Finance, Budgeting & Quantitative Analysis
A PRIMER FOR NURSING HOME ADMINISTRATORS

BRIAN GARAVAGLIA, PhD, FACHCA
Finance, Budgeting & Quantitative Analysis

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See page xiv for a complete list of the additional materials that accompany this book. Don’t forget to check out the bonus chapter, “Mathematical Review,” also included with these resources!
The current text, *Finance, Budgeting & Quantitative Analysis: A Primer for Nursing Home Administrators*, is an extension from a previous book that I wrote that was entitled *Finance and Budgeting for the Nursing Home Professional*. As was the case with the previous book, this book is written for professionals who do not have an extensive knowledge of financial or quantitative analysis. This book maintains many of the important financial concepts that were introduced by the previous text. However, this book expands on some areas and has added two important chapters: one highlighting healthcare economics as well as a chapter to refresh one's knowledge of some important mathematical concepts and to introduce some other mathematical concepts that can be used in managerial decision-making.

Financial and quantitative analysis is an important part of the daily mind-set of long-term care administrators, and yet finance and quantitative analysis are often the most daunting areas they address. Most individuals who oversee long-term care facilities are typically not financial specialists by training, and, as a result, dealing with large revenue and expenses creates a high level of anxiety and apprehension. Even though healthcare administrators address more than financial and quantitative matters, these skills often are closely aligned with other areas that they oversee. Therefore, administrators need to not only be conversant in financial and quantitative analysis, but they also have to feel fairly comfortable in using some important financial and quantitative skills to help make important managerial decisions.

This book provides a myriad of resources that the administrator frequently has to call upon in making daily decisions, although not all of the resources will be used daily. It also provides some important skills for those that do not have an extensive level of training in financial and quantitative analysis. Furthermore, it focuses on some skills that are specific to the healthcare industry—in particular nursing home care—such as using and determining per patient days as part of the daily budgeting process. Although this book will not turn readers into finance or quantitative analysis experts, it should help give nursing home administrators a sound understanding of the skills necessary for making important financial decisions that will impact the entire facility.
A WORD FROM THE AUTHOR

Upon completing this book, the reader should have a better understanding of what a balance sheet, income statement, statement of cash flow, and retained earnings statement are. Readers should also have a better understanding of how these four financial statements do not just exist in exclusivity but are intricately related to each other. Additionally, readers should have a better understanding of the importance of correctly posting to specifically identified accounts and how these accounts are closed. I hope that readers will leave this book with a sound understanding of some basic equations for calculating important financial ratios. Furthermore, readers should be able to have a better understanding of important budgeting skills, especially based on HPPDs and DPPDs. This book should also help to provide the administrator or prospective administrator with a rudimentary understanding of important macro- and microeconomic concepts that are involved in the larger realm of healthcare economics. Finally, readers will be able to refresh and even possibly enhance some important mathematical skills that can be used for further quantitative decisions they may encounter.

Although many will not need to rely on pencil and paper, since much of the financial and quantitative data analysis that is done in healthcare today is completed on the computer, administrators still need to understand the meaning of the financial and quantitative concepts as well as have a working knowledge of when and what type of financial and quantitative skills are needed to make sound and clear decisions. Today, managers have sophisticated financial and statistical programs that save many hours of laborious mathematical work in accounting, finance, and quantitative analysis. Yet, one still has to understand the meaning behind these important numbers.

This book helps to lead administrators through many of the procedures they can follow to obtain the answers they need to make the correct managerial decisions. It can be used as an important reference to look up areas that may assist the administrator, and it can provide the administrator with certain tools for data analysis and decision-making. Those that read this book should not feel that they have to memorize everything found in the forthcoming text. However, having the book available to them should make many administrators more comfortable, especially as a reference tool they can readily rely upon.

I would like to once again thank the people of HCPro, Inc., especially Ms. Adrienne Trivers, senior managing editor, and Ms. Melissa D’Amico, associate editor, who worked closely with me on this project. I would also like to thank the American College of Health Care Administrators, who helped to initially get Ms. Trivers and me together. I hope this new book will become an important and welcomed resource for many nursing home administrators.

Very truly yours,

Brian Garavaglia, PhD, FACHCA
Basic Principles of Financial Management in Long-Term Care

Nursing home administrators do not have to be accountants or financial experts. However, they do need to have some basic knowledge of the accounting and financial process. This will help them to understand important financial statements, as well as be able to pose informed questions to other experts, such as the accountant(s) who usually compile the financial reports for the nursing facility. It is important to understand that although the administrator may not be an accountant by training, he or she ultimately holds the position of chief financial officer for the facility. This is why it is so imperative that administrators have a basic understanding of important financial principles that will help them to make informed decisions.

