Talent pressures and the aging workforce: Prof/Sci/Tech Services

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THE SLOAN CENTER ON aging & work AT BOSTON COLLEGE

Talent Pressures and the Aging Workforce:

Responsive Action Steps for the Professional, Scientific, and Technical Services Sector

Stephen Sweet, PhD and Marcie Pitt-Catsouphes, PhD
with Elyssa Besen, Shoghik Hovhannisyan, MA, and Farooq Pasha, MA

Industry Sector Report 6.1–July 2010

The Sloan Center on Aging & Work at Boston College promotes quality of employment as an imperative for the 21st century multi-generational workforce. The Center integrates evidence from research with insights from workplace experiences to inform innovative organizational decision-making. Collaborating with business leaders and scholars in a multi-disciplinary dialogue, the Center develops the next generation of knowledge and talent management.

The Sloan Center on Aging & Work is grateful for the continued support of the Alfred P. Sloan Foundation.

The Industry and Aging Workforce Series

The Sloan Center on Aging & Work initiated the Talent Pressures and Aging Workforce Industry Report Series to help employers (and others interested in the aging of the workforce) understand the unique and emerging talent pressures within the leading sectors of the U.S. economy: Accommodation and Food Services; Administration and Support, Waste Management and Remediation Services; Construction; Finance and Insurance; Health Care and Social Assistance; Manufacturing; Professional,Scientific, and Technical Services; Retail Trade; Transportation and Warehousing; and Wholesale Trade. The reports are designed to offer succinct accounts of five overarching concerns:

1. What are the contours of employment in the industry and how do they compare to employment in other sectors?
2. How might employee preferences inform strategies of retaining key talent in the industry?
3. How does the age and gender composition of the workforce map onto talent loss risks for employers?
4. What methods do employers in the industry rely on to understand talent loss risks?
5. What steps can employers use to attract and engage talent?

The report provides comparisons across time (2000-2008) and between economic sectors. Aging and workforce diversity is also considered.

Our analysis relies on three sources of data:

- Information about the U.S. workforce as reported by the United States Bureau of Labor Statistics,
- Information about workers' experiences as reported in the General Social Survey, and
- Information about U.S. organizations gathered by the Sloan Center on Aging & Work's 2009 Talent Management Study.

We anticipate that this information can help employers:

- Reflect on the adequacy of workplace practices,
- Identify ways to become more age responsive, and
- Consider strategies that might better align workplace practices with escalating pressures and opportunities that a diverse and aging workforce may pose for their enterprises.

Each report in this series concludes by considering steps that employers can take to become more responsive to the needs of a diverse and aging workforce.

Table of Contents

Executive Summary

The past decade witnessed profound changes in the economic pressures placed on employers, as well as in age demographics of their labor forces. Like changes in the latter part of the 20th century with the inclusion of women in organizations and professions, the aging of the population has the potential to reshape not only who works, but also how work can be performed.

We advise that employers consider the data presented in this report to better understand what employees desire, as well as the variation in talent management practices evident within (and beyond) the professional, scientific, and technical services sector.

The employee base of the professional, scientific, and technical services sector is aging. As job opportunities are expected to increase in this sector in the forthcoming years, and because much of the work in this sector requires high skills, the impact of workers aging into retirement could be substantial. This presents a challenge of not only maximizing the return on recruitment and retention efforts, but also developing mechanisms that facilitate knowledge transfer in multigenerational workplaces.

In comparison to other sectors, the professional, scientific, and technical services sector offers some of the best jobs available – high skilled, high paying, and relatively flexible. However, the demographic profile is disproportionately composed of men, suggesting that there may be leaks in the talent supply chains where employers either fail to attract, or lose, female employees. While employees in this sector have jobs that are more flexible than those in other sectors, employers can benefit by further enhancing workplace flexibility, as well as by gauging the reasons for talent losses. The results of these efforts may result in rethinking longstanding workplace practices in respect to where, when, and how work is performed.

Our analysis reveals that many employers in the professional, scientific, and technical services sector have only a limited knowledge of their workforces. Their talent management strategies can benefit immensely by understanding factors – beyond financial compensation – that could attract replacement workers, stem turnover, and facilitate knowledge transfer.

Overview of Employment & Compensation in the Professional, Scientific, and Technical Services Sector

INTRODUCTION

According to the U.S. Census Bureau the Professional, Scientific, and Technical Services sector (NAICS 54):

"...comprises establishments that specialize in performing professional, scientific, and technical activities for others. These activities require a high degree of expertise and training. The establishments in this sector specialize according to expertise and provide these services to clients in a variety of industries and, in some cases, to households. Activities performed include: legal advice and representation; accounting, bookkeeping, and payroll services; architectural, engineering, and specialized design services; computer services; consulting services; research services; advertising services; photographic services; translation and interpretation services; veterinary services; and other professional, scientific, and technical services."

Key Points:

1. The increase in employment in the professional, scientific, and technical services sector indicates that this sector is of increasing importance to the U.S. economy.

2. Compensation[1] costs in the professional, scientific, and technical services sector rose significantly (7.9%) over the period of 2004-2008.

3. There was a 17% increase in the total number of establishments in the professional, scientific, and technical services sector over the period of 2000-2006, and growth was consistent across the different establishment sizes.

4. Men are over-represented in the professional, scientific, and technical services sector with male and female workers accounting, respectively, for 55% and 45% of the total workforce in 2007.

5. The percentage of workers in the professional, scientific, and technical services sector aged 55-64 increased by about 45% from 2000-2007, while the proportion of workers over age 65 increased by about 13%.

6. The combination of anticipated job growth, the need for high skilled workers, and the aging of the workforce predicts that this industry is likely to experience even greater talent pressures than most other industries in the years to come.

EMPLOYMENT AND COMPENSATION

According to the Bureau of Labor Statistics (BLS), the professional, scientific, and technical services sector provided employment for about 7% of the working population in the country in 2008.

Table 1.1 Employment in the Professional, Scientific, and Technical Services Sector

	Professional,Scientific, and Technical Services			All Industries		
	2000	2008	% Change	2000	2008	% Change
Employment in Thousands (seasonally adjusted)[1]	6,702	7,826	16.8	111,003	114,558	3.2
% Represented by Unions of Wage and Salary Workers[2]	1.8	1.8	0.0	14.9	13.7	-8.1
Unemployment Rate (not seasonally adjusted)[4]	2.5	3.8	29.4	4.0	5.8	46.4

Source: U.S. Bureau of Labor Statistics

1 Includes total private industries.
2 Excludes incorporated self-employed of 16 and over.
3 Separation Rate is the number of total separations for the year divided by average monthly employment for the year (annual turnover).
4 Includes Civilian Labor Force, aged 16 and over. Data from 2000 are for February. Data from 2008 are for January.
5 Data from 2001.

Table 1.1 and Table 1.2 show that employment opportunities grew in the professional, scientific, and technical services industry over the course of the first decade of the 20th century. In 2008, employment increased by about 17%. In contrast to other industries that experienced high unemployment rates at the leading edge of the 2008-2009 economic downturn, this industry had lower unemployment rates. Assuming these trends remain intact in the forthcoming years, and that an economic recovery is on the horizon, one can anticipate a growth in jobs, as well as challenges in locating employees to fill those jobs.

Table 1.2 Main Labor Market Indicators in the Professional, Scientific, and Technical Services Sector

	Professional,Scientific, and Technical Services (54)		
Employers	2000	2006	% Change
Total Establishments	722,698	846,473	17.1
# Under 20 Employees	628,216	724,718	15.4
# 20-99	45,377	50,464	11.2
# 100-499	15,633	19,164	22.6
# 500+	33,472	52,127	55.7
Hours, Earnings, and Benefits[1]	2000	2008	% Change
Average Weekly Hours of Production Workers, (seasonally adjusted)	36.2	35.8	-1.1
Average Hourly Earnings of Production Workers, (seasonally adjusted)[2]	25.8	27.8	8.0
Compensation[3]	2004	2008	% Change
Compensation Costs ($/Hr)[2]	40.5	43.7	7.9
Wages and Salaries as % of Compensation	73.6	72.8	-1.2
Benefits as % of Compensation			
Total Benefits	26.4	27.2	3.2
Insurance	5.9	6.2	6.0
Retirement	2.9	3.1	6.8
Labor Turnover	2000	2008	% Change
Median Years of Tenure[4]	2.6	3.3	26.9

Source: U.S. Bureau of Labor Statistics

1 Includes total private industries.
2 Adjusted for Consumer Price Index (2008=100).
3 The total compensation for all industries includes private industries population.
4 The data from 2000 are for February. Data from 2008 are for January.

WORKER COMPENSATION

About 2% of the workers in the professional, scientific, and technical services sector were represented by unions compared to 15% of the same indicator for all industries in 2000. Union membership had remained stable in the professional, scientific, and technical services sector and had declined in all industries (by about 8%) for 2000-2008. The compensation[1] costs for most employers increased both in the professional, scientific, and technical services sector (by 8%) and in all industries (by 9%) over the period of 2004-2008. In addition, the compensation[1] costs and the benefits available in the professional, scientific, and technical services sector in 2008 were higher than the average in other industries, both in 2004 and in 2008. Shifts in benefits, as part of employer expenditures, were significant over the past decade. For example, the share of insurance costs increased both in the professional, scientific, and technical services sector and in all industries by, respectively, 6% and 8% over the period of 2004-2008. In addition, the retirement payments as a percentage of compensation costs, increased in the professional, scientific, and technical services sector (by about 7%), while staying fairly constant for employers operating in other sectors.

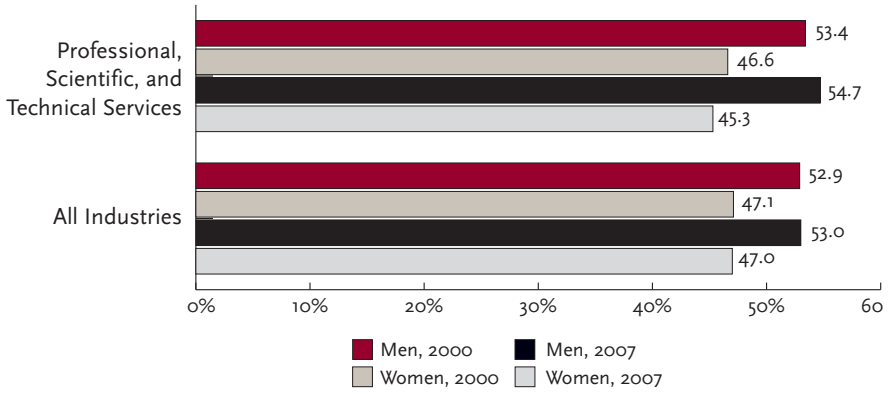
There had been a 17% increase in the total number of establishments in the professional, scientific, and technical services sector over the period of 2000-2006, and this trend was consistent across the different establishment sizes. During this same time period, the number of establishments in all industries significantly increased (by 7.5%).

WORKFORCE COMPOSITION

As Figure 1.1 shows, men are over-represented in the professional, scientific, and technical services sector, accounting for 55% of the total workforce in 2007, and little change in the gender composition was observed in the first decade of the 21st century. This indicates the existence of barriers within the industry, or wider societal relations, that discourage women from entering or staying in jobs in this industry.

