	$19,613.67	$19,613.67	$19,613.67	$58,841.00	46.98%
Variable Expenses:					
Accounting	$100.00	$100.00	$100.00	$300.00	0.24%
Advertising General	$0.00	$0.00	$0.00	$0.00	0.00%
Attorney/Legal	$0.00	$0.00	$0.00	$0.00	0.00%
Automotive	$80.00	$80.00	$80.00	$240.00	0.19%
Bank Card Discount	$130.00	$130.00	$130.00	$390.00	0.31%
Bank Charges	$40.00	$40.00	$40.00	$120.00	0.10%
Continuing Education Staff	$20.00	$20.00	$20.00	$60.00	0.05%
Continuing Education O.Ds	$50.00	$50.00	$50.00	$150.00	0.12%
Entertainment	$150.00	$0.00	$0.00	$150.00	0.12%
Equipment Purchase Dispensary	$0.00	$0.00	$0.00	$0.00	0.00%
Equipment Purchase Front Office	$0.00	$0.00	$0.00	$0.00	0.00%
Equipment Purchase Professional	$0.00	$0.00	$0.00	$0.00	0.00%
Equipment Purchase Lab	$0.00	$0.00	$0.00	$0.00	0.00%
Equipment Repairs	$0.00	$0.00	$0.00	$0.00	0.00%
Furnishings	$0.00	$0.00	$0.00	$0.00	0.00%
Miscellaneous	$60.00	$60.00	$60.00	$180.00	0.14%
Office Supplies	$75.00	$75.00	$75.00	$225.00	0.18%
Optometric Supplies	$50.00	$50.00	$50.00	$150.00	0.12%
Postage	$250.00	$250.00	$250.00	$750.00	0.60%
Postage Meter Reset Fees	$7.50	$7.50	$7.50	$22.50	0.02%
Printing	$0.00	$0.00	$0.00	$0.00	0.00%
Publication	$0.00	$0.00	$0.00	$0.00	0.00%
Refunds	$150.00	$150.00	$150.00	$450.00	0.36%
Shipping	$30.00	$30.00	$30.00	$90.00	0.07%
Subscriptions Front Office	$8.33	$8.33	$8.33	$25.00	0.02%
Subscriptions Professional	$4.17	$4.17	$4.17	$12.50	0.01
Temporary Services	$0.00	$0.00	$0.00	$0.00	0.00%
Tenant Improvements	$0.00	$0.00	$0.00	$0.00	0.00%
Travel	$200.00	$150.00	$175.00	$525.00	0.42%
Tuition	$0.00	$0.00	$0.00	$0.00	0.00%
Uncollectable Debt	$185.00	$207.50	$233.75	$626.25	0.50%
Total Variable Expense:	$1,590.00	$1,142.50	$1,463.75	$4,463.25	3.57%
Total Expenses	$21,203.67	$21,026.17	$21,077.42	$63,307.25	50.54%
Net Income On Operations	$1,181.33	$4,081.33	$7,206.33	$12,469.00	9.96%
DEBT SERVICE					
Line of Credit Interest	$50.00	$50.00	$50.00	$150.00	0.12%
Line of Credit Principal	$43.00	$43.00	$43.00	$129.00	0.10%
Term Note Interest	$200.00	$200.00	$200.00	$600.00	0.48%
Term Note Principal	$195.00	$195.00	$195.00	$585.00	0.47%
Total Debt Service:	$488.00	$488.00	$488.00	$1,464.00	1.17%
Net Cash Available:	$693.33	$3,593.33	$6,718.33	$11,050.00	8.79%

FIGURE 36-2 Income statement—quarterly report.

dollar relevant picture of the financial status of the company. Definitively, this statement reveals the cash flow status of the company, recording only the amount of actual payments received by the company and the actual paid expenses of the company. It specifically does not include noncash expenditures such as depreciation, credits and adjustments, or uncollectable debts. Thus it reveals a true cash picture of the profitability of a business and aids management in determining whether adjustments are needed in collections policies or spending habits.