As noted in the preceding paragraph, most facilities now use accountants who are employed either within a larger corporate structure or contractually to perform accounting and financial analysis. This helps to relieve the administrator from having to compile accounting and financial reports, which is time-consuming and must be addressed by a professional who maintains strict compliance with the Generally Accepted Accounting Principles (GAAP), the standard framework of guidelines for financial accounting (more on this later). Also, due to the myriad new tax laws that are generated each year, specific forms that need to be used, and the complexity of cost accounting, especially as it relates to Medicare and Medicaid rules, an accountant who specializes in long-term financial information is an important asset to a facility. The administrator has enough to deal with, what with maintaining compliance to specific state and federal regulations, handling staff issues, addressing project development and plant operation issues, setting specific budgets, and developing marketing plans, among other tasks, without having to also worry about creating accounting and financial reports for the facility.
This is not to say that administrators are totally hands-off in this area. Usually the administrator handles much of the internal accounting. This can include such tasks as establishing budgets; calculating monthly Medicare revenue; completing trust fund auditing; interest allocation and reconciliation; documenting revenue recognized from Medicare, private pay, hospice, and other sources; reconciling bank statements; calculating payables, including payroll and payroll taxes; examining and reconciling bills and their respective costs; examining aging reports; and calculating average cost per resident day to determine how efficiently the facility is using its resources. The administrator often compiles and analyzes this data and submits his or her analysis to the facility accountant(s) so that they can complete their important work. Therefore, the administrator is the point person who obtains the necessary information, performs his or her internal financial analysis, sends it to the accountant(s) as important source documentation so that they can complete their work, and eventually receives from the accountant(s) the larger picture of all this financial information in the form of financial reports, including income statements, balance sheets, and cash flow reports, among others.
Readers of *Finance, Budgeting & Quantitative Analysis: A Primer for Nursing Home Administrators* can download the following items by visiting the HCPro Web address below. Electronic file names in parentheses correspond with the following documents. We hope you will find these downloads useful:

- (D1) Explanation of the Present Value Factor of $1, Future Value Factor of $1, and the Normal Distribution Chart
- (D2) Future Value of $1 Spreadsheet
- (D3) Income Statement, Balance Sheet, Statement of Retained Earnings, and Cash Flow Statement
- (D4) Inter-committee Action Request
- (D5) Medicare Reconsideration Request Form
- (D6) Medicare Redetermination Request Form
- (D7) Meeting Attendance Record
- (D8) Meeting Checklist
- (D9) Meeting Minutes
- (D10) Normal Distribution Chart
- (D11) New Manager Skills Assessment
- (D12) Notice of Denial of Medical Coverage
- (D13) Notice of Denial of Payment
- (D14) Notice of Exclusion from Medicare Benefits
- (D15) Patient’s Request for Medical Payment
- (D16) Patient Request for Medicare Payment (Spanish Version)
- (D17) Performance Review
- (D18) Present Value of $1 Spreadsheet
- (D19) Professional Development Form
- (D20) Request for a Medicare Hearing
- (D21) Skilled Nursing Facility Advanced Beneficiary Notice
- (D22) Transfer of Appeal Rights
- **BONUS CHAPTER:** Mathematical Review

Website available upon the purchase of this product.

Thank you for purchasing this product!
The General Accounting Procedure

As I mentioned in the introduction, most, if not all, major financial reports must adhere to the Generally Accepted Accounting Principles (GAAP). The Financial Accounting Standards Board established the GAAP to provide uniformity among accounting professionals. The following are some of the major principles that are part of the GAAP standards:

1. **Objectivity**: Accounting is based on documenting factual and empirically based information. Some things, such as goodwill and the organization’s reputation, are more difficult to account for, but, overall, important source documents, such as receipts, invoices, checks, documented cash transactions, and the like, comprise the objective information that accountants use to compile their financial reports.

2. **Conservatism**: Accountants are taught to be conservative. They always examine financial information with some level of skepticism. If there is doubt in their financial data, they choose the more conservative estimate. That means they choose the lesser of the two estimates for gains and the greater of the two estimates for losses, instead of maximizing gains and minimizing losses. If an accountant is wrong due to his or her conservatism, the accountant at least knows he or she is wrong because he or she underestimated the gains or overestimated the losses.

3. **Consistency**: The business entity—in this case, the long-term care facility—should use the same accounting procedure from one period to the next.

4. **The monetary principle**: Money is the key source of accounting measurement. This does not mean money just as observable cash but rather revenue or expenses that ultimately lead to cash-based transactions.
5. **The accounting period**: This is usually a consistent time period, generally one year in duration. This is typically established as the organization’s fiscal year.