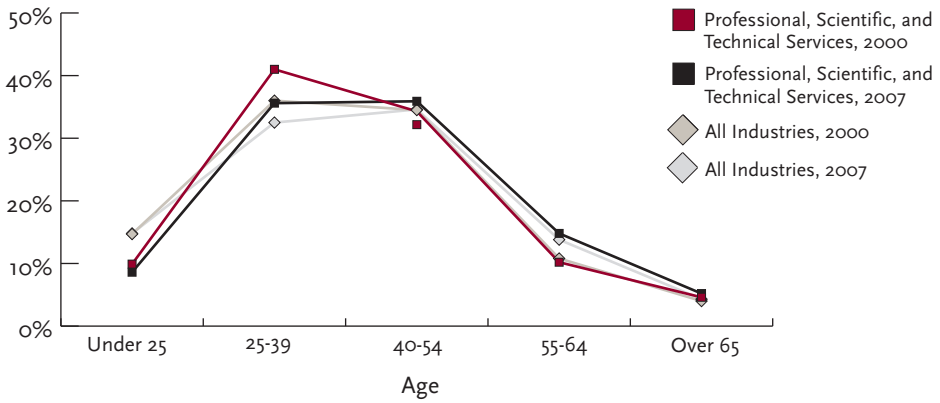
As Figure 1.2 shows, the age composition of the professional, scientific, and technical services sector is similar to that in the general labor force of all industries. We also observe a trend toward an aging workforce in this sector. In 2007, the share of workers aged 55 and above accounted for 20% in the professional, scientific, and technical services sector and 18% in all industries. The share of the workers aged 55-64 increased by 45%, while the share of workers aged 65 and above increased only by 13% in the total number of workers over the period of 2000-2007. In all industries, both the number of workers aged 55-64 and the number of workers aged 65 and above grew by 28% and 7%, respectively.

Figure 1.1 Gender Distribution of the Labor Force



Source: The Integrated Public Use Microdata Series (IPUMS-USA)

Figure 1.2 Age Distribution of the Labor Force



Source: The Integrated Public Use Microdata Series (IPUMS-USA)

ESSENTIAL OCCUPATIONS

A wide range of occupations are essential to the professional, scientific, and technical services sector, but it is distinguished by a heavy reliance on five essential occupations, shown in Table 1.3. Lawyers account for a 6% share; accountants and auditors account for a 5% share; and (i) architectural and civil drafters, (ii) management analysts and (iii) market research analysts account for a combined 5% in the total number of employees. Summary descriptions of these key occupations are described below, abstracted from the Bureau of Labor Statistics 2010-2011 Occupational Outlook Handbook (http://www.bls.gov/oco/ooh_index.htm). What is especially notable about the jobs central to this industry is that they commonly require high-level training and also require considerable collaboration between the workers that perform them.

Table 1.3 Employment by Essential Occupations, 2008

Accountants and auditors	366,990
Architectural and civil drafters	94,020
Lawyers	372,100
Management analysts	210,420
Market research analysts	69,210

Source: U.S. Bureau of Labor Statistics

Lawyers
Retrieved from the Bureau of Labor Statistics 2010-2011 Occupational Outlook Handbook

The legal system affects nearly every aspect of our society, from buying a home to crossing the street. Lawyers form the backbone of this system, linking it to society in numerous ways. They hold positions of great responsibility and are obligated to adhere to a strict code of ethics. Lawyers, also called attorneys, act as both advocates and advisors in our society. As advocates, they represent one of the parties in criminal and civil trials by presenting evidence and arguing in court to support their client. As advisors, lawyers counsel their clients about their legal rights and obligations and suggest particular courses of action in business and personal matters. Whether acting as an advocate or an advisor, all attorneys research the intent of laws and judicial decisions and apply the law to the specific circumstances faced by their clients. The more detailed aspects of a lawyer's job depend upon his or her field of specialization and position. Although all lawyers are licensed to represent parties in court, some appear in court more frequently than others. Trial lawyers spend the majority of their time outside the courtroom, conducting research, interviewing clients and witnesses, and handling other details in preparation for a trial.

Lawyers may specialize in a number of areas, such as bankruptcy, probate, international, elder, or environmental law. Those specializing in, for example, environmental law may represent interest groups, waste disposal companies, or construction firms in their dealings with the U.S. Environmental Protection Agency and other Federal and State agencies. These lawyers help clients prepare and file for licenses and applications for approval before certain activities are permitted to occur. Some lawyers specialize in the growing field of intellectual property, helping to protect clients' claims to copyrights, artwork under contract, product designs, and computer programs. Other lawyers advise insurance companies about the legality of insurance transactions, guiding the company in writing insurance policies to conform to the law and to protect the companies from unwarranted claims. When claims are filed against insurance companies, these attorneys review the claims and represent the companies in court. Most lawyers are in private practice, concentrating on criminal or civil law. In criminal law, lawyers represent individuals who have been charged with crimes and argue their cases in courts of law. Attorneys dealing with civil law assist clients with litigation, wills, trusts, contracts, mortgages, titles, and leases. Other lawyers handle only public-interest cases—civil or criminal—concentrating on particular causes and choosing cases that might have an impact on the way law is applied. Lawyers sometimes are employed full time by a single client. If the client is a corporation, the lawyer is known as "house counsel" and usually advises the company concerning legal issues related to its business activities. These issues might involve patents, government regulations, contracts with other companies, property interests, or collective-bargaining agreements with unions. A significant number of attorneys are employed at the various levels of government. Some work for State attorneys general, prosecutors, and public defenders in criminal courts. At the Federal level, attorneys investigate cases for the U.S. Department of Justice and other agencies. Government lawyers also help develop programs, draft and interpret laws and legislation, establish enforcement procedures, and argue civil and criminal cases on behalf of the government. Other lawyers work for legal aid societies—private, nonprofit organizations established to serve disadvantaged people. These lawyers generally handle civil, rather than criminal, cases. Lawyers are increasingly using various forms of technology to perform more efficiently. Although all lawyers continue to use law libraries to prepare cases, most supplement conventional printed sources with computer sources, such as the Internet and legal databases. Software is used to search this legal literature automatically and to identify legal texts relevant to a specific case. In litigation involving many supporting documents, lawyers may use computers to organize and index materials. Lawyers must be geographically mobile and able to reach their clients in a timely matter, so they might use electronic filing, Web and videoconferencing, mobile electronic devices, and voice-recognition technology to share information more effectively. Formal requirements to become a lawyer usually include a 4-year college degree, 3 years of law school, and passing a written bar examination; however, some requirements vary by State. Competition for admission to most law schools is intense. Federal courts and agencies set their own qualifications for those practicing before or in them.

Accountants and Auditors
Retrieved from the Bureau of Labor Statistics 2010-2011 Occupational Outlook Handbook

Accountants and auditors help to ensure that firms are run efficiently, public records kept accurately, and taxes paid properly and on time. They analyze and communicate financial information for various entities such as companies, individual clients, and Federal, State, and local governments. Beyond carrying out the fundamental tasks of the occupation—providing information to clients by preparing, analyzing, and verifying financial documents—many accountants also offer budget analysis, financial and investment planning, information technology consulting, and limited legal services. Specific job duties vary widely among the four major fields of accounting and auditing: public accounting, management accounting, government accounting, and internal auditing. Public accountants perform a broad range of accounting, auditing, tax, and consulting activities for their clients, which may be corporations, governments, nonprofit organizations, or individuals. For example, some public accountants concentrate on tax matters, such as advising companies about the tax advantages and disadvantages of certain business decisions and preparing individual income tax returns. Others offer advice in areas such as compensation or employee healthcare benefits, the design of accounting and data processing systems, and the selection of controls to safeguard assets. Still others audit clients' financial statements and inform investors and authorities that the statements have been correctly prepared and reported. These accountants are also referred to as external auditors. Public accountants, many of whom are Certified Public Accountants (CPAs), generally have their own businesses or work for public accounting firms. Some public accountants specialize in forensic accounting—investigating and interpreting white-collar crimes such as securities fraud and embezzlement, bankruptcies and contract disputes, and other complex and possibly criminal financial transactions, including money laundering by organized criminals. Forensic accountants combine their knowledge of accounting and finance with law and investigative techniques to determine whether an activity is illegal. Many forensic accountants work closely with law enforcement personnel and lawyers during investigations and often appear as expert witnesses during trials. Management accountants—also called cost, managerial, industrial, corporate, or private accountants—record and analyze the financial information of the companies for which they work. Among their other responsibilities are budgeting, performance evaluation, cost management, and asset management. Usually, management accountants are part of executive teams involved in strategic planning or the development of new products. They analyze and interpret the financial information that corporate executives need to make sound business decisions. They also prepare financial reports for other groups, including stockholders, creditors, regulatory agencies, and tax authorities. Within accounting departments, management accountants may work in various areas, including financial analysis, planning and budgeting, and cost accounting. Government accountants and auditors work in the public sector, maintaining and examining the records of government agencies and auditing private businesses and individuals whose activities are subject to government regulations or taxation. Accountants employed by Federal, State, and local governments ensure that revenues are received and expenditures are made in accordance with laws and regulations. Those employed by the Federal Government may work as Internal Revenue Service agents or in financial

management, financial institution examination, or budget analysis and administration. Internal auditors verify the effectiveness of their organization's internal controls and check for mismanagement, waste, or fraud. They examine and evaluate their firms' financial and information systems, management procedures, and internal controls to ensure that records are accurate and controls are adequate. They also review company operations, evaluating their efficiency, effectiveness, and compliance with corporate policies and government regulations. Because computer systems commonly automate transactions and make information readily available, internal auditors may also help management evaluate the effectiveness of their controls based on real-time data, rather than personal observation. They may recommend and review controls for their organization's computer systems, to ensure their reliability and integrity of the data. Internal auditors may also have specialty titles, such as information technology auditors, environmental auditors, and compliance auditors. Technology is rapidly changing the nature of the work of most accountants and auditors. With the aid of special software packages, accountants summarize transactions in the standard formats of financial records and organize data in special formats employed in financial analysis. These accounting packages greatly reduce the tedious work associated with data management and recordkeeping. Computers enable accountants and auditors to be more mobile and to use their clients' computer systems to extract information from databases and the Internet. As a result, a growing number of accountants and auditors with extensive computer skills specialize in correcting problems with software or in developing software to meet unique data management and analytical needs. Accountants also are beginning to perform more technical duties, such as implementing, controlling, and auditing computer systems and networks and developing technology plans. Most accountants and auditors need at least a bachelor's degree in accounting or a related field. Many accountants and auditors choose to obtain certification to help advance their careers, such as becoming a Certified Public Accountant (CPA).

Management Analysts
Retrieved from the Bureau of Labor Statistics 2010-2011 Occupational Outlook Handbook

As business becomes more complex, firms are continually faced with new challenges. They increasingly rely on management analysts to help them remain competitive amidst these changes. Management analysts, often referred to as management consultants in private industry, analyze and propose ways to improve an organization's structure, efficiency, or profits. For example, a small but rapidly growing company might employ a consultant who is an expert in just-in-time inventory management to help improve its inventory-control system. In another case, a large company that has recently acquired a new division may hire management analysts to help reorganize the corporate structure and eliminate duplicate or nonessential jobs. In recent years, information technology and electronic commerce have provided new opportunities for management analysts. Companies hire consultants to develop strategies for entering and remaining competitive in the new electronic marketplace. Management analysts might be single practitioners or part of large international organizations employing thousands of other consultants. Some analysts and consultants specialize in a specific industry, such as healthcare or telecommunications,

while others specialize by type of business function, such as human resources, marketing, logistics, or information systems. In government, management analysts tend to specialize by type of agency. The work of management analysts and consultants varies with each client or employer and from project to project. Some projects require a team of consultants, each specializing in one area. In other projects, consultants work independently with the organization's managers. In all cases, analysts and consultants collect, review, and analyze information in order to make recommendations to managers. Both public and private organizations use consultants for a variety of reasons. Some lack the internal resources needed to handle a project, while others need a consultant's expertise to determine what resources will be required and what problems may be encountered if they pursue a particular opportunity. To retain a consultant, a company first solicits proposals from a number of consulting firms specializing in the area in which it needs assistance. These proposals include the estimated cost and scope of the project, staffing requirements, references from previous clients, and a completion deadline. The company then selects the proposal that best suits its needs. Some firms, however, employ internal management consulting groups rather than hiring outside consultants. After obtaining an assignment or contract, management analysts first define the nature and extent of the problem that they have been asked to solve. During this phase, they analyze relevant data—which may include annual revenues, employment, or expenditures—and interview managers and employees while observing their operations. The analysts or consultants then develop solutions to the problem. While preparing their recommendations, they take into account the nature of the organization, the relationship it has with others in the industry, and its internal organization and culture. Insight into the problem often is gained by building and solving mathematical models, such as one that shows how inventory levels affect costs and product delivery times. Once they have decided on a course of action, consultants report their findings and recommendations to the client. Their suggestions usually are submitted in writing, but oral presentations regarding findings are also common. For some projects, management analysts are retained to help implement their suggestions. Like their private-sector colleagues, management analysts in government agencies try to increase efficiency and worker productivity and to control costs. For example, if an agency is planning to purchase personal computers, it must first determine which type to buy, given its budget and data-processing needs. In this case, management analysts would assess the prices and characteristics of various machines and determine which ones best meet the agency's needs. Analysts may manage contracts for a wide range of goods and services to ensure quality performance and to prevent cost overruns. Entry requirements for management analysts vary. For some entry-level positions, a bachelor's degree is sufficient. For others, a master's degree or specialized expertise is required.