The cash flow statement strictly compares cash in and cash out. There is no differentiation between fixed and variable expenses. The cost of goods sold and debt service are considered ordinary expenses just like any others. It does not make any difference if the amount varies with the amount of business done or if it is fixed because only the actual income received and actual dollars spent for a particular time period need to be measured to derive the profitability (or loss) for the business.

A cash flow statement generally is produced on a monthly basis for most businesses. However, the frequency with which this information is needed is highly individualized for each particular practice and often is based on the degree of management that is needed or desired.

Break-Even Analysis

Having the ability to perform a break-even analysis for dayto-day situations is highly desirable in the private practice of optometry. Whether a practice is started cold or purchased from a practitioner, costs are incurred to purchase assets, finance inventory, and fund operating expenses. The need for seeing how quickly the revenues generated can satisfy the overhead costs and cause the practice to become profitable is essential for effective financial management and prudent fiscal planning. Optometrists, like other health care providers, must face the financial burden of having to keep offices technologically current. This cost of new equipment and the supporting technology is significant. It thus becomes very important to be able to show that the cost of this equipment can be justified by the revenue the equipment can generate. These simple concepts show the necessity of needing to be able to quickly calculate or graphically produce a break-even analysis. It is important to remember that the definition of the break-even point is "total revenues equal to total expenses," which means that no profit or loss has been incurred. In fact, the entire purpose of performing a break-even analysis is to determine the point in time at which, or the number of procedures performed after which, the first dollar of profit will be generated.

The essential elements for constructing a break-even analysis are the total revenues, total expenses, total fixed expenses, and total variable expenses. These values are derived from the income statement. Noncash expenditures, such as depreciation, should not be included in the total fixed expenses or the total expenses because such expenditures will artificially raise the break-even point. By eliminating these items from the break-even analysis, only the actual income generated and actual expenses incurred or paid out are considered. (For the calculation of a break-even analysis, see Chapter 8.)

When constructing the break-even graph it is important to establish some standards for comparison (Figure 36-4). The Y axis always represents the income values generated. The X axis represents either the amount of time passed or

Acme Vision Clinic, P.C
2009 Profit & Loss Statement
1 January - 31 March 2009
Quarterly Report
GROSS SALES REVENUE:

