Occupational Outlook Quarterly

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Focused jobseeking:
A measured approach to looking for work

For many people, the only thing harder than being out of a job is searching for one. The difficulties associated with finding employment can wear down even the most resilient jobseekers. Applying for dozens of jobs each week and getting few or no replies can slowly erode jobseekers' self-esteem. And this loss of confidence can prove detrimental to those trying to market their skills to would-be employers.

Jobseekers can avoid many of the mistakes that keep them from winning a job. They can learn how to choose the best channels for applying, why they shouldn't rely on online resources exclusively, and how to use their contacts effectively. By demystifying the job search process, informed jobseekers improve their chances for success—provided they're willing to put in the hard work, time, and patience required.

This article gives jobseekers guidelines for taking control of their employment search. The first section talks about the importance of research and preparation. The next section explains some details of the application process in depth, such as pitfalls and informational interviews. The third section describes how candidates can use the job interview as an opportunity to impress the hiring manager. The final section provides sources of additional information.

For more experienced jobseekers, the box on page 10 describes some strategies for a successful search.

Research for job readiness

The Internet has transformed the job search process, changing the way jobseekers find job openings and research potential employers. Few organizations advertise job openings exclusively in printed classified ads, and some may not use print media at all. Today, information about employers, including job openings, is most often found on the Internet.

Research takes more effort than just surfing the Web, however. "Any candidate who relies on mass-marketed job listings to get in the door is almost certainly doomed to failure," says Nick Corcodilos, an executive recruiter and consultant in Lebanon, New Jersey. To make the most of research, jobseekers must focus their search, use online resources wisely, and develop their network of contacts.

Focus the job search

Before beginning their quest for work, jobseekers should complete a personal evaluation of their goals. In particular, they should determine the type of work they want to do, where they want to do it, and for whom. Only after they have that information can they start a focused search for work.

Although many people know the type of work they want to do, others need help matching their interests and skills with a specific career. Skills self-assessment guides are particularly useful to jobseekers who are still exploring career options. One source for self-assessment tools is O*NET, a resource for career exploration and job analysis sponsored by the U.S. Department of Labor. More information about O*NET appears at the end of this article.

Likewise, some people know where they'd like to work; for others, the availability of particular jobs can determine where they will live. For example, most political scientists work in large metropolitan areas. (For a detailed analysis of occupations and their geographic availability, see "Mapping out a career: An analysis of geographic concentration of occupations" in the fall 2009 issue of

Dennis Vilorio

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The Internet is a helpful jobseeking research tool, but avoid relying solely on it to find work.

the *OOQ*, available online at **www.bls.gov/ooq/2010/fall/art02.pdf**.)

Deciding whom to work for also takes research. Jobseekers should avoid what career experts call the "shotgun approach" to finding a job. Coy Renick, a human resources director in Roanoke, Virginia, describes the shotgun approach as "applying to 100 jobs, getting 3 interviews, and landing 1 job."

Instead, say Renick and other experts, jobseekers should concentrate on a handful of organizations they have researched—in a business they want to be involved in for a long time. "Focus selectively on companies you admire and wish to work for," advises Corcodilos. "Pursue companies—not jobs."

By focusing their search, jobseekers also help themselves avoid disappointment later. A more targeted approach produces applications that express a better understanding of the organization and its business, reducing the likelihood that an application goes unanswered.

Using online resources

Ideally, jobseekers learn about the industries and organizations that interest them before looking for work. Employers expect a jobseeker to know who they are, what they do, where they operate, and how they compare with others in the industry—especially since such information is readily available online. "You can easily find annual reports, press releases, and the company's mission and value statements online," says Tina Garrett-Ragland, a director of human resources in Roanoke, Virginia. "It is inexcusable for jobseekers not to know the basics about a company."

Useful resources include newspaper articles, industry publications, employee blogs, and online discussions. Jobseekers can use forums, also known as discussion boards, to communicate with people who work in their desired industry or organization.

Specialized job boards are another useful resource. These boards cater to a particular group, such as a university's student body or alumni or members of a specific trade or professional association. Specialized job boards feature openings for jobseekers who are already part of a wider network. By scouring these boards, jobseekers can determine which organizations are actively hiring and can gather information on work duties, minimum requirements, and compensation for specific job openings.

For example, a company might decide to target a particular membership association for prospective job candidates. The company could advertise in the association's newsletter or on its Web site, confident that prospective candidates already possess specific skills or experience, fit the corporate culture, or meet certain work requirements. The more specialized an online job board, the more targeted the specific group or location. Jobseekers belonging to these targeted groups enjoy a greater chance of success.

By narrowing the scope of the search, specialized online job boards attract fewer jobseekers than national ones. Looking for openings posted to large, national job boards that are broad and untargeted is unlikely to yield results. Some career experts caution against relying on this type of job search. "It's difficult to differentiate yourself online," says Cheri Butler, associate director of Career Services at the University of Texas at

Arlington and president of the National Career Development Association.

Despite lackluster results for jobseekers themselves, online job boards offer organizations an inexpensive way to reach a large and diverse group of jobseekers. Those same advantages, however, also mean that too many people see the same job openings. A better approach is to pursue leads through careful research and contacts, which sets the savvy jobseeker apart from the pack.

Developing a network

Research helps jobseekers in another important way: developing a network. Organizations tend to hire people they know or who are referred to them by someone they trust. Career experts say that organizations fill many openings through this "hidden," or unadvertised, job market. In other words, employers often fill new positions before those openings are ever publicized.

For this reason, Renick recommends developing a targeted network along with the focused job search. "You should network in the field you want to work in," he says, "and inside the companies you want to work for." Jobseekers who apply to organizations they know well and with which they have established a network increase their chances of getting a job there. Sylvia Francis, president of the Colorado Human Resource Association in Denver, agrees. "There are so many people applying to each job that having a personal contact inside can help you get a toe in the door," she says.

But a network should comprise more than just industry insiders. Unfortunately, many jobseekers ignore their network—often because they don't believe they have one.

Everyone has a network. A network includes family, friends, past and present employers and coworkers, association members, teachers, classmates, and others. In short, a network is everyone the candidate can communicate with. These contacts need not be close friends; they can be acquaintances, or even friends of friends.

A professional network is built from these personal contacts, and the best time to start building is now. Experts suggest attending industry events, training classes, and seminars; joining a social, trade, or professional organization; and pursuing volunteer and internship positions. Even something as casual as a meeting over coffee can help a jobseeker develop connections.

Focused networking gives jobseekers the opportunity to establish contacts among prospective employers to learn about work life in the organization. Corcodilos advises jobseekers to get the advice and insight of established professionals in the organizations of their interest to learn about the work environment,

Meeting for coffee is one way to start developing a network.

job duties, employee morale, and more. Along with their other research, jobseekers can use this information to help them decide whether they would like to work there.

Experts caution, however, that the process of developing a network should be separate from the search for job openings. In fact, they say, talking about specific job openings too soon can alienate even the friendliest contacts. "Building a network is like dating," says Corcodilos. "You do not dive right into talk of jobs—as you don't of love—when meeting strangers. Find common interests first, and 'talk shop' instead."

When "talking shop" with a contact, the jobseeker should ask about the person's work, the most rewarding and hardest part of the job, and what it's like working for the employer. Jobseekers who show a genuine interest in contacts' work are more likely to start healthy professional relationships and establish a strong network—one that could lead to referrals later.

Good professional networks are built on solid relationships. These relationships, in turn, are built on trust, something that takes time to develop. When network contacts recommend a jobseeker, their reputation is on the line. Consequently, most contacts refer or recommend only a serious and trusted jobseeker, which is the reason such recommendations carry weight.

