

Statistical Thinking: Improving Business Performance

The latest experimental design techniques for quality improvement "The methods taught in this book are a major contribution to statistical methods as an aid to engineers, as well as to those in industry, education, or government who are trying to understand the meaning of figures derived from comparisons or experiments." -- W. EDWARDS DEMING Co-written by three recipients of the Deming Medal awarded by the American Society for Quality (ASQ), *Quality Improvement through Planned Experimentation, Third Edition* discusses the principles and methodologies for planning and conducting experiments to improve products, processes, or systems. Fully revised with up-to-date case studies and incorporating new software, this authoritative guide fosters the sequential building of knowledge essential for implementing effective improvements. End-of-chapter exercises reinforce what you've learned, and forms for designing planned experiments help you to integrate the methods in the book into your daily work. The methods of planned experimentation provide an opportunity to better meet the needs of customers, reduce costs, and increase productivity by effecting verifiably beneficial changes. **COVERAGE INCLUDES:** * Improvement of quality * Principles for design and analysis of planned experiments * Experiments with one factor * Experiments with more than one factor * Reducing the size of experiments * Evaluating sources of variation * Sequential experimentation * Using a time series response variable * Designs with factors at more than two levels * Applications in health care * New product design **NEW:** Study-it software available for download!

How statistical thinking and methodology can help you make crucial business decisions Straightforward and insightful, *Statistical Thinking: Improving Business Performance, Second Edition*, prepares you for business leadership by developing your capacity to apply statistical thinking to improve business processes. Unique and compelling, this book shows you how to derive actionable conclusions from data analysis, solve real problems, and improve real processes. Here, you'll discover how to implement statistical thinking and methodology in your work to improve business performance. Explores why statistical thinking is necessary and helpful Provides case studies that illustrate how to integrate several statistical tools into the decision-making process Facilitates and encourages an experiential learning environment to enable you to apply material to actual problems With an in-depth discussion of JMP® software, the new edition of this important book focuses on skills to improve business processes, including collecting data appropriate for a specified purpose, recognizing limitations in existing data, and understanding the limitations of statistical analyses. *Introduction to Statistical Thinking* By Benjamin Yakir

Many texts are excellent sources of knowledge about individual statistical tools, but the art of data analysis is about choosing and using multiple tools. Instead of presenting isolated techniques, this text emphasizes problem solving strategies that address the many issues arising when developing multivariable models using real data and not standard textbook examples. It includes imputation methods for dealing with missing data effectively, methods for dealing with nonlinear relationships and for making the estimation of transformations a formal part of the modeling process, methods for dealing with "too many variables to analyze and not enough observations," and powerful model validation techniques based on the bootstrap. This text realistically deals with model uncertainty and its effects on inference to achieve "safe data mining".

Advanced Statistics in Research

Leading Holistic Improvement with Lean Six Sigma 2.0

Taosports for Extraordinary Performance in Athletics, Business, and Life

Improving Industrial Processes

Statistical Training Programs

Six Sigma

This workbook accompanies STAT 208 at Virginia Commonwealth University

Written by an internationally-recognized expert in the field of quality management, this text is an essential guide for understanding how to plan and implement a successful quality measurement program in your healthcare facility. It begins by presenting an overview of the context for quality measurement, the forces influencing the demand for quality reform, how to listen to the voice of the customer, and the characteristics of quality that customers value most. Students will also learn how to select and define indicators to collect data and how to organize data into a dashboard that can provide feedback on progress toward quality measurement. Finally, this book explores how to analyze the data by detailing how variation lives in your data, and whether this variation is acceptable.

Uses game theory to create a set of basic strategic principles for sports, politics, business, and personal life

What's the secret to sales success? If you're like most business leaders, you'd say it's fundamentally about relationships-and you'd be wrong. The best salespeople don't just build relationships with customers. They challenge them. The need to understand what top-performing reps are doing that their average performing colleagues are not drove Matthew Dixon, Brent Adamson, and their colleagues at Corporate Executive Board to investigate the skills, behaviors, knowledge, and attitudes that matter most for high performance. And what they discovered may be the biggest shock to conventional sales wisdom in decades. Based on an exhaustive study of thousands of sales reps across multiple industries and geographies, *The Challenger Sale* argues that classic relationship building is a losing approach, especially when it comes to selling complex, large-scale business-to-business solutions. The authors' study found that every sales rep in the world falls into one of five distinct profiles, and while all of these types of reps can deliver average sales performance, only one-the Challenger-delivers consistently high performance. Instead of bludgeoning customers with endless facts

and features about their company and products, Challengers approach customers with unique insights about how they can save or make money. They tailor their sales message to the customer's specific needs and objectives. Rather than acquiescing to the customer's every demand or objection, they are assertive, pushing back when necessary and taking control of the sale. The things that make Challengers unique are replicable and teachable to the average sales rep. Once you understand how to identify the Challengers in your organization, you can model their approach and embed it throughout your sales force. The authors explain how almost any average-performing rep, once equipped with the right tools, can successfully reframe customers' expectations and deliver a distinctive purchase experience that drives higher levels of customer loyalty and, ultimately, greater growth.