	January	February	March	Quarterly Grand Total	Percentage of Gross Income
Practice Revenue					
Net Sales Revenue	$34,595.00	$38,802.00	$43,711.25	$117,108.75	100.00%
OPERATING EXPENSES:					
Accounting	$100.00	$100.00	$100.00	$300.00	0.26%
Advertising General	0.00	0.00	0.00	0.00	0.00%
Advertising Yellow Pages	500.00	500.00	500.00	1,500.00	1.28%
Attorney/Legal	0.00	0.00	0.00	0.00	0.00%
Automotive	80.00	80.00	80.00	240.00	0.20%
Bank Card Discount	130.00	130.00	130.00	390.00	0.33%
Bank Charges	40.00	40.00	40.00	120.00	0.10%
Continuing Education Staff	50.00	50.00	50.00	150.00	0.13%
Continuing Education O.Ds	20.00	20.00	20.00	60.00	0.05%
Cost of Goods Sold	12,210.00	13,695.00	15,427.50	41,332.50	35.29%
Dues AOA	100.00	100.00	100.00	300.00	0.26%
Dues Athletic Club	75.00	75.00	75.00	225.00	0.19%
Dues Business Club	75.00	75.00	75.00	225.00	0.19%
Dues Employees	0.00	0.00	0.00	0.00	0.00%
Entertainment	150.00	0.00	0.00	150.00	0.13%
Equipment Purchase Dispensary	0.00	0.00	0.00	0.00	0.00%
Equipment Purchase Front Office	0.00	0.00	0.00	0.00	0.00%
Equipment Purchase Lab	0.00	0.00	0.00	0.00	0.00%
Equipment Purchase Professional	0.00	0.00	0.00	0.00	0.00%
Equipment Repairs	0.00	0.00	0.00	0.00	0.00%
Furnishings	0.00	0.00	0.00	0.00	0.00%
Insurance Basic Overhead	100.00	100.00	100.00	300.00	0.26%
Insurance Disability	50.00	50.00	50.00	150.00	0.13%
Insurance Major Medical	250.00	250.00	250.00	750.00	0.64%
Insurance Property/Liability	100.00	100.00	100.00	300.00	0.26%
Insurance Worker's Compensation	50.00	50.00	50.00	150.00	0.13%
Lease Office Equipment	200.00	200.00	200.00	600.00	0.51%
Lease Professional Equipment	548.00	548.00	548.00	1644.00	1.40%
Licenses	6.67	6.67	6.67	20.01	0.02%
Line of Credit Principal	43.00	43.00	43.00	129.00	0.11%
Line of Credit Interest	50.00	50.00	50.00	150.00	0.13%
Miscellaneous	60.00	60.00	60.00	180.00	0.15%
Office Supplies	75.00	75.00	75.00	225.00	0.19%
Optometric Supplies	50.00	50.00	50.00	150.00	0.13%
Plant Service	65.00	65.00	65.00	195.00	0.17%
Postage	250.00	250.00	250.00	750.00	0.64%
Postage Meter Reset Fees	7.50	7.50	7.50	22.50	0.02%
Printing	0.00	0.00	0.00	0.00	0.00%
Publication	0.00	0.00	0.00	0.00	0.00%
Refunds	150.00	150.00	150.00	450.00	0.38%
Rent (including utilities)	3,000.00	3,000.00	3,000.00	9,000.00	7.69%
Salary Dr. Acme	5,000.00	5,000.00	5,000.00	15,000.00	12.81%
Salary Staff #1	1,239.58	1,239.58	1,239.58	3,718.75	3.18%
Salary Staff #2	1,097.92	1,097.92	1,097.92	3,293.75	2.81%
Shipping	30.00	30.00	30.00	90.00	0.08%
Subscriptions Front Office	8.33	8.33	8.33	24.99	0.02%
Subscriptions Professional	4.17	4.17	4.17	12.51	0.01%
Taxes Federal Income	900.00	900.00	900.00	2,700.00	2.31%
Taxes Payroll Federal	3,283.75	3,283.75	3,283.75	9,851.25	8.41%
Taxes Payroll State	798.75	798.75	798.75	2,396.25	2.05%
Taxes Personal Property	395.00	395.00	395.00	1,185.00	1.01%
Taxes State Income	400.00	400.00	400.00	1,200.00	1.02%
Telephone Basic Service	65.00	65.00	65.00	195.00	0.17%
Telephone Cellular	50.00	50.00	50.00	150.00	0.13%
Telephone Long Distance	35.00	35.00	35.00	105.00	0.09%
Telephone Maintenance	29.00	29.00	29.00	87.00	0.07%
Temporary Services	0.00	0.00	0.00	0.00	0.00%
Tenant Improvements	0.00	0.00	0.00	0.00	0.00%
Term Note Interest	200.00	200.00	200.00	600.00	0.51%
Term Note Principal	195.00	195.00	195.00	585.00	0.50%
Travel	200.00	200.00	200.00	600.00	0.51%
Tuition	0.00	0.00	0.00	0.00	0.00%
Total Expenses	$32,701.67	$34,059.17	$35,817.92	$102,578.76	87.59%
Net Income From Operations	$1,893.33	$4,743.33	$7,893.33	$14,529.99	12.41%

FIGURE 36-3 Cash flow statement—quarterly report.

the number of procedures performed until break-even is reached. Total revenues are placed on the graph, with the starting point at the origin. Thus if the time is zero or if the number of procedures performed is zero, total revenue is zero. Total fixed costs will start at some income level on the Y axis, but will be at zero on the X axis. These costs will be the same regardless of time or number of procedures performed.