6. **The full-disclosure principle**: The material in the financial statement should be accurate and be documented in an informative manner, such that someone who knows how to read a financial report can obtain an accurate picture of the facility’s financial health. Therefore, ultimately all important financial information is included in the financial statement to present an accurate depiction of the financial entity that is not misleading.

7. **The matching principle**: This is the central feature in the double-entry accounting system established under GAAP. Revenue earned is matched against expenses accrued. When a debit entry exists, there is a corresponding credit entry.

### The Accounting Equation

The matching principle mentioned in the preceding section gives way to the double-entry accounting principle. Balance is an important issue in accounting. What is taken from one area must be accounted for in another area. To better understand this, let’s examine some basic elements in what is known as the accounting equation. The following is one view of the equation:

\[
\text{Assets} = \text{Liabilities} + \text{Owner's Equity}
\]

Assets are all the tangible and intangible elements the nursing facility owns; this includes the building, the equipment, and even such things as goodwill. Equity is resources that are used to help purchase assets and investments. As you can see, assets equal equity. You can expand the equation even further to include not only assets and equity but also liabilities. Liabilities are the rights that creditors have against the business and are represented as debts of the nursing facility. Taking liabilities into consideration, the following equation results:

\[
\text{Assets} = \text{Liabilities} + \text{Owner's Equity}
\]

Again, both sides of the equation balance equally. The total assets for the facility are equal to the total liabilities plus the owner’s total equity in the healthcare facility. Another way to look at this is to put it...
into concrete numbers. Let’s say a facility had in its balance sheet $10 million in assets. The balance sheet also reported $8 million in liabilities and $2 million in owner’s equity. We can see that the $10 million in assets is equal to the $10 million in liabilities plus owner’s equity.

We can expand the accounting equation one step further. Owners often want to know what their equity is in the business, regardless of whether the business is a sole proprietorship, a partnership, or a corporation with shareholders. The following equation demonstrates this:

\[
\text{Assets} - \text{Liabilities} = \text{Owner’s Equity}
\]

Given that assets are the tangible or intangible elements owned by the facility or organization, minus liabilities or the debts or rights of creditors against the business, what is left is the owner’s equity. Because creditors have preferential rights to the assets of the business entity, the residual component subsequently left is owner’s equity. Subsequently, reducing liability will help to enhance owner’s equity.

**Cash Accounting vs. Accrual Accounting**

Businesses can use one of two basic systems of accounting: the cash accounting method or the accrual accounting method. When a business uses the cash accounting method, revenue is reported only when cash is received, and expenses are noted only when cash is disbursed. Small businesses may use this method, but most large businesses and most healthcare facilities use the accrual method. Most laws, federal and state auditors, as well as accountants employed by healthcare facilities and trained to engage in the accounting process through strict adherence to GAAP dictate use of the accrual method. The accrual accounting process reports revenue during the period in which it was earned and reports expenses during the period in which they were incurred. The following chart provides examples of both procedures:

<table>
<thead>
<tr>
<th>Cash Basis</th>
<th>Accrual Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue for January service received in February and noted in the books for February</td>
<td>Revenue for January service noted in the books for January, even though cash transaction was not received until February</td>
</tr>
<tr>
<td>Paid vendor $1,000 in February and noted in the books for February for supplies bought in January</td>
<td>Supplies costing $1,000 bought in January and noted as an expense on the January books even though bill was paid in February</td>
</tr>
</tbody>
</table>
CHAPTER 1

The accrual system of accounting is one of the fundamental features of modern accounting and the accounting profession. It further helps to standardize the accounting system, recognizing revenue and expenses at the time they are achieved or realized.

In healthcare facilities as well as other types of businesses, bills are often not paid exactly at the time they are realized. This applies not only for services the facility provides but also for expenses the facility must pay to those that help support its services. For example, you may have residents who do not pay their bill until the month after services are rendered (e.g., they pay in April for services they received in March); likewise, you may have residents who do not pay for their March and April services until May. Furthermore, the amount paid in each month may vary depending on the type of services rendered. As a final example, you may buy supplies in May—an expense to your facility—but you may have 60 days to pay the vendor from which you made the purchase.

As you can see, with the cash method it becomes somewhat unwieldy to determine when an actual revenue or expense was truly realized because this determination is based on when the actual cash transaction happened.

With the accrual method, you document that services were rendered in specific months for a specific amount and that an expense was realized for a specific amount during a specific month, regardless of when the cash was received or disbursed. This creates an objective and structured manner for determining monthly revenue and expenses. Usually, businesses, including healthcare facilities, use the month as the specific period during which the accrual system of accounting determines when revenue and expenses are realized. In other words, even though a cash payment was received in April and the facility paid cash in April for supplies it received, the cash received may have been for services rendered in March, which would be the month to which the revenue would be applied, and the cash disbursed may also be for a supplies expense for March and would be noted in the books as a disbursement for a March expense.

