Everyone knows by now that the workplace has changed dramatically. What everyone does not know is how they must change to thrive in this new workplace. This is especially a problem for younger workers, who are coming out of an education system geared towards preparing them for the old workplace, and established workers, who find it difficult to adapt to new, often implicit, expectations. These are exactly the two groups who will benefit most from this book. This is not a 'how to find a job' book, but instead is a 'how to manage your career' book, a paper and ink mentor of proper professional behavior.

In the old workplace, if you were technically competent, the company would take care of you. You would receive continued employment, as well as periodic raises and promotions. In the new workplace, technical mastery is a bare minimum – you must not only continually update your technical skills and keep abreast of developments in your areas of expertise, but there is a whole host of career related skills that you must develop. The supervisor who may have helped you be a better employee in the past is now too busy to train you in non-essential (to the company) skills. Furthermore, since people change jobs so much more frequently now, it is much harder to maintain professional relationships over a long period of time. These two facts make this book a valuable resource for anyone in today's work force.

'Career Management for Scientists and Engineers' begins with a chapter entitled 'Defining Your Career'. Borchardt describes the steps required to evaluate your career – determining out where you want your career to go, figuring out how to get there, and setting smaller, intermediate goals along the way. He talks about re-evaluating not only your end goal, but also your progress towards it, as you achieve intermediate goals, and your life situation changes. One of the main points of this section is that you must be both persistent and flexible, to continue moving forward while accommodating changing circumstances. A discussion of possible alternative careers may help you expand your thinking into previously unexplored areas.
After this chapter are 4 main sections, comprised of 17 additional chapters.

The first section in this book is entitled 'Professional Skills' and is comprised of 6 chapters. These chapters (listed below) deal with those career-related skills that virtually all jobs require, but which many people reduce to buzzwords on their résumé. The author discusses such diverse topics as how to be a better active listener, how to save time in your personal life, how to get and stay organized, how to prepare written or oral presentations for different audiences, how to work with difficult people, and so on. It also includes specific suggestions for things to do in typical employment circumstances. Some of the suggestions may seem like common sense, but even if you only find only one useful in your professional life, it would be worth the price of the book. For those who are weak in certain areas, the specific tips for how to improve those skills will prove invaluable.

2. Personal Productivity
3. Writing Skills
4. Oral Presentation Skills
5. Professional Networking Skills
6. Creativity and Decision Making
7. Interpersonal Skills

The second section is called 'Today's New Working World' and discusses the changes that have taken place in the workplace. How corporations have been affected is discussed first, and then how these changes have filtered down to affect individual workers. One major consequence of these changes is the rise in alternative careers, and Borchardt devotes a whole chapter to discussion of the major career areas. He includes several stories of how other scientists have succeeded or failed in the various areas, a section on how to get started in an alternative career, and a brief section on parallel careers (also known as second jobs). The final chapter in this section discusses methods to keep yourself marketable in the new workplace. The chapters in this section are entitled:

8. The Reengineered Workplace
9. Your Workday World
10. Alternative Career Options
11. Maintaining Marketability

'Job Hunting' is the title of the third section, which covers the traditional skills job seekers use, such as résumés, cover letters, references and interviewing. Of particular interest is the first chapter in this section, which discusses ways in which the changing job market has changed the job hunting process. Five example résumés for people at different stages in their careers are also included. He discusses ways to find potential references with whom you have lost contact, as well as strategies for defusing potentially negative references. The interview chapter includes sections on preparing for all types of interviews, including job fairs, screening interviews, video interviews, campus interviews, and employment clearing-house interviews. There is also a brief section on how to conduct informational interviews, but missing is a discussion of why you would want to conduct one. The final chapter in this section includes a detailed description of how to evaluate and compare job offers, and how to negotiate for a better compensation package. The chapters included in this section are:

12. The Evolving Techniques of Job Hunting
13. Writing Your Résumés
14. Résumé Cover Letters
15. Working with Your References
16. Employment Interviewing
17. Assessing Job Offers and Negotiating Better Terms

The final section in this book is entitled 'Back to the Beginning' and consists of one chapter, 'Career Assessment and Planning'. This
chapter talks about how to continually evaluate where you are on your long-term plan. Evaluating how well your career is progressing along the plan, and how well the plan meets your current life situation, can prevent unpleasant surprises and make sure you're ready for sudden transitions.

The book is very information dense, and it will probably take several readings in small pieces to digest all the useful tips. Reading through this book will be easy, the hard part will be putting into practice the techniques Borchardt discusses. While most of the advice given is useful and practical, there are a few omissions that I would have liked to have seen included. For example, there is no discussion of the difference between job hunting and career management, and the text gives lots of hard and fast rules, when of course there are always exceptions. Each chapter concludes with a list of books to consult for additional information but there are no references to web sites. Overall, the advice and information in the book is excellent, and I only wish it had gone further.

As you may have heard, "the only job security these days is your ability to find another job". Reading this book, and putting its advice into practice, will help you prepare to do just that.

Lisa M. Balbes
8 September 2000
As science and technology advance, the needs of employers change, and these changes continually reshape the job market for scientists and engineers. Such shifts present challenges for students as they struggle to make well-informed education and career choices. Careers in Science and Engineering offers guidance to students on planning careers—particularly careers in nonacademic settings—and acquiring the education necessary to attain career goals. The Presidential Early Career Award for Scientists and Engineers (PECASE) embodies the high priority placed by the government on maintaining the leadership position of the United States in science by producing outstanding scientists and engineers and nurturing their continued development. The Awards identify a cadre of outstanding scientists and engineers who will broadly advance science and the missions important to the participating agencies. The PECASE Awards are intended to recognize some of the finest scientists and engineers who, while early in their research careers, show exceptional po This book will be an important resource for both new graduates and mid-career scientists, engineers, and technicians. Through taking stock of existing or desired skills and goals, it provides both general advice and concrete examples to help assess a current job situation or prospect, and to effectively pursue and attain new ones. Hardback. This item is printed to order. Items which are printed to order are normally despatched and charged within 5-10 days. Published: 18 May 2000. 288 Pages | 1 line illustration.
You need to have the ability to work as part of the team. This is vital in the completion of a project. Leadership and management skills. Engineers ought to be leaders and managers. Careers in engineering are constantly evolving and new processes and technologies are being developed all the time. This allows engineers to stay on the ball and react to new problems and challenges in their chosen field. Engineering careers are constantly varied in terms of their job responsibilities, but also in their working locations. Moreover, as discussed above, most engineers tend to select one expert area of engineering and develop their career in that one niche area. What sectors of engineering build things? Ever wondered why your paper airplane, or homemade bottle rocket, plummets to the ground after only a matter of seconds, whilst real aircraft and space craft can stay up there for hours, days and even years on end? 1996. Careers in Science and Engineering: A Student Planning Guide to Grad School and Beyond. Washington, DC: The National Academies Press. doi: 10.17226/5129. As science and technology advance, the needs of employers change, and these changes continually reshape the job market for scientists and engineers. Such shifts present challenges for students as they struggle to make well-informed education and career choices. Careers in Science and Engineering offers guidance to students on planning careers—particularly careers in nonacademic settings—and acquiring the education necessary to attain career goals.