Market Research Analysts
Retrieved from the Bureau of Labor Statistics 2010-2011 Occupational Outlook Handbook

Market research analysts devise methods and procedures for obtaining the data they need by designing surveys to assess consumer preferences. While a majority of surveys are conducted through the Internet and telephone, other methods may include focus group discussions, mail responses, or setting up booths in public places, such as shopping malls, for example. Trained interviewers usually conduct the surveys under a market research analyst's direction. Market opinion research has contributed greatly to a higher standard of living as most products and services consumers purchase are available with the aid of market research. By making recommendations to their client or employer, market research analysts provide companies with vital information to help them make decisions on the promotion, distribution, and design of products or services. For example, child proof closures on medicine bottles exist because research helped define the most workable design; and the growing variety of ready to cook meals, such as microwaveable soups and prepackaged meat products, exist because of increasing public demand for fast and convenient meals. The information also may be used to determine whether the company should add new lines of merchandise, open new branches, or otherwise diversify the company's operations. Market research analysts also help develop advertising brochures and commercials, sales plans, and product promotions such as rebates and giveaways based on their knowledge of the consumer being targeted. While a bachelor's degree is often sufficient for entry-level market and survey research jobs, higher degrees are usually required for advancement and more technical positions. Strong quantitative skills and keeping current with the latest methods of developing, conducting, and analyzing surveys and other data also are important for advancement.

SUMMARY

The professional, scientific, and technical services industry relies heavily on the contributions of highly skilled workers whose services are of considerable economic value. The growth in job opportunities in this sector, combined with the aging of its workforce, presents strong prospects that employers in this industry will experience more intense talent management challenges in the years to come. Beyond finding replacements for workers aging into retirement and new workers to fill new jobs, employers will need to consider means of transferring knowledge from aging workers to younger employees.

Perspectives & Experiences of Employees in the Professional, Scientific, and Technical Services Sector

INTRODUCTION

One of the most fundamental steps in managing talent is approaching employees from a "whole person" approach: understanding that jobs fit into the lives of individuals in diverse and complex ways. Many of today's employers understand that a means of understanding talent loss risks is to consider what employees value in their jobs and their overarching levels of satisfaction with their employment situations. To help understand these dynamics as they map onto the professional, scientific, and technical services sector, we examine data from the 1998-2008 General Social Survey.[2] These data are analyzed by age to underscore how employees' interests and capacities to engage in work vary throughout the life course. Work in the professional, scientific, and technical services sector offers considerable intrinsic rewards and flexibilities that are less commonly available outside of this sector.

Key Points

1. The typical worker in the professional, scientific, and technical services sector is satisfied with their job, significantly more so than employees in other sectors of the economy.

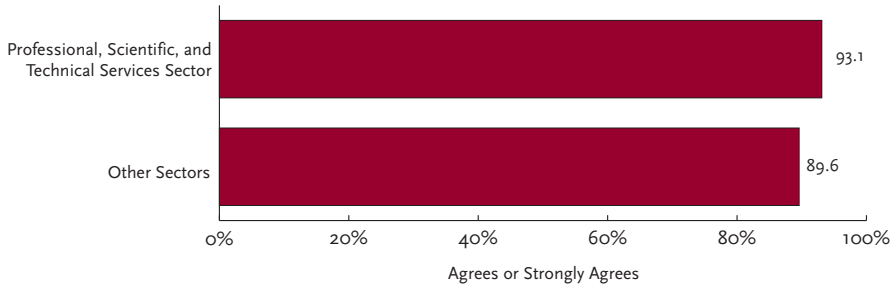
2. The professional, scientific, and technical services sector offers rewards and flexibility not available in other sectors, which possibly contributes to high employee satisfaction.

3. Workplace flexibility, like the ability to determine schedules and work locales, is available to professional, scientific, and technical services employees more often than in other sectors.

WORK INCENTIVES & ORGANIZATIONAL COMMITMENT

Figure 2.1 shows that more than nine out of ten workers in the professional, scientific, and technical services sector are "very" or "somewhat" satisfied with their jobs and that their satisfaction is considerably higher than that of employees in other sectors of the economy.

Figure 2.1 Percent Reporting Being Somewhat Satisfied or Very Satisfied In Their Job: Professional, Scientific, and Technical Services Employees In Comparison to Other Sectors+

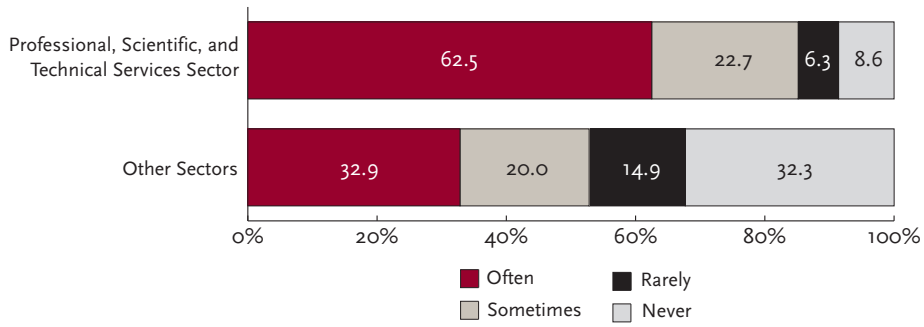


Note: Analyses from 1998-2008 General Social Survey; Individual Items are reported in Appendix 2.2; Chi-Square Tests Used to Assess Significant Differences, +p<.1 *p<.05 **p<.01; N=3,495

Organizational commitment is strongly associated with employee satisfaction with jobs. This satisfaction can translate to productivity – achieved by employees working harder and by their long-term commitment to employers. In part this satisfaction may be attributed to the creative nature of their work, but job flexibility likely also plays a role.

Flexible work arrangements enable workers to do their jobs in ways that challenge more rigid job designs by allowing them, for example, to work according to different schedules and at different locales. Figure 2.2 shows that there is a significant difference between professional, scientific, and technical services and other sectors in the availability to schedule flexibility options. More than three in five workers (63%) in the professional, scientific, and technical services sector are often allowed to change their schedule, compared to one in three employees (33%) in other sectors.

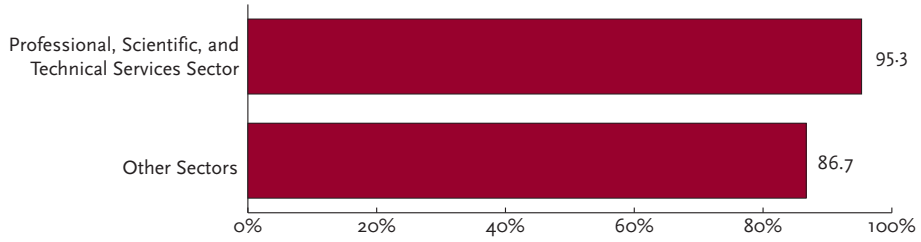
Figure 2.2 Freedom to Change Work Schedules: Professional, Scientific, and Technical Services Employees In Comparison To Other Sectors**



Note: Analyses from 1998-2008 General Social Survey; Individual Items are reported in Appendix 2.2; Chi-Square Tests Used to Assess Significant Differences, +p<.1 *p<.05 **p<.01; N=3,482

Figure 2.3 shows that most of the employees in the professional, scientific, and technical services sector have complete or some freedom in deciding how to do their jobs. Nearly three in four employees (71%) in this sector have complete freedom in deciding how to do their jobs compared to less than three out of five employees (56%) in the other sectors of the economy.

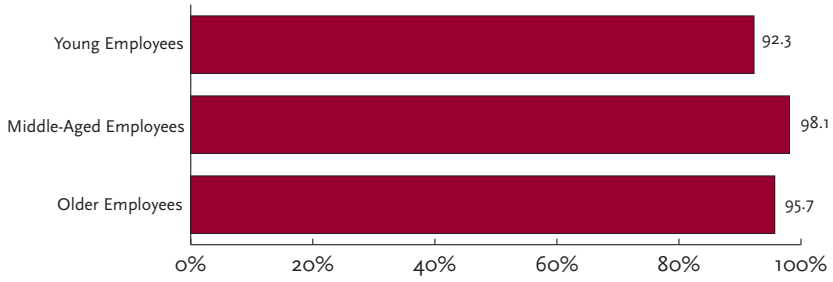
Figure 2.3 Percent of Employees Who Report Having Complete Or Some Freedom In Deciding How To Do Their Job: Professional, Scientific, and Technical Services Employees In Comparison to Other Sectors**



Note: Analyses from 1998-2008 General Social Survey; Individual Items are reported in Appendix 2.2; Chi-Square Tests Used to Assess Significant Differences, +p<.1 *p<.05 **p<.01; N=3,476

It is also interesting to note that freedom for employees in this sector differs by age groups. While all age groups have high levels of autonomy, Figure 2.4 shows that younger employees in the professional, scientific, and technical services sector are significantly less likely to have complete or some freedom in deciding how to do their jobs compared with middle-aged and older employees in the sector.

Figure 2.4 Percent of Employees Who Report Having Complete Or Some Freedom In Deciding How To Do Their Jobs: Comparisons of Professional, Scientific, and Technical Services Employees at Different Ages *



Note: Analyses from 1998-2008 General Social Survey; Individual Items are reported in Appendix 2.2; Chi-Square Tests Used to Assess Significant Differences, +p<.1 *p<.05 **p<.01; N=128

SUMMARY

In sum, based on the limited data available in the General Social Survey on this segment of the workforce, we conclude that the professional, scientific, and technical services sector offers some of the best jobs available. Flexible work arrangements and above average job satisfaction accompanies this highly skilled sector. Whether jobs could be even more flexible, or if there are prospects to enhance satisfaction even further, is an open question. Also, it is important to remember that some groups of workers, most notably women, are under-represented in this sector. These observations may inform additional strategies of recruiting, developing, and retaining the best talent available.

Organizational Responses in the Professional, Scientific, and Technical Services Sector to a Diverse, Multigenerational Workforce

INTRODUCTION

One of the primary questions for employers in the professional, scientific, and technical services sector concerns the means to access, motivate, and retain key talent. Employers in this sector also need to be able to identify the risks of talent losses, and to anticipate means of addressing those events when they occur.

