

"Does a superb job of challenging the workplace's status quo,
by stimulating thinking and perhaps a bit of revolution
in the workplace." —Jack Heacock, Virtual Office and Organizational
Development Consultant

Home Workplace

**A HANDBOOK FOR
EMPLOYEES
AND MANAGERS**

BRENDAN B. READ



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Home Workplace

A HANDBOOK FOR EMPLOYEES
AND MANAGERS

by **Brendan B. Read**



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DEDICATION

*This book is dedicated to CMP's IT Home Support team
and IT staff, in particular Jeff, Illysa, Marjorie, and Matthew,
without whom this book, and all my other work for CMP,
would literally have not been possible.*





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Table of Contents

Foreword	<i>ix</i>	Chapter 2: Home Voice Components	31
Preface	<i>xi</i>	Issues	31
The Home Workplace Revolution	<i>xi</i>	Choices	32
Home Working Drives Virtual Working	<i>xiv</i>	Chapter 3: Home Working Equipment	57
Why This Book	<i>xv</i>	Voice Communications Hardware	57
What This Book Covers	<i>xvi</i>	Data Creation, Processing and Communications	61
Acknowledgments	<i>xix</i>	Hardware Recommendations	67
Introduction: The Impending Working Crisis	1	Peripherals	68
The Way Out of the Crisis	11	Computer Connections	69
But We Need a Revolution	12	Chapter 4: Home Data Connections	75
Chapter 1: What Are Home Workplaces?	13	Offline or Online?	75
Home Working Characteristics	14	Data Connection Options	76
What Home Working Entails	14	Chapter 5: The Home Office	89
Types of Home Working	16	Locations Considerations	90
Home Workable Tasks	18	Facilities	93
Non-Home Workable Tasks	20	Home Office Recommendations	98
The Home Workable Trend	20	Coping With Other Inhabitants	101
Comparing Home and Premises Working	22	Voice/Data/Power	105
Home Workplace Management	23	Inspecting Home Offices	109
Home Working Costs and Benefits	25	Paying For Facilities and Furniture	110
Home-Based Businesses versus Home Workplaces	28		

Chapter 6: Ergonomics	113	Changing Circumstances	158
Injuries at Home	114	Termination	159
Home Ergonomics Solutions	115	The Home Working Policy	159
Worksurface Arrangement	118		
Workstation Layout Issues	119	Chapter 9: Management	161
Paying for Ergonomics	122	Why “Over-the-Shoulder” Management is Obsolete	161
		The Future of Employee Management	162
Chapter 7: Employer Investment	125	Managing a Home Working Program	170
Voice Access	125		
Data Access	126	Chapter 10: Special Circumstances	185
Communications	131	International Home Working	185
Additional Software Tools	133	Small City/Town Living	189
Hot-Desking	136	Face-to-Face At Home	192
Storefront Offices	138	Employees Working from Other Employees’ Homes	195
Equipment	138		
Supplies	139	Chapter 11: Adjuncts and Options	197
Staff Time	139	Self-employed Home Workers	197
		Outsourced Home Workers	202
Chapter 8: Administrative	141	Satellite Working	202
Home Worker Qualifications	141	Mobile Working	206
Determining Home Workable Functions	142	Conferencing	218
Developing the Criteria	143		
Selection	145	Chapter 12: Deciding On Home Working	225
Screening Process	147	Home Working Advantages	226
Skills/Knowledge Training	148	Home Working Downsides	240
Home Work Training	149	Home Working Recommendations	244
Legal and Regulatory Issues	150		
Insurance and Liability	156		
Recommendations	157		
HR Matters	157		

Chapter 13: Putting Home Working Together	249	Education/Marketing	282
Planning: The Hard Part	249	Monitoring and Tweaking	284
Types of Home Working Programs	250	Chapter 15: Ending Home Working (If Need Be)	287
The Home Workable “Inventory”	251	Functional Ending	287
Home Working Timetable	254	Institutional Ending	289
Meeting Goals—What’s Entailed	254	Organizational Ending	291
Assembling the Plan	257	Wrap-up	292
Data Collection/Program Validation	259	Home Working Rebirth?	294
The Best Guide: Experience	261	Epilogue	295
Cost-Benefit Analysis	262	Resources Guide	297
Alternatives (to Home Working)		Appendix I: Telework Employment Agreement	303
Analysis	265	Appendix II: Checklist for High Level Home Working	313
Obtaining Buy-In	267	Appendix III: Getting A Life	316
Are Premises Offices Better?	270	Appendix IV: How to Go Home	319
Chapter 14: Bringing It Home (Program Rollout)	277	About the Author	322
Program Management	277	Glossary	323
Enabling the Employees	278	Index	327
Program Measurements	280		
Making the Investment	280		
Employee Setup	280		
Prioritization	282		



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Foreword

In *Home Workplace: A Handbook for Employees and Managers* Brendan Read addresses the transition of work from the “Industrial Age” to the “Information Age.” While each of us may claim to understand some of the benefits that modern technology provides in our daily work life, few among us can truly bring together a complete picture of the many facets and the symbiotic relationships necessary for the success of the Information Age’s “New Ways of Working”—a phase coined by British Prime Minister Tony Blair when he encouraged and supported the work of the 5th European Assembly on Telework, held in Lisbon, Portugal.

During the past few years, we have witnessed numerous detonations and loss of life events in and around commercial / government buildings: A nerve gas attack on a major capital city transit system, rail line explosions in multiple countries, random sniper attacks, and the murderous attacks against the innocent on September 11, 2001. These events provide even more reasons to use technology and geography as ways to protect and defend ourselves.

No longer are we shackled to centralized working locations. With the advent of terrorist attacks around the globe, working from home has become all the more important. In my own family’s experience, my wife’s stepsister, Becky Bristol, became the first civilian ever awarded the United States’ Purple Heart Medal (posthumously) by President Ronald Reagan, when she was killed by a terrorist car bomb while working at children’s school on a U.S. Air Force base in Germany.

Whether in the call center industry or the general business world, somewhere between two-thirds and three-quarters of all economic activity is information based and therefore electronically transportable. This economic fact represents an enormous opportunity to reinvent not only what we do, but also how we do it. Our Information Age is the era where we make the most of both new technologies and expanding broadband telecommunications. New technologies are merging with networks. Going forward, “Intelligent Broadband Networks” will be available to all organizations and workers, regardless of geography.

At the same time, the wonders of modern technology and telecommunications are upsetting or causing manifold changes in labor agreements, jurisdictional taxation, and revenue streams. Management perceptions and stylistic trends need to follow the lead of technology and telecommunication innovations. Cities, states, and provinces, desper-

are for tax revenues, do not want to relinquish traditional income and commuter tax revenues from those no longer required to work within their jurisdictions. Much as the law often lags about fifteen years behind reality, so too does our effective adoption of the virtual work place, home working, and taxation policies.

A review of the many benefits of home working: less congestion and pollution; fewer sick days taken and transportation accidents / injuries; lower risk management and facility costs; improved employee recruiting and retention; increased productivity and job satisfaction; greater rural economic development opportunities; and enabling workers to better balance their work and family responsibilities—makes one wonder why every organization has not adopted an employer “fully sponsored” working from home *modus operandi*? It all has to do with change management and helping decision makers understand the new work models and options available to them.

This book systematically addresses the reasons why employers and employees should enthusiastically bring home working into their business’s mainstream. A WIN-WIN for all interested parties, if they are willing to understand, embrace, and manage the changes—changes that are inevitable. Equally, the book provides business case studies, citations, economic models, anecdotal stories, and visions on how to incorporate home working into our day-to-day work experience, individually and collectively.

