

The State Examples and Tests

Step-by-Step Exercises and Tests to Help You Master Financial Valuation



+ website

JAMES R. HITCHNER



Financial Valuation Workbook

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Financial Valuation Workbook

Step-by-Step Exercises and Tests to Help You Master Financial Valuation

Fourth Edition with Website

JAMES R. HITCHNER

WILEY

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ISBN 978-1-119-31234-5 (Paperback) ISBN 978-1-119-31235-2 (ePDF) ISBN 978-1-119-31247-5 (ePub)

Printed in the United States of America

 $10 \ 9 \ 8 \ 7 \ 6 \ 5 \ 4 \ 3 \ 2 \ 1$

To my son, Jason Earle Hitchner, and my godmother, Aunt Thelma Reid.

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Preface

The Financial Valuation Workbook (FVW) contains both educational exercises that guide the reader through a complete business valuation and valuation tools that professionals can use in preparing business valuations. It also contains detailed information on how to run a successful valuation practice. It is structured to be used on a standalone basis. It is also a companion text to *Financial Valuation Applications and Models*, 4th edition (FVAM) (John Wiley & Sons), in which the subject matter contained in the workbook is expanded upon. This workbook contains basic, intermediate, and advanced topics on valuing businesses conveyed in a series of easily understandable exercises with comprehensive answers.

FVW is targeted to the following professionals and groups that are typically exposed to financial valuation issues:

Appraisers Appraisal associations and societies Actuaries Attorneys Bankers **Business brokers** Business executives, including CEOs, CFOs, and tax directors **Business** owners **CPAs** Estate and gift planners Financial analysts Government agencies including the IRS, SEC, and DOL Insurance agents Investment advisors Investment bankers Judges Pension administrators Stockbrokers

FVW contains eight chapters, each with a different purpose.

Chapter 1 contains more than 80 exercises that have been placed throughout excerpts of an actual business valuation report presenting numerous valuation topics, including rates of return, the capitalized cash flow method of the income approach, and the guideline company transaction and guideline public company methods of the market approach.

Chapter 2 contains comprehensive answers to the exercises in Chapter 1.

Chapter 3 includes more than 300 exercises that comprise a companion piece and correlate to the relevant chapters of *Financial Valuation Applications and Models*, 4th edition. These exercises/tests can be used to prepare for business valuation certification exams or for university professors in the academic field or as reinforcement to learn the material.

Chapter 4 includes more than 450 ValTips that are extracted from the companion book, *FVAM*. This summary of ValTips can serve professionals as a quick reference source of important concepts, application issues, and pitfalls to avoid.

Chapter 5 presents a Valuation Process Flowchart to allow professionals to follow a more structured process in applying and documenting the income approach.

Chapter 6 highlights strategies for marketing, managing, and making money in a valuation services practice. It discusses risk management in regard to reports and engagement letters, and gives examples of each. This chapter also includes information on how to keep up technically; find, train, and retain staff; and delegate authority.

Chapter 7 includes guidelines for practice management workflow procedures, which starts with the initial prospective client call, highlights checking points through the valuation analysis, then moves on to draft and final record, then to file retention and engagement closure.

Chapter 8 includes more than 40 checklists that can be used by professionals in documenting their valuations. It can also be used by less-experienced professionals as a guide in applying valuation concepts.

This book also includes a companion website, which can be found at www.wiley .com/go/fvamwb4e. The website includes the exhibits and forms found in Chapter 7, and the checklists found in Chapter 8.

Financial valuations are very much affected by specific facts and circumstances. As such, the views expressed in these written materials do not necessarily reflect the professional opinions or positions that the authors would take in every business valuation assignment, or in providing business valuation services in connection with an actual litigation matter. Every situation is unique and differing facts and circumstances may result in variations of the applied methodologies. Furthermore, valuation theory, applications, and methods are continually evolving and, at a later date, may be different from what is presented here.

Nothing contained in these written materials shall be construed to constitute the rendering of valuation advice; the rendering of a valuation opinion; the rendering of an opinion as to the propriety of taking a particular valuation position; or the rendering of any other professional opinion or service.

Business valuation services are necessarily fact-sensitive, particularly in a litigation context. Therefore, the authors urge readers to apply their expertise to particular valuation fact patterns that they encounter, or to seek competent professional assistance as warranted in the circumstances.