In this section, we consider how employers in the professional, scientific, and technical services sector are responding to the economic and talent pressures identified in the previous sections. To do so, we report analyses of data gathered from the 49 professional, scientific, and technical services organizations that participated in the 2009 Talent Management Study (which gathered data from a total of 696 organizations). Variation within this sector, such as how practices vary between small and large employers, is explored. We also compare the professional, scientific, and technical services industry, as a whole, to employers that operate in nine other leading sectors in the economy. In addition, we examine the talent management priorities and needs of age-pressured employers within this sector (those reporting that the aging of the workforce would have a "negative" or "very negative" impact on their economic environment in the next three years) compared to those in less pressured contexts. A detailed description of the methods of studying the 2009 Talent Management Study, its samples and measures, as well as additional relationships, are presented in Appendix 3.1 to Appendix 3.6.

Key Points:

1. Professional, scientific, and technical services organizations report fewer shortages of basic literacy in writing and math, human resources, customer relations, and technical computer skills, and fewer problems associated with responding to employees' family needs, unwanted turnover, morale, and absenteeism, compared to organizations in other sectors.

2. Within the professional, scientific, and technical services sector, age-pressured employers reported greater concerns with conflict among employees from different generations, low skill levels of new employees, and recruiting competent job applicants.

3. Small organizations in the professional, scientific, and technical services sector reported greater concerns with employee performance and recruiting competent job applicants than medium and large size employers.

4. In comparison to employers in other sectors, professional, scientific, and technical services organizations have established work flexibility to a greater extent.

5. Professional, scientific, and technical services organizations offer more flexible work options to most or all of their employees regarding working at multiple worksites, taking sabbaticals or career breaks, phasing into retirement, and working part (or all) of the year at an offsite location.

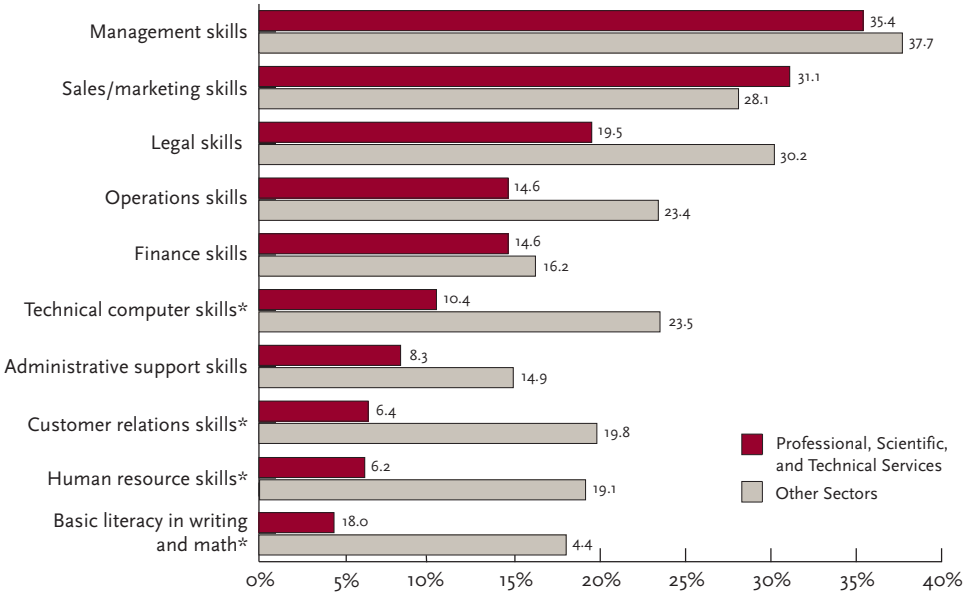
6. A larger percentage of professional, scientific, and technical services organizations report that it is true/very true that they make an effort to inform employees of flexible work options, to clearly communicate the importance of flexibility for business/organizational success, to clearly communicate the importance of flexibility for employees' lives at work and at home, and to support discussions of flexibility with supervisors compared to other sectors.

AGE PRESSURE, TALENT NEEDS AND TALENT LOSS RISKS

What types of talent sets are in short supply in the professional, scientific, and technical sector?

Figure 3.1 shows that (on the whole) professional, scientific, and technical services employers are experiencing the same types of skill shortages evident in other sectors of the economy, but in some cases they are experiencing these shortages less intensely. Like employers in other sectors, management, sales/marketing, and legal skills shortages were especially pronounced. Because these same skills are in short supply in other sectors, this means that the pressure to locate and keep workers with these talents may be felt even more strongly as older workers exit the labor force. In comparison to other sectors, note that the professional, scientific, and technical services sector experienced fewer shortages of basic literacy in writing and math, human resources, customer relations, and technical computer skills. While some of these skill shortages may be attributed to the unique demands of work in the professional, scientific, and technical services sector, it is also possible that this sector is better at retaining workers possessing these skills compared to other sectors.

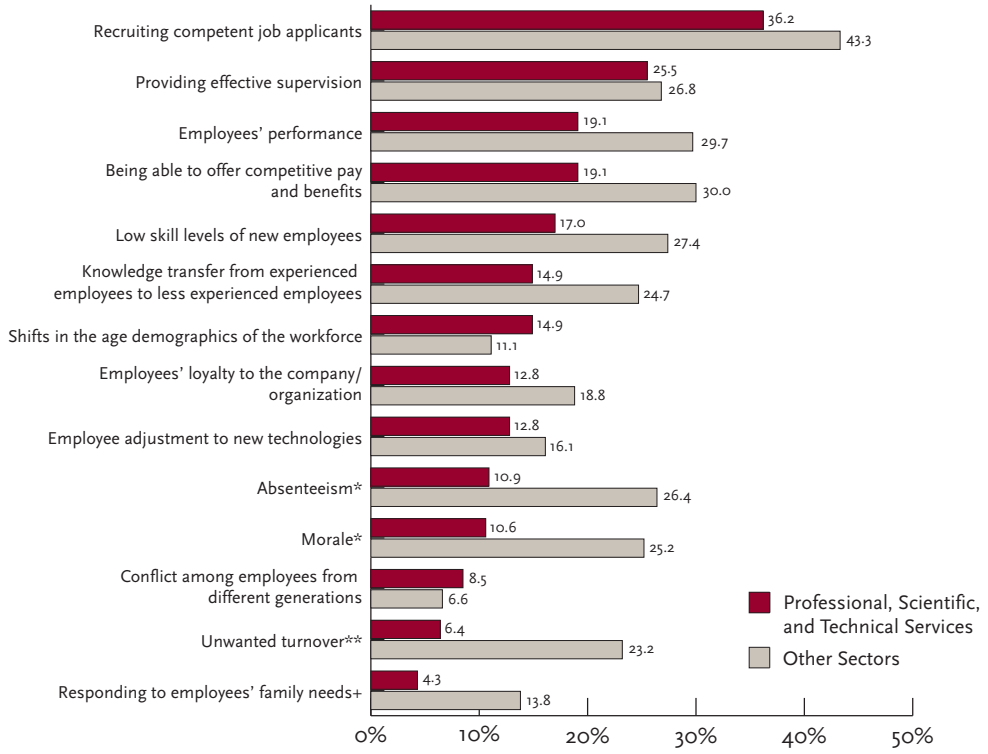
Figure 3.1 Skills in Short Supply to a Moderate/Great Extent in the Professional, Scientific, and Technical Services Sector Compared to Other Sectors: 2009 Talent Management Study



Note: Analyses from 2009 Talent Management Study; Individual Items are reported in Appendix 3.3; Chi-Square Tests Used to Assess Significant Differences, +p<.1 *p<.05 **p<.01; N=685

When asked about what problems organizations are facing regarding talent management, employers in the professional, scientific, and technical services sector reported significantly fewer concerns than organizations in the other sectors of the economy. Professional, scientific, and technical services organizations reported significantly fewer concerns with responding to employees' family needs, unwanted turnover, morale, and absenteeism. As Figure 3.2 shows, the most frequently cited concern in this sector was recruiting competent job applicants, suggesting that these organizations may be especially concerned about the loss of talent associated with the exit of older workers from the workforce.

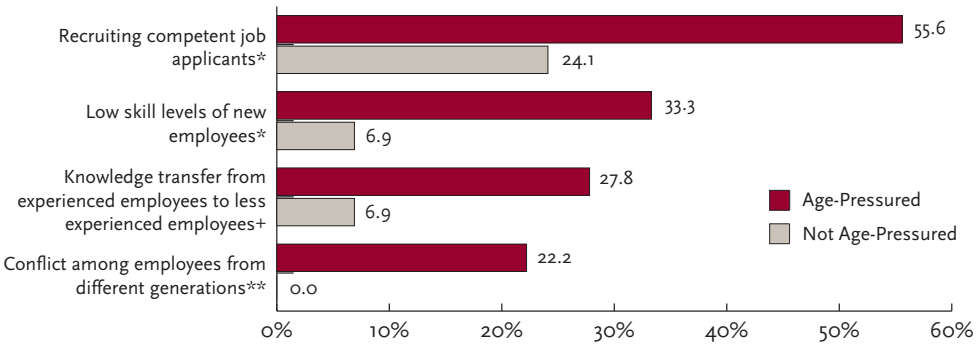
Figure 3.2 Talent Recruitment and Loss Risks (Reported at a Moderate/Great Extent) in the Professional, Scientific, and Technical Services Sector compared to Other Sectors: 2009 Talent Management Study



Note: Analyses from 2009 Talent Management Study; Individual Items are reported in Appendix 3.3; Chi-Square Tests Used to Assess Significant Differences, +p<.1 *p<.05 **p<.01; N=671

As Figure 3.3 shows, the pressures of an aging workforce were related to the talent needs of employers in the professional, scientific, and technical services industry. Most notably, in comparison to lower-pressured organizations, age-pressured professional, scientific, and technical services organizations were significantly more likely to report that they had problems with conflict among employees from different generations, low skill levels of new employees, and recruiting competent job applicants. They also reported greater problems with knowledge transfer from more experienced to less experienced employees.

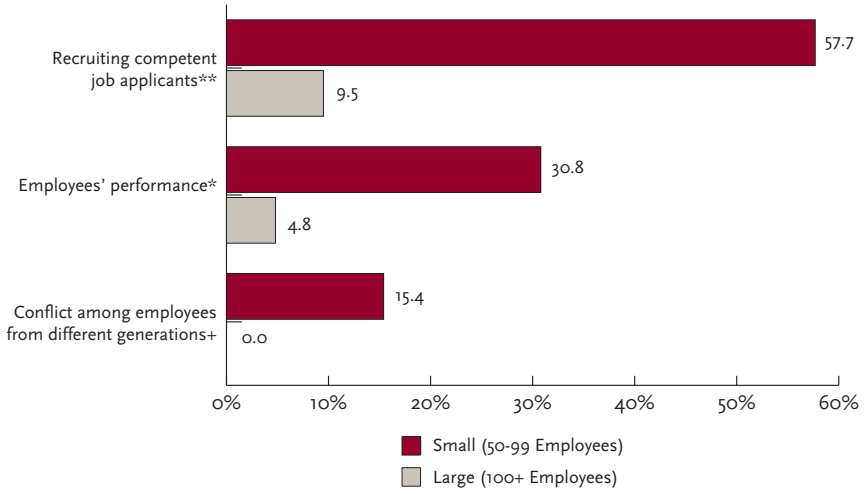
Figure 3.3 Talent Recruitment and Loss Risks (Reported at a Moderate/Great Extent) in the Professional, Scientific, and Technical Services Sector by Age Pressure: 2009 Talent Management Study



Note: Analyses from 2009 Talent Management Study, Professional, Scientific, and Technical Services sector only; Individual Items are reported in Appendix 3.3; Chi-Square Tests Used to Assess Significant Differences, +p<.1 *p<.05 **p<.01; N=47

As Figure 3.4 shows, the size of the organization was also related to the talent needs of employers in the professional, scientific, and technical services sector. Specifically, smaller organizations were significantly more likely to report that they had problems with employee performance and recruiting competent job applicants. Data also suggest that smaller enterprises experienced more problems cultivating positive interactions between employees from different generations.