Brendan has done a superb job of challenging the workplace’s status quo, by stimulating thinking and perhaps a bit of revolution in the workplace, and for making us question traditional working relationships, while at the same time offering solutions. He is offering suggestions for each of us to re-examine our roles with vendors, consultants, and analysts. Are we truly doing the best we can for our organizations and ourselves? Are we seizing the opportunities available for innovation in our lives and in our businesses?

It is the responsibility of all of those who have managerial, fiduciary, and profit and loss responsibilities to understand and embrace the dynamics of *Home Workplace* and to *Make It So!* in their organizations. Likewise, every individual with work and family responsibilities has a duty to reduce risks, and reduce costs, while fulfilling their everyday obligations.

I commend to each of you the ideas, methodologies, and insights provided in *Home Workplace*. I have experienced first hand both the old and the new ways of working and foresee only greater opportunities and benefits for increasing numbers of employees to work remotely. Intelligent broadband networks, coupled with “The New Ways of Working,” are the future of safe, productive, high-performance work environments for the Information Age.

Jack Heacock

Virtual Office, Organizational Development, and Customer Service Consultant

Call Center Magazine ‘Pioneer Award Winner’

Parker, Colorado

Preface

As a newspaper reporter, I've covered fires, but never fought a fire. I've watched doctors save lives, but never saved one myself. As a business editor/writer I've written about electrical installations, steelmaking, transit systems, and call centers, but I've never wired a light fixture, worked in a steel mill, driven a bus or train, or managed a call center. (Though I once worked as a telemarketer—for the King County Democrats in Seattle—in between newspaper jobs.)

Home working is different. It is something I've done for most of my career, beginning in 1975, when I was 17. That was when I began clacking out high school news for the (Peterborough, NH) *Ledger* on my mother's portable manual Remington typewriter a short walk from a gorgeous view of Mount Monadnock. I've come full circle, writing this book on an IBM ThinkPad laptop from my home office on Vancouver Island, Canada, again with a view of the mountains (and a glacier) outside of my house.

I'm passionate about home working. It works for more people than you may think. If more people worked from home we could have cleaner air, a better quality of life and lower taxes.

That's why I've written this book, to provide information to help you decide whether to deploy this workplace method. If home working will work for you I wanted to provide advice on how to implement it.

✪ THE HOME WORKPLACE REVOLUTION

You may not know it but you're in the middle of a revolution.

The signs of it are not protests in the streets. Or picket lines inches away from employer-contracted strikebreaker thugs.

Instead the signals are the vehicles parked all day long in the carport or on the street; the men and women with the cellphones and ear buds in the local office supply store; and the neighbors in sweats with the cordless phone dangling out of their front pockets while rolling out their garbage can and waving a cheery "hi." You half-heartedly wave back, twisting the arm of your itchy suit and gunning the air-killing engine of your freshly-dented tank-like SUV as your radio warns of 45-minute backups on the I-whatever.

Then there are the e-mails from colleagues saying "I'm working from home today" and the employees who show up now and then with their laptops and cellphones and camp out in a vacant cube.

You might think these people are a little odd. Why aren't they in the office? How can they work like that? Yet you get the same e-mails. You hear from your counterparts that these people are great workers: always available, there on time, willing to work early or late, rarely do they call in sick, and that they're usually cheerful and rarely fatigued.

Then you look at the employees who show up daily in their cubicles: too often bedraggled, stressed-out and worn out—and the workday's just begun—mumbling something about traffic or late trains. Then you get the requests to leave early to pick up a daughter at the soccer field or go to a doctor's appointment: before the traffic.

Could those people in the sweats and cordless phones, who send the "working from home today" e-mails, and their employers, be onto something?

Let's admit it. Haven't you ever taken your laptop home, booted up your desktop, and donned your jogging suit instead of your monkey suit? Turning over your coffee mug instead of your vehicle's engine? Kissing your loved ones good morning instead of greeting them with a grunt of exhaustion sometime late in the night after a long day?

You are witnessing a *home workplace revolution*. Where people are or want to carry out their employment tasks from where they live in order to avoid long, stressful commutes that cost them \$4,000 to \$5,000 a year in work clothes, car expenses and carfare. Where employers avoid providing expensive offices: at up to \$35,000 per employee/workstation including the real estate, furniture, cabling, heating/air conditioning, power, share of amenities and parking.

Where both employees and employers save that priceless commodity—*time*—which is wasted in commuting. Where employers and employees avoid getting infected and paying the price for illnesses and other disasters that afflict workplaces.

And when disaster strikes, wouldn't you and your employees prefer to be at home? I know all too well *that* feeling: I was one of many who evacuated Manhattan after the terrorist attacks on September 11, 2001, along with my wife and sister-in-law.

You may know *home working* through other titles: telecommuting and teleworking. But *only* home working defines the location: employees' domiciles. The other terms often include working from satellite offices and from the road.

The Revolution Grows (and Pays Off)

Home working is growing. The International Telework Association and Council (ITAC) reported that the number of employee teleworkers nearly doubled: to about 23.5 million in 2003 from 14.4 million in 1999. That is on top of the millions of self-employed teleworkers (which this book doesn't cover), whose numbers increased at a slower rate: from 19 million in 1999 to about 23.4 million in 2003.

The 2003 American Interactive Consumer Survey, conducted by the Dieringer Research Group revealed that the number of employed Americans who telework at least one day a week has increased by nearly 40% since 2001; 22% of those work from home daily or nearly daily. The META group reports that the number of full-time or exclusive home workers has doubled since 2000.

Yet this is a small number—about 20 million or 15% of the total workforce including the self-employed—who work at home at least once a week in 2001, reports the US

Bureau of Labor Statistics. But the percentage is larger in the information or knowledge workforce: people that create, enter, assemble, file, and communicate *knowledge*; i.e., numbers, words, data, ideas, and messages.

These occupations include accountants, administrators, bookkeepers, civil/public servants, consultants, call center customer service reps, support and sales agents, data entry clerks, managers, professors, journalists, nurses, programmers, teachers, and trainers. Because knowledge is intangible it can be communicated, from anywhere to anywhere, using high-speed voice/data links. You don't have to be in a formal premises office to be a knowledge worker.

AT&T: At the Revolution's Forefront

Communications giant AT&T is in the vanguard of this revolution. It develops and markets many of the products and services that enable this change, beginning with the invention of the telegraph in 1844 (the first "dot" in dot.com) and accelerated with the invention of the telephone in 1876.

AT&T and its scientists developed what became today's landline and cellphone networks. They supply the high-speed DSL connectivity that home workers increasingly rely on. That, in turn, has fostered home working growth by enabling employees to receive and transmit data practically at the same speeds as if they were working in employer-supplied or *premises* offices.

Not only that, AT&T walks the walk on home working. It is reaping the benefits internally as well as externally. It supplies the voice and data services for home workers, e.g., virtual private networks. And in 2002/2003 17% of AT&T managers report that they worked from home full time—up from just 9% in 2001. The average number of days these managers worked from home grew to 9 per month in 2003 from 6.7 per month in 2002.

Home working, plus satellite working (working from nearby satellite offices), has paid off for AT&T, a company that is in a highly competitive marketplace and needs all the savings and productivity gains it can muster.

The telco generated over \$150 million in home work benefits in 2003. These gains come from lower real estate and other overhead costs, higher productivity and improved employee retention and recruitment, which lower staffing costs. How many other revolutionary new practices can show such bottom line results?

Out of sight out of mind? Not according to AT&T. Home-based managers worked 7.6 *hours* per workday compared with 6.8 *hours* for all managers. Home workers gained about 1 *hour* in extra productive time. The time saved from commuting isn't spent sprawled in from the TV. Out of 80 minutes each day home working managers avoided commuting, 60 *minutes* are redirected to work.