Statistics, Testing, and Defense Acquisition

Introduction to Statistical Thinking

A Performance Measurement System for Business Success

Achievements and Opportunities

Stat 208 Statistical Thinking

The Power of Statistical Thinking

In *Leading Six Sigma*, two of the world's most experienced Six Sigma leaders offer a detailed, step-by-step strategy for leading Six Sigma initiatives in your company. Top Six Sigma consultant Dr. Ronald D. Snee and GE quality leader Dr. Roger W. Hoerl show how to deploy a Six Sigma plan that reflects your organization's unique needs and culture, while also leveraging key lessons learned by the world's most successful implementers. Snee and Hoerl share leadership techniques proven in companies both large and small, and in business functions ranging from R & D and manufacturing to finance. They also present a start-to-finish sample deployment plan encompassing strategy, goals, metrics, training, roles and responsibilities, reporting, rewards, and management review. Whether you're a CEO, line-of-business leader, or a project leader, *Leading Six Sigma* gives you the one thing other books on Six Sigma lack: a clear view from the top. * The right projects, the right people Identifying your company's most promising Six Sigma opportunities and leaders * How to hit the ground running Providing leadership, talent, and infrastructure for a successful launch * From launch to long-term success Implementing systems, processes, and budgets for ongoing Six Sigma projects * Getting the bottom-line results that matter most Measuring and maximizing the financial value of your Six Sigma initiative * Four detailed case studies: What works and what doesn't Avoiding the subtle mistakes that can make Six Sigma fall short. Proven techniques for leading successful quality initiatives. The Six Sigma guide designed specifically for business leaders Co-authored by Dr. Roger W. Hoerl, a leader in implementing Six Sigma at GE Draws on Six Sigma experiences at over 30 leading companies Covers the entire Six Sigma lifecycle, from planning onward Presents new solutions for overcoming the cultural resistance to Six Sigma initiatives *Leading Six Sigma* offers an insider's view of what it really takes to lead a successful Six Sigma initiative, drawing on the authors' experience at the top levels of the world's largest and most challenging organizations. Dr. Ronald D. Snee shares experiences drawn from executive-level consulting at over 30 major companies. Dr. Roger W. Hoerl teaches powerful lessons from his experience in pioneering Six Sigma throughout GE during the Jack Welch era. Together they offer unprecedented executive guidance on the issues most crucial to senior managers, covering every stage from planning through ongoing management. Snee and Hoerl offer practical solutions for the cultural challenges and human resistance that face any executive seeking to initiate Six Sigma or improve an existing program. They even explain how and when to "wind down" initiatives, transitioning Six Sigma to a "fact of life" that doesn't require the support of a massive centralized infrastructure. " This is a truly insightful and well-researched book on Six Sigma by two of the leading experts in the field. Their roadmap for successful deployment is supported by the experiences of major corporations, including GE and Honeywell. It is extremely well presented in a step-by-step manner and backed up by real business-case examples. Bravo to the authors in bringing us a book that should be at the ready reach of leadership of organizations and the practitioners of Six Sigma. It reminded me so much of 'In Search of Excellence' as far as its potential impact on the way businesses can be successful. "&

The old saying goes, "To the man with a hammer, everything looks like a nail." But anyone who has done any kind of project knows a hammer often isn't enough. The more tools you have at your disposal, the more likely you'll use the right tool for the job - and get it done right. The same is true when it comes to your thinking. The quality of your outcomes depends on the mental models in your head. And most people are going through life with little more than a hammer. Until now. *The Great Mental Models: General Thinking Concepts* is the first book in *The Great Mental Models* series designed to upgrade your thinking with the best, most useful and powerful tools so you always have the right one on hand. This volume details nine of the most versatile, all-purpose mental models you can use right away to improve your decision making, productivity, and how clearly you see the world. You will discover what forces govern the universe and how to focus your efforts so you can harness them to your advantage, rather than fight with them or worse yet- ignore them. Upgrade your mental toolbox and get the first volume today. AUTHOR BIOGRAPHY Farnam Street (FS) is one of the world's fastest growing websites, dedicated to helping our readers master the best of what other people have already figured out. We curate, examine and explore the timeless ideas and mental models that history's brightest minds have used to live lives of purpose. Our readers include students, teachers, CEOs, coaches, athletes, artists, leaders, followers, politicians and more. They're not defined by gender, age, income, or politics but rather by a shared passion for avoiding problems, making better decisions, and lifelong learning. AUTHOR HOME Ottawa, Ontario, Canada