Total costs (the total fixed costs added to the total variable costs) will use the intersection of the fixed cost line and the Y axis as its starting point. The slope of the total costs line represents the variable costs incurred. The area between the total costs line and the fixed costs line represents the total variable costs. The point at which the total costs line and the total revenue line intersect is the break-even point ($14,000

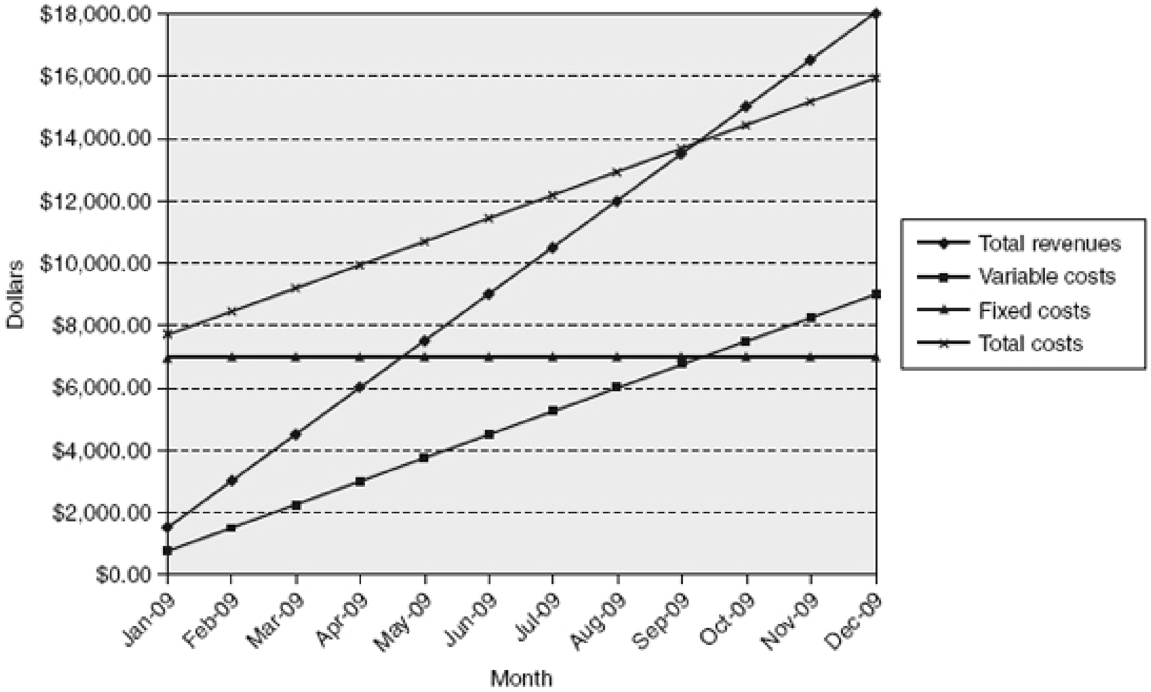

FIGURE 36-4 Graph illustrating a break-even analysis. The break-even point is $14,000 in this example.

in Figure 36-4). The area between the total costs line and the total revenue line before the break-even point represents the loss incurred. The area between the total costs line and the total revenue line after the break-even point represents the profit gained. An optometrist can use this form of analysis very easily in the day-to-day operations of a practice to gain insightful financial information that is crucial to the planning it takes to make a practice successful.