These employees are happier and more loyal. Over 63% of home/teleworking managers report increased job and career satisfaction; 47% who had received competing job offers factored in working from home into their decision to stay within the company.

Has there been any other way that is more effective at getting more out of your employees, voluntarily and willingly? Could home working be the key to attracting and

retaining employees without busting budgets on big pay/benefits packages, cozy offices, and shiny gyms?

Home working also hasn't hurt promotability. Managers in these "virtual offices" are more likely to be promotable than managers in traditional premises offices. Nearly one in three managers reports that teleworking (including home working) has had a positive effect on their career.

AT&T says that all these benefits, however monetized, are small when compared to the benefits that *all of us* receive from home working. These include saving millions of gallons of gasoline and avoiding thousands of tons of pollutants from being spewed into the air. Not to mention a better work/family/life balance.

"Rhetorically we ask what other management practice can generate such a success rate?"—AT&T

✪ HOME WORKING DRIVES VIRTUAL WORKING

The home workplace revolution is the largest gear in a bigger movement, the *virtual workplace revolution*—working virtually, anywhere, anytime, anywhere, freed of being face-to-face with colleagues, clients, customers and supervisors.

Virtual working is the carrying out of tasks from home; from the road, i.e. *mobile working*; and even from employer-supplied or *premises* location through calls and chats and through audio, data, Web and video conferences, collectively known as *conferencing*, without face-to-face interaction with others. Virtual working eliminates time, money, and performance lost in commuting and business traveling and in not working when traveling.

In the Industrial Revolution, steam power, canals, and railways broke the chains of inefficient home-based production and enabled low-cost mass production of goods and services conducted in centralized urban premises. In the Automobile Revolution, paved roads, personal vehicles and motorized trucks made living and working independent of rail lines and urban centers possible: people could live and employers could locate workplaces anywhere.

In the "Virtual Working Revolution," employees and employers are freed of workplaces altogether. The revolution has been enabled by technology that has automated production and made communication and information processing cheap, reliable, and feasible.

The two most widespread means of virtual working, the phone and e-mail, have come at the direct and indirect expense of retail, door-to-door, and field sales. Call centers handle calls and text and Web contacts that would have been done in person. Self-service—via the Web and interactive voice response (IVR)—has been made more user-friendly with speech recognition and thus is taking customer service and sales to the next level by eliminating the need for people, in any location.

There are more tasks and jobs that were once handled face-to-face that are now handled virtually. And as technology improves, costs drop and people become used to these different methods of communications.

For example, health maintenance organizations (HMOs) now offer "dial-a-nurse" services to provide information that otherwise would have forced an in-person visit to

obtain. One such company, IntelliCare (based in Portland, ME), also has many of its workers take contacts at home.

Education and training, which was once thought to be as personal as you can get, is going virtual: Web conferencing and online, interactive lessons and simulations, which can be supplemented with CDs and videos. With prepackaged lessons, students and employees can learn when and where they want.

Virtual education is popular in colleges and universities. Colleges like the University of Phoenix offer degree programs at hundreds of satellite campuses through a blend of online and in-person classes. Today's students are extremely computer-savvy and most modern information is available online, so why make students and their professors go to lecture halls and old-fashioned libraries?

Home working and the home workplace revolution snaps the bonds to the old-fashioned office by providing an alternative fixed location for non-traveling employees. Home is a static locale—workers are already there. It is a place from where they can conference and base their mobile working.

★ WHY THIS BOOK

This book is a guide for managers and executives who are curious about home working, want to understand which functions this new phenomenon is best suited, want to find out what is entailed in implementing home working, why they should consider doing it, and need advice on how to do it. That includes making the case to supervisors and superiors alike.

This book is also for employees who are currently working from home, or wish to do so in the future. It offers them excellent advice on voice, data, equipment, locations, facilities, and furniture. It contains tips on how to cope with distractions from various sources (and species). It also raises legal issues that they should be aware of and plan for. Because this book is written from the executive and manager perspective, it allows the employees to understand management's thinking, which will help employees to comply better with a company's home working program, making it more of a success.

Because every organization is unique, I recommend those readers who want to pursue home working consider (especially for large-scale projects) contacting professionals who are experienced at putting together and assisting clients in implementing home working programs. I list key consultants and organizations that I've worked with (when writing an article, at trade shows, and authoring this book) in the Resources Guide, which can be found at the back of this book.

One of those consultants is Jack Heacock, who has kindly assisted me with this book. He is a decorated Vietnam veteran: a former US Army signalman who knows all too well that having your people distributed can improve your chances of survival.

That same kind of thinking was what led the US Department of Defense to create the Internet: by distributing computers on a network it would reduce the risk that a single attack could wipe out vital information stores.

The DOD's premise worked on September 11, 2001. When the World Trade Center and a good chunk of the Pentagon buildings collapsed the Internet didn't. People,

like me, who evacuated from the scene and had laptops could hook them up and stay in touch.

This book focuses primarily on home working by employees, chiefly in the information/knowledge industries. It does not look specifically at types of home-based businesses, except self-employed contractors, covered in Chapter 11. Chapter 1 touches on the differences and similarities between home working and home-based businesses.

However, home-based business entrepreneurs still will find much advice on voice, data, facilities, disaster protection and ergonomics, all of which is applicable to any type of home office. For instance, Chapter 10 has two sections—face-to-face at home and employees working from other employees' homes—that the entrepreneur will find helpful, e.g. they should pay especially close attention to issues like parking and zoning.

I took the employee tack because I've found that many employers are understandably skeptical about why and how they consider having employees work from home. It is a revolutionary way of working that requires a greater degree of trust and reliance on performance assessment than traditional "line of sight" and "hands on" management.

This book is intended to take away much of the mystery of home working by laying out what it is, what is entailed in deploying it, the issues that arise and how to cope with them, and options for home working. Only after the reader understands what is involved do I then discuss the advantages and downsides of home working. For those that decide to implement a home working program I then discuss how to do that, including cost-benefit analyses, and an example of a home working policy. I've also provided a home working checklist.

From my experience as a home worker, a premises worker, and a mobile worker there is little for employers to fear. As shown by the AT&T example, most studies show that home workers are more productive and loyal than premises workers.

I know that I've been happier and healthier since I've begun working from home. I live where I want to while obtaining higher productivity for my employer and a better quality of life for my family.

Home working is also better for society. The fewer the people who have to commute the less pollution and oxygen-giving greenspace that is chewed up for roads and parking lots, and the lower the needless injuries and deaths from motor vehicle accidents. Less money is wasted on subsidizing roads and transit, including the unaccounted-for paving over of productive, property-tax-paying land for highways, for bus or rail transit, and on emergency services from accidents—lowering our tax burden. That means more money in our pockets.

Equally, if not more importantly, by eliminating the stress-inducing money-draining drudgery of commuting, home working enables you to spend more time with your family, friends, and loved ones, and in your community. To enjoy and take part in life instead of just existing.

Dorothy, from *The Wizard of Oz*, is right. There is no place like home.

✻ WHAT THIS BOOK COVERS

This book is intended to outline the details of home working so you can consider and

analyze the business case of having some, if not all, of your employees work from home, some or all of the time, and how to implement and manage a home working program.

The book looks at what is home working, the types of home working, and its components, i.e. voice and data technology, equipment, home office locations, facilities, environment, and furniture. It looks at what employers need to have in place to enable home working including network access, temporary or hot-desks for when home workers come into the office, the means of communicating and staying in touch with home workers, and IT support needs.

There are unique administrative and management matters with home workers, including how to measure home working program performance. The book examines how to select, train, and manage home workers including assessing home offices, monitoring, sign in/sign out, and career development. There also are legal issues to be addressed, like complying with data privacy laws, workplace regulations, liability insurance, and taxation.