Figure 3.4 Talent Management Problems and Loss Risks (Reported at a Moderate/ Great Extent) in the Professional, Scientific, and Technical Services Sector by Organizational Size: 2009 Talent Management Study



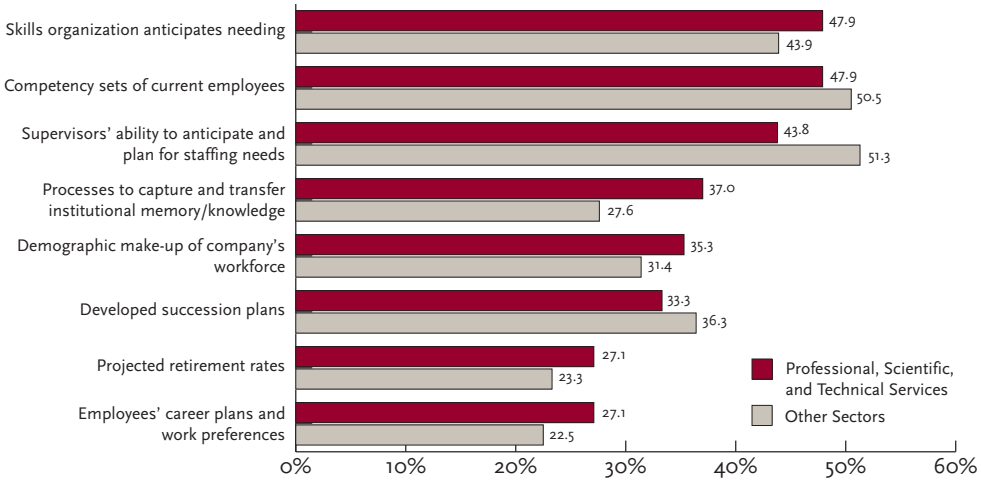
Note: Analyses from 2009 Talent Management Study, Professional, Scientific, and Technical Services sector only; Individual Items are reported in Appendix 3.3; Chi-Square Tests Used to Assess Significant Differences, +p<.1 *p<.05 **p<.01; N=47

ASSESSMENT

The churn of the economy and the entry/exit of workers will result in significant changes in the demographic composition of many companies' workforces. With the large exodus of the Baby Boomer generation from the workforce, there are strong prospects that entire talent sets could be lost – that is, unless systematic means of identifying skill/knowledge needs are engaged. Additionally, the aging of the population presents new opportunities for employers to integrate older workers, who may be interested in pursuing new careers in the "second acts" of their lives. Participants in the Talent Management Study were asked to identify the extent that their organization engaged in planning steps to ensure that it would have the people it needed, today and in the future. Are employers in the professional, scientific, and technical services sector prepared for the challenges and opportunities that correspond with changes in the age composition of the workforce?

The Talent Management Study reveals that the primary assessment activities of professional, scientific, and technical services organizations included: appraising supervisors' abilities to anticipate staffing needs, understanding the competency sets of employees, and considering the skills the organization anticipates needing (see Figure 3.5). Less frequently did employers gauge employee career plans or work preferences or project retirement rates.

Figure 3.5 Assessment Activities Engaged in to a Moderate/Great Extent in the Professional, Scientific, and Technical Services Sector Compared to Other Sectors: 2009 Talent Management Study



Note: Analyses from 2009 Talent Management Study; Individual Items are reported in Appendix 3.4; Chi-Square Tests Used to Assess Significant Differences, +p<.1 *p<.05 **p<.01; N=688

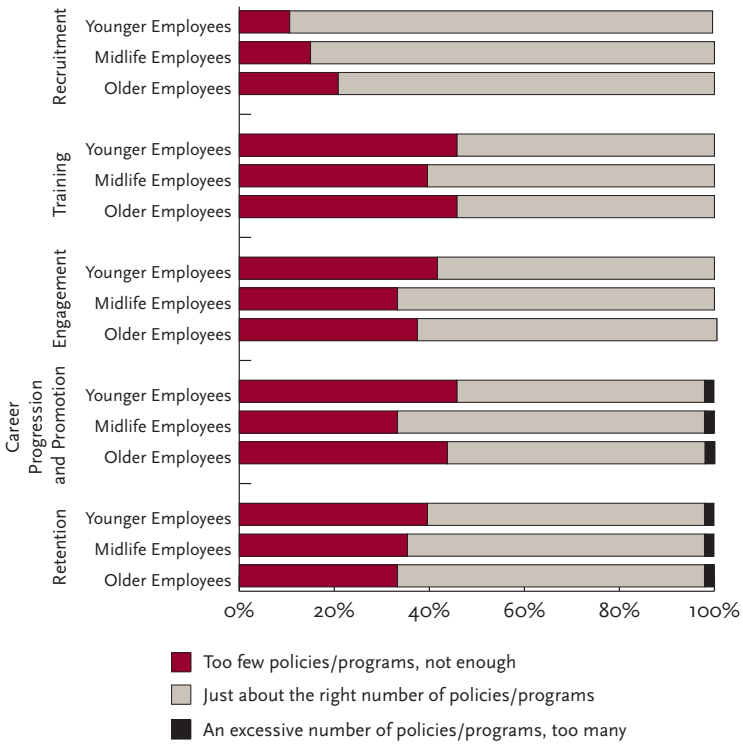
RECRUITMENT AND CAREER DEVELOPMENT

In what ways are employers altering the structure of jobs and their approaches to attracting and retaining talent?

Responses from the Talent Management Study indicate that many professional, scientific, and technical services organizations are rethinking their approaches to talent management. The scope of policies and programs designed to recruit and retain employees of different ages is one indicator of organizational attention to the changing workforce.

As Figure 3.6 shows, it is rare for any professional, scientific, and technical services organization to say that it has "too many" programs for any aspect of recruitment and employee development, regardless of the age group of employees. One in ten to one in two companies reported that they had "too few" programs, indicating a considerable need for expansion of recruitment and career development programs. Most notable is the identification of the need for more training, career progression and promotion, and retention programs, something critical both to the continued engagement of older workers, who are currently at the workplace, as well as to the replacement of workers aging into retirement who may leave in the future.

Figure 3.6 Career Programs/Policies Offered to Employees in the Professional, Scientific, and Technical Services Sector: 2009 Talent Management Study

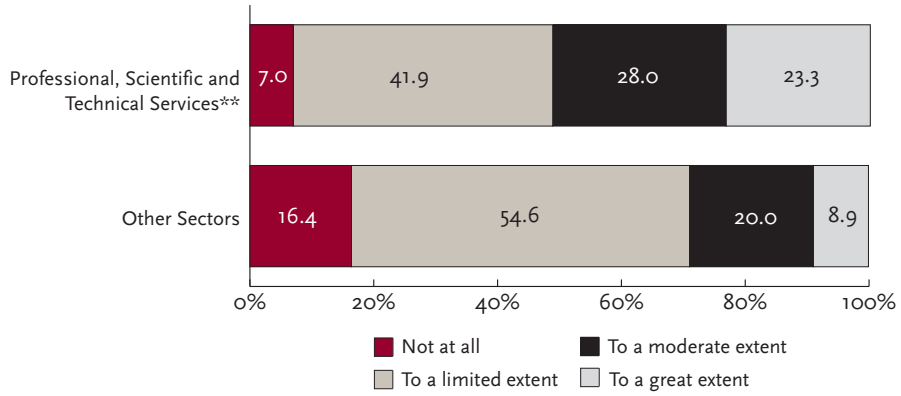


Note: Analyses from 2009 Talent Management Study, Professional, Scientific, and Technical Services sector only; Individual Items are reported in Appendix 3.5; N=47

FLEXIBLE WORKPLACE PRACTICES

One means of attracting and retaining key talent is to introduce and expand workplace flexibility, offering workers options in terms of where, when, and how work is to be performed. The aging of the workforce offers employers an opportunity to re-vitalize their flexible work options because older workers (like their younger colleagues) express a preference for access to flexible work options. The Talent Management Study found that 51% of the professional, scientific, and technical services organizations, and 44% of the organizations in other sectors, reported that workplace flexibility somewhat/significantly increases business effectiveness. As Figure 3.7 shows, in comparison to the employers in other sectors, employers in the professional, scientific, and technical services sector were more likely to report offering options to perform work in a flexible manner to a moderate/great extent. However, it is especially notable that only approximately one in fourteen employers in the professional, scientific, and technical services industry did not do this at all, and nearly half of the employers in the study reported doing this "to a limited extent" or less.

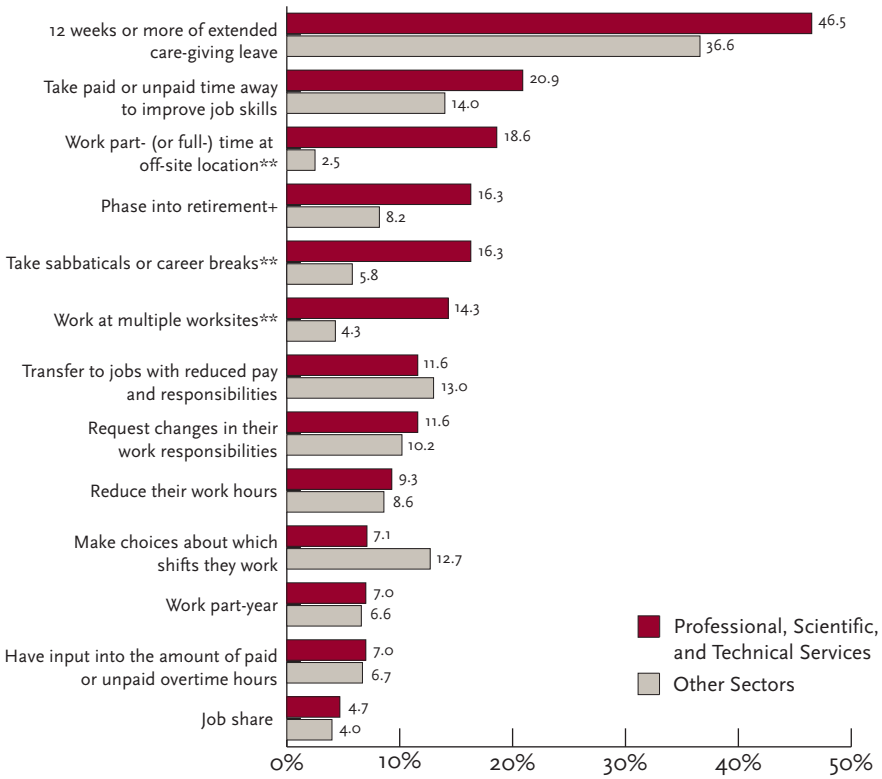
Figure 3.7 Establishing the Options For Employees to Work in a Flexible Manner: Professional, Scientific, and Technical Services Organizations Compared to Employers in Other Sectors: 2009 Talent Management Study



Note: Analyses from 2009 Talent Management Study; Individual Items are reported in Appendix 3.5; Chi-Square Tests Used to Assess Significant Differences, +p<.1 *p<.05 **p<.01; N=647

What types of flexible options are professional, scientific, and technical services employers offering? How do they compare to other sectors? Figure 3.8 shows that the most common type of flexibility offered is that of providing 12 weeks or more of paid or unpaid care-giving leave.[3] In comparison to employers in other sectors, employers in the professional, scientific, and technical services sector were more likely to offer certain flexible arrangements to most or all of their employees. Their workers had more options for working at multiple worksites, taking sabbaticals or career breaks, phasing into retirement, and working part (or all) of the year at an off-site location. Note, though, that apart from the option for extended care-giving leave, most organizations did not offer flexible work arrangements to all or most of their employees in any of the areas assessed.