Disclaimer Excluding Any Warranties: This book is designed to provide guidance to analysts, auditors, management, and other professionals, but is not to be used as a substitute for professional judgment. Procedures must be altered to fit each assignment. The reader takes sole responsibility for implementation of material from this book. The implied warranties of merchantability and fitness of purpose and all other warranties, whether expressed or implied, are excluded from this transaction, and shall not apply to this book. None of the authors, editors, reviewers, or publisher shall be liable for any indirect, special, or consequential damages.

Acknowledgments

Several people were instrumental in preparing this book. Thank you, Kate Morris, ASA, and Karen Warner and Janet Kern of Valuation Products and Services, LLC, in Ventnor City, New Jersey. You were all great.

I would also like to thank Mike Mard, CPA/ABV, of The Financial Valuation Group of Florida, Inc., for his important contributions to the first three editions of this book.

I would also like to thank all the coauthors of *Financial Valuation Applications and Models*, 4th edition:

R. James Alerding, CPA/ABV, ASA Rosanne J. Aumiller, CPA/ABV/CFF, ASA Jeff Balcombe, CPA/ABV/CFF/CGMA, CFA, ASA Neil J. Beaton, CPA/ABV/CFF, CFA, ASA Melissa Bizyak, CPA/ABV/CFF, CVA Marcie D. Bour, CPA/ABV, CVA, CFE, MAFF, ABAR James T. Budyak, CPA/ABV, CFA, ASA Carol Carden, CPA/ABV, ASA, CFE Stacy Preston Collins, CPA/ABV/CFF Larry R. Cook, CPA/ABV/CFF, CBA, CVA Don M. Drysdale, CPA/ABV, ASA Edward J. Dupke, CPA/ABV/CFF/CGMA, ASA Jay E. Fishman, FASA Chris Hamilton, CPA, CFE, CVA, DABFA Thomas E. Hilton, MSF, CPA/ABV/CFF, CVA, CGMA Vincent M. Kickirillo, CFA, CVA Mark G. Kucik, CPA, CVA, CM&AA Eva M. Lang, CPA/ABV, ASA Harold G. Martin Jr., CPA/ABV/CFF, ASA, CFE Edward F. Moran Jr., MBA, CVA, CBA, ABAR Raymond E. Moran, ASA, MRICS Katherine E. Morris, MBA, ASA Shannon P. Pratt, DBA, FASA, CFA, MCBA, CM&AA, MCBC Ronald L. Seigneur, CPA/ABV/CFF, ASA, CVA, CGMA

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James R. Hitchner, CPA/ABV/CFF, ASA, is the managing director of Financial Valuation Advisors, Inc., in Ventnor City, New Jersey. He is also president of the Financial Consulting Group, LLC, a national association of professional services firms dedicated to excellence in valuation, financial, and litigation/forensic consulting. He is CEO of Valuation Products and Services, LLC, a company that develops educational resources for valuation analysts and fraud/forensics practitioners. He holds the American Institute of Certified Public Accountants (AICPA) specialty designations of Accredited in Business Valuation (ABV) and Certified in Financial Forensics (CFF) and is an Accredited Senior Appraiser (ASA) with the American Society of Appraisers. Mr. Hitchner has over 37 years of experience in valuation services. He has often testified as a qualified expert witness on valuations in federal and state courts in numerous states.

He has coauthored over 20 courses, taught over 60 courses, published over 100 articles, and made over 350 conference presentations and webinars. Mr. Hitchner is editor/coauthor of the book *Financial Valuation Applications and Models (FVAM)*, 4th edition (2017), coauthor of the book *Financial Valuation Workbook (FVW)*, 4th edition (2017), and coauthor of the book *Valuation for Financial Reporting: Fair Value, Business Combinations, Intangible Assets, Goodwill, and Impairment Analysis,* 3rd edition (2011)—all published by John Wiley & Sons. He is coauthor of *PPC's Guide to Business Valuations,* 27th edition (2017), published by Thomson Reuters and coauthor of *A Consensus View, Q&A Guide to Financial Valuation* (2016), published by Valuation Products and Services, LLC. He is editor in chief of *Financial Valuation and Litigation Expert,* a bimonthly journal that presents views and tools from some of the leading experts in valuation, forensics/fraud, and litigation services.