Applying for jobs

The more effort jobseekers put into research, the easier the application process becomes. Through focused searching and networking, jobseekers can figure out what type of work they would like to do and for whom. They can also meet people who might enhance their job applications with a recommendation.

Most applications today are submitted online, but there are right and wrong ways to navigate the online application process. An important rule to keep in mind: Humans still do the hiring. Applicants who contact a person instead of relying solely on the computer enhance their chances of being hired.

Precautions to take online

The ease with which jobseekers can apply online means that organizations are often swamped with applications. Human resources departments increasingly rely on computer software that automates the applicant selection process, rejecting applicants based on keywords or minimum qualifications. Corcodilos notes that these culling techniques result in many applicants being rejected without explanation.

Consequently, experts advise jobseekers to tailor their cover letter and resume or application to fit each job opening's position description. Jobseekers who have researched and networked properly should have a short list of companies they know well and wish to work for; this preparation eases the customization of resumes and cover letters for each position. Using the language of the position description helps jobseekers to avoid being eliminated by automatic culling software. It also helps to highlight the connection between their skills and duties required for the position.

Applicants should also remember to exercise care when providing or posting identifying information online, especially on social media Web sites. Employers have little difficulty finding information online about applicants; some even incorporate an online information check as part of the selection process.

Younger applicants in particular tend to share too much on community and social networking Web sites, overlooking their often-loose privacy settings. "Guard your online persona," Butler warns. "You must manage your digital dirt."

Job applicants should search their name online to discover what information about them is available to the public. This search also helps applicants determine which Web sites are freely sharing their information without their knowledge or permission.

Applicants should set strict privacy controls to protect their identity and data, limit what others share about them, and eliminate information that might compromise their job candidacy. All personal information must

remain private; only professional information, such as an academic award or a published essay, should be public.

Speak to the hiring manager

The two parties who stand to gain most from filling a position are the hiring manager and the job applicant. The hiring manager, or the person in charge of selecting candidates to fill job openings, needs a reliable worker who can help the team meet its goals. The applicant needs employment, preferably in a position he or she finds rewarding. Therefore, job applicants should try to speak directly to the hiring manager whenever possible.

Applicants who are able to tap into their network might be able to meet directly with the hiring manager and avoid delays. "Managers are more apt to set aside the 'filtering criteria' if the applicant presents compelling evidence that he or she can do the job," Corcodilos says.

If possible, applicants should ask contacts inside an organization to arrange an informational interview with the hiring manager. The informational interview allows the applicant to learn more about the job and the organization, while also providing an opportunity to impress the hiring manager—and, hopefully, make the short list of applicants.

During an informational interview, applicants should show initiative but remain polite and not attempt to bypass usual hiring channels. "You should not circumvent the human resources department," says Garrett-Ragland, "but talking to the hiring manager directly can help if you make a good impression, because he or she can then put pressure on human resources to act more quickly."

The job interview

The interview is a candidate's best chance to impress a hiring manager and secure the job. Some career experts say that job candidates should treat the interview as if it were the first day of work. "Those who are not ready to do the job at the interview will not return for a second day of work," says Corcodilos.

Speaking directly with the hiring manager is an opportunity to make a good impression.

The job-ready candidate is not only qualified but also has studied the company and knows its business, culture, product or service, and mission.

But studying the organization isn't the only way that candidates prepare for a job interview. Candidates should think of the interview as a conversation, not a defense of their resume. To ready themselves for this conversation, candidates must plan their answers to questions a hiring manager might ask—and prepare their own questions for the hiring manager. They should also know what the hiring manager expects of them before, during, and after an interview.

Interviews as conversations

The best interviews flow smoothly, like good conversation. Because the interview helps to determine how a candidate might perform and fit in at an organization, hiring managers' questions test the candidate's knowledge, skills, and interests. Common interview questions include the following:

When answering interview questions, explain how your experience and skills will help you perform the job duties well.

- Where do you see yourself in 5 years?
- What is your biggest weakness? Strength?
- Why do you want to work here?
- How do you handle a disagreement with another member of your team?
- What was your biggest accomplishment at your previous position?
- Why did you leave your last job?

To prepare for these questions, candidates should recall past challenges and experiences that demonstrate specific qualities, such as teamwork, leadership, and adaptability. "Most interviews are behavioral, such as 'Talk about a time when…,'" Garrett-Ragland says. "Your answers must be specific and detailed. You must give the problem's outcome, explain its challenges and how you met them, and describe what you learned from the experience."

Candidates should use the interview as an opportunity to show how their skills match the organization's needs. Those who have researched the job and organization thoroughly will be able to answer questions by describing how they'll use their skills to get the work done.

A candidate's knowledge and initiative help hiring managers answer their most important interview question: Is this the right person to get this job done well?

An additional benefit for candidates who have researched the company well is that they will show they want the job and will be excited to do the work. "If you have researched the company and determined you want to work there, you will show genuine enthusiasm in your application and interviews," says Francis. Candidates who show enthusiasm for the position and the work culture are less likely to be unhappy and leave. Because hiring managers want employees who will stay for a considerable amount of time, they notice enthusiastic candidates.

Job candidates also have an obligation to hold up their end of the conversation. They should always ask questions that they could not answer through their own research or that arose during the interview. Through their questions, candidates show how well they know the organization, what their priorities are, and how much interest and enthusiasm they have. Important questions to ask include the following:

- What are your team's goals?
- What are this position's most difficult challenges?

- What do you expect of me in the first 90 days? 6 months? A year?
- How soon do you expect to fill this position?

A key function of interviews is to help candidates decide whether a job and an organization are a good fit for them. For example, although the hiring manager might worry about how long a candidate will stay with the organization, the candidate may be equally worried about the organization's future. The candidate can research an organization's stability and confirm it during the interview through questions about profits and employee turnover.

Conduct before, during, and after

Although any interview is good practice, career experts warn candidates not to arrive at an interview without being adequately prepared. Corcodilos even suggests that candidates who are unable to answer the hiring manager's questions excuse themselves from an interview, apologize, and request more time to prepare. That particular hiring manager might not offer another interview, says Corcodilos, but the candidate displays professionalism and integrity by admitting fault, taking responsibility, and respecting the manager's time.

Candidates should exercise common sense and professionalism in all their interactions with potential employers. At a minimum, candidates should be punctual, clean, professionally dressed, and courteous to all staff, regardless of the staff member's position. And they should be honest and positive about everything they say, especially about past employers and coworkers.

In answering questions, candidates should be respectful and assertive without being presumptuous or aggressive. This includes responding to questions about negative information from a candidate's resume: Experts say that when asked about potentially damaging information, such as gaps in work history or a prior violation of the law, candidates should briefly acknowledge the circumstances and then redirect the conversation toward the positive—perhaps to discuss lessons learned or constructive steps taken to qualify for the position. When in doubt about any interview question, candidates should politely ask for guidance from the hiring manager.

After an interview, job candidates should thank the interviewer twice: in person, before leaving; and in writing, with a thank-you note. The thank-you note is most effective when hand-written, but an email thank-you note is also acceptable. The thank-you note should briefly reassert the candidate's interest in the position and summarize relevant skills and qualifications.

Career experts say that the hiring process should take about 2 weeks for an entry-level position, and up to 2 months for mid- to

Continued on page 11

Behave professionally in all interactions with potential employers: Be punctual, courteous, honest, and positive.

The overqualified candidate

Some job candidates have more skill, education, or experience than a position requires. These "overqualified" candidates often face particular challenges in finding a job. To succeed in the job market, overqualified candidates need to understand an employer's concerns, highlight their experience, and communicate effectively.