Figure 3.8 Flexible Arrangements Available to Most or Nearly All Employees in the Professional, Scientific, and Technical Services Sector compared to Other Sectors: 2009 Talent Management Study

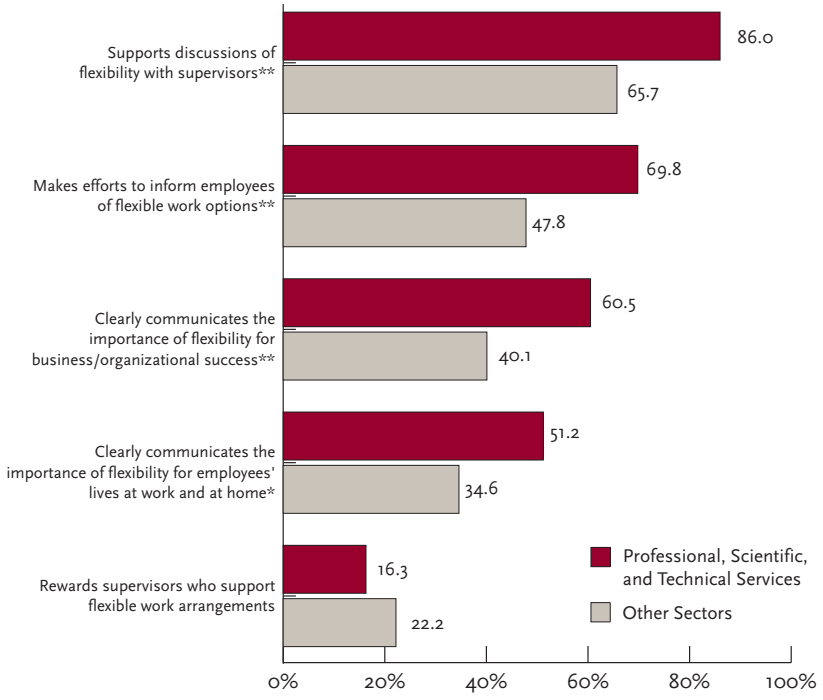


Note: Analyses from 2009 Talent Management Study; Individual Items are reported in Appendix 3.5; Chi-Square Tests Used to Assess Significant Differences, +p<.1 *p<.05 **p<.01; N=646

As Figure 3.9 shows that in most areas of interest, professional, scientific, and technical services organizations are more likely than employers in other sectors to embrace a culture that is supportive of workplace flexibility. Most employers supported discussions of flexibility with supervisors. Professional, scientific, and technical services organizations reported making more of an effort to inform employees of flexible work options, to clearly communicate the importance of flexibility for business/organizational success, to clearly communicate the importance of flexibility for employees' lives at work and at home, and to support discussions of flexibility with supervisors compared to other sectors. Nearly half of all employers embraced the idea that flexibility is key to business success and viewed flexibility as an important means to enhance employees lives at work and at home.

The establishment of flexible work arrangements can be an essential strategy for business success and a promising response to the diverse and aging workforce. By structuring work in a flexible manner, the professional, scientific, and technical services industry appears to be positioning itself at a competitive advantage.

Figure 3.9 Presence of a Culture of Flexibility is Generally True or Very True in the Professional, Scientific, and Technical Services Sector compared to Other Sectors: 2009 Talent Management Study



Note: Analyses from 2009 Talent Management Study; Individual Items are reported in Appendix 3.5; Chi-Square Tests Used to Assess Significant Differences, +p<.1 *p<.05 **p<.01; N=646

SUMMARY

When compared to organizations in other sectors, professional, scientific, and technical services organizations are experiencing many of the same talent pressures and are adopting many of the same strategies to attract, retain, and develop their workforces. Many of these employers are also operating "in the dark," and have surprisingly limited understandings of the demographic make-up of their workforces, the skills shortages that may be on the horizon, and the competency sets of their current employees. The exit of older workers from the professional, scientific, and technical services sector may exacerbate the impact of talent shortages, especially in age-pressured organizations in which employers feel they have too few policies and programs in place to attract and retain talent. However, the aging of the population may offer employers in the professional, scientific, and technical services sector new opportunities to employ new workers in new ways. There is evidence to suggest that work flexibilities available in the professional, scientific, and technical services industry offer promise as a means of attracting and retaining the talents of older workers.

Conclusion: Transferring Knowledge to Action in the Professional, Scientific, and Technical Services Sector

Demographic transformations in the workforce are escalating the pressures exerted on employers to locate key talent. As increasing numbers of older professional, scientific, and technical services workers are anticipated to exit the labor force, the risks of talent deficits are likely to escalate.

Forward-thinking employers in the professional, scientific, and technical services sector can begin their talent management planning by addressing questions, such as:

- What information do we have, and what information do we need, to understand current and future talent needs?
- What steps can we take to more fully engage the current multi-generational workforce?
- How can we facilitate the transfer of knowledge from late to early-career employees?
- How will we find and attract new employees to fill our future needs?

The shifting age demographics of the professional, scientific, and technical services sector might provide employers with incentives to further enhance already existing flexible work arrangements – not only in the types of flexibilities available, but also in expanding availability to more workers. Considering the strategies of managing workers and the transfer of knowledge in a multigenerational workplace can be a key ingredient for success.

Many of today's organizational practices were designed for yesterday's workforce. The talents of today's workforce are not being fully engaged, and it is inevitable that many workers will exit in the forthcoming years. Mobilizing organizations to understand future talent needs and developing strategies of accessing that talent may be critical to securing favorable prospects in a diverse and aging society.

Appendix 1.1

Age/Economic Pressure Map

IDENTIFY YOUR WORKFORCE PLANNING RESPONSES:

Organization:	**Completion Date:**

Part 1. Current State Analysis—What Are Your Pressures?

1. What impact will the aging of the workforce have on your organization over the next 3 years?

1 ❍	2 ❍	3 ❍	4 ❍	5 ❍
Very negative	Negative	Not negative or positive	Positive	Very positive

Why?

2. What impact will the aging of the workforce have on the economic environment affecting your company/organization in the near future (that is, over the next 3 years)?

1 ❍	2 ❍	3 ❍	4 ❍	5 ❍
Very negative	Negative	Not negative or positive	Positive	Very positive

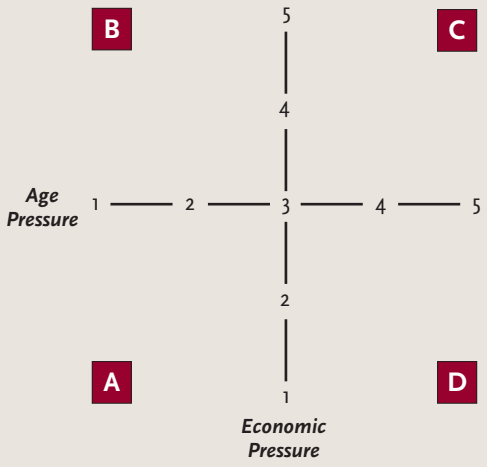
Why?

3. Consider your answers to the two questions above and refer to the graph on the right:

   1. Plot your answer to Question 1 on the horizontal "Age Pressure" axis.

   2. Plot your answer to Question 2 on the vertical "Economic Pressure" axis.

   3. Connect the two points to determine in which quadrant your organization lies and refer to the chart.



SUGGESTIONS

It can be helpful to share this type of exercise with a colleague or two, and compare your responses. Questions you might consider:

- ⇨ Do they share your assessment of the pressures facing your organization?
- ⇨ Do the pressures vary between their department and yours?

Review the details under each quadrant.

- ⇨ Can you identify potential partners outside and within HR?
- ⇨ How do you think age and economic pressures are impacting the work of these partners?

4. What your quadrant means and what to do about it.

Quadrant A

Low Economic and Age Pressure

In the Center's Talent Management Study, 24.2% of respondents reported to be in this quadrant.

- Consider your organization's overarching strategic goals, growth, globalization, deeper market penetration.
- Explore how workforce planning can support these goals & identify your potential partners.
- Assess your organizational demographics including life and career stage.
- Proactively plan & identify skills and competencies your organization will need to support strategic goals.

Quadrant B

Lower Age, Higher Economic Pressure

In the Center's Talent Management Study, 36% of respondents reported to be in this quadrant.

- Identify other organizational strategies impacted by the economy.
- Consider whether your organization is planning a workforce reduction & look at demographic projections to support this strategy.
- Has knowledge management been included in discussions? Consider doing a complete criticality assessment.
- Consider which business areas and positions are most at risk for talent shortages.
- Identify and target specific risk points that can help you to better allocate resources.
- Downsizing may offer opportunity to consider traditional staffing and training models.
- Consider if there are opportunities for employees to re-career within your organization.

Quadrant C

Higher Age and Economic Pressure

In the Center's Talent Management Study, 27.9% of respondents reported to be in this quadrant.

- Identify potential partners outside of human resources.
- Instruct your marketing and R&D departments to assess the impact of changing age demographics on your business.
- Identify areas of common interest & consider doing a complete criticality assessment.
- Consider which business areas and positions are most at risk for talent shortages.
- Identify and target specific risk points that can help you to better allocate resources.
- Take a micro rather than a macro approach to workforce planning.
- Identify the areas of your business that are still growing & explore where talent shortage is still a burning issue.

Quadrant D

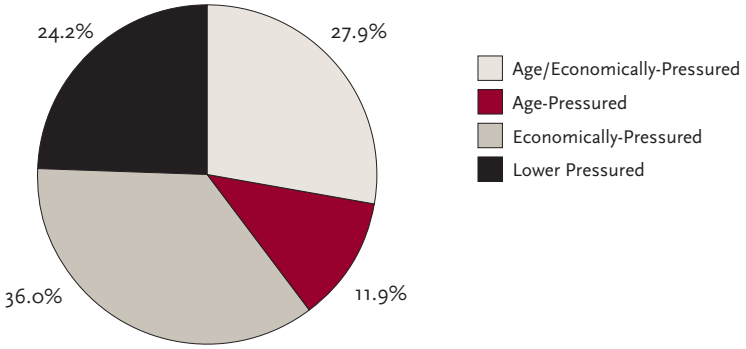
Higher Age, Lower Economic Pressure

In the Center's Talent Management Study, 11.9% of respondents reported to be in this quadrant.

- Identify potential partners within HR and organizational development.
- Consider who else is looking at age demographics.
- Discuss how information you have gathered can support mutual goals.
- Identify how your organization's age demographics align with your organizational goals.
- Consider if particular areas or occupations are at high risk; engage partners outside HR.
- Note what areas of the business are experiencing growth.
- Identify occupations that are becoming MORE critical & consider new staffing options, e.g. mid-career hires, etc.

Compare your responses.

The Center's 2009 Talent Management Study asked a nationally representative sample of employers these same questions. Figure below highlights their responses. How does your organization compare?



_____
Quadrant Selected in #3

Understanding the pressures that affect a business' organizational situation (i.e., being age-pressured, economically-pressured, etc.) can help employers best tailor their workforce planning. For example, age-pressured employers will want to carefully assess the demographics of their workforce to determine the critical risk areas, and use this data to drive decision-making. On the other hand, economically-pressured employers may need to revisit earlier human resources priorities and redirect limited organizational resources to more immediately pressing issues.