Mr. Hitchner is an inductee in the AICPA Business Valuation Hall of Fame and was twice a recipient of the AICPA's Business Valuation Volunteer of the Year award. He was also one of the only four members of the original AICPA Business Valuation Standards Writing Task Force and served the entire six years up to the June 2007 official release of the standards. Mr. Hitchner is past chairman of the Business Valuation Committee of the Georgia Society of CPAs, past member of the AICPA Business Valuation Subcommittee, past member of the AICPA ABV Exam Committee, and past chairman of the ABV Exam Review Course Committee. He has a Bachelor of Science degree in engineering from the University of Pittsburgh and Master of Business Administration degree from Rider University.

Valuation Case Study Exercises

1.1 INTRODUCTION

The purpose of this chapter is to highlight and discuss important concepts in valuation through a series of exercises. These exercises have been intermittently placed in excerpts of a valuation report. You should attempt to complete these exercises as you read the report with reasoning and emphasis on an explanation of your conclusion. The authors' solutions to these exercises can be found in Chapter 2.

The following case presents selected excerpts from a business valuation report that, in its entirety, was in full compliance with the AICPA's Statements on Standards for Valuation Services VS Section 100 and the Uniform Standards of Professional Appraisal Practice. For more information on reports and standards compliance, see Chapters 11 and 12 of *Financial Valuation Applications and Models*, 4th edition. This report format is one of many that analysts can use in presenting business valuations. The schedules have been included and are referenced throughout. Some of the terms, numbers, sources, and other data have been changed for ease of presentation.

1.2 THE VALUATION REPORT

January 2, 20X6

Sherman E. Miller, Esq. Miller & Hanson 4747 Washington Street, Suite 1740 St. Louis, Missouri 12345

Re: Fair Market Value of a 100% Equity Interest in National Fastener & Machine Co. as of September 1, 20X5

Dear Mr. Miller:

At your request XYZ Appraisal Associates LLC (XYZ) was retained to prepare a valuation analysis and appraisal (valuation engagement and conclusion of value) and detailed/comprehensive appraisal report (the report) to assist you and your client, Ms. Louise Atkins, in the determination of the fair market value of a 100 percent

equity interest in National Fastener & Machine Co. (National Fastener or the Company). This interest is a controlling interest and is therefore marketable. The value conclusion is considered as a cash or cash-equivalent value. The valuation date is September 1, 20X5 (the Valuation Date). This valuation and report are to be used only as of this date and are not valid as of any other date.

EXERCISE 1 Which of the following is the *as of* date for valuation?

a. Any time within one year

b. As of a single point in time

c. As of a single point in time or six months later

d. Date that the report is signed

We have performed a valuation engagement and present our detailed report in conformity with the Statements on Standards for Valuation Services VS Section 100 (SSVS) of the American Institute of Certified Public Accountants (AICPA). SSVS defines a valuation engagement as "an engagement to estimate value in which a valuation analyst determines an estimate of the value of a subject interest by performing appropriate procedures, as outlined in the AICPA Statements on Standards for Valuation Services, and is free to apply the valuation approaches and methods he or she deems appropriate in the circumstances. The valuation analyst expresses the results of the valuation engagement as a conclusion of value, which may be either a single amount or a range."¹

SSVS addresses a detailed report as follows: "The *detailed report* is structured to provide sufficient information to permit intended users to understand the data, reasoning, and analyses underlying the valuation analyst's conclusion of value."

EXERCISE 2 This is a detailed report per SSVS. What other types of reports are allowed under SSVS?

¹Statements on Standards for Valuation Services VS Section 100, American Institute of Certified Public Accountants, Appendix C, Glossary of Additional Terms, Section .82, p. 40.

Note: The American Society of Appraisers uses the term *estimate* as part of a limited appraisal. The AICPA usage of the term is equivalent to the result of the highest scope of work specified by the ASA, which is for an Appraisal.

This valuation was performed to assist in the determination of the value solely for purposes of internal operational and tax planning, and the resulting estimate of value should not be used for any other purpose, or by any other party for any purpose, without our express written consent.

EXERCISE 3 The purpose of the valuation of National Fastener is to assist management in internal operational and tax planning. What other purposes are there?