An Introduction to Statistical Learning provides an accessible overview of the field of statistical learning, an essential toolset for making sense of the vast and complex data sets that have emerged in fields ranging from biology to finance to marketing to astrophysics in the past twenty years. This book presents some of the most important modeling and prediction techniques, along with relevant applications. Topics include linear regression, classification, resampling methods, shrinkage approaches, tree-based methods, support vector machines, clustering, and more. Color graphics and real-world examples are used to illustrate the methods presented. Since the goal of this textbook is to facilitate the use of these statistical learning techniques by practitioners in science, industry, and other fields, each chapter contains a tutorial on implementing the analyses and methods presented in R, an extremely popular open source statistical software platform. Two of the authors co-wrote *The Elements of Statistical Learning* (Hastie, Tibshirani and Friedman, 2nd edition 2009), a popular reference book for statistics and machine learning researchers. *An Introduction to Statistical Learning* covers many of the same topics, but at a level accessible to a much broader audience. This book is targeted at statisticians and non-statisticians alike who wish to use cutting-edge statistical learning techniques to analyze their data. The text assumes only a previous course in linear regression and no knowledge of matrix algebra.

What really sets the best managers above the rest? It ' s their power ' to build a cadre of employees who have great inner work lives—consistently positive emotions; strong motivation; and favorable perceptions of the organization, their work, and their colleagues.

The worst managers undermine inner work life, often unwittingly. As Teresa Amabile and Steven Kramer explain in *The Progress Principle*, seemingly mundane workday events can make or break employees' inner work lives. But it's forward momentum in meaningful work—progress—that creates the best inner work lives. Through rigorous analysis of nearly 12,000 diary entries provided by 238 employees in 7 companies, the authors explain how managers can foster progress and enhance inner work life every day. The book shows how to remove obstacles to progress, including meaningless tasks and toxic relationships. It also explains how to activate two forces that enable progress: (1) catalysts—events that directly facilitate project work, such as clear goals and autonomy—and (2) nourishers—interpersonal events that uplift workers, including encouragement and demonstrations of respect and collegiality. Brimming with honest examples from the companies studied, *The Progress Principle* equips aspiring and seasoned leaders alike with the insights they need to maximize their people's performance.

Quality Improvement Through Planned Experimentation 3/E

Using Data Science to Transform Information into Insight

Leading Six Sigma

Improving Performance Through Statistical Thinking

The Progress Principle

Reading, Understanding, and Writing Up Data Analysis Results

A Holistic Approach to Performance Improvement That Reflects 30 Years of Six Sigma Learning Leading Holistic Improvement with Lean Six Sigma 2.0 distills all that's been learned about Six Sigma over the past three decades, helping you build and execute on modern holistic strategies to radically improve processes and performance. It's the definitive modern guide to Lean Six Sigma for executives, champions, Black Belts, Green Belts, and every stakeholder concerned with performance improvement. In addition, it notes the limitations of Lean Six Sigma and explains how to broaden deployments to true holistic improvement, integrating multiple improvement methodologies. Renowned experts Ronald Snee and Roger Hoerl help you launch or accelerate comprehensive "Lean Six Sigma 2.0" initiatives, integrating modern techniques to improve customer satisfaction, employee engagement, growth, and profitability across your organization. They introduce important recent advances in Lean Six Sigma theory and practice, and offer new case studies illuminating opportunities for holistic improvement. With an ideal mix of fundamental concepts and real-world case studies, the authors help you broaden your portfolio of improvement methodologies, integrating systems for process management, control, and risk management. This revision incorporates decades of collective experience in improvement initiatives, the most relevant research on what does and doesn't work, and contains three completely new chapters, as well as two previously unpublished holistic improvement case studies. This innovative approach is specifically designed to help you solve large, complex, and unstructured problems; and manage risk in a world of cyberattacks, terrorism, and fragmentation. Plan and deploy a modern Lean Six Sigma strategy that fully reflects your organization Learn and apply key lessons from the world's best implementations Integrate key success factors into a step-by-step process for improvement, and avoid common pitfalls that lead to failure Master all facets of Lean Six Sigma leadership, including strategy, goal setting, metrics, training, roles/responsibilities, processes, reporting, rewards, and ongoing management review Evolve your deployment to true holistic improvement that leverages modern methods and encompasses the entire organization Make the most of big data analytics and other modern methods Choose the optimal improvement method for each complex challenge you face Use a focus on improvement as a leadership development tool

This innovative book teaches students to understand the strategic value of data and statistics in solving real business problems. Following principles of effective learning identified by educational and behavioral research, the instruction proceeds from tangible examples to abstract theory; from the big picture, or "whole," to details, or "parts"; and from a conceptual understanding to ability to perform specific tasks. While the computer is used for computational details, the authors describe the role of statistical thinking and methods for problem solving and process improvement to encourage use of the tools. Hoerl and Snee also teach skills to improve business processes, including collecting data appropriate for a specified purpose, recognizing limitations in existing data, graphically analyzing data using basic tools, deriving actionable conclusions from data analyses, and understanding the limitations of statistical analyses. In summary, the authors demonstrate that statistical thinking and methodology can help students be more valuable and effective in their chosen careers.