Employer concerns. An organization with high employee turnover can make future job candidates wary. Reluctance to hire overqualified candidates sometimes stems from these turnover fears: Employers believe that an overqualified worker will continue to seek a job more closely aligned with his or her credentials—and leave when one turns up.

Cheri Butler, associate director of Career Services at the University of Texas at Arlington, says prospective employers have reservations about hiring overqualified candidates: "If I hire him, will he stay? Will he be unhappy with the wage we offer? Does she only want a paycheck? Why would she apply to a job that is below her skill and experience level?" As a result, employers may prefer the "just right" candidate, someone with the correct level of qualifications, who seems a safer choice.

Highlighting experience. Overqualified candidates mindful of this employer hesitation may worry about calling attention to their experience. Many choose to prepare a functional, rather than chronological, resume to emphasize their skills without underscoring years of work. Some experts advise overqualified candidates to downplay their experience on a resume to avoid rejection during the initial culling of applicants. This strategy is similar to choosing keywords from the job description to avoid automatic rejection.

But downplaying experience doesn't mean disregarding it. In fact, Tina Garrett-Ragland, director of human resources for an automotive supply company in Roanoke, Virginia, suggests that overqualified candidates highlight their skills in the cover letter. "Downplaying your experience might get you an initial interview, but writing a good cover letter can produce better results," she says. "Use the cover letter to explain why you want the job and how you will use your transferable skills to do the job well."

A forthright cover letter marks overqualified candidates as thoughtful and honest early in the process—and may help to eliminate a prospective employer's doubts about their early departure.

Effective communication. Effective communication helps an overqualified candidate reassure prospective employers about concerns they may have. The overqualified candidate has motivations, intentions, and reasons for wanting a particular job, and it's up to him or her to explain what those are. An overqualified candidate may have many incentives in mind—such as change of pace, relocation, less stress, and more stability—when pursuing some jobs.

Overqualified candidates should emphasize how the organization benefits from their abundant skills. For example, an employer might value overqualified candidates because of their high level of expertise and experience, sometimes across various fields. "These candidates are attractive because they possess professional maturity and can fill many roles inside an organization," says Garrett-Ragland.

It is vital that overqualified candidates communicate to prospective employers their intention to stay long term, why they want the job, and how they plan to do the job well. Those who demonstrate motivation and an ability to pick up new skills are less likely to be known as overqualified candidates—and more likely to be called employees.

Continued from page 9

senior-level ones. Sometimes, however, the process can take even longer. As a result, candidates must be persistent and follow up by phone or email to confirm their interest in the job. "You should follow up every 2 weeks," Renick advises. "Those who don't are currently unemployed."

Finally, say experts, candidates should focus on their long-term goals and not give up. "Stay positive and don't just take the first job you're offered out of desperation, because in the long run, you will not be happy," says Francis. "It's tough, but there's a job for you out there."

For more information

The U.S. Department of Labor offers many services to jobseekers and the unemployed, such as one-stop employment and career services. These resources are listed online at **www.dol.gov/dol/audience/aud-unemployed.htm**. O*NET, sponsored by the Labor Department, hosts self-assessment tools and a database of occupational information at **www.online.onetcenter.org**.

For more information about jobseeking and occupations, see the *Occupational Outlook Handbook*. It is available in many career centers and public libraries and online at **www.bls.gov/ooh**. In addition to detailed information for hundreds of occupations, the *Handbook* provides a jobseeking guide that includes information about job-search methods, interview tips, evaluating a job offer, and more. See the guide online at **www.bls.gov/ooh/oco20047.htm**.

Other articles in the *Occupational Outlook Quarterly* break down the jobseeking process further. For example, to find out more about informational interviewing, see "Informational interviewing: Get the inside scoop on careers" in the summer 2010 issue, available online at **www.bls.gov/ooq/2010/summer/art03.pdf**. And for more information on writing a resume, see "Resumes, applications, and cover letters" in the summer 2009 issue, online at **www.bls.gov/ooq/2009/summer/art03.pdf**.

To learn more about human resources work, contact the Society for Human Resource Management. This professional organization provides resources about opportunities, news, and events in the field of human resources. The organization also does economic research and provides data on hiring.

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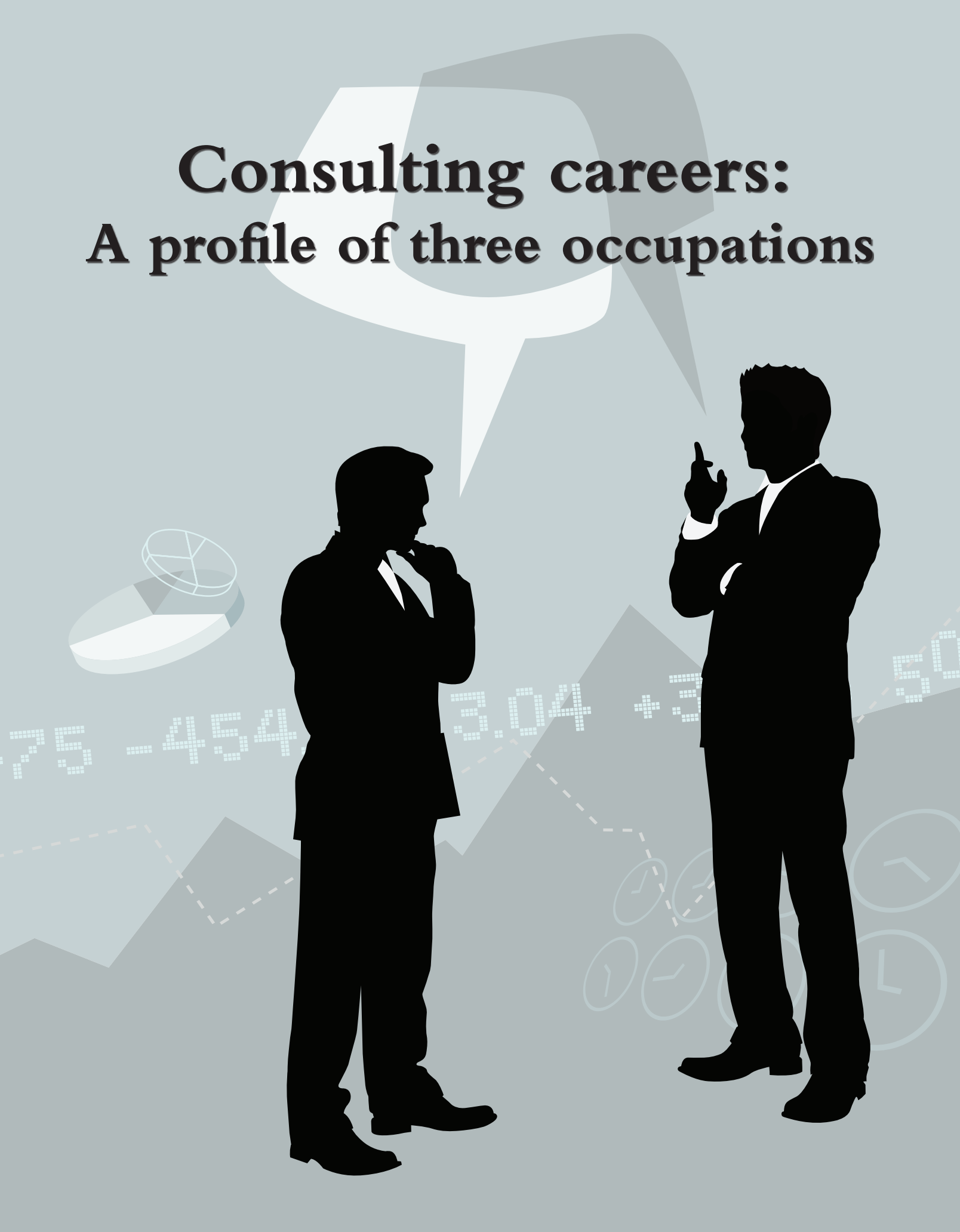

Choosing an industry in which to work is often as important as choosing an occupation. And over the next several years, the best advice for some workers may be to choose an industry that sells advice: consulting.