Our analysis and report are in conformance with the 20X6–20X7 Uniform Standards of Professional Appraisal Practice (USPAP) promulgated by the Appraisal Standards Board of The Appraisal Foundation,² and the ethics and standards of the American Society of Appraisers (ASA) and IRS business valuation development and reporting guidelines, the National Association of Certified Valuators and Analysts (NACVA), and the Institute of Business Appraisers (IBA).³

EXERCISE 4 If the analyst belongs to more than one valuation organization with standards, that analyst must comply with the standards of each organization he or she belongs to.

a. True

b. False

²The Appraisal Standards Board (ASB) of the Appraisal Foundation develops, interprets, and amends the Uniform Standards of Professional Appraisal Practice (USPAP) on behalf of appraisers and users of appraisal services. The Appraisal Foundation is authorized by Congress as the source of Appraisal Standards and Appraiser Qualifications. USPAP uses the terms *appraisal* and *appraisal report*, which are defined in pages U-1 and U-72, respectively. SSVS uses the terms *valuation engagement* and *detailed report*, which are defined in pages 54 and 22–23, respectively. USPAP also uses the term *appraiser* while SSVS uses the term *valuation analyst*. We use these terms interchangeably in this report.

³Analyst should reference other credentialing organizations as appropriate. Department of the Treasury, Internal Revenue Service, IRM 4.48.4, Engineering Program, Business Valuation Guidelines. "This material is the product of the Valuation Policy Council (VPC), a cross-functional committee with executive representation from LMSB, SBSE, and Appeals. The VPC was established in 2001 to assist IRS leadership in setting direction for valuation policy that cuts across functional lines, and in identifying process improvements to improve compliance and better utilize resources." Issued July 1, 2006.

Our analysis is also in conformance with Revenue Ruling 59-60, which outlines the approaches, methods, and factors to be considered in valuing shares of capital stock in closely held corporations for federal tax purposes. Revenue Ruling 59-60 is often also considered as useful guidance in valuations performed for nontax purposes.

The standard of value is fair market value defined in Revenue Ruling 59-60 as "the price at which the property would change hands between a willing buyer and a willing seller when the former is not under any compulsion to buy and the latter is not under any compulsion to sell, both parties having reasonable knowledge of relevant facts." Revenue Ruling 59-60 also defines the willing buyer and seller as hypothetical as follows: "Court decisions frequently state in addition that the hypothetical buyer and seller are assumed to be able, as well as willing, to trade and to be well informed about the property and concerning the market for such property." Furthermore, fair market value assumes that the price is transacted in cash or cash equivalents. Revenue Ruling 59-60, while used in tax valuations, is also used in many nontax valuations.

Fair market value is also defined in a similar way in the SSVS⁴ as "the price, expressed in terms of cash equivalents, at which property would change hands between a hypothetical willing and able buyer and a hypothetical willing and able seller, acting at arm's length in an open and unrestricted market, when neither is under compulsion to buy or sell and when both have reasonable knowledge of the relevant facts."

EXERCISE 5 Which of these are standards of value?

- a. Fair market value, fair value financial reporting, investment value
- b. Fair value investment reporting, fair value state actions, intrinsic value
- c. Investment value, intrinsic value, equal value
- d. Fair market value, equal value, investment value

The premise of value is going concern.⁵ The liquidation premise of value was considered and rejected as not applicable, as the going concern value results in a higher value for the interest than the liquidation value, whether orderly or forced.

⁴AICPA Statements on Standards for Valuation Services VS Section 100, page 44, Appendix B, *International Glossary of Business Valuation Terms*, which has been jointly adopted by the AICPA, American Society of Appraisers (ASA), Canadian Institute of Chartered Business Valuators (CICBV), National Association of Certified Valuators and Analysts (NACVA), and the Institute of Business Appraisers (IBA).

^sThe International Glossary of Business Valuation Terms defines going concern as "an ongoing operating business enterprise," and going concern value as "the value of a business enterprise that is expected to continue to operate into the future. The intangible elements of going concern value result from factors such as having a trained work force, an operational plant, and the necessary licenses, systems, and procedures in place."

In our conclusion of value, we considered the following relevant factors, which are specified in Revenue Ruling 59-60:

- The history and nature of the business
- The economic outlook of the United States and that of the specific industry in particular
- The book value of the subject company's stock and the financial condition of the business
- The earning capacity of the company
- The dividend-paying capacity of the company
- Whether or not the firm has goodwill or other intangible value
- Sales of the stock and size of the block of stock to be valued
- The market price of publicly traded stocks or corporations engaged in similar industries or lines of business

Our analysis included, but was not limited to, the above-mentioned factors.