There is a chapter on special circumstances. They include international, small community and face-to-face (with customers and clients) home working that have unique issues, requirements, responses, and solutions.

Once you know what is involved with home working, you are provided with the necessary information to help you decide whether to instigate a home working program, and how to implement it. The book explores the advantages and challenges of home working, its alternatives such as adjuncts like satellite offices, home worker contracting, mobile working, and conferencing. There are suggestions on how to plan a home working program and how to market it with colleagues in other departments—especially Facilities, HR and IT—and to senior management. There is advice on rolling out, and if need be, terminating the program.

At the back of the book are: a Resources Guide of associations, consultants and suppliers; a checklist prepared by Jack Heacock, who is one of North America's leading virtual working experts and who wrote the Foreword; and a telework (home working) agreement prepared by John Paddock, attorney with Denver, CO law firm, Hale Hackstaff Friesen. There is also a guide on Getting A Life, i.e. how to overcome the isolation from working at home and how to make the most of this excellent opportunity to enjoy the additional time that working at home provides.

Note: *The names, offerings, locations and contact information of suppliers including consultants and organizations may change over the lifespan of this book. For example, during the final editing Siebel acquired Ineto and Citrix acquired ExpertCity. Best bets: use the old names for Web searches. Also stay in touch with new products, services, technologies, applications and case studies by visiting CMP's websites, reading its print and online publications, and attending its conferences and trade shows.*

You will find that there is repetition in parts of the book—it is deliberate—to minimize the annoying flipping pages back and forth. Where needed, I've put in references to other chapters.

To follow up on topics such as voice/data I recommend: *The Telecom Handbook*, by Jane Laino, Newton's *Telecom Dictionary* by Harry Newton, *A Practical Guide to DSL* and

Going WiFi by this book's editor, Janice Reynolds. For mobile working: *Going Mobile* by Keri Hayes and Susan Kuchinskas. And for conferencing: *Videoconferencing: the whole picture* by James Wilcox. For more help to incorporate home working in disaster planning read *Disaster Survival Guide* by Richard 'Zippy' Grigonis. All of these books are published by CMP Books.

The material for this book comes from many articles, interviews, stories and anecdotes, cited where and when available. Much of the information also comes from my own experience as a home, premises, and mobile worker.

I wrote this book on my own Dell OptiPlex desktop, supplemented by a CMP-supplied IBM ThinkPad. Both machines are linked to my very reliable cable broadband provider, Shaw Cable through a Linksys [Cisco] hub. The CMP machine uses a Nortel Contivity VPN to access our network. Telus is the local and residential long distance phone carrier where I live. My telephone is a very reliable, if sometimes annoying (to my wife), Panasonic Caller ID-fitted cordless speakerphone.

I also received superb assistance from CMP's IT Home Support department. For their patient and always-there professional attitude, I dedicate this book to that group.

I hope you find the information and advice helpful. If you have any comments, please e-mail me at **bbread@shaw.ca**. I'll pick up your message—from home.

Brendan B. Read

Acknowledgments

Journalists, like myself, are often little more than “glorified voyeurs.” We hear, see, and report on what others are doing. But we’ve rarely done these acts ourselves.

My experience and my own writing even on home working, only goes so far. To complete the picture, I sought outside expertise. I especially want to thank home working consultant, evangelist, and inspiration, Jack Heacock who reviewed and made very helpful suggestions for the copy, and who prepared the checklist found at the back of the this book.

Also assisting me with the research by patiently answering my questions has been John Edwards, TELEWORKanalytics; Todd Tanner, The Tanner Group; David Smedley, Wave, Inc.; John Paddock, Hale Hackstaff & Friesen; Chuck Wilsker, the Telework Coalition; Bob Fortier of the Canadian Telework Association and InnoVisions Canada; Jeff Furst, FurstPerson; the International Telework Association and Council (ITAC); Joanne Pratt; Eddie Caine; Gil Gordon; Michael Amigoni, ARO; Basil Bennett, Willow CSN; Tim Houlne, Working Solutions; Reg Foster, Alpine Access; Dave Bjork, IntelliCare; Carla Meine, O’Currance Teleservices; King White, Trammell Crow; John Boyd, The Boyd Company; John Vivadelli, Agilquest; Robert Camastro, Virtual-Agent Services; Rick Frye, Gryphon Networks; and Richard ‘Zippy’ Grigonis.

I have also sourced direct and background information from several leading home working employers and/or suppliers. These include AT&T, Aspect, Citrix, Convergys, Envision Telephony, GemaTech, MCK, Microcell (Fido), Nortel, Procter and Gamble, Siebel, Siemens, Spectrum, Sprint, Teltone, Telus, UCN, Verizon, West and Westjet.

You can find most of these consultants, firms and organizations in the Resources Guide. If you are interested in setting up or enhancing your own home working program please contact them.

Making the book happen has been the assistance and support from CMP’s IT Home Support department, in our Manhasset and San Francisco offices. They are there when CMP home workers need them. They were there for me when I worked there, from home. I also want to thank the staff of *Call Center Magazine*, including group vice president Chris Keating, for allowing and supporting me to work from home in New York and later in Canada when I was employed as the magazine’s Services Editor.

I owe the editing of this book to my fellow home worker and book editor Janice Reynolds. She has contributed her knowledge on DSL, VPNs, and Wi-Fi (she is author

of *A Practical Guide to DSL*, and *Going Wi-Fi*, both published by CMP Books). She worked with me very patiently on this tome, on *Designing the Best Call Center for Your Business* and *The Complete Guide to Customer Support*, the last book written with *Call Center Magazine* Chief Technical Editor Joseph Fleischer; both books have sections on home (tele)working.

I also owe the putting together of the book, again very patiently, to Robbie Alterio who also designs *Call Center Magazine* and put together my other two books, and to Matt Kelsey who have been very patient with this book. And I owe unlimited time and love to my wife, Christine, whose common sense advice has kept the book (and me) on track.

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Introduction: The Impending Working Crisis

There is an impending multifaceted crisis facing organizations that could affect their (and your) ability to function and deliver products and services effectively. It is a crisis that will impact the quality of lives of each of us. Unfortunately, the situation, represented by data and reports, will very likely get worse over the lifespan of this book.

Here are the facets:

Worsening (and costly) commutes

Commuting times are getting longer and delays worse. The non-profit group, The Road Information Program (TRIP), reports that commute times increased nationwide by 14% from 1990 to 2000—from 22.4 minutes to 25.5 minutes. Cities with big commutes include Atlanta, GA (31.2 minutes), Miami, FL (28.9 minutes), Orlando (27 minutes), and Jacksonville (26.6 minutes).

The average urban driver now spends 62 additional hours annually—the equivalent of 1.5 working weeks stuck in traffic. That's up from 44 hours in 1990, reports the Texas Transportation Institute *2002 Urban Mobility Study*.

The same study, cited in a published 2003 report for the American Public Transportation Association (APTA) entitled, "Critical Relief for Traffic Congestion," estimated the total cost of congestion in terms of lost hours and wasted fuel was *\$68 billion* in 2000. Nationwide, the total annual cost may now approach *\$100 billion*.

Commuting costs eat into paychecks

The APTA report also found that each peak-period road user lost \$1,160 in wasted fuel and time in 2000, including time shared with family and friends.

The report, citing an article by Philip Reed entitled, "Your Car's Total Cost of Ownership" (published by Edmunds.com in April 2002), says the cost of owning and operating a vehicle can run as high as \$6,000 or more a year.