The management, scientific, and technical consulting services industry comprises businesses that offer specialized advice to other businesses. According to data from the U.S. Bureau of Labor Statistics (BLS), employment in this industry is expected to grow by 83 percent—representing a gain of more than 800,000 jobs—over the 2008–18 decade. This represents both the fastest projected rate of growth and the largest expected job gain of all detailed industries. And even during the recent recession, this industry has proven resilient, recovering nearly all of the jobs it lost in the downturn.

This article highlights three occupations in the consulting services industry: management analyst, market research analyst, and environmental scientist and specialist. Keep reading to learn more about these workers. The occupational profiles describe what they do, how much they earn, and how they prepare for the work. You'll also find sources of additional information at the end of the article.

Three occupations in consulting services

Workers in the management, scientific, and technical consulting services industry provide advice and assistance to businesses and other organizations. Some offer advice about general business management on topics such as finances, personnel, marketing, distribution, and other business operations. Others provide advice about environmental, scientific, and technical issues.

The table on page 14 shows the employment and wages of management analysts, market research analysts, and environmental scientists and specialists. For each occupation, the median wage was higher than the $33,190 median for all occupations in May 2009.

Strong job growth is expected to continue as businesses seek advice about planning and logistics, implementing new technologies, and complying with regulations on workplace safety and the environment. Other trends, such as continued globalization and increased security, are also expected to spur demand for workers in this industry.

Management analysts

Organizations seek the advice of management analysts to develop ways to enter and stay competitive in the marketplace. These workers, often called management consultants, analyze an organization's structure, efficiency, or profits and then suggest improvements.

With most assignments, management analysts first define the type and scope of the project being evaluated. For the permanent shutdown of a hospital, for example, management analysts might be consulted about the most efficient way to shift patients and equipment to a new facility. During this phase,

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Employment and wages of selected occupations in management, scientific, and technical consulting services, May 2009

Occupation		Employment	Median annual wage
Management analysts	Across industries	552,770	$75,250
	Management, scientific, and technical consulting services	144,920	82,100
Market research analysts	Across industries	226,410	61,580
	Management, scientific, and technical consulting services	24,870	56,850
Environmental scientists and specialists, including health	Across industries	83,530	61,010
	Management, scientific, and technical consulting services	17,250	61,880

analysts observe business operations and interview managers and employees. They also analyze relevant information, including data on revenues, expenditures, or employment.

Next, analysts develop ideas based on their review and try to solve existing or potential problems. Problem-solving can take many forms. For example, to determine how low inventory affects product delivery times, an analyst might build and solve mathematical models. The solutions often take into account the nature of the client's organization and its relationship with others in the industry.

After they have identified solutions, consultants report their findings and make suggestions to the organization. Their suggestions usually are submitted in writing, but oral presentations are also common. For some projects, management analysts may be asked to help implement their suggestions.

Some management analysts work on a team; others operate independently. Workers might specialize in certain business functions—such as mergers and acquisitions—or in a particular industry, such as financial services.

Employment, outlook, and wages. BLS data show that there were about 552,770 management analysts overall in May 2009. About 144,920, or 26 percent, of them worked in the management, scientific, and technical consulting industry.

In addition to working in management, scientific, and technical consulting firms, management analysts also worked for computer systems design and related services firms; Federal, State, and local governments; and in management of companies and enterprises. Management analysts worked throughout the country, but employment was concentrated in large metropolitan areas.

BLS projects that, over the 2008–18 decade, employment of management analysts

will grow 24 percent, much faster than the 10-percent average for all occupations. Despite this projected rapid growth, keen competition is expected because of the independent and challenging nature of the work and the occupation's high earnings potential.

Wages for management analysts vary widely by workers' geographic location, level of education, and other factors. Generally, management analysts employed in large firms or in metropolitan areas earn the most money. The median annual wage of management analysts in management, scientific, and technical consulting services was $82,100 in May 2009, according to BLS. The lowest earning 10 percent in this industry made $38,100 or less, and the highest earning 10 percent made $166,400 or more.

Skills and training. Management analysts in consulting services work with minimal supervision, so they need to be self-motivated and disciplined. Creativity is a desirable quality for management analysts, who also need good analytical, communication, and time-management skills. As consulting teams become more common, the ability to work well with a wide range of people also becomes more important.

Educational requirements for entry-level jobs vary. Many employers seek individuals who have a master's degree in business administration or a related discipline. Some employers also require additional experience in the field in which the analyst plans to consult. Other firms hire analysts who have a bachelor's degree to work as research analysts or associates, promoting them after several years to work as consultants.

Few colleges and universities offer formal programs in management consulting. However, many disciplines are suitable because of the diverse fields that management analysts encounter in their work. Among the common fields of study are business, management, marketing, economics, and engineering. Most analysts also have experience in management, information technology, or other specialties.

Market research analysts

Market research analysts help organizations understand what types of products or services people want and how much they will pay for

them. Organizations consult market research analysts for gathering data on competitors, examining prices, and studying distribution methods. These consultants then analyze past practices to predict the organization's future sales.

Market research analysts design surveys and decide which procedures to use for collecting the data they need. Most surveys are conducted online and by telephone, but other collection methods include focus group discussions, mail responses, and setting up booths in public places, such as shopping malls. Trained interviewers usually conduct the surveys under the direction of a market research analyst.

In their work as consultants, market research analysts make recommendations to their client organization. These recommendations give the organization vital information to help them make decisions about promoting, distributing, and designing products or services. The information also may help determine whether the organization should add new merchandise, open new offices, or diversify operations in other ways.

Organizations also consult market research analysts for help in developing advertising brochures and commercials, sales plans, and product promotions. The type of promotion, such as a rebate or giveaway, is based on the analyst's expertise about the targeted consumer group.

Employment, outlook, and wages. There were about 226,410 market research analysts employed overall in May 2009, according to BLS. Of those, about 24,870 (11 percent) worked in the management, scientific, and technical consulting industry.

Because of the wide applicability of market research, these analysts were employed in many industries. In addition to management, scientific, and technical consulting firms, large numbers of market research analysts were employed in the management of companies and enterprises, computer systems design and related services, insurance carriers, and other professional, scientific, and technical services.

Overall employment of market research analysts is projected to grow 28 percent over the 2008–18 decade, according to BLS, much faster than the average for all occupations. This growth will be driven by organizations which, seeking to expand their sales, increasingly consult marketing experts.

The median annual wage of market research analysts in management, scientific, and consulting services was $56,850 in May 2009, according to BLS. The lowest earning 10 percent in this industry made $31,890 or less, and the highest earning 10 percent made $108,330 or more.

Skills and training. Market research analysts study data, so being precise and detail-oriented is important. They also must

be persistent to solve problems independently. These analysts sometimes oversee survey interviews or participate as members of a team, so they must also work well with others. Good communication skills are necessary for formulating proper language in surveys and for presenting findings orally and in writing.

A bachelor's degree is the usual educational requirement for many market research analysts. A master's degree is usually required for consultants in technical positions.