Statistical Thinking Improving Business Performance John Wiley & Sons

Written by renowned data science experts Foster Provost and Tom Fawcett, *Data Science for Business* introduces the fundamental principles of data science, and walks you through the "data-analytic thinking" necessary for extracting useful knowledge and business value from the data you collect. This guide also helps you understand the many data-mining techniques in use today. Based on an MBA course Provost has taught at New York University over the past ten years, *Data Science for Business* provides examples of real-world business problems to illustrate these principles. You'll not only learn how to improve communication between business stakeholders and data scientists, but also how participate intelligently in your company's data science projects. You'll also discover how to think data-analytically, and fully appreciate how data science methods can support business decision-making. Understand how data science fits in your organization—and how you can use it for competitive advantage Treat data as a business asset that requires careful investment if you're to gain real value Approach business problems data-analytically, using the data-mining process to gather good data in the most appropriate way Learn general concepts for actually extracting knowledge from data Apply data science principles when interviewing data science job candidates

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Taking Control of the Customer Conversation

The Challenge of Developing Statistical Literacy, Reasoning and Thinking

Good to Great

Illustrating Statistical Procedures: Finding Meaning in Quantitative Data

Beat the odds with a bold strategy from McKinsey & Company "Every once in a while, a genuinely fresh approach to business strategy appears" – legendary business professor Richard Rumelt, UCLA McKinsey & Company's newest, most definitive, and most irreverent book on strategy—which

thousands of executives are already using—is a must-read for all C-suite executives looking to create winning corporate strategies. *Strategy Beyond the Hockey Stick* is spearheading an empirical revolution in the field of strategy. Based on an extensive analysis of the key factors that drove the long-term performance of thousands of global companies, the book offers a ground-breaking formula that enables you to objectively assess your strategy's real odds of future success. "This book is fundamental. The principles laid out here, with compelling data, are a great way around the social pitfalls in strategy development." —Frans Van Houten, CEO, Royal Philips N.V. The authors have discovered that over a 10-year period, just 1 in 12 companies manage to jump from the middle tier of corporate performance—where 60% of companies reside, making very little economic profit—to the top quintile where 90% of global economic profit is made. This movement does not happen by magic—it depends on your company's current position, the trends it faces, and the big moves you make to give it the strongest chance of vaulting over the competition. This is not another strategy framework. Rather, *Strategy Beyond the Hockey Stick* shows, through empirical analysis and the experiences of dozens of companies that have successfully made multiple big moves, that to dramatically improve performance, you have to overcome incrementalism and corporate inertia. "A different kind of book—I couldn't put it down. Inspiring new insights on the facts of what it takes to move a company's performance, combined with practical advice on how to deal with real-life dynamics in management teams." —Jane Fraser, CEO, Citigroup Latin America

Practical introduction to a novel system of performance measurement for a variety of enterprises, written for practitioners and students alike.

PLEASE PROVIDE COURSE INFORMATION PLEASE PROVIDE

This book occupies a unique position in the field of statistical analysis in the behavioural and social sciences in that it targets learners who would benefit from learning more conceptually and less computationally about statistical procedures and the software packages that can be used to implement them. This book provides a comprehensive overview of this important research skill domain with an emphasis on visual support for learning and better understanding. The primary focus is on fundamental concepts, procedures and interpretations of statistical analyses within a single broad illustrative research context. The book covers a wide range of descriptive, correlational and inferential statistical procedures as well as more advanced procedures not typically covered in introductory and intermediate statistical texts. It is an ideal reference for postgraduate students as well as for researchers seeking to broaden their conceptual exposure to what is possible in statistical analysis.

The Role of Statistics in Business and Industry

A Step-by-step Guide Based on Experience with GE and Other Six Sigma Companies

People, Probabilities, and Big Moves to Beat the Odds

Strategy Beyond the Hockey Stick

Drive

Data Smart

This volume explores the scientific frontiers and leading edges of research across the fields of anthropology, economics, political science, psychology, sociology, history, business, education, geography, law, and psychiatry, as well as the newer, more specialized areas of artificial intelligence, child development, cognitive science, communications, demography, linguistics, and management and decision science. It includes recommendations concerning new resources, facilities, and programs that may be needed over the next several years to ensure rapid progress and provide a high level of returns to basic research.

"How statistical thinking and methodology can help you make crucial business decisions. Straightforward and insightful, *Statistical Thinking: Improving Business Performance, Second Edition*, prepares you for business leadership by developing your capacity to apply statistical thinking to improve business processes. Unique and compelling, this book shows you how to derive actionable conclusions from data analysis, solve real problems, and improve real processes. Here, you'll discover how to implement statistical thinking and methodology in your work to improve business performance. Explores why statistical thinking is necessary and helpful. Provides case studies that illustrate how to integrate several statistical tools into the decision-making process. Facilitates and encourages an experiential learning environment to enable you to apply material to actual problems. With an in-depth discussion of JMP software, the new edition of this important book focuses on skills to improve business processes, including collecting data appropriate for a specified purpose, recognizing limitations in existing data, and understanding the limitations of statistical analyses"--