The percentage of household income eaten by commuting range from 15.3% in New York, where there is easily accessible mass transit to 23% in Houston, TX, where mass transit is less available; the APTA reported cited an article by Anthony Downs "Can Transit Tame Sprawl?" that appeared in the January 2002 *Governing Magazine*.

Lives lost, injuries incurred during “drive time”

With automobile-based commuting there are accidents that incur costs as well as pain and suffering. The National Highway Traffic Safety Administration reported that 42,815 people, motorists and passengers, plus pedestrians cyclists and other non-motorists lost their lives in traffic accidents in 2002, or over 117 per day.

To put that in perspective, 50% more Americans die on the roads each month: over 4,500 compared with the approximately 3,000 who lost their lives in the terrorist attacks on 9/11/01. Perhaps we should end terrorism on the roads?

On top of that, over 2.9 million Americans are injured in traffic accidents, or over 8,000 a day or 240,000 per month. The APTA report, citing a study by the National Traffic Safety Council, entitled “Injury Facts,” which found that in 2000, \$71.5 billion was lost in wages and productivity due to motor vehicle injuries.

Natalie Litwin is a board member of Transport 2000 Ontario: part of Transport 2000, Canada’s leading transportation alternatives advocacy organization. Writing in *The London* (Ontario, Canada) *Free Press* March 20, 2004, she points to some other disturbing statistics:

- * The Ontario Medical Association estimated that in the year 2000, pollution costs to the health-care system and losses to employers and employees in that province were more than \$1 billion.
- * An Ontario Ministry of Transportation 1994 study estimated the social costs of highway crashes: health care, property damage, policing, insurance and lost earnings at \$9 billion in one year.
- * According to Smartrisk, a non-profit injury-prevention organization, vehicle-related injuries in Ontario cost \$567.1 million in 1996.
- * Car and motorcycle crashes caused 54.7% of Canadian spinal-cord injuries in Canada, according to the Canadian Paraplegic Association.
- * Motor vehicle crashes caused approximately 50% of all degrees of traumatic brain injuries in the US.

High (and hidden) costs to “remedy” commuting

To “remedy” congestion costs money. The American Association of State and Transportation Officials estimates that the US needs to spend \$92 billion—in tax dollars—just to maintain current congestion levels.

The costs to construct a highway is \$15 million and up per lane-mile or \$30 million for a lane in each direction, based on a recent suburban highway widening project in Victoria, British Columbia, Canada. But each lane can carry only 1,500 cars or 1,680 commuters; there is an average of 1.12 passengers per car in each direction. Bus or rail rapid transit systems can cost about \$20 million to over \$100 million a mile (the higher end is for elevated lines or subways in large, costly metropolitan areas).

Those “remedies,” especially highways, eat land. To transport 15,000 people per hour in private cars on an expressway requires 7 lanes per direction or 167 feet in width; the APTA study cites a paper entitled “Transportation for Livable Cities,” by Vukan Vuchic, published by Center for Urban Policy Research, Rutgers University, New Brunswick, NJ,

1999. If those commuters took buses the land and lane-use shrinks dramatically to 36 feet or 1 lane in each direction; if they rode trains that figure drops to 24-26 feet or 1 track in each direction.

Traffic engineering isn't the answer

Don't count on engineering to solve the congestion mess. Ironically engineering roads—to accommodate more traffic—has made congestion worse. The faster the traffic, the easier it is to drive, but often too the more injuries and deaths. That leads to more delays; it also diverts police, fire, and paramedics from less preventable tragedies.

The *New York Press* published, on March 8, 2004, a revealing article on pedestrian tragedies and traffic congestion. It pointed to a pair of pedestrian fatalities: Juan Estrada and Victor Flores, two schoolchildren killed by a gravel truck that could have been prevented by a simple traffic-calming device called a "leading pedestrian interval," or LPI.

An LPI, it says "lights up the pedestrian signal about three seconds before vehicular traffic gets the green. This gives pedestrians a head start into the intersection and forces turning vehicles to be less aggressive as they drive through the crosswalk." LPIs might have prevented the type of "right turn conflict: that killed Juan and Victor. The downside of an LPI is that a few less vehicles may be able to move through the intersection at each cycle of the light.

The story pointed to success with experimental LPIs, however the New York City Department of Transportation is apparently resisting, says the paper. A former DOT director of planning told the publication, under condition of anonymity, how it works. There are no formal "warrants" or requirements when engineers look at intersections, "they are primarily looking to see that an LPI won't degrade vehicular 'level of service.' DOT's attitude is, 'We will do pedestrian safety, but only when it doesn't come at the expense of the flow of traffic.'

"To the traffic engineers, 'it's all about big maps and traffic counts. Guys in Lexuses stuck in traffic jams are simply more important than Mexicans crossing the street.'

"The real reason there is no LPI at the intersection where Juan and Victor died is because the traffic engineers who control and run New York City's Dept. of Transportation fundamentally disagree with the entire concept of traffic calming. In the world of the traffic engineers, taking away five seconds of green time from trucks heading west to the Battery Tunnel is a serious risk. It's a major sacrifice.

"The way that DOT operates is scandalous. But the scandal is not so much about incompetence or corruption. The DOT is controlled and run by an insular and widely discredited group of professionals called "traffic engineers." The more effectively the traffic engineers do what they perceive to be their job, the more choked and immobilized New York City's streets become."

The newspaper also interviewed former DOT Traffic Commissioner and Chief Engineer Sam Schwartz.

"Traffic engineers have failed," Schwartz says. "If you compare the accomplishments of our profession [in this country] over the last 50 years to the medical profession, our

performance is equivalent to millions of people still dying of polio, influenza and other minor bacterial diseases that have been cured.”

In contrast to traffic engineers’ and highway lobbyists’ claims reducing traffic supply actually helps traffic congestion. John Kaehny, executive director of Transportation Alternatives, told the *New York Press* about a British study that examined cases where roads were taken out service and found that “a significant amount of vehicular traffic simply ‘disappeared.’”

When it wasn’t convenient to drive anymore, commuters took a different mode of transit, traveled at a different time of day or made fewer, more efficient trips. They concluded that if you tighten roadway capacity and make a city less accessible to the automobile—particularly a city that offers good transit options—there will be less traffic congestion, higher quality of life and significant economic benefits.”

Property taxpayers subsidize cars, buses, trucks, highways

Land consumption, especially for highways, has a nasty hidden price not covered in fuel taxes, tolls, or fares—the recurring lost economic activity and property taxes when land is buried by pavement and tracks. Taxpayers, especially property taxpayers take the hit.

Here’s one example from the City of Burlington, Ontario, Canada, a suburban city near Toronto. A typical 4 or 6 lane highway in their area needs about 150 metres (500 feet) of right of way; for 2 kilometres in length (about 1.2 miles) and some extra land for an interchange the total area would be about 38 hectares. If the same area were developed for modest single-family homes, we could achieve about 16 units per hectare. Each household would pay about \$3,500 per year in taxes.

Here’s the conversion for Americans: 38 hectares for 2 km of 4 to 6 lane highway with interchange converts to 93 acres for 1.243 miles (hectares to acres: 2.4710, kilometers to miles .6214). 2.375 houses per hectare, 5.869 houses per acre.

16 modest single family housing units per hectare amounts to 608 houses on 93 acres. Each house pays \$3,500 CDN or \$2,625 US annually in taxes or a total \$2,128,000 CDN at an exchange rate of \$1CDN = \$0.75 US, \$1,596,000 US in ANNUAL foregone property taxes.

150 meters width of straight stretch equals 492.1 feet (meters to feet, 3.2808) 1 mile of straight stretch equals 25,983,936 square feet or 59.65 acres. That works out to be 350 homes. That amounts to \$1,225,000 CDN or \$918,750 US in ANNUAL foregone taxes.