1.2.1 Understanding with the Client and Scope of Work

Per SSVS, the valuation analyst should establish an understanding with the client. "The understanding with the client reduces the possibility that either the valuation analyst or the client may misinterpret the needs or expectations of the other party. The understanding should include, at a minimum, the nature, purpose, and objective of the valuation engagement, the client's responsibilities, the valuation analyst's responsibilities, the applicable assumptions and limiting conditions, the type of report to be issued, and the standard of value to be used."⁶

Furthermore, "A restriction or limitation on the scope of the valuation analyst's work, or the data available for analysis, may be present and known to the valuation analyst at the outset of the valuation engagement or may arise during the course of a valuation engagement. Such a restriction or limitation should be disclosed in the valuation report (see paragraphs .52m, .68e, and .71n)."⁷

Our appraisal is in accordance with the Uniform Standards of Professional Appraisal Practice (USPAP) promulgated by the American Society of Appraisers and the Appraisal Foundation. "The objective of an appraisal is to express an unambiguous opinion as to the value of a business, business ownership interest, or security, which opinion is supported by all procedures that the appraiser deems to be relevant to the valuation."⁸ It is based on all relevant information available to the appraiser as of the valuation date; the appraiser conducts appropriate procedures to collect and analyze all information expected to be relevant to the valuation, and the appraiser "considers all conceptual approaches deemed to be relevant."⁹

⁶Statements on Standards for Valuation Services VS Section 100, American Institute of Certified Public Accountants, Appendix C, Glossary of Additional Terms, Section .17, p. 6.

⁷Ibid., Section .19, p. 6.

⁸ASA Business Valuation Standards, BVS-1 General Requirements for Developing a Business Valuation.

⁹Ibid.

In accordance with the Scope of Work Rule in USPAP, we must:

- 1. Identify the problem to be solved;
- Determine and perform the scope of work necessary to develop credible assignment results; and
- 3. Disclose the scope of work in the report.¹⁰

To gain an understanding of the operations of National Fastener, we reviewed Company financial information as provided by management and interviewed Company management. To understand the environment in which National Fastener operates, we researched the status of and trends in the various industries that have an impact on it. We also studied economic conditions as of the valuation date and their impact on National Fastener and the industry. To understand the Company's financial condition, we analyzed its financial statements as available.

We considered all valuation approaches and methods and applied the most appropriate methods from the income, asset, and market approaches to value to derive an opinion of value of the subject equity interest (100 percent controlling, marketable interest). Our conclusion of value reflects these findings, our judgment and knowledge of the marketplace, and our expertise in valuation.

Our valuation is set out in the report, which contains the following sections:

- History and Nature of the Business
- General Economic and Industry Outlook
- Book Value and Financial Position
- Approaches to Value
- Income Approach
- Market Approach
- Reconciliation of Valuation Methods
- Conclusion of Value
- Appendixes
 - Appendix A—Assumptions and Limiting Conditions
 - Appendix B—Valuation Representation/Certification
 - Appendix C—Professional Qualifications of the Appraiser
 - Appendix D—Other Sources Consulted
 - Appendix E—Exhibits

In performing our work, we were provided with and/or relied upon various sources of information, including (but not limited to):

- Audited financial statements for National Fastener for the fiscal years ended December 31, 20X0, through December 31, 20X4
- Internal interim financial statements for National Fastener for the eight months ending August 31, 20X5, and August 31, 20X4

¹⁰USPAP 2016–2017, p. 14.

- Tax returns for the Company for the fiscal years ended December 31, 20X0, through 20X4
- Information regarding the management and shareholders of National Fastener
- Information regarding the Company's history and current operations
- National Fastener's Articles of Incorporation and Bylaws
- Data from Duff & Phelps LLC, 20X5 Valuation Handbook—Guide to Cost of Capital
- Federal Reserve statistical releases
- Current and future economic conditions as forecast by various sources, listed in the Appendix
- Miscellaneous other information

The procedures employed in valuing the subject interest in National Fastener included such steps as we considered necessary, including (but not limited to):

- An analysis of National Fastener's financial statements
- An analysis of National Fastener management's 20X5 expectations and other information supplied by management
- Discussions with management
- An analysis of the fastener industry, as well as the domestic automotive industry
- An analysis of the general economic environment as of the valuation date, including investors' equity and debt-return expectations
- An analysis of other pertinent facts and data resulting in our conclusion of value

There were no restrictions or limitations in the scope of our work or data available for analysis.

Based on our analysis as described in this valuation report, and the facts and circumstances as of the valuation date, the estimate of value as of September 1, 20X5, of a 100 percent equity interest in National Fastener & Machine Co., on a control, marketable basis is \$30,100,000.