In addition to completing courses in business, marketing, and consumer behavior, prospective market research analysts should take social science courses, including economics, psychology, and sociology. Courses in mathematics, statistics, sampling theory and survey design, and computer science are important for the quantitative side of the work. Market research analysts often have advanced degrees in business administration, marketing, statistics, communications, or related disciplines.

Aspiring market research analysts should pursue an internship or part-time job in a consulting firm or other organization. This work will help them gain experience in gathering data, conducting interviews or surveys, and writing reports on their findings.

Environmental scientists and specialists, including health

Environmental scientists and specialists use their knowledge of the natural sciences to protect the environment. As consultants, they often assist organizations in complying with environmental regulations, which minimize health hazards to people and the environment.

These scientists and specialists analyze measurements and observations of air, food, water, and soil. The information helps organizations decide how to clean and preserve the environment. Often, their work stems from the need to comply with environmental regulations and policies. For example, Federal regulations set basic guidelines on the amount of pollutants that organizations may emit. These organizations might consult other environmental scientists and specialists for suggestions on ways to reduce emissions.

Environmental scientists and specialists also help organizations to determine how to clean up or dispose of toxic waste. And they help to identify the environmental impact of a given action. Before new construction can begin, for example, consultants might assess possible changes that the project would have on a nearby ecosystem.

These workers write risk assessments that describe the likely effect of construction and other environmental changes. They also write technical proposals and give presentations about their findings.

Employment, outlook, and wages. According to BLS, there were about 83,530 environmental scientists and specialists employed overall in May 2009. This number includes 17,250, or 21 percent, working in

management, scientific, and technical consulting services.

These workers are also employed by State and local governments; architectural, engineering and related services; and the Federal Government.

Employment of environmental scientists and specialists is projected by BLS to increase by 28 percent over the 2008–18 decade, much faster than the average for all occupations. Job growth should be strongest in consulting firms. Increases in employment will be spurred by demands on the environment from population growth and by greater awareness of the problems resulting from environmental degradation. The need for organizations to comply with complex environmental laws and regulations should also lead to consulting opportunities.

Much of the projected job growth should result from a continued need to monitor environmental quality, to interpret the impact of human actions on ecosystems, and to develop strategies for restoring damaged ecosystems. In addition, planners will consult environmental scientists to develop and construct buildings, transportation corridors, and utilities that protect and efficiently use resources.

The median annual wage of environmental scientists and specialists, including health, in management, scientific, and consulting services was $61,880 in May 2009, according to BLS. The lowest earning 10 percent made $37,060 or less in this industry, and the highest earning 10 percent made $122,470 or more.

Skills and training. Environmental scientists and specialists need strong oral and written communication skills because they write technical reports and research proposals, present information on health risks to the public, and work as part of a team with other scientists, engineers, and technicians.

A bachelor's degree in one of the earth sciences is adequate for entry-level positions, but consulting firms may prefer that workers have a master's degree in environmental science or a related natural science. Some of these scientists and specialists have a degree in environmental science, but others earn a degree in biology, chemistry, physics, or the geosciences. They often need research or work experience related to environmental science.

For environmental scientists and specialists in consulting services, other useful courses include business, finance, marketing, and economics. And combining environmental science training with other disciplines, such as engineering or business, may qualify these scientists for a wide range of jobs.

For more information

This article provided brief descriptions of three occupations in management, scientific, and technical consulting. For more detailed data on the occupational breakdown of this industry, visit its BLS Occupational Employment Statistics profile online at **www.bls.gov/oes/current/naics4_541600.htm**.

And for detailed descriptions of all occupations in the industry, see the *Occupational Outlook Handbook*. The *Handbook* provides detail about the job duties, employment, wages, outlook, training, and more for occupations in consulting services—as well as for hundreds of other occupations. This resource is available in many career centers and public libraries and online at **www.bls.gov/ooh**.

Information about career opportunities in management consulting is available here:

Association of Management
Consulting Firms
370 Lexington Ave.
Suite 2209
New York, NY 10017
(212) 262–3055
info@amcf.org
www.amcf.org

To learn about careers and certification in market research, contact the following:

Marketing Research Association
110 National Dr., 2nd Floor
Glastonbury, CT 06033
(860) 682–1000
email@mra-net.org
www.mra-net.org

Information about training and career opportunities for environmental scientists and specialists is available here:

American Geological Institute
4220 King St.
Alexandria, VA 22302
(703) 379–2480
www.agiweb.org

Spotlight on BLS

You might know that the U.S. Bureau of Labor Statistics (BLS) publishes lots of data on lots of topics. But you might not know how to find interesting data on a specific theme or event. For some of these, BLS has done the work for you.

Spotlight on Statistics is an online series of theme- or event-based pages that present data from multiple BLS programs. Recent themes include women, college, and travel. Other archived topics cover Thanksgiving, health care, and sports and exercise.

Each *Spotlight* has introductory text that describes the subject of focus. BLS programs that have data related to the subject contribute charts and an explanatory paragraph or two. For example, the November 2010 "Food for Thought" *Spotlight* showcases seven different BLS programs. Links to each program's home page and the source data in the chart are also provided. An embedded audio file—along with a transcript—summarizes each *Spotlight*.

To see current and archived *Spotlight* topics online, visit **www.bls.gov/spotlight**; for more information, write to the BLS Division of Information and Marketing Services, 2 Massachusetts Avenue NE., Suite 2850, Washington, D.C. 20212; or call (202) 691–5200.

Resources for teaching genetics

As many high school biology teachers know, there are vast resources available for a genetics curriculum. The volume of materials sometimes makes it difficult to choose instructional materials. Fortunately, the American Society of Human Genetics can help with those decisions.

The society's Geneticist-Educator Network of Alliances Project formed a committee to review the content of readily available classroom resources about genetics-related topics. The committee identified more than a dozen "exemplary curriculum resources," which it identifies on the society's Web site by title, publisher, and intended grade level. For example, a unit on human genetic variation for grades 9–12 authored by the National Institutes of Health (National Human Genome Research Institute in the Office of Science Education) includes activities to cover human genetic disorders, the role of the environment, and other content.

The resources are available for free or at low cost, and most may be downloaded from links on the society's Web site. The education resources page also links to other genetics-related books and videos, as well as additional sites that offer free teaching aids, online educational materials, reference guides and fact sheets, and more.

Find the genetics education resources page online at **www.ashg.org/education/resources.shtml**. Or, write to the American Society of Human Genetics, 9650 Rockville Pike, Bethesda, Maryland 20814; call (301) 634–7300 or toll-free 1 (866) HUM-GENE (486–4363); or email *society@ashg.org*.

Education projections to 2018

Through 2018, bachelor's degrees will outnumber all other degrees awarded, doctoral degrees will have the fastest rate of growth, and more degrees will be awarded to women than to men. These are just some of the education projections in a report from the National Center for Education Statistics.

The report, "Projections of Education Statistics to 2018," includes data on enrollment, graduates, teachers, and expenditures in elementary and secondary schools and degree-granting institutions. Projections of degree awards were developed at each level: associate, bachelor's, master's, doctoral, and first-professional. Following are some highlights of the projections:

- Women are projected to earn more than half of the degrees at every level in academic year 2018–19, including about 65 percent of associate degrees (593,000 of 913,000 total).
- Men are expected to earn nearly as many master's degrees (293,000) as associate degrees (319,000) in 2018–19.
- The 1.8 million bachelor's degrees projected to be conferred in 2018–19 is the largest number for degrees at any level.
- The number of doctoral degrees awarded is expected to grow 49 percent between academic years 2006–07 and 2018–19, the fastest projected growth rate of all degree levels. But the 90,400 doctoral degrees expected to be conferred in 2018–19 is projected to remain the smallest number of all levels.