Mass transit not always viable

As the above studies show, mass transit consumes less land: 24 feet compared with 167 feet.

Mass transit also is far less polluting than automobile traffic, although buses do get snarled in the same traffic as private vehicles. But mass transit can’t compete with private cars on most commutes, i.e. suburb-to-suburb, since offices have moved out or located to car-served and badly congested “edge cities.”

The APTA study says only 49 percent of Americans live within one-quarter mile of

a transit stop. The US Census Bureau reports that only 4.6% of Americans take mass transit, compared with 75.7% who drive alone.

Mass transit requires operating subsidies from 30% to 75% or more of costs. Mass transit operators can't recover all their costs from their fareboxes because they are competing with subsidized private vehicles.

Environmental damage

Commuting in North America means an individual using their private vehicle for most work trips, but there is a steep price for such convenience.

The Surface Transportation Policy Project (STPP) reports that motor vehicles are the largest source of urban air pollution, generating more than two-thirds of the carbon monoxide in the atmosphere, a third of the nitrogen oxides (which react to form smog), and a quarter of the hydrocarbons (which also form smog).

Some pollutants emitted by cars and trucks are known to (or are likely to) cause cancer, including toxic substances such as soot (fine particulates), benzene, arsenic compounds, formaldehyde, and lead. In the 1996 National Toxics Inventory, the Environmental Protection Agency estimates that mobile sources such as cars, trucks, and buses release about 3 billion pounds of cancer-causing, hazardous air pollutants each year.

The STPP reports that according to the Intergovernmental Panel on Climate Change (IPCC), the 1990s was the hottest decade of the 20th century. The IPCC further predicts that the earth's average temperature will increase by as much as 10° F during the 21st Century, leading to record heat waves, droughts, an increase in frequency of severe storms, rising sea levels, and the migration of insect-borne tropical diseases like malaria.

Carbon dioxide (CO₂) is the largest contributor to climate change and the transportation sector is one of the largest sources of CO₂. Cars and light trucks emit 20% of the nation's CO₂ pollution. Each gallon of gas consumed pumps 28 lbs of CO₂ into the atmosphere—19 lbs from the tailpipe and nine pounds from upstream refining, transporting and refueling. The US transportation sector, as a whole, is responsible for about 32% of American CO₂ emissions, and almost nine percent of the world's total CO₂ emissions.

Commuting consumes oxygen-producing greenspace that no one has set a price tag on; and few are willing to pay for its use. Yet, unless we quit treating the environment as a free lunch, we will pay for it with our lives.

Oil/gas shortages

Chicken Little wasn't wrong, only a little early. Respected *Vancouver* (BC, Canada) *Sun* journalist, Barbara Yaffe, cited several studies from well-respected organizations in her Feb.7, 2004 column. They include:

- * The Oil Depletion Analysis Centre (London, UK) issued a press release in Feb. 2004 "Oil Supply Shortages Likely after 2007." The full report was carried in the Jan.2004 *Petroleum Review*, published by the Energy Institute (London, UK).
- * Association for the Study of Peak Oil and Gas predicted in 2003 world oil production would peak around 2010 or slightly earlier.

- * The US Geological Survey reported also in 2003 that oil and gas production would peak between 2011 and 2015.

Such predictions are difficult, said Yaffe, because of uncertainties surrounding politics, exploration results, conservation efforts and alternative energy discoveries.

"While a flood of new production is set to hit the market over the next three years, the volumes expected from anticipated projects thereafter are likely to fall well below requirements," says the report.

"The rate of major new oilfield discoveries has fallen dramatically in recent years,' Yaffe cites author Chris Skrebowski. Mega-field discoveries numbered 13 in 2000, six in 2001, two in 2002 and none in 2003.

"From 2007, the volumes of new production will likely fall short of the combined need to replace lost capacity from depleting older fields and satisfy continued growth in world demand."

"Conclusion: 'The world may be entering an era of permanently declining oil supplies in the coming decade.'"

Concludes Yaffe: "It's difficult for most of us to stand back and contemplate the big picture as we go about day-to-day living. But someone had better start acting on this news, because it won't be long before the associated environmental consequences start intruding on the daily lives of every last one of us."

Here's something else to think about: much of the existing and future oil comes from parts of the world not exactly known for their political stability or from being free of armed conflict: Saudi Arabia, Kuwait, UAE, Iraq, Iran, Libya, Russia, the former Soviet republics, Indonesia, Nigeria, Venezuela, Brazil, and Mexico. Their existing and wannabee political leaders know that it doesn't take too many twists of the shutoff valves to bring back the blocks-long gas pump lineups, no matter how many wells are drilled into the Arctic National Wildlife Refuge and wildlife sacrificed in the process.

Many have advocated the use of clean-burning hydrogen in vehicles. But that is some ways off. There are no affordable, viable hydrogen engines on the market; nor there is an efficient distribution and storage system in place as there is for oil and gas.

And, barring a miraculous turn to renewable energy sources like solar and wind power, to produce and distribute hydrogen requires, ironically enough, fossil fuels and metals such as palladium and platinum, as revealed in an article published January 6, 2004 in *The Village Voice* (New York, NY).

Labor shortages/rising costs

With the baby boomers retiring there may well be a labor shortage that will cost employers higher wages while employees will have to pay higher taxes to cover the Social Security shortfalls. Those "boomers" are living longer, which means more government expenditures on Social Security and Medicare.

- * A study published by the Employment Policy Foundation (EPF) (Washington, DC) in August 2003 predicts demand for labor will outstrip supply by 22 percent in the US over the next 30 years with most of the unfilled jobs likely to be in highly paid

managerial and professional occupations. Every job unfilled will cost the economy \$100,000 per year in lost output and ultimately \$3.5 trillion in annual output in current equivalent GDP.

- * The National Association of Manufacturers forecasts a skilled worker gap that will grow to 5.3 million workers by 2010 and 14 million in 2020.
- * A McKinsey study entitled, "The War For Talent," predicts that the demand for talented employees will rise by 33% over the next 15 years. It also predicts a 15% drop in supply.

Employers are now analyzing what is going to happen with their workforces. For example, *Business 2.0* reported in September 2003 that a quarter of Cigna's IT workers will pass 55 in the next 10 years. More than a quarter of software maker SAS will retire by 2010.

Employees want more time for a life. They want to spend more time with their families, participating in outside activities, and partaking in career development opportunities.

More employees don't want to commute. A July 2002 report by the Information Technology Association of America on its "Anytime, Anyplace, Anywhere" survey found that 54% of American voters felt home working would improve their quality of lives. Moreover 36% would choose home working over a pay raise, 43% felt they would be a better spouse or parent if they were able to home work, and 46% think that the quality of work would improve if they were able to work at home.

Diminishing labor quality

There are growing reports that American labor quality is declining, requiring employers to look farther afield for workers and/or spend more on remedial training. The alternative is moving their businesses offshore to lower-cost developing countries where labor is, sadly, often of a higher quality.

A study released Feb. 9, 2004 by the American Diploma Project (ADP), and reported widely in media outlets like *The Washington Times*, said that more than 60% of employers rate high school graduates' skills in grammar, spelling, writing, and basic math as only "fair" to "poor."

The report also reveals 53% of college students take at least one remedial English or math class.

Employers often have had to pick up the slack. One study estimated remedial training cost one state's employers nearly \$40 million a year.

In a Feb. 11, 2004 *New York Times* op-ed, Nicholas Kristoff called for more math and sciences education to keep American jobs onshore. He cited the Trends in International Mathematics and Science Study that placed the US at 17th, just ahead of Latvia, in a recent study of eighth-graders.

Jeff Furst, president of staffing firm FurstPerson, reports that in many communities, call center applicants are less skilled than in the past. Reading, writing, and comprehension abilities are diminishing and so is the work ethic.