Bookkeeping vs. Accounting

Acute care facilities often deal with large and sophisticated billing and accounting procedures, and therefore they often need a few full-time accountants on staff. Accountants analyze financial information to help the facility make informative business decisions. Accounting is usually conducted by those who are specially trained in the area, with an emphasis toward compiling data to provide informative financial information regarding the business.
Most nursing care facilities, assisted living facilities, and other types of sub-acute care facilities usually do not have an accountant employed internally, even though they have myriad accounting information that they need to address on a daily basis. This is where a bookkeeper plays a key role. A bookkeeper is usually employed internally in most long-term care environments. Typically, the bookkeeper—who is often not formally trained in accounting—handles many of the important entries that are eventually passed on to the facility’s accountant. Bookkeepers address accounts receivable and accounts payable, entering receivables and payables when they are received or paid out; monitor patient billing; mail monthly statements to residents or their families; write checks; keep track of disbursements as they go out for payment on specific accounts; and make sure the office finances are being addressed in a timely and orderly fashion.

As you can see, the bookkeeper does most of the daily financial footwork. Hence, the bookkeeper holds an essential position in the long-term care environment. Even though most long-term care facilities employ external billing and accounting professionals to address most Medicare and Medicaid billing and copayments, their staff bookkeeper and administrator still must be aware of basic billing information regarding Medicare and Medicaid, as well as know where, when, and who should be contacted for specific copayments that are an important source of the healthcare landscape. Frequently, the administrator and the bookkeeper work together to compile the necessary internal financial information required to close out the books each month. This information is then submitted to the accounting and billing professionals at the end of the month.

Why employ an accountant and/or billing professional(s)?

Today, due to the labyrinth of special forms and paperwork that need to be filled out for Medicare and Medicaid reimbursement, facilities have called upon financial specialists who deal exclusively with the regulations and procedures inherent in Medicare and Medicaid reimbursement. The rules and regulations that govern this area need to be followed assiduously. If a simple protocol is not followed, or if it has changed and now prevents someone from following the appropriate procedure, it can prevent a facility from obtaining its revenue in a timely manner. And those who have worked within long-term care facilities understand that most facilities have a fixed budget and require timely remuneration. Because of this, it often makes sense for such facilities to hire financial professionals who exclusively address this area and are well informed regarding the rules and regulations that must be followed.

Basic Financial Terminology

Most healthcare managers are not accountants. However, whether you are an administrator within a nursing care facility, an assisted living facility, a sub-acute care facility, or even a hospital, you must have
some basic understanding of financial information. I already mentioned some general terms, such as assets, liabilities, and equity. The following list defines these terms again, as well as presents some new terms:

1. **Assets**: These are the tangible or intangible elements a business owns, such as supplies, beds, and possibly such things as the reputation of the facility.

2. **Liabilities**: These are the facility’s debts, or the claim that creditors have against the facility. This is why unpaid debts can lead to a creditor instituting a lien against the facility.

3. **Equity**: This can also comprise liabilities, because liabilities are a type of equity of the creditor’s claim on that business until payment is complete. However, more specifically, it is the concern of owner’s equity or shareholder’s equity, in which owners or shareholders provide resources so that they have a claim on the business.

4. **Capital**: This is money invested in the facility. In addition, a facility’s equipment and its employees are considered its capital.

5. **Revenue**: These are earnings garnered for providing specific healthcare services. Simply put, this is the money that is coming into the facility.

6. **Expenses**: This is the cost the facility accrues through rendering healthcare services. Again, simply put, this is what is going out of the facility to provide payment to vendors, supply companies, the staff, and so forth.
Finance, Budgeting & Quantitative Analysis: A Primer for Nursing Home Administrators

BRIAN GARAVAGLIA, PhD, FACHCA

Finance, Budgeting & Quantitative Analysis: A Primer for Nursing Home Administrators is a comprehensive guide designed specifically to help long-term care managers produce, present, and defend the departmental budget.

Author Brian Garavaglia, PhD, FACHCA, offers new and updated tips and tools that break down the confusing and often foreign financial side of healthcare. This one-of-a-kind resource offers step-by-step instructions and helpful charts that translate the confusing language, number crunching, and report reading into information that managers can apply to budget planning and preparation in long-term care settings.

This resource provides new and experienced managers with:

• Concise explanations of the finance and budget cycle in nursing
• Real-world examples and case studies that illustrate the right way and the wrong way to manage finance and budgeting
• All the forms necessary to successfully manage the budget
• Clarification of how revenue and budgeting intersect and the effect they have on the bottom line
• Description of the SNF and PPS revenue challenges and how they affect financial planning

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