The *Basic Practice of Statistics* has become a bestselling textbook by focusing on how statistics are gathered, analyzed, and applied to real problems and situations—and by confronting student anxieties about the course's relevance and difficulties head on. With David Moore's pioneering "data analysis" approach (emphasizing statistical thinking over computation), engaging narrative and case studies, current problems and exercises, and an accessible level of mathematics, there is no more effective textbook for showing students what working statisticians do and what accurate interpretations of data can reveal about the world we live in. In the new edition, you will once again see how everything fits together. As always, Moore's text offers balanced content, beginning with data analysis, then covering probability and inference in the context of statistics as a whole. It provides a wealth of opportunities for students to work with data from a wide range of disciplines and real-world settings, emphasizing the big ideas of statistics in the context of learning specific skills used by professional statisticians. Thoroughly updated throughout, the new edition offers new content, features, cases, data sources, and exercises, plus new media support for instructors and students—including the latest version of the widely-adopted StatsPortal. The full picture of the contemporary practice of statistics has never been so captivatingly presented to an uninitiated audience.

Improve your company's ability to avoid or manage crises *Managing the Unexpected, Third Edition* is a thoroughly revised text that offers an updated look at the groundbreaking ideas explored in the first and second editions. Revised to reflect events emblematic of the unique challenges that organizations have faced in recent years, including bank failures, intelligence failures, quality failures, and other organizational misfortunes, often sparked by organizational actions, this critical book focuses on why some organizations are better able to sustain high performance in the face of unanticipated change. High reliability organizations (HROs), including commercial aviation, emergency rooms, aircraft carrier flight operations, and firefighting units, are looked to as models of exceptional organizational preparedness. This essential text explains the development of unexpected events and guides you in improving your organization for more reliable performance. "Expect the unexpected" is a popular mantra for a reason: it's rooted in experience. Since the dawn of civilization, organizations have been rocked by natural disasters, civil unrest, international conflict, and other unexpected crises that impact their ability to function. Understanding how to maintain function when catastrophe strikes is key to keeping your organization afloat. Explore the many different kinds of unexpected events that your organization may face Consider updated case studies and research Discuss how highly reliable organizations are able to maintain control during unexpected events Discover tactics that may bolster your organization's ability to face the unexpected with confidence *Managing the Unexpected, Third Edition* offers updated, valuable content to professionals who want to strengthen the preparedness of their organizations—and confidently face unexpected challenges.

Statistical Thinking

A Flaw in Human Judgment

Accelerate

An Introduction to Statistical Learning

Data Science for Business

Using Small Wins to Ignite Joy, Engagement, and Creativity at Work

An insightful guide to the use of statistics for solving key problems in modern-day business and industry This book has

been awarded the Technometrics Ziegel Prize for the best book reviewed by the journal in 2010. Technometrics is a journal of statistics for the physical, chemical and engineering sciences, published jointly by the American Society for Quality and the American Statistical Association. Criteria for the award include that the book brings together in one volume a body of material previously only available in scattered research articles and having the potential to significantly improve practice in engineering and science. Highlighting the relevance of statistical methods in everyday applications, *The Role of Statistics in Business and Industry* bridges the gap between the tools of statistics and their use in today's business world. This one-of-a-kind resource encourages the proactive use of statistics in three well-organized and succinct parts: *Setting the Stage* provides an introduction to statistics, with a general overview of its uses in business and industry *Manufactured Product Applications* explains how statistical techniques assist in designing, building, improving, and ensuring the reliability of a wide variety of manufactured products such as appliances, plastic materials, aircraft engines, and locomotives *Other Applications* describe the role of statistics in pharmaceuticals, finance, and business services, as well as more specialized areas including the food, semiconductor, and communications industries This book is truly unique in that it first describes case studies and key business problems, and then shows how statistics is used to address them, while most literature on the topic does the reverse. This approach provides a comprehensive understanding of common issues and the most effective methods for their treatment. Each chapter concludes with general questions that allow the reader to test their understanding of the presented statistical concepts as well as technical questions that raise more complex issues. An extensive FTP site provides additional material, including solutions to some of the applications. With its accessible style and real-world examples, *The Role of Statistics in Business and Industry* is a valuable supplement for courses on applied statistics and statistical consulting at the upper-undergraduate and graduate levels. It is also an ideal resource for early-career statisticians and practitioners who would like to learn the value of applying statistics to their everyday work.