FINANCIAL STATEMENT ANALYSIS

Analysis of financial statements is critical for the assessment of a practice's financial status. It is not only important to assess the performance of the practice for the time period in question but also to analyze the financial history of the practice, which enables the optometrist to predict and plan the practice's financial future. Determining the financial status, or health, of a practice can be approached by using methodology that is similar to the approach taken to patient care. A practitioner takes a case history, gathers data, performs some form of data analysis, determines a diagnosis, and prescribes a plan for treatment. In financial terms, when a practitioner takes a case history of a business, information that is relevant to the business is gathered from various sources. How many patients did the practice see? What was the gross income of the practice? What was the inventory turnover? What was the patient recall percentage? These are but a few of the many questions a business owner needs to ask. A more comprehensive list of practice items to evaluate can be found in Box 36-2. Gathering data is fairly simple once it is determined what one needs to know. Obtaining proper financial statements is essential to learning necessary information about the practice. Standardization of financial statements and the information they contain can be somewhat lacking for optometric practices, thus analysis can be more difficult until the information is placed into a format in which industry standards can be compared. Unless the practitioner is comparing "apples to apples," the analysis performed and conclusions reached will not be valid.

BOX 36-2

Items to Evaluate When Performing a Financial Analysis

- Last 3-5 years' tax returns (Schedule C of Form 1040 for a sole proprietorship, Form 1065 if partnership, or Form 1120 if professional corporation)
- Current year's profit and loss statement
- Balance sheet
- List of all major equipment, ophthalmic and business, with date of purchase and cost
- Number of complete examinations in each of the last 3 years
- Ratio of new/former patients
- Number of OD hours/week
- List of contracts and insurance plans accepted
- List of optometrists and ophthalmologists in target area
- Inventory (wholesale costs) of frames, contact lenses, sunglasses, etc.
- Name, experience, hours worked and wages for each staff member
- Size of office and lease terms
- Percentage of cash patients and patients with Medicare, Medicaid, and other vision insurances
- Value and age of leasehold improvements

RATIO ANALYSIS

To determine whether a business is healthy there are different ratios that can be applied to a balance sheet to determine the relationships between different variables of assets, liabilities and net worth, or owner's equity. When the ratios are applied, they can be used as a means of answering questions about a business. This goal can best be accomplished by comparing the business's current data to past performance, as well as to industry standards. Standard ratios used for analysis include balance sheet ratios and various income statement ratios.

Balance Sheet Ratios

Standard balance sheet ratios that are considered useful include the current ratio, the quick ratio, and the estimate of working capital.

Current Ratio

The current ratio shows the relationship between current assets and current liabilities. Current assets are those presumed to be convertible into cash within 90 days. Current liabilities are those debts due within 1 year. The current ratio measures the business's liquidity or cash position. It is used to measure the business's ability to satisfy short-term debt. Standard accounting norms indicate that a sound current ratio would be 2:1. Interpreting this ratio means that a business has twice as many current or liquid assets as it has current debts.

Quick Ratio

The quick ratio compares the business's available cash plus receivables to current liabilities. The quick ratio is commonly known as the *acid test* of liquidity. It compares only the most liquid assets with current liabilities. Only available cash and accounts receivable are used as assets in this case. A desirable quick ratio is 1:1.

Working Capital

Working capital is the mathematical difference between current assets and current liabilities, expressed in dollars. In everyday business operations, it is the net working capital that provides the ability of the business to meet all obligations as they become due.

Income Statement Ratios

There are various income statement figures that can be analyzed. Among the most important are the gross margin percentage, inventory turnover, and income as a percentage of gross sales.

Gross Margin Percentage

Gross margin percentage is the difference between the cost of products sold and their sales price. This important figure is used to determine whether the difference between the purchase cost and the selling price is adequate.

Inventory Turnover

The inventory turnover ratio is determined by dividing the cost of goods sold by the average inventory. To calculate the average inventory, the beginning inventory and ending inventory for the period in question are added and this sum is divided by two. Inventory turnover allows the practitioner to compare the turnover for the practice with that of industry standards.

Income as a Percentage of Gross Sales

Income as a percentage of gross sales is probably the most important ratio that can be obtained from an income statement. It is calculated by subtracting total expenses from total sales and dividing this figure by total sales. It shows on a percentage basis the portion of every dollar of sales that results in profit. It also allows the practitioner to derive on a line-item basis what percentage of every sales dollar goes to operational expenses. This figure is very helpful because it enables the practitioner to see how and where practice dollars are spent.