This conclusion is subject to the Statement of Assumptions and Limiting Conditions and to the Valuation Analyst's Representation/Certification found in Appendixes A and B of this report. We have no obligation to update this report or our conclusion of value for information that comes to our attention after the date of this report.

EXERCISE 6 Valuation conclusions can be presented as:

- a. A range of values
- b. A single value
- c. An estimate of value
- d. All of the above

EXERCISE 7 This valuation is being done on a marketable, control interest basis. It is also on a control standalone basis. Name six levels of value that are considered in a valuation.

1			
2			
3			
4			
-			
6			
0			

Distribution of this letter and report and associated results, which are to be distributed only in their entirety, is intended and restricted to you and your client, solely to assist you and your client in the determination of the fair market value of the subject interest for internal operational and tax planning purposes and is valid only as of September 1, 20X5. This letter and accompanying report are not to be used with, circulated, quoted, or otherwise referred to in whole or in part for any other purpose, or to any other party for any purpose, without our express written consent.

As is usual in appraisal practice, the approaches and methodologies used in our work did not comprise an examination or any attest service in accordance with generally accepted accounting principles, the objective of which is an expression of an opinion regarding the fair presentation of financial statements or other financial information, whether historical or prospective, presented in accordance with generally accepted accounting principles or auditing standards. We express no opinion and accept no responsibility for the accuracy and completeness of the financial information (audited, reviewed, compiled, internal, prospective, or tax returns), or other data provided to us by others, and we have not verified such information unless specifically stated in this report. We assume that the financial and other information provided to us is accurate and complete, and we have relied upon this information in performing our valuation.

If you have any questions concerning this valuation, please contact Ms. Margaret E. Smith, CPA/ABV, ASA, CVA, CBA, at (800) 000-1234.

Very truly yours, XYZ Appraisal Associates LLC

1.3 INTRODUCTION

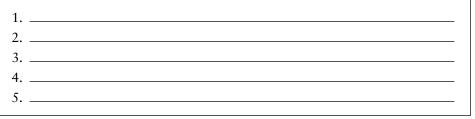
1.3.1 Description of the Assignment

XYZ Appraisal was retained by Mr. Sherman Miller to determine the fair market value of a 100 percent equity interest in National Fastener & Machine Co. (National Fastener or the Company) on a marketable, control basis, as of September 1, 20X5, for internal operational and tax planning purposes.

1.3.2 Summary Description and Brief History of the Company

The Company was incorporated in 1927 in the State of Missouri. National Fastener operates in two segments: fasteners and assembly equipment. The Company's products are sold to the North American automotive industry by employees of the Company and by independent sales representatives. Revenues are primarily derived from sales to customers involved directly or indirectly in the manufacture of automobiles and automotive components. The Company is legally structured as a C corporation.

EXERCISE 8 The subject of this exercise is a C corporation, but analysts will frequently be required to value noncontrolling interests in S corporations. Valuation of S corporations is one of the most controversial issues in business valuations today. The main issue is how to tax-affect S corporation income and, if appropriate, compute an S corporation adjustment. What five models are often considered or used in valuing S corporations?



National Fastener serves a variety of customers; however, sales to two major companies accounted for approximately 33 percent of revenues during 20X4. Sales to BI Automotive Systems, LLC, accounted for approximately 20 percent and 18 percent of the Company's consolidated revenues in 20X4 and 20X3, respectively. Sales to Hunter & Company accounted for approximately 13 percent and 14 percent of the Company's consolidated revenues in 20X4 and 20X3, respectively. Recently, the Company executed a manufacturing contract with a new customer, which is expected to generate significant revenue growth in the near future.

The Company maintains alternative sources for raw materials. The market is served by multiple suppliers, so prices for raw materials are generally competitive. The Company is not under any long-term contracts for raw materials. Orders are made through purchase orders based on pricing sheets negotiated biannually.

As of December 20X4, the Company had 236 full- and part-time employees. The employees are party to a collective bargaining agreement. The Company is on good terms with the union representing its employees and has recently renegotiated the union contract that now has an X-year term. There are no employment or non-compete agreements.

As of the valuation date, management and key personnel of National Fastener include the following individuals, with their titles shown in Exhibit 1.1.

The fastener and assembly equipment markets are characterized by active and significant competition. No single company in particular dominates the industry. The