Why fight your way to the top when you can rise to it? Let go of the obsession to win—and you will be victorious. Acknowledge your vulnerabilities—and turn them into strengths. Find the courage to risk failure—and begin your journey to success. That is the secret of the TaoAthlete, and in this remarkable book t'ai chi expert Chungliang Al Huang and renowned professional and Olympic sports psychologist Jerry Lynch teach you the time-honored principles of successful performance—whether on the playing field, in the office, or in your relationships. By mastering the unique strategies and mental exercises of the TaoAthlete, you'll unlock the extraordinary powers of body, mind, and spirit that will lead you to victory in any field of endeavor. Praise for *Thinking Body, Dancing Mind* “This gives you a positive mental perspective and provides good focus for your mind—unconscious and conscious.”—Phil Jackson, coach of the Los Angeles Lakers “Warning: If you're completely content with your life, don't read this book. But if you'd like to break through to higher levels of performance, understanding, and happiness . . . this book is magic.”—Larry Dossey, M.D., author of *Meaning & Medicine* and *Healing Words* “In six months my level of performance has grown more than in the previous ten years of athletic training. Using Taoist principles of performance has pushed me to levels I never dreamed possible.”—Steven Gottlieb, all-American 1989 NCAA Tennis Division III champion “Bringing Eastern thought to the Western world of sport really works. . . . My game has improved immensely.”—Vince Stroth, offensive guard, Houston Oilers, NFL “The Tao is responsible for me turning my life around, athletically and personally. I am now able to believe in myself and perform to my capability.”—Regina Jacobs, U.S. Olympic Track Team

The Challenge Built to Last, the defining management study of the nineties, showed how great companies triumph over time and how long-term sustained performance can be engineered into the DNA of an enterprise from the very beginning. But what about the company that is not born with great DNA? How can good companies, mediocre companies, even bad companies achieve enduring greatness? The Study For years, this question preyed on the mind of Jim Collins. Are there companies that defy gravity and convert long-term mediocrity or worse into long-term superiority? And if so, what are the universal distinguishing characteristics that cause a company to go from good to great? The Standards Using tough benchmarks, Collins and his research team identified a set of elite companies that made the leap to great results and sustained those results for at least fifteen years. How great? After the leap, the good-to-great companies generated cumulative stock returns that beat the general stock market by an average of seven times in fifteen years, better than twice the results delivered by a composite index of the world's greatest companies, including Coca-Cola, Intel, General Electric, and Merck. The Comparisons The research team contrasted the good-to-great companies with a carefully selected set of comparison companies that failed to make the leap from good to great. What was different? Why did one set of companies become truly great performers while the other set remained only good? Over five years, the team analyzed the histories of all twenty-eight companies in the study. After sifting through mountains of data and thousands of pages of interviews, Collins and his crew discovered the key determinants of greatness -- why some companies make the leap and others don't. The Findings The findings of the Good to Great study will surprise many readers and shed light on virtually every area of management strategy and practice. The findings include: Level 5 Leaders: The research team was shocked to discover the type of leadership required to achieve greatness. The Hedgehog Concept (Simplicity within the Three Circles): To go from good to great requires transcending the curse of competence. A Culture of Discipline: When you combine a culture of discipline with an ethic of entrepreneurship, you get the magical alchemy of great results. Technology Accelerators: Good-to-great companies think differently about the role of technology. The Flywheel and the Doom Loop: Those who launch radical change programs and wrenching restructurings will almost certainly fail to make the leap. “Some of the key concepts discerned in the study,” comments Jim Collins, “fly in the face of our modern business culture and will, quite frankly, upset some people.” Perhaps, but who can afford to ignore these findings?

This book illustrates basic methods of data analysis and probability models by means of baseball statistics collected on players and teams. The idea of the book is to describe statistical thinking in a context that will be familiar and interesting to students. The second edition of Teaching Statistics follows the same structure as the first edition, where the case studies and exercises have been replaced by modern players and teams, and the new types of baseball data from the PitchFX system and fangraphs.com are incorporated into the text.

Managing the Unexpected

With Applications to Linear Models, Logistic Regression, and Survival Analysis

The Great Mental Models: General Thinking Concepts

The Challenger Sale

Quality Health Care

with Applications in R

"Advanced Statistics in Research: Reading, Understanding, and Writing Up Data Analysis Results" is the simple, nontechnical introduction to the most complex multivariate statistics presented in empirical research articles. "wwwStatsInResearch.com," is a companion website that provides free sample chapters, exercises, and PowerPoint slides for students and teachers. A free 600-item test bank is available to instructors.

"Advanced Statistics in Research" does not show how to "perform" statistical procedures--it shows how to read, understand, and interpret them, as they are typically presented in journal articles and research reports. It demystifies the sophisticated statistics that stop most readers cold: multiple regression, logistic regression, discriminant analysis, ANOVA, ANCOVA, MANOVA, factor analysis, path analysis, structural equation modeling, meta-analysis--and more. "Advanced Statistics in Research" assumes that you have never had a course in statistics. It begins at the beginning, with research design, central tendency, variability, z scores, and the normal curve. You will learn (or re-learn) the big-three results that are common to most procedures: statistical significance, confidence intervals, and effect size. Step-by-step, each chapter gently builds on earlier concepts. Matrix algebra is avoided, and complex topics are explained using simple, easy-to-understand examples. "Need help writing up your results?" Advanced Statistics in Research shows how data-analysis results can be summarized in text, tables, and figures according to APA format. You will see how to present the basics (e.g., means and standard deviations) as well as the advanced (e.g., factor patterns, post-hoc tests, path models, and more). "Advanced Statistics in Research" is appropriate as a textbook for graduate students and upper-level undergraduates (see supplementary materials at StatsInResearch.com). It also serves as a handy shelf reference for investigators and all consumers of research.