Contribution Margin

The contribution margin ratio is the amount by which revenue exceeds the variable cost of producing revenue. It indicates the marginal income after variable cost is covered. It is calculated by subtracting variable costs from total sales and dividing the resulting figure by total sales. This ratio can be quite helpful in determining the income necessary to cover the purchase price for equipment or the cost of additional employees (Figure 36-5).

These ratios are a few of many figures that financial analysts work with when analyzing a practice. These relationships are not inclusive, and there are many others that exist that can be applied to analyze different financial relationships within a business.

ANALYSIS OF CHAIR COST

Although most optometrists have heard about or seen calculations on chair cost, many do not realize that this can be an effective method of helping establish professional fees. This concept is used in many industries, yet is seldom used by optometrists because of a lack of understanding, misinterpretation of results, and a reluctance to change existing financial methods.

Chair cost is a formula that is based on analyzing a practice's overhead as it relates to professional services and the number of practitioner production hours. This concept is hard for many practitioners to understand because optometry as a profession has historically relied much too heavily on the retail sale of frames, lenses, and contact lenses as the major source of practice revenue. In these changing times, practitioners must be able to determine what it actually costs to produce service revenues only, without the sale of retail items. True profitability in the service portion of a practice would then be able to be accurately analyzed and prices for services accurately determined. Figure 36-6 provides an example of how chair cost is analyzed.

From this example, it can be seen that chair cost is one financial tool that a practitioner should not do without. With increasing third-party involvement in optometry, it also becomes the

Use of Contribution Margin

An optometrist purchases a corneal topography unit for $18,000. What utilization is needed in terms of additional gross income to cover the unit's cost?

The contribution margin is the amount by which the revenue derived from the use of the unit exceeds the cost of its use.

If the contribution margin is .55 or 55%, then $\dfrac{\$18{,}000}{.55}$ = $32,727 of additional gross income.

If the contribution margin is .40 or 40%, then $\dfrac{\$18{,}000}{.40}$ = $45,000 of additional gross income.

FIGURE 36-5 Use of contribution margin to analyze the purchase of a corneal topography unit.

best analytical tool to use when evaluating professional service fees for profitability and for determining whether an optometrist should participate in a vision service plan offered by a third-party carrier.

PRODUCTIVITY STATISTICS

One important application of economic analysis is the generation of productivity statistics. The purpose of these statistics may be to provide a financial goal for the practice or to analyze the financial performance of the practice. In the former case, a goal worksheet can be prepared that describes the productivity desired for a specific period. For example, the practice productivity goal for a month can be described in terms of the daily, weekly, and monthly revenues needed to meet the goal (Figure 36-7). The financial performance of the practice also can be analyzed over a period to evaluate the productivity of the practitioner and staff and the costs of operation and to calculate the chair cost, contribution margin, and other economic issues of significance (Figure 36-8). Practitioners should use this information to assess the financial performance of the practice and to identify where change or improvement is needed.

CONCLUSION

Providing a practice with the proper financial documentation and observing sound financial practices will allow the practitioner of optometry to be able to manage and properly assess the financial condition of the practice at any given time. It also will allow financial comparisons to be made to industry-wide norms. If a practitioner is to be an effective manager, he or she must have the proper reporting methods and financial information available and must use that information to its best advantage. Health care in the United States has become a very competitive environment, and if survival is the rule and numbers are the playing field, then optometrists must be able to grasp basic business concepts and apply them to the eye care industry.