More projections data about degree awards are available in the report. Read the report online at **www.nces.ed.gov/pubs2009/2009062.pdf**. Or, request report NCES 2009062 by writing to the U.S. Department of Education, National Center for Education Statistics, 1990 K Street NW., Washington, D.C. 20006, or by calling (202) 502–7300.

Scholarship for smarts and service

Attention, educators: Do you know high-achieving, community service-minded students who could use some money for college? Request a Carson Scholars Fund application, and encourage your principal to nominate the best candidate to compete for a $1,000 award.

The Carson Scholars Fund was founded by pediatric neurosurgeon Benjamin Carson and his wife, Candy. Every year, scholarships are awarded to students in grades 4 through 11 who excel academically and show dedication to serving their communities. Each $1,000 prize is invested for the winner's college education until high school graduation and is paid directly to the accredited 4-year institution he or she chooses to attend. Winners may reapply for recognition annually.

To be nominated for a scholarship, a student must have at least a 3.75 grade-point average and demonstrate commitment to others through community service that goes beyond the school's requirement. Only educators may request an application, which is then sent directly to the school, and only one student may be nominated by his or her school to compete. Scholarships are awarded without regard to financial need.

Application requests for the 2012 scholarship cycle are now being accepted. For information or to request an application for your school, visit online at **www.carsonscholars.org/content/programs/what-we-do**; email *rebekah@carsonscholars.org*; write to the Carson Scholars Fund, 305 West Chesapeake Avenue, Suite 310, Towson, Maryland 21204; or call (410) 828–1005.

Nursing jobs in nursing homes

Whether celebrating a resident's 100th birthday or just making rounds through the nursing home, Sue Christian loves her job. "When a resident smiles and says, 'Oh, you're here, I'm glad to see you!' it's a great feeling," says Christian, who cares for older adults and other residents of a nursing home in Columbiana, Ohio. "I like to know that I've made a difference."

Christian is a licensed practical nurse who focuses on caring for older people. The need for workers like her is growing. According to the U.S. Census Bureau, the number of people ages 65 and older is expected to increase from 40 million to 72 million between 2010 and 2030. And the U.S. Bureau of Labor Statistics (BLS) projects that this increasing population will result in job growth for a variety of occupations related to caring for older people—such as those in nursing homes.

This article describes some of the career opportunities in nursing homes, highlighting nursing occupations. The first section gives an overview of work in nursing homes. The second section describes three nursing occupations that are available in nearly all of these facilities: nursing assistant, licensed practical nurse, and nurse assessment coordinator. The third section discusses working conditions, both good and bad. And a final section provides sources for more information.

Work in nursing homes

Nursing homes, also called nursing care facilities, are places of residence for people who require ongoing medical care and help with daily activities. Most, but not all, nursing home residents are older. And although many residents require long-term care, others may be discharged when their health improves. (Additional types of facilities that provide long-term care to older and other residents are described in the box on page 32.)

Projected growth

Birth rates in the United States increased dramatically in the two decades following World War II. This large population group is commonly known as the "baby boomers," and its oldest members are now turning 65. As the baby-boom group continues to age, older Americans will represent an increasing percentage of the total population. By 2030, Census Bureau data show, the 72 million people expected to be ages 65 and older will represent 19 percent of the U.S. population—up from 13 percent in 2010.

As mentioned previously, the growing number of older people heightens demand for workers to care for them, including in nursing homes. According to BLS data, employment in nursing care facilities is expected to grow more than 24 percent over the 2008–18 decade, much faster than the average for all industries. That's an increase of nearly 400,000 jobs over the decade.

And job opportunities are expected to be excellent. "I tell people, if you want a field with job security, this is it," says Genevieve Gipson, director of the National Network of Career Nursing Assistants in Norton, Ohio.

Ingrid Serio, director of content management at the American Association of Nurse

Elka Maria Torpey

Elka Maria Torpey is an economist in the Office of Occupational Statistics and Employment Projections, BLS. She can be reached at (202) 691–5719 or at torpey.elka@bls.gov.

Nursing home workers serve residents who need ongoing care.

Assessment Coordination in Denver, Colorado, agrees. "We don't have a lot of nurses going into care for the elderly," she says—a good indicator of job security but a potential issue in providing care for a larger number of older people in the coming years.

Employment and wages

Nursing care facilities employed more than 1.6 million people in May 2009, according to BLS. The table below shows employment and wages for the 10 largest occupations in the industry. These occupations accounted for about 78 percent of total employment in nursing care facilities. Almost all of the occupations had an annual wage below the overall median of $33,190.

Employment. Workers who provide direct care make up the largest segment of the industry. Other workers help with facility management and upkeep.

In addition to the three nursing occupations described in detail in this article, most nursing home workers interact directly with residents. For example, occupational, speech, and physical therapists provide rehabilitative and therapeutic care. Recreation workers and activities staff help to organize events, such as bridge games and musical performances. Dieticians and nutritionists develop residents' dietary plans.

Nursing homes also employ workers who may have less contact with residents but are essential to operations. Nursing home administrators run the facility, ensuring that residents are safe and well cared for. Other workers prepare and serve meals to residents, clean rooms, and do laundry. And like most industries, nursing care facilities need workers who take care of basic business functions such as building maintenance and finance.

Wages. As the table shows, wages in nursing home occupations varied widely in May 2009, according to BLS. Some occupations, such as laundry and dry-cleaning workers, had relatively low wages. Others, such as registered nurses, had relatively high wages. Occupations with higher wages typically require more education than a high school diploma or

Occupations with the largest employment in nursing care facilities, May 2009

Occupation	Employment	Median annual wage
Nursing aides, orderlies, and attendants	609,440	$23,380
Licensed practical and licensed vocational nurses	212,990	41,310
Registered nurses	128,420	57,830
Maids and housekeeping cleaners	80,260	19,350
Home health aides	48,550	21,450
Food preparation workers	48,140	19,210
Cooks, institution and cafeteria	47,130	22,570
Recreation workers	33,510	23,510
Laundry and dry-cleaning workers	31,340	19,250
Food servers, nonrestaurant	31,100	19,410

equivalent—the usual minimum requirement for lower wage occupations.

Some high-wage occupations had higher wages in nursing homes than in other industries. Examples include occupational therapists, physical therapists, massage therapists, and speech-language pathologists. Across all industries, workers in these occupations had above-median wages, and they earned even higher wages in nursing homes.

In some low-wage occupations, too, wages were higher in nursing homes than in other industries. For example, combined food preparation and serving workers in nursing homes had a median annual wage of $18,930, compared with $17,220 for these workers across all industries in May 2009.

Profiles in nursing

Workers in nursing occupations provide direct care to residents and communicate with them and their families about this care. These workers may have different job titles and responsibilities, but all of them operate as a team.

People who work directly with nursing home residents usually have certain personality traits—including patience, tact, and sensitivity—that help them do their jobs. Having knowledge of or experience in working with older people is also helpful, and some employers may even require it.

Other requirements are imposed by Federal, State and local governments. Nursing homes and their employees are often subject to specific laws and regulations, in part to ensure the quality of care that residents receive. Nursing occupations usually require State licensure or certification.

Three types of direct-care jobs in a nursing home include nursing assistants, licensed practical nurses, and nurse assessment coordinators. Sometimes, these workers' tasks overlap, but each has a distinct role in providing or ensuring quality care for residents.

Nursing assistants

A nursing assistant is often the first person nursing home residents see in the morning—and the last one they see at night.