Unique in that it collects, presents, and synthesizes cutting edge research on different aspects of statistical reasoning and applies this research to the teaching of statistics to students at all educational levels, this volume will prove of great value to mathematics and statistics education researchers, statistics educators, statisticians, cognitive psychologists, mathematics teachers, mathematics and statistics curriculum developers, and quantitative literacy experts in education and government.

Apply statistics in business to achieve performance improvement Statistical Thinking: Improving Business Performance, 3rd Edition helps managers understand the role of statistics in implementing business improvements. It guides professionals who are learning statistics in order to improve performance in business and industry. It also helps graduate and undergraduate students understand the strategic value of data and statistics in arriving at real business solutions. Instruction in the book is based on principles of effective learning, established by educational and behavioral research. The authors cover both practical examples and underlying theory, both the big picture and necessary details. Readers gain a conceptual understanding and the ability to perform actionable analyses. They are introduced to data skills to improve business processes, including collecting the appropriate data, identifying existing data limitations, and analyzing data graphically. The authors also provide an in-depth look at JMP software, including its purpose, capabilities, and techniques for use. Updates to this edition include: A new chapter on data, assessing data pedigree (quality), and acquisition tools Discussion of the relationship between statistical thinking and data science Explanation of the proper role and interpretation of p-values (understanding of the dangers of "p-hacking") Differentiation between practical and statistical significance Introduction of the emerging discipline of statistical engineering Explanation of the proper role of subject matter theory in order to identify causal relationships A holistic framework for variation that includes outliers, in addition to systematic and random variation Revised chapters based on significant teaching experience Content enhancements based on student input This book helps readers understand the role of statistics in business before they

embark on learning statistical techniques.

There are a number of distinctive features of this book that makes it different from other on Six Sigma. It recognizes that there are two diametrically opposing views expressed on Six Sigma, those that are strongly in favour, and those that are not, for various reasons. The book deals, head on, with the principle reasons for such hostility. It cuts through the hype associated with the brand name. It proposes simple remedies for certain defined frailties in the standard approach, particularly those related to the Sigma Measure that provides the brand name for the Six Sigma breakthrough strategy. The book is highly supportive of the Six Sigma continuous improvement process, provided it is tailored to the needs and expectations of a particular organization. The commitment and active participation of top management is emphasized, to ensure the necessary change in culture and priorities demanded, in most organizations. Practical guidance is given in the setting up, operating and developing the project by project approach across an organisation. The book also covers how to equip a critical mass of members in an organization with the core workforce competencies required to get the desired results. The book covers the realities of applying Six Sigma in a range of functions within an organization and also to various types of organizations from the manufacturing sector to commerce and public service. It demonstrates how statistical thinking, coupled with the application of technical and operational knowledge of processes and focus provided by Six Sigma, can considerably enhance quality, competitiveness, effectiveness and efficiency. Statistical process control is a tool, which enables both manufacturers and suppliers to achieve control of product quality by means of the application of statistical methods in the controlling process. This book gives the foundations of good quality management and process control, including an explanation of what quality is, and control of conformance and consistency during production. The text offers clear guidance and help to those unfamiliar with either quality control or statistical applications and covers all the necessary theory and techniques in a practical and non-mathematical manner. This book will be essential reading for anyone wishing to understand or implement modern statistical process control techniques.

Why Some Companies Make the Leap...And Others Don't

Analytics for Leaders

The Science of Lean Software and DevOps: Building and Scaling High Performing Technology Organizations

The Surprising Truth About What Motivates Us

Deployment Strategies for Financial Services, Health Care, and the Rest of the Real Economy

The Behavioral and Social Sciences

From the Nobel Prize-winning author of *Thinking, Fast and Slow* and the coauthor of *Nudge*, a revolutionary exploration of why people make bad judgments and how to make better ones—"a tour de force" (New York Times). Imagine that two doctors in the same city give different diagnoses to identical patients—or that two judges in the same courthouse give markedly different sentences to people who have committed the same crime. Suppose that different interviewers at the same firm make different decisions about indistinguishable job applicants—or that when a company is handling customer complaints, the resolution depends on who happens to answer the phone. Now imagine that the same doctor, the same judge, the same interviewer, or the same customer service agent makes different decisions depending on whether it is morning or afternoon, or Monday rather than Wednesday. These are examples of noise: variability in judgments that should be identical. In *Noise*, Daniel Kahneman, Olivier Sibony, and Cass R. Sunstein show the detrimental effects of noise in many fields, including medicine, law, economic forecasting, forensic science, bail, child protection, strategy, performance reviews, and personnel selection. Wherever there is judgment, there is noise. Yet, most of the time, individuals and organizations alike are unaware of it. They neglect noise. With a few simple remedies, people can reduce both noise and bias, and so make far better decisions. Packed with original ideas, and offering the same kinds of research-based insights that made *Thinking, Fast and Slow* and *Nudge* groundbreaking New York Times bestsellers, *Noise* explains how and why humans are so susceptible to noise in judgment—and what we can do about it.