In a typical community, only 30% to 45% of candidates tested will meet the abilities and behaviors to do the work, “which really impacts the ability to hire employees that meet the job requirements,” he says.

Out of 100 interested job candidates about 10 will ultimately be hired. This takes into account pre-screening, selection testing, and background checks. On the other hand those new hires will stay longer and perform better.

Many applicants do not know how to multi-task or to problem-solve. Those are key requirements in today’s multichannel multipurpose call centers.

“While there are many job candidates in most markets, it is becoming more challenging to find qualified candidates,” Furst points out. “For many call centers, that means increasing the recruitment budget and changing their hiring strategies.”

There is a bad joke from northern England—where the Industrial Revolution began—that illustrates this dilemma.

A man walks by the local textile mill and sees a sign on the sooty red bricks posted “Handyman wanted. Apply within.” So he tucks his thumbs into his suspenders steps into the office, and asks about the job. The receptionist rings up the managing director, who then asks the applicant to be sent in. The director then asks the man to sit down.

“I see you’ve come for a handyman’s job,” says the managing director through his wire-rimmed spectacle. “Are you good at carpentry, banging in a few nails, keeping the frames and woodwork fixed?”

“Sorry guv, never touched a hammer in me life. Me dad smashed his thumb once with one. Lost his hand from the gangrene.”

“Hmm, I see. Are you good with plumbing? Fixing the steam pipes and the indoor lavatories?”

“Steam pipes, indoor lavatories? You got that there? Fancy place you got here, guv. Sorry.”

The managing director frowned. “What about electricity, wiring, fixing the dynamo and the lights?”

“Electricity? Electrocutation like they do down in Florida? All them electric and magnetic fields causing leukemia?!”

The managing director had had enough. He stood up and glowered. “You’ve come in for a handyman’s job. What’s so bleeding handy about you?!”

“Me?” smiled the applicant. “I live just around the corner!”

Employment risks

Most workplaces are unsafe. People working in close proximity spread illness. Premises offices are poorly ventilated, with minimal air changes, keeping airborne diseases and toxins inside. This helps to spread the new, dangerous, contagious, drug-resistant disease strains that are increasingly showing up.

For instance, the Seattle *Post-Intelligencer* reported in March 2003 that up to 40% of the strains of *Streptococcus pneumoniae*, which also causes meningitis, sinusitis, and ear infections, could be resistant to penicillin and erythromycin in the near future. The Associated Press, in a story posted on the (Toronto, Ontario, Canada) *Globe and Mail’s*

website Sunday, February 29, 2004, states that British deaths from an increasingly drug-resistant superbug, methicillin-resistant *Staphylococcus aureus*, are 15 times higher than they were a decade ago. The article went on to say that some strains of staph have also acquired resistance to vancomycin, a drug that is considered by medical professionals as the “last line of defense” when all other antibiotics have failed.

“Although new antibiotics are constantly being developed, some experts fear it is only a matter of time until virtually every drug is useless,” warns the article.

The cover story from the June 5, 2000 issue of *BusinessWeek* titled, “Is Your Office Killing You?,” reports that some buildings draw in only 5 cubic feet of fresh air per person per minute. “That is almost enough to keep people alive,” the article quotes New York architect Robert F. Fox Jr. The American Society of Heating, Refrigeration and Air Conditioning Engineers, recommend 20 cubic feet, below which sick building syndrome increases.

Then there are the fears of deadly respiratory disease pandemics, spread by human-to-human contact. The SARS outbreak in 2003 practically paralyzed Toronto, Ontario, Canada. In response, many employers had their employees work from home and used conferencing techniques instead of commuting or traveling. There are unnerving concerns in some medical quarters that the bird flu virus, which ravaged Asian poultry in the winter of 2003/04, could mutate to enable human-to-human transmission. Researchers had found scary similarities between bird flu and the Spanish flu virus that wiped out over 20 million people worldwide in 1918-1919.

Disaster risks

There is still the danger of terrorism. Workplaces are vulnerable, especially high-profile office buildings, both directly from bombings and indirectly from mass evacuations.

But there also are the more common disasters, e.g. power blackouts. The August 2003 blackout that hit the northeast US and Canada trapped people in elevators and trains and paralyzed entire cities. The same may well happen again.

The location of offices and facilities also has made matters worse. Those with offices near embassies and consulates face demonstrations, or worse. Firms that locate their offices near chemical plants and freight tracks with grade crossings increase the risk that their employees will face fires, gas leaks, or be trapped in an accident.

Cost squeeze in the workplace

At the same time, organizations are looking at ways to cut costs, even as the economy improves. Corporations want profits while government departments and other non-profits face budget reductions or want to do more. Key among the costs: healthcare and absenteeism.

- * A 2003 survey of CEOs by PriceWaterhouseCoopers reveals that healthcare benefits costs companies nearly \$5,000 per full-time employee.
- * A February 2003 report by Mercer Human Resource Consulting and Marsh reported that employees took an average of 12 unscheduled days off annually. Assuming \$40,000 in wages/benefits per employee working 5 days a week they are nominally

available, 240 days a year 50 weeks, 10 legal holidays each employee/day costs approximately a \$167/day, or about \$2,000 a year.

Significantly more people are taking time off for personal reasons. A study by CCH published in 2002 and reported by the *Associated Press* showed that “personal” as a cause for absences jumped to 24% from 20% in 2000 and due to stress to 12% from 5%.

As a result organizations have been deferring raises, cutting back or eliminating benefits, consolidating departments, laying off staff, and automating functions. Yet these moves may backfire as labor shortages begin to bite.

In an increasing number of cases, organizations are moving their work outside of the US to low-cost countries in Asia, Africa, Central/South America, Caribbean and Eastern Europe. Forrester Research estimates that at least 3.3 million white-collar jobs and \$136 billion in wages will shift offshore by 2015. But there are consequences of offshoring.

There are reports of customer service, customer retention, and internal help desk and communications problems caused by poor cultural affinity between offshore employees and Americans. There are also security risks from having American data handled in less-safe developing countries, and a talent drain that could harm American products, services, and research and development. It is not clear what productive jobs—if any—will replace those moved offshore.

Cost squeeze at home

When and where there are rising real estate prices and taxes people often must buy or rent homes farther away from traditional workplaces. People also are sometimes forced to find lower-priced houses and apartments that are further out if one of the family members loses their job, or takes a less-paying one.

Either way increasing the distance between home and “work” drives up commuting times and costs, hikes stress and risks, causing a loss in productivity from tardiness, absenteeism, and accidents. The growing demand means more public money, i.e. more taxes, must be spent on improving and maintaining roads and transit systems. At the same time, more tax revenues will be lost through the consumption of additional land to accommodate the commuting populace’s transportation needs. More transportation demand also leads to more pollution, illness, and economic waste that threaten to culminate in a lower quality of life for all.

❖ THE WAY OUT OF THE CRISIS

There is a way out of this crisis: home working. Home working minimizes commuting needs, including the need to extract more taxes from individuals and organizations to pay for road and transit infrastructure and operations. It also lowers environmental damage and costs, and in doing so helps us to keep our health. The Telework Coalition cites AT&T research that shows their home workers cut driving by 100 million miles a year, eliminating 50 million tons of CO₂.

Home working ironically enables mobility, by removing commuters from the traf-

fic stream. That leaves roadspace—for those who need to “be there” in person, and for trucks and emergency vehicles.

The results are far quicker to realize with home working than with major transportation investments. Compare: 6 months to a year for home working decision to implementation compared to 6 to 12 years for new roads or transit systems.