Part 2. Workforce Planning:

Consider how changing AGE DEMOGRAPHICS are influencing your workforce planning and answer these questions:

Has your organization:	Not At All	Limited Extent	Moderate Extent	Great Extent
1. Analyzed the demographic make-up of your current employees?				
2. Analyzed projected retirement rates of your current employees?				
3. Identified areas and occupations in which retirement will be particularly consequential?				
4. Assessed how employee priorities and career intentions (of all age groups) align with your organization's goals?				
5. Assessed the skills your organization anticipates needing?				
6. Projected where internal talent gaps and shortages are most likely to emerge?				
7. Assessed competency sets of your current employees?				
8. Created succession plans that are informed by the need for knowledge retention?				
9. Developed age-related programs to assist in knowledge retention (mentoring programs, cross-generational teams, etc)?				
10. Explored how phased retirement and other programs for older workers can potentially ease labor force gaps?				
11. Been rethinking who to hire in response to changing age demographics?				
12. Developed new ways to retain and motivate an age diverse workforce?				

SUGGESTIONS

- ⇨ In all cases, understanding your organizations' labor force needs is critical. Identify whether you have pipeline issues, problems in particular business areas or unique challenges with specific occupations.
- ⇨ Look at where your organization is concentrating its R&D dollars; consider whether you will have the right talent in place when it's the right time to support these new opportunities.
- ⇨ For organizations that are economically-pressured, it is especially important to prioritize gaps. Size of the workforce gap is an important measure, however, it is also important to measure risk. Consider the potential costs to the business if this gap is not filled.

Part 3. Implications & Suggestions

IMPLICATIONS:

1. Based on your answers above, which area of workforce planning seems to be most critical for your organization to address?

2. What is the first thing you will recommend your organization do in regard to workforce planning ?

3. What is the next thing you will recommend your organization do in regard to workforce planning ?

4. Did anything surprise you regarding your organization's workforce planning efforts? If yes, what?

Part 4. Resources

Available on the Sloan Center Website: http://www.bc.edu/research/agingandwork

- This tool is derived from: Pitt-Catsouphes, M., Sweet, S., Lynch, K., & Whalley, E. (2009). *Talent management study: The pressures of talent management* (Issue Brief No. 23). Chestnut Hill, MA: Sloan Center on Aging and Work at Boston College. Retrieved from http://agingandwork.bc.edu/documents/IB23_TalentMangmntStudy_2009-10-23.pdf

- Changing Age Demographics: Business Imperative or HR Distraction?
  - Article 1: The Way We Were and Still Are
  - Article 2: Leading Edge Strategic Adaptation
  - Article 3: Staying "Age-Responsive" in a Climate of New Organizational Challenges
  - Article 4: What is the Age-Identity of your Organization?

- Age & Generations: Understanding Experiences at the Workplace
- The Difference a Downturn can Make: Assessing the Early Effects of the Economic Crisis on the Employment Experiences of Workers

Additional Resources:

- AARP Workforce Assessment Tool: http://www.aarpworkforceassessment.org

ACKNOWLEDGEMENTS

The Sloan Center on Aging & Work at Boston College promotes quality of employment as an imperative for the 21st century multi-generational workforce. We integrate evidence from research with insights from workplace experiences to inform innovative organizational decision-making. Collaborating with business leaders and scholars in a multi-disciplinary dialogue, the Center develops the next generation of knowledge and talent management.

The Center on Aging & Work is grateful for the continued support of the Alfred P. Sloan Foundation.

Appendix 2.1

The General Social Survey: Sample, Analysis and Indictors

INTRODUCTION OF THE GENERAL SOCIAL SURVEY:

The General Social Survey (GSS) is one of the most widely used polls of behaviors, experiences and values held by American adults. For detailed information on the sample and methods, see http://www.norc.org/GSS+Website/.

In order to increase the sample to a size that enables analysis of variation between industries and age groups, we combined 5 survey years (1998, 2000, 2002, 2004, 2006 and 2008). Industry coding is in respect to the 2007 North American Industry Classification System and required reclassifying 1980 and 1990 Census Industry Codes contained within the GSS using a cross step procedure summarized at this source: http://www.census.gov/hhes/www/ioindex/indcswk2k.pdf.

Listed below are the phrasings of the questions in the GSS analyzed in this report:

On the whole, how satisfied are you with the work you do--would you say you are very satisfied, moderately satisfied, a little dissatisfied, or very dissatisfied?

On the following list there are various aspects of jobs. Please circle one number to show how important you personally consider it is in a job:

- Job security.
- High income.
- Good opportunities for advancement.
- An interesting job.
- A job that allows someone to work independently.
- A job that allows someone to help other people.
- A job that is useful to society.
- A job with flexible working hours.

For each, please tell me if the statement is very true, somewhat true, not too true, or not at all true with respect to the work you do (main job):

- I am given a lot of freedom to decide how to do my own work.

How often are you allowed to change your starting and quitting times on a daily basis?

How often do the demands of your job interfere with your family life?

Appendix 2.2

Sample Size, Distributions and Sector/Age/Gender Comparisons of Items from the General Social Surveys, 1998-2008 Combined Years

	Sector Comparisons				Comparisons Within the Professional, Scientific and Technical Services Sector								
					Age					Gender			
	N	Other Sectors	Prof., Scien. and Tech.	Sig	N	20-39	40-55	55+	Sig	N	Men	Women	Sig
Organizational Commitment													
% Reporting somewhat satisfied or very satisfied with their job in general (SATJOB1)	3,495	89.6	93.1	+	130	92.3	92.5	96.0		130	94.2	91.8	
Stress and Work Family Conflicts													
% Reporting job interfere with family life often or sometimes (WKVSFAM)	3,491	40.7	41.1		129	36.5	45.3	41.7		129	39.7	42.6	
Flexible Work Options													
% Reporting they are allowed to change their schedule often or sometimes (CHNGTME)	3,482	52.8	85.2	**	128	82.7	84.9	91.3		128	86.6	83.6	
Inclusion in Decision-Making													
% Reporting they have complete or some freedom to decide how to do their job (WKFREEDM)	3,476	86.7	95.3	**	128	92.3	98.1	95.7	*	128	94.0	96.7	

Appendix 3.1

The Talent Management Study: Sample, Analysis and Indictors

The 2009 Talent Management Study is a survey of a representative sample of employers in the United States as identified in the Dunn & Bradstreet database. Collected in April - August 2009, these data reveal the employment practices and priorities of 696 U.S. based employers. These organizations represent the 10 leading sectors of the U.S. economy that account for 83% of private sector employment and 85% of payrolls in the United States (construction; manufacturing; wholesale trade; retail trade; transportation and warehousing; finance and insurance; professional, scientific, and technical services; administrative support; waste management and remediation services; health care and social assistance; and accommodation and food services). A stratified sampling strategy was adopted so that a proportionate representation of three groups of employers-- smaller enterprises (employing 50-99 employees), medium sized enterprises (100-250+ employees), and large enterprises (250+ employees)-- was obtained. This study involved contacting a key human resources decision maker (most commonly presidents of smaller companies or human resource directors of larger companies), who then reported their company's characteristics, talent management practices, and competitive positioning via an online survey instrument.

List of Questions:

Age composition of enterprises was measured by employers' reports of the proportions of their workforces that were (A) under age 25 years, (B) age 25-39 years (C) age 40-54 years, (D) age 55-65 years, and (E) age 65+.

Expected change in age composition was measured by employers' reports of whether they anticipate changes in the age composition of their workforce over the next three years with regards to employees (A) under age 25 years, (B) age 25-39 years (C) age 40-54 years, (D) age 55-65 years, and (E) age 65+.

Talent loss risks were measured by employers' reports of the average costs associated with replacing an employee at their organization.

Skills in short supply were measured by employers' reports of to what extent the following skills are in "short supply" at their organization: (A) management, (B) operation, (C) human resource, (D) finance, (E) administrative support, (F) legal, (G) technical computer, (H) sales/marketing, (I) basic literacy in writing and math, and (J) customer relations.

Talent management problems were measured by employers' reports of to what extent each of the following are problems for their business: (A) recruiting competent job applicants, (B) employees' performance, (C) absenteeism, (D) being able to offer competitive pay and benefits, (E) employees' loyalty to the company/organization, (F) morale, (G) providing effective supervision, (H) unwanted turnover, (I) knowledge transfer from more experienced employees to less experienced employees, (J) low skill levels of new employees, (K) shifts in the age demographics of the workforce, (L) conflict among employees from different generations, and (M) employee adjustment to new technologies.

Planning steps were measured by employers' reports of to what extent their company/organization has taken the following planning steps to ensure that it will have the people it needs, today and in the future: (A) analyzed demographic makeup of their company's/organization's workforce, (B) analyzed projected retirement rates, (C) assessed employees' career plans and work preferences (e.g., through a survey

or some other mechanism), (D) assessed the skills their organization anticipates needing, (E) assessed the competency sets of their current employees, (F) assessed supervisors' ability to anticipate and plan for staffing needs, (G) developed succession plans, and (H) developed processes to capture and transfer institutional memory/ knowledge from late-career employees to mid-career and early-career employees.

Age specific action steps regarding career programs for workers were measured by employers' reports of to what extent their organization has programs or policies for (A) recruitment, (B) training, (C) engagement, (D) career progression, and (E) retention for young, midlife, and older workers.

Flexibility initiatives were measured by employers' reports of to what extent their company/organization has (A) made a link between workplace flexibility and overall business/workplace effectiveness and (B) established different options that allow employees to work in a flexible manner.

Flexible work arrangements were measured by employers' reports of approximately what portion of their employees (thinking about both full-time and part-time employees) can do the following: (A) if working full-time, reduce their work hours and work on a part-time basis while remaining in the same position or at the same level, (B) structure their jobs as a job share with another person where both receive proportional compensation and benefits, (C) phase into retirement by working reduced hours over a period of time prior to full retirement, (D) work part - year; that is, work for a reduced amount of time on an annual basis (e.g., work full-time during the fall, winter, and spring and then take the summer off), (E) take sabbaticals or career breaks– that is, take leaves, paid or unpaid, of six months or more and return to a comparable job, (F) take paid or unpaid time away from work for education or training to improve job skills, (G) take at least 12 weeks of extended leave (either unpaid or paid) for care giving or other personal or family responsibilities (e.g., parental or elder care giving responsibilities), (H) work part (or all) of their regular workweek at home or some other off-site location, possibly linked by telephone and computer, (I) work for part of the year at one worksite, and then part of the year at another worksite, (J) transfer to jobs with reduced pay and responsibilities if they want to, (K) request changes in their work responsibilities so that the job is a better fit with their skills and interests, (L) make choices about which shifts they work, if they work a shift, and (M) have input into the decisions about the amount of paid or unpaid overtime hours they work.

Presence of a culture of flexibility was measured by employers' reports of how true the following statements are about their company/organization: (A) supports employees who want to discuss their needs for flexibility with their supervisors, (B) makes a real effort to inform employees of available flexible work options, (C) clearly communicates the importance that working and managing flexibly has for business/organizational success, (D) clearly communicates the importance that working and managing flexibly has for employees' lives at work and at home, and (E) rewards or acknowledges supervisors who support effective flexible work arrangements.