Winner of the Shingo Publication Award Accelerate your organization to win in the marketplace. How can we apply technology to drive business value? For years, we've been told that the performance of software delivery teams doesn't matter—that it can't provide a competitive advantage to our companies. Through four years of groundbreaking research to include data collected from the State of DevOps reports conducted with Puppet, Dr. Nicole Forsgren, Jez Humble, and Gene Kim set out to find a way to measure software

delivery performance?and what drives it?using rigorous statistical methods. This book presents both the findings and the science behind that research, making the information accessible for readers to apply in their own organizations. Readers will discover how to measure the performance of their teams, and what capabilities they should invest in to drive higher performance. This book is ideal for management at every level.

How statistical thinking and methodology can help you make crucial business decisions
Straightforward and insightful, *Statistical Thinking: Improving Business Performance, Second Edition*, prepares you for business leadership by developing your capacity to apply statistical thinking to improve business processes. Unique and compelling, this book shows you how to derive actionable conclusions from data analysis, solve real problems, and improve real processes. Here, you'll discover how to implement statistical thinking and methodology in your work to improve business performance. Explores why statistical thinking is necessary and helpful Provides case studies that illustrate how to integrate several statistical tools into the decision-making process Facilitates and encourages an experiential learning environment to enable you to apply material to actual problems With an in-depth discussion of JMP® software, the new edition of this important book focuses on skills to improve business processes, including collecting data appropriate for a specified purpose, recognizing limitations in existing data, and understanding the limitations of statistical analyses.

For every weapons system being developed, the U.S. Department of Defense (DOD) must make a critical decision: Should the system go forward to full-scale production? The answer to that question may involve not only tens of billions of dollars but also the nation's security and military capabilities. In the milestone process used by DOD to answer the basic acquisition question, one component near the end of the process is operational testing, to determine if a system meets the requirements for effectiveness and suitability in realistic battlefield settings. Problems discovered at this stage can cause significant production delays and can necessitate costly system redesign. This book examines the milestone process, as well as the DOD's entire approach to testing and evaluating defense systems. It brings to the topic of defense acquisition the application of scientific statistical principles and practices.

New Approaches and Methodological Improvements

Regression Modeling Strategies

Thinking Strategically: The Competitive Edge in Business, Politics, and Everyday Life

Sustained Performance in a Complex World

What You Need to Know about Data Mining and Data-Analytic Thinking

Teaching Statistics Using Baseball, 2nd Edition

The New York Times bestseller that gives readers a paradigm-shattering new way to think about motivation from the author of *When: The Scientific Secrets of Perfect Timing* Most people believe that the best way to motivate is with rewards like money—the carrot-and-stick approach. That's a mistake, says Daniel H. Pink (author of *To Sell Is Human: The Surprising Truth About Motivating Others*). In this provocative and persuasive new book, he asserts that the secret to high performance and satisfaction—at work, at school, and at home—is the deeply human need to direct our own lives, to learn and create new things, and to do better by ourselves and our world. Drawing on four decades of scientific research on human motivation, Pink exposes the mismatch between what science knows and what business does—and how that affects every aspect of life. He examines the three elements of true motivation—autonomy, mastery, and purpose—and offers smart and surprising techniques for putting these into action in a unique book that will change how we think and transform how we live.

Data Science gets thrown around in the press like it's magic. Major retailers are predicting everything from when their customers are pregnant to when they want a new pair of Chuck Taylors. It's a brave new world where seemingly meaningless data can be transformed into valuable insight to drive smart business decisions. But how does one exactly do data science? Do you have to hire one of these priests of the dark arts, the "data scientist," to extract this gold from your data? Nope. Data science is little more than using straight-forward steps to process raw data into actionable insight. And in *DataSmart*, author and data scientist John Foreman will show you how that's done within the familiar environment of a spreadsheet. Why a spreadsheet? It's comfortable! You get to look at the data every step of the way, building confidence as you learn the tricks of the trade. Plus, spreadsheets are a vendor-neutral place to learn data science without the hype. But don't let the Excel sheets fool you. This is a book for those serious about learning the analytic techniques, the math and the magic, behind big data. Each chapter will cover a different technique in a spreadsheet so you can follow along: Mathematical optimization, including non-linear programming and genetic algorithms Clustering via k-means, spherical k-means, and graph modularity Data mining in graphs, such as outlier detection Supervised AI through logistic regression, ensemble models, and bag-of-words models Forecasting, seasonal adjustments, and prediction interval through monte carlo simulation Moving from spreadsheets into the R programming language You get your hands dirty as you work alongside John through each technique. But never fear, the topics are readily applicable and the author laces humor throughout. You'll even learn what a dead squirrel has to do with optimization modeling, which you no doubt are dying to know.

Thinking Body, Dancing Mind

The Basic Practice of Statistics
Six Sigma Beyond the Factory Floor
Improving Business Performance
A Book for Stat 208 at Virginia Commonwealth University
Noise