By lowering commuting demand home working keeps more of the oil and gas in the ground—petrochemicals are still the most efficient and safest internal combustion fuel sources (they are not making dinosaurs like they used to anymore).

Home working has proven to attract and keep workers. It is attractive to retirees, enabling them to stay productive and to keep contributing to the economy, forestalling any Social Security “crunch.”

Home working minimizes health risks; people working at home can’t spread diseases as easily. It also mitigates disasters. Being trapped at home is safer than being trapped in a building. Dispersing your workforce through home working means some employees are still able to work when disaster strikes.

Home working is also the last cost-saving frontier. Real estate expenses are 5%-10% of operating costs. At the same time home working has proven to lower staffing and turnover costs and boost output.

With home working your employees can live for less in outlying areas, enabling them to save and spend more, and enjoy a higher quality of life—just as long as those areas have the communications networks and transportation access needed for their jobs. House prices, and taxes in such locales can be 25% to 75% less than in neighborhoods lying in so-called “commuting distance” of traditional workplaces.

Because many of these smaller communities have few other employment opportunities, offering home working pays off for you by keeping them loyal to you. You get more out of your investment in your employees and you lower your turnover costs.

With home working you can afford to maintain and grow American (and Canadian) jobs in North America. You are not limited to the labor pool that exists “in commuting distance”. Depending on the job, the functions, and the communications requirements your employees can work from anywhere. That keeps your customers, employees, elected officials and the public satisfied. Without a thriving work force who will buy or create demand for your products or services?

❁ BUT WE NEED A REVOLUTION

To enable home working requires a revolution in how we look at and manage employees. There is now such a revolution underway. And that’s what this book is about...



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Chapter 1: What Are Home Workplaces?

Home working is as the name says, working from a home, i.e. one's or one's employees' permanent residence. The home workplace is an alternative or adjunct to the employer-supplied "traditional" workplace—traditional only since the mid-19th Century—i.e. the office, which I call, *premises offices* or *premises workplaces*. I put quotes around the word *traditional* because prior to the mid-19th century most people worked from home.

Home working refers to employees carrying out their job tasks someplace at their homes, full-time, *exclusively*, or *occasionally* (more later on those distinctions). The employees have wired or wireless phones: they also have computers, fax machines, and printers—depending on the need and frequency of home working—which they or their employer supply and maintain.

Home workers can be your employees, but they also can be self-employed contractors. In addition, they can be employees of outsourcers or service bureaus that you hire to handle functions such as customer service, sales and support, internal help desk, accounting/bookkeeping, employment screening, programming, proofreading, transcription and translation. These options are examined in detail in Chapter 11.

Home working is a method of *virtual working*. Virtual working is the carrying out of employment-related tasks that are not totally dependent on employees being at premises, or being face to face with others. Mobile working, and audio-, data-, Web- and video-conferencing, which I label *conferencing*, are examples of virtual working. So is data collaboration, through the use of groupware. *Virtual workplaces* are the space, stationary or mobile, where the work is being carried out.

Exclusive home workers can be mobile workers. They can, and often do use conferencing. I am an exclusive home worker, although I occasionally mobile work, and I often conference. Many of my colleagues who occasionally home work also mobile work and conference.

I explore mobile working and conferencing in Chapter 11. For greater detail on these topics read *Going Mobile* by Keri Hayes and Susan Kuchinskas and *Videoconferencing: The Whole Picture* by James Wilcox. Both books are published by CMP Books.

But home working is usually but not always virtual. The work sometimes requires home office employees to meet with customers and clients at their homes. Chapter 10 explores this special circumstance in depth.

☛ HOME WORKING CHARACTERISTICS

Home working has the following key characteristics:

Employees handle some or most of their job tasks at home

Obvious and simple, but this can be challenging to implement. That is what this book is about.

Employees have adapted their homes to become workplaces; the newest condos and houses now are designed for “live/work”—space is set aside for work purposes. In other abodes, the spare desk or the spare bedroom becomes the office; Junior does the home-work in his bedroom and the mother-in-law sets up her fortress on the futon. When Junior moves out (and learns the hard way from neighbors that keeping the sound down may not be a bad idea after all), or when the mother-in-law moves to “a warmer climate” (i.e. Florida or someplace *real* “down south” that is unlikely to freeze over) you may have the space for a home office.

The tasks do not require other individuals to complete in-person

Working from home, practically by definition, is working alone, almost always without another person in the same work area. As the explained later on in detail in this chapter, there are many tasks that can be handled without face-to-face interaction with colleagues or with clients and customers.

Notice the terms: in-person and face-to-face. Home working can entail employees directly interacting with colleagues, clients and customers by communications i.e. wire-line, wireless, telegraph, Telex, fax, ‘snail mail,’ e-mail, instant messaging (IM), and/or conferencing.

Employees are self-starting, self-disciplined

Successful home working employees are highly responsible and mature, show up and leave when they are supposed to, are good at following organization policies and perform their tasks well and on time. They do not need someone staring over their shoulders or checking up on them every few minutes.

Employers manage by performance

Successful home working arrangements have employers—from supervisors on up—who manage by performance, which is what employers are paying for, rather than warming seats and taking up real estate. Managing by performance entails examining how well employees meet goals that line up with organization objectives.

These managers trust their employees to do what they are supposed to do. They check up on home workers—by calling, e-mailing, instant messaging, or in specialized cases such as call centers, monitoring calls and e-mails—the same as they do in premises offices.

☛ WHAT HOME WORKING ENTAILS

Home working involves your employees setting up and working from offices in their

HOME WORKING NOT TELEWORKING/TELECOMMUTING

I have avoided where possible the terms “Teleworking” and “Telecommuting” for a number of reasons:

1. Teleworking often includes mobile working as well as home working. But mobile working is quite different from home working—in physical requirements, functions, investments, legal issues, and benefits.

To accommodate home working there needs to be a fixed home office premises with furniture, equipment, and connections. Mobile working has no such requirements. Mobile workers can literally be baseless or have a home office, a premises office, and/or satellite office bases. Home workers can be connected via wireline or wireless; mobile workers are line-free. While there are no legal restrictions on working while stationary there are increasingly strict laws regulating work while traveling, e.g. non-handsfree cellphone usage is illegal in many locales.

Also home workers are not pumping emissions into the air; the same is not true for most mobile workers—they also take up costly road space, adding to traffic congestion and costly delays.

2. Telecommuting is not technically accurate. The only “commute” is connecting to the employers’ servers, which is the same as if the home worker worked in a premises office; the servers are often not in the same building. Home workers typically get their calls, faxes, and e-mail directed to their home offices.
3. The terms “Teleworking” and “Telecommuting” raise red flags with many senior managers. They connote slacking off, playing “Terminate the boss” on their laptops—as if that doesn’t already occur behind the boss’s back in premises offices.

But home working doesn’t have such negative baggage. Who can argue with “home work”? You do your work at home and do it well just as you were expected to do in school.

homes—in accordance with requirements that you, as the employer, set out—enabled by investments that both you and your employees make. Home working is, therefore, a *partnership* between employees and employers because as employers you, at minimum, are taking up some amount of space in your employees’ homes.

Employees must make changes in their personal lives and environments to accommodate home working. Like arranging for childcare during the day, telling dearest daughter when she comes home from school not to crank up the “blessed” stereo, and keeping Poopsie and Hairball from doing their “thing,” any of which can interrupt your work.

Employers also need to adapt to home workers. Those adaptations range from faxing rather than hand-delivering papers, conference calls rather than in-person meetings, online log-ins rather than punching a time clock, and by managing and making review and promotion decisions on employees’ performance rather than what is seen by shoulder-surfing.

Home working specifications can range from simply requiring the employees to inform you and your colleagues when they are going to work from home, to formal login