Nursing assistants help residents with daily living activities. Common tasks include feeding, bathing, and dressing residents and helping them to get around. These workers assist residents with hygiene and personal-care activities, such as washing hands and combing hair.

The nursing assistant also observes residents' response to treatment and care, documents their food and fluid intakes, and monitors their vital signs, such as blood pressure and pulse. And they report changes and any health concerns to the nurse on duty.

There are many different job titles for nursing assistants. Examples include nurse aide, certified nursing assistant, and orderly. Michael Watkins, whose title is orderly, is a nursing assistant in Rocky Hill, Connecticut. He works a variety of shifts—sometimes starting his day in the morning, other times working throughout the night. Occasionally, he works double shifts when his nursing home is short-staffed.

Monitoring vital signs is one of the tasks performed by nursing assistants.

When working a morning shift, Watkins begins his day by visiting each of the residents in his care. He asks how they're doing and how they slept, then talks to them about what tasks he's there to perform. Usually, he helps people get from their beds to the bathroom, possibly into the bath or shower. He also lays out their clothes and aids them in getting dressed.

The type of assistance Watkins gives each resident depends on the resident's capabilities. Some residents might need help bathing or eating, for example; others require assistance only to go from one place to another.

During his night shifts, Watson turns and repositions the sleeping residents who would otherwise develop pressure sores from staying in the same position too long. He also checks on residents every few hours throughout the night to make sure they're comfortable. Nursing assistants also help bring residents to therapy sessions, to common areas for meals, and to other nursing home activities—including spiritual ones. "We're dealing with the total person," says Watkins. "If someone needs to go to Mass, church, or temple, for example, we'll go with him."

Nursing assistants ensure that residents are comfortable, help them with daily tasks, and socialize with them.

While caring for residents, Watkins tries to socialize with them, too. But he might have 8 to 14 residents per shift to attend to, so his time with each person is limited.

Ensuring resident safety is also part of the work. Residents with dementia, for example, sometimes wander or aren't aware of what they are doing. "A resident might try to eat something that's not food," says Watkins, and it's his job to make sure that doesn't happen.

Nursing assistants may choose to specialize in a particular type of resident care. Medication aides, for example, administer certain kinds of medications; restorative aides assist residents with skills such as range-of-motion exercises, walking, or dressing with one hand. Other specialty workers include bathing aides, dining assistants, and hospice aides.

Employment, outlook, and wages. BLS classifies nursing assistants under the job title of nursing aides, orderlies, and attendants. In May 2009, there were more than 1.4 million workers in this occupation, more than 609,000, or 42 percent, of whom were employed in nursing care facilities. In fact, nursing assistant was the largest of all nursing home occupations, making up about 37 percent of total employment in the industry.

The job outlook for nursing assistants is expected to be excellent. BLS data show that employment in this occupation is projected to grow faster than the average for all occupations over the 2008–18 decade. Many openings are expected to come from these newly created jobs. Other opportunities, however, will come from the need to replace workers who leave the occupation.

BLS wage data show that nursing aides, orderlies, and attendants in nursing care facilities had a median annual wage of $23,380 in May 2009, compared with $24,040 for these workers across all industries. The highest earning 10 percent of nursing assistants in this industry had an annual wage of $32,280 or more. The lowest earning 10 percent had an annual wage of $17,390 or less.

Education and training. Training requirements for becoming a nursing assistant vary by State and by employer. All nursing assistants who work in nursing homes must be on a State registry. Each State has different

Responsibilities vary, but nursing home workers operate as a team in caring for residents.

guidelines for being listed on the registry, but all call for nursing assistants to complete State-approved training and competency requirements.

Training is offered at some high schools, as well as at vocational-technical schools, community colleges, and nursing homes. State boards of nursing maintain information about approved programs. Workers also learn some of their skills on the job and through in-service training provided by their employer.

After they are listed on a State registry, nursing assistants may be referred to as certified nursing assistants, licensed nursing assistants, or similar titles.

Licensed practical nurses

Licensed practical nurses care for residents in many ways. Their tasks may include providing bedside care or increasing residents' personal comfort.

These workers, who in some States are called licensed vocational nurses, tend to residents' health under the direction of doctors and registered nurses. They monitor residents' well-being and administer treatments and medications, such as dressing wounds and dispensing prescribed drugs. Licensed practical nurses also communicate with other health-care team members regarding residents' care.

Licensed practical nurses in nursing homes often supervise nursing assistants. Christian, for example, is a nurse aide supervisor who oversees the work of all nursing assistants in her facility. Other licensed practical nurses at her nursing home are assigned to particular groups of residents—and nursing assistants often turn to these nurses first with questions about residents in those groups.

Although Christian is concerned with residents' well being, her primary focus is on the nursing assistants and the work they are doing. "I look in on residents," says Christian, "but I'm checking to be sure that the aide is doing the job correctly. I go from room to room, looking over the residents to see: Is their hair combed? Are they dressed properly? Are their glasses clean?"

Christian handles any staffing issues that arise. For example, if a resident has the flu, Christian might ensure that the aide assigned to that resident receives extra support to

accommodate the additional time needed to care for the sick resident. She also has administrative and managerial tasks, such as creating work schedules, providing training, and hiring and, if necessary, terminating nursing assistants.

Most licensed practical nurses in a nursing home work closely with nursing assistants, and some of their job tasks are similar to those of nursing assistants. For example, some licensed practical nurses help to bathe or feed residents.

Licensed practical nurses also create and update resident care records, documenting any changes in residents' conditions. Some help to develop resident care plans.

Communicating with residents' families is another part of a licensed practical nurse's job. For example, these nurses might educate residents and their families on health-related topics, such as self-care techniques. Or they might address family members' problems or concerns.

Sometimes, licensed practical nurses specialize in a particular type of care. Before becoming a supervisor, for example, Christian worked in rehabilitation. As is the case with nursing assistants, specialization for licensed practical nurses often leads to advancement in the occupation.

The extent of a licensed practical nurse's duties is determined by the State in which he or she works. In some States, for example, licensed practical nurses administer certain medications or start intravenous therapy, or IVs. Recognizing the additional training that licensed practical nurses get, State regulations generally allow these nurses to perform more complex tasks than nursing assistants.

Employment outlook, and wages. In May 2009, BLS data show, there were about 213,000 licensed practical nurses and licensed vocational nurses employed in nursing care facilities. They accounted for nearly 30 percent of the occupation's nearly 729,000 workers.

The job outlook for licensed practical nurses is very good. BLS expects much faster than average growth of employment of licensed practical and licensed vocational nurses over the 2008–18 decade. As with nursing assistants, some openings will result

In certain States, licensed practical nurses may administer some medications or start IV therapy.

from the creation of these new jobs, and some will arise from the need to replace workers who leave the occupation.

According to BLS data, the May 2009 median annual wage for licensed practical nurses in nursing homes was higher than that for the occupation across all industries. In nursing care facilities, licensed practical and licensed vocational nurses had a median annual wage of $41,310, compared with the median wage for all licensed practical and licensed vocational nurses of $39,820. The highest paid 10 percent of licensed practical and licensed vocational nurses in nursing care facilities had an annual wage of $55,890 or more. The lowest paid 10 percent had an annual wage of $31,410 or less.

Education and training. All licensed practical nurses must be licensed by the State in which they work. For licensure, every State requires that workers complete an approved training program and pass an exam, although specific requirements vary by State.

Training programs for licensed practical nurses typically last about 1 year and are offered at vocational-technical schools and community colleges. State boards of nursing provide a list of accredited programs.