Appendix 3.2

Age Demographics: Professional, Scientific, and Technical Services Sector (NAICS 54) Compared to Nine Other Leading Sectors: 2009 Talent Management Study

	All Sectors		Professional, Scientific, and Technical Services		Professional, Scientific, and Technical Services (Organization Size)	
	Professional, Scientific, and Technical Services N=49	Other Sectors N=647	Age-Pressured N=30	Not Age-Pressured N=19	Small (50-99 Employees) N=26	Large (100+ Employees) N=23
Mean Age Composition of the Workplace						
Under 25 years - What is the approximate % of employees who are:	9.31%**	16.3%	6%+	11.4%	8.9%	9.8%
25-39 years - What is the approximate % of employees who are:	35.0%	34.3%	31.8%	36.9%	35.1%	34.8%
40-54 years - What is the approximate % of employees who are:	34.7%	32.2%	40.19%*	31.4%	36.1%	33.3%
55-64 years - What is the approximate % of employees who are:	17%+	14.1%	18.4%	16.2%	16.3%	17.8%
Older than 65 years - What is the approximate % of employees who are:	3.4%	3.1%	3.6%	3.2%	3.6%	3.2%
Age Composition Expected to Increase Some or A lot						
Under 25 years	23.3%	23.9%	18.8%	25.9%	20.8%	26.3%
25-39 years	41.9%	38.7%	37.5%	44.4%	50.0%	31.6%
40-54 years	41.9%	32.9%	62.5%*	29.6%	36.8%	45.8%
55-65 years	37.2%+	24.8%	62.5%**	22.2%	37.5%	36.8%
Older than 65 years	23.3%+	14.0%	31.2%	18.5%	25.0%	21.1%

Source: Talent Management Study +p<.1 *p<.05 **p<.01

Appendix 3.3

Talent Loss Risks: Professional, Scientific, and Technical Services Sector (NAICS 54) Compared to Nine Other Leading Sectors: 2009 Talent Management Study

	All Sectors		Professional, Scientific, and Technical Services		Professional, Scientific, and Technical Services (Organization Size)	
	Construction N=58	Other Sectors N=638	Age-Pressured N=28	Not Age-Pressured N=30	Small (50-99 Employees) N=29	Large (100+ Employees) N=29
TALENT LOSS RISKS						
Mean costs associated with replacing an employee ($)	8612.5	9336.6	N/A	N/A	N/A	N/A
Skills in Short Supply (% Moderate or Great Extent)						
Management skills	35.4%	37.7%	42.1%	31.0%	34.6%	36.4%
Operations skills	14.6%	23.4%	10.5%	17.2%	19.2%	9.1%
Human resource skills	6.2%*	19.1%	5.3%	6.9%	3.8%	9.1%
Finance skills	14.6%	16.2%	21.1%	10.3%	15.4%	13.6%
Administrative support skills	8.3%	14.9%	5.3%	10.3%	15.4%*	0.0%
Legal skills	19.5%	30.2%	33.3%+	11.5%	12.5%	29.4%
Technical computer skills	10.4%*	23.5%	15.8%	6.9%	15.4%	4.5%
Sales/marketing skills	31.1%	28.1%	50%*	18.5%	28.0%	35.0%
Basic literacy in writing and math	4.4%*	18.0%	0.0%	7.1%	4.0%	5.0%
Customer relations skills	6.4%*	19.8%	0.0%	10.7%	12%+	0.0%
Talent Management Problems (% Moderate or Great Extent)						
Recruiting competent job applicants	36.2%	43.3%	55.6%*	24.1%	57.7%**	9.5%
Employees' performance	19.1%	29.7%	16.7%	20.7%	30.8%*	4.8%
Absenteeism	10.9%*	26.4%	11.1%	10.7%	15.4%	5.0%
Responding to employees' family needs	4.3%+	13.8%	0.0%	6.9%	3.8%	4.8%
Being able to offer competitive pay and benefits	19.1%	30.0%	16.7%	20.7%	23.1%	14.3%
Employees' loyalty to the company/ organization	12.8%	18.8%	16.7%	10.3%	15.4%	9.5%
Morale	10.6%*	25.2%	5.6%	13.8%	11.5%	9.5%
Providing effective supervision	25.5%	26.8%	33.3%	20.7%	23.1%	28.6%
Unwanted turnover	6.4%**	23.2%	5.6%	6.9%	7.7%	4.8%
Knowledge transfer from experienced employees to less experienced employees	14.9%	24.7%	27.8%+	6.9%	15.4%	14.3%
Low skill levels of new employees	17.0%	27.4%	33.3%*	6.9%	23.1%	9.5%
Shifts in the age demographics of the workforce	14.9%	11.1%	22.2%	10.3%	15.4%	14.3%
Conflict among employees from different generations	8.5%	6.6%	22.2%**	0.0%	15.4%+	0.0%
Employee adjustment to new technologies	12.8%	16.1%	16.7%	10.3%	19.2%	4.8%

Source: Talent Management Study +p<.1 *p<.05 **p<.01

Appendix 3.4

Risk Assessments of Talent Losses in the Professional, Scientific, and Technical Services Sector (NAICS 54) Compared to Nine Other Leading Sectors: Talent Management Study

	All Sectors		Professional, Scientific, and Technical Services		Professional, Scientific, and Technical Services (Organization Size)	
	Professional, Scientific, and Technical Services N=49	Other Sectors N=647	Age-Pressured N=30	Not Age-Pressured N=19	Small (50-99 Employees) N=26	Large (100+ Employees) N=23
Analyzed/Developed (% Moderate or Great Extent)						
Demographic makeup company's workforce	35.3%	31.4%	42.1%	31.0%	30.8%	40.9%
Projected Retirement Rates	27.1%	23.3%	26.3%	27.6%	23.1%	31.8%
Employees' career plans and work preferences	27.1%	22.5%	15.8%	34.5%	30.8%	22.7%
Skills Organization Anticipates Needing	47.9%	43.9%	47.4%	48.3%	50.0%	45.5%
Competency Sets of Current Employees	47.9%	50.5%	52.6%	44.8%	46.2%	50.0%
Supervisors' Ability to Anticipate and Plan for Staffing Needs	43.8%	51.3%	47.4%	41.4%	30.8%*	59.1%
Developed succession plans	33.3%	36.4%	36.8%	31.0%	34.6%	31.8%
Processes to capture and transfer institutional memory/ knowledge	37.0%	27.6%	35.3%	37.9%	44.0%	28.6%

Source: Talent Management Study +p<.1 *p<.05 **p<.01

Appendix 3.5

Talent Management Action Steps in the Professional, Scientific, and Technical Services Sector (NAICS 54) Compared to Nine Other Leading Sectors: 2009 Talent Management Study

	All Sectors		Professional, Scientific, and Technical Services		Professional, Scientific, and Technical Services (Organization Size)	
	Construction N=58	Other Sectors N=638	Age-Pressured N=28	Not Age-Pressured N=30	Small (50-99 Employees) N=29	Large (100+ Employees) N=29
Age Specific Action Steps						
Career Programs for Workers (Too Few)						
Recruitment Younger Employees	10.6%*	27.5%	16.7%	6.9%	16.0%	4.5%
Recruitment Midlife Employees	14.6%+	26.5%	21.1%	10.3%	19.2%	9.1%
Recruitment Older Employees	20.8%	30.8%	31.6%	13.8%	23.1%	18.2%
Training Younger Employees	45.8%	34.3%	57.9%	37.9%	46.2%	45.5%
Training Midlife Employees	39.6%	32.3%	47.4%	34.5%	42.3%	36.4%
Training Older Employees	45.8%	34.1%	57.9%	37.9%	42.3%	50.0%
Engagement Younger Employees	41.7%	37.4%	47.4%	37.9%	34.6%	50.0%
Engagement Midlife Employees	33.3%	35.0%	42.1%	27.6%	23.1%	45.5%
Engagement Older Employees	37.5%	35.4%	42.1%	34.5%	30.8%	45.5%
Career progression and promotion Younger Employees	45.8%	47.0%	42.1%	48.3%	42.3%	50.0%
Career progression and promotion Midlife Employees	33.3%	45.5%	31.6%	34.5%	26.9%	40.9%
Career progression and promotion Older Employees	43.8%	45.5%	42.1%	44.8%	30.8%*	59.1%
Retention Younger Employees	39.6%	41.1%	42.1%	37.9%	38.5%	40.9%
Retention Midlife Employees	35.4%	36.1%	31.6%	37.9%	30.8%	40.9%
Retention Older Employees	33.3%	35.2%	36.8%	31.0%	26.9%	40.9%
Flexibility Initatives						
Workplace Flexibility somewhat/ significantly increases business effectiveness	51.2%	44.2%	43.8%	56.0%	45.5%	57.9%
Company Established Options that Allow Employees to Work in a Flexible Manner to Moderate or Great Extent	51.2%**	29.0%	37.5%	59.3%	45.8%	57.9%
Flexible Arrangements Available to Most or Nearly All Employees						
Reduce their Work Hours	9.3%	8.6%	6.2%	11.1%	8.3%	10.5%
Job share	4.7%	4.0%	0.0%	7.4%	4.2%	5.3%
Phase into retirement	16.3%+	8.2%	12.5%	18.5%	16.7%	15.8%
Work part-year	7.0%	6.6%	0.0%	11.1%	8.3%	5.3%
Take sabbaticals or career breaks	16.3%**	5.8%	6.2%	22.2%	8.3%	26.3%
Take paid or unpaid time away to improve job skills	20.9%	14.0%	6.2%+	29.6%	20.8%	21.1%
12 weeks or More of Extended Caregiving Leave	46.5%	36.6%	18.8%**	63.0%	45.8%	47.4%
Work part (or all) at off-site location	18.6%**	2.5%	6.2%	25.9%	25.0%	10.5%

Work at Multiple Worksites	14.3%**	4.3%	6.2%	19.2%	17.4%	10.5%
Transfer to jobs with reduced pay and responsibilities	11.6%	13.0%	6.2%	14.8%	8.3%	15.8%
Request changes in their work responsibilities	11.6%	10.2%	12.5%	11.1%	4.2%+	21.1%
Make choices about which shifts they work	7.1%	12.7%	6.2%	7.7%	0%*	15.8%
Have input into the amount of paid or unpaid overtime hours	7.0%	6.7%	6.2%	7.4%	4.2%	10.5%
Presence of a Culture of Flexibility is Generally True or Very True						
Supports discussions of flexibility with supervisors	86%**	65.7%	81.2%	88.9%	87.5%	84.2%
Makes efforts to inform employees of flexible work options	69.8%**	47.8%	56.2%	77.8%	58.3%+	84.2%
Clearly communicates the importance of flexibility for business/ organizational success	60.5%**	40.1%	43.8%+	70.4%	62.5%	57.9%
Clearly communicates the importance of flexibility for employees' lives at work and at home	51.2%*	34.6%	31.2%+	63.0%	50.0%	52.6%
Rewards supervisors who support flexible work arrangements	16.3%	22.2%	18.8%	14.8%	12.5%	21.1%

Source: Talent Management Study +p<.1 *p<.05 **p<.01

Appendix 3.6

Entire Sample Broken Down by Sector: 2009 Talent Management Study

	Number of Organizations	Percent of the Sample
Construction	58	8.3%
Manufacturing	134	19.3%
Wholesale Trade	36	5.2%
Retail Trade	78	11.2%
Transportation and Warehousing	26	3.7%
Finance and Insurance	45	6.5%
Professional, Scientific, and Technical Services	49	7.0%
Administrative and Support and Waste Management and Remediation Services	32	4.6%
Health Care and Social Assistance	125	18.0%
Accommodation and Food Services	113	16.2%
Total	696	100.0%

End Notes

1 Compensation (National Compensation Survey) is a term used to encompass the entire range of wages and benefits, both current and deferred, that employees receive in return for their work. In the Employment Cost Index (ECI), compensation includes the employer's cost of wages and salaries, plus the employer's cost of providing employee benefits.

2 These surveys, generated from face-to-face interviews, offer a window on the perspectives and values of a representative sample of Americans laboring within and beyond the health care and social assistance sector. A description of methods of studying the 1998-2008 General Social Survey, samples and measures, as well as additional relationships, are presented in Appendix 2.1 and Appendix 2.2.

3 The Family Medical Leave Act requires that employees have access to 12 weeks unpaid leave to accommodate their own or other family members' needs – such as for the birth of a child or to address the care needs of a spouse or an aging parent. Eligibility varies, however, depending on factors such as the establishment size, full time work status, and tenure, and thus a sizable proportion of the labor force is not entitled to this leave.

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