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Example Calculation of Chair Cost

There are several assumptions made in this example:

• Sole practitioner	
• Yearly gross income	$400,000
• Monthly gross income	$33,333
• Cost of goods sold	$10,000 @ 30% of gross income
• Gross margin on sales	$23,333 @ 70% of gross income
• Operating costs	$11,667 @ 35% of gross income
• Pre-tax net income	$10,000 @ 30% of gross income

- Comprehensive examination fee $55.00
- Monthly prorated operating expenses
  - 70% professional = $8,167
  - 30% dispensary = $3,500
- Professional overhead/hours
  - Doctor hours per month = 160 hours
  - 5 days per week
  - 250 days per year
  - 20 days per month
  - 160 hours per month

Chair Cost Calculation

$$\text{Chair Cost} = \frac{\text{Professional overhead per month}}{\text{Practitioner hours per month}}$$

$$\text{Chair Cost} = \frac{\$8{,}167}{160} = \$51.04 \text{ per hour}$$

Profit Margin on Professional Services Provided

$55.00 - $51.04 = $3.96 per examination or a 7.75% profit margin on services alone.

If the doctor needs to have a higher profit margin, then it should be calculated appropriately. For example, if a 20% margin is desired then the appropriate examination fee would be $61.25.

FIGURE 36-6 Example calculation of chair cost.

October Productivity				
2009				
Work Days In Month	Goal for Month			
23	$63,000.00			
Week Ending	10/6/09	10/13/09	10/20/09	10/31/09
# of Days Past:	5	10	15	23
Gross Charges	$21,039.69	$43,038.09	$56,555.00	$66,537.29
Total Receipts	$23,057.83	$43,208.55	$55,428.66	$61,484.06
Net Charges	$19,121.83	$39,283.37	$42,879.61	$63,448.93
Gross Charges/Day	$4,207.94	$4,303.81	$3,770.33	$2,892.93
Total Receipts/Day	$4,611.57	$4,320.86	$3,695.24	$2,673.22
Net Charges/Day	$3,824.37	$3,924.34	$2,858.64	$2,758.65
Monthly Projections				
Gross Charges	$96,782.57	$98,987.61	$86,717.67	$66,537.29
Total Receipts	$106,066.02	$99,379.67	$84,990.61	$61,484.06
Net Charges	$87,960.42	$90,351.75	$65,748.74	$63,448.63
Daily Billing Requirement				
Total Reach Goal	$2,437.68	$1,824.36	$2,515.05	($448.93)

FIGURE 36-7 Example productivity goals for one month.

Acme Vision Clinic, P.C.					
Productivity Statistics					
Calendar Year 2009					**ANNUAL**
	Q1	**Q2**	**Q3**	**Q4**	**TOTAL RECEIPTS**
Gross Receipts per Quarter	$129,583.49	$134,338.00	$168,492.00	$177,762.00	$610,175.49
Total Variable Costs per Quarter	$48,384.00	$45,260.00	$61,528.00	$62,420.00	$217,592.00
Operating Costs per Quarter	$60,385.00	$57,544.00	$66,093.00	$80,985.00	$265,007.00
Professional Costs per Quarter	$42,269.50	$40,280.80	$46,265.10	$56,689.50	$185,504.90
Dispensing Costs per Quarter	$18,115.50	$17,263.20	$19,827.90	$24,295.50	$79,502.10
	Q1	**Q2**	**Q3**	**Q4**	**ANNUAL TOTALS**
Doctor Hours per Quarter	571.56	571.56	571.56	571.56	2286.24
Full-Time Staff per Quarter	3	3	3	3	
Part-Time Staff per Quarter	0.5	0.5	0.5	0.5	
					ADJUSTED
2009 Examination Fee = $89.00	**Quarter 1**	**Quarter 2**	**Quarter 3**	**Quarter 4**	**YEARLY AVERAGE**
Chair Cost per Quarter	$73.95	$70.48	$80.95	$99.18	$81.14
Contribution per Quarter	$81,199.49	$89,078.00	$106,964.00	$115,342.00	$98,145.87
Contribution Margin per Quarter	62.66%	66.31%	63.48%	64.89%	64.33%
Staff Productivity/Hour per Quarter	$79.74	$82.67	$103.69	$109.39	$93.87

FIGURE 36-8 Annual productivity statistics.

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