Employers may require additional qualifications. To work in nursing homes, for example, prospective licensed practical nurses may need previous experience in dealing with older people.

Nurse assessment coordinator

Ensuring quality care in a nursing home is the goal of nurse assessment coordinators. These workers manage procedures to evaluate residents' care. The process helps to confirm that each resident receives appropriate services and attention.

Nurse assessment coordinators are more commonly known as MDS coordinators because their work revolves around the MDS, or Minimum Data Set, a standardized tool for assessing residents' care. The MDS assessment process measures the physical and emotional well-being of all nursing home residents when they are admitted to the facility and

Licensed practical nurses in nursing homes communicate with residents about their treatment.

at designated intervals afterward. The nurse assessment coordinator manages this data collection process from start to finish.

Nurse assessment coordinator and registered nurse Carol Maher of Mission Viejo, California, spends much of her workday interviewing residents and their families. "I'm asking them about their physical comfort, how they feel emotionally, how we've been caring for them," she says.

Coordinators learn a lot about residents during these interviews, including ways to make their stay more enjoyable. Sometimes, even a small change makes a big difference. "It can be as simple as wanting a cup of coffee before getting out of bed," says Serio of the types of suggestions received during assessments. For many residents, a nursing care facility becomes their home—and making the environment more home-like significantly improves their quality of life.

As part of the evaluation process, nurse assessment coordinators review a resident's medical records. They share information with other staff members and work with them to

Nurse assessment coordinators interview residents and identify areas of concern.

develop a comprehensive care plan for each resident.

The team approach to planning care is a key to ensuring effectiveness. "Care can't be in silos, or it won't be efficient," says Maher. If a resident is losing weight, for example, the dietitian, certified nursing assistant, and resident's family might all confer on a solution, such as changing the resident's diet or giving the resident easier-to-use eating utensils.

The assessment process can help identify concerns and foster communication between caretakers, residents, and families. In some cases, the nurse assessment coordinator may have to perform additional assessments.

Coordinators collaborate with other team members in weekly meetings, discussing residents' care to make sure needs are being met. "Our goal is to get people to their highest level of functioning—which might be in a long-term care facility, or it might be in assisted living or back at their own home," says Maher. "We help explore all the options."

Residents are reassessed at least quarterly. Each assessment has a specific deadline, and nurse assessment coordinators must schedule interviews and meetings to hit these target dates.

The specific tasks of a nurse assessment coordinator vary from one facility to another. In some nursing homes, for example, nurse assessment coordinators are the only ones who conduct the initial assessment interviews. In others, the work is shared, with each staff member interviewing residents on topics related to their expertise.

Nurse assessment coordinators might also be responsible for ensuring facility compliance with other Federal and State regulations. And some coordinators have additional nursing or administrative duties.

Nearly all nursing homes have at least one nurse assessment coordinator. In smaller facilities, the director of nursing may perform the coordinator's tasks. Many nurse assessment coordinators have been trained as registered nurses. Others are licensed practical nurses who are supervised by registered nurses.

Employment, outlook, and wages. BLS does not collect data specifically on nurse assessment coordinators. It does, however, have data on registered nurses and licensed practical nurses, two occupations from which nurse assessment coordinators often advance. In May 2009, there were nearly 2.6 million registered nurses of all types, including about 128,000 (5 percent) working in nursing care facilities. And, as mentioned in the previous section, 213,000 of the 729,000 licensed practical and licensed vocational nurses employed in May 2009 worked in nursing care facilities.

Data from the American Health Care Association, however, suggests that relatively few of those nurses worked as nurse assessment coordinators. The association estimates that there were about 11,000 MDS coordinators in nursing facilities in 2008, the most recent year for which data are available.

The employment outlook for nurse assessment coordinators is expected to be very good, according to industry sources. And BLS projects much faster than average growth for

both registered nurses and licensed practical nurses over the 2008–18 decade, which should result in many opportunities for both occupations.

BLS does not collect wage data on nurse assessment coordinators. Industry sources suggest that their earnings range from about $40,000 to nearly $70,000. BLS data show that the median annual wage for registered nurses in nursing care facilities was $57,830 in May 2009, compared with $63,750 for registered nurses in all industries. The highest paid 10 percent of registered nurses in nursing care facilities earned $80,440 or more, and the lowest paid 10 percent earned $42,560 or less. As stated previously, licensed practical nurses in nursing care facilities had a median annual wage of $41,310 in May 2009, with the highest paid 10 percent making $55,890 or more and the lowest paid 10 percent making $31,410 or less.

In most occupations, workers who have more experience typically earn a higher wage than workers with little experience. Nurse assessment coordinators typically have many years of experience, so they may be paid more than other nurses who have less experience.

Education and training. Nurse assessment coordinators are trained as either registered nurses or licensed practical nurses. Therefore, they must meet the requirements of one of these two occupations.

Registered nurses have several training options. They may earn a 2- or 3-year associate degree in nursing; earn a 4-year bachelor's of science degree in nursing; or, if they already have a bachelor's degree in another discipline, complete a 12- to 18-month accelerated program for a bachelor's of science in nursing or a 2-year accelerated program for a master's degree in nursing. (A smaller number of registered nurses earn their credentials through diploma programs at hospitals, which take about 2 to 3 years.)

Licensed practical nurses, as explained previously, usually complete a State-approved program, which typically takes about 1 year.

Both registered nurses and licensed practical nurses must pass a national licensing exam before they may work in the occupation. States may have other requirements for licensure, as outlined by State boards of nursing.

Most nurse assessment coordinators have first worked as a nurse. Experience working in nursing homes is helpful and is sometimes required by employers. Many nurse assessment coordinators learn the details of their positions on the job. Special MDS training and certification are available but are not usually necessary to get a job.

Rewards and challenges

Jobs in nursing homes have both rewards and challenges, say workers—and caring for residents is often at the core of both.

Most workers say some job satisfaction comes from knowing that they make a difference in residents' lives. "The best part of my job is being able to help people who can't help themselves," says Watkins. Maher enjoys taking assessments because it creates opportunities to have a positive impact on treatment. "I find ways to improve every resident's care," she says, "to help each of them become physically better, happier."

Even if workers aren't able to improve residents' lives directly, they still find it gratifying to contribute to a better quality of life. "It's nice to know that people aren't at home,

Nursing home workers know that the care they provide makes a difference in people's lives.

alone, in the dark," says Maher. "They're here conversing, exercising, getting to know other people."

Nursing home jobs also offer advantages not always found in other healthcare settings. For example, long-term care allows staff to develop relationships with the residents they see every day. "In a hospital, patients go home and you never see them again," says Christian. "Here, I'm able to follow the residents through the years. They're like family."

But growing close to residents can have a downside, too. "You get to know people, and they're a part of your life," says Maher. "When they die, it's sad."

Another downside to working in a nursing home is the stress that often comes with it. Many nursing homes are chronically understaffed, resulting in more work to be done than there are employees to do it. Emergencies—such as when a resident falls or shows signs of a life-threatening condition, like a heart attack—are also stressful for staff.

For many nursing home workers, some parts of the job can be unpleasant—for example, cleaning up after residents who are sick or incontinent. Risk of exposure to diseases makes health and safety considerations a priority. Employers often require workers to be vaccinated against viruses, such as influenza or Hepatitis B, and to receive regular training in infection control, first aid, and other topics. And the incidence of injury and illness among nursing home workers is higher than that of workers in other industries.

Jobs in nursing homes, like most in healthcare settings, require around-the-clock scheduling to provide resident care. As a result, workers are needed for shifts that may include nights, weekends, and holidays.

But workers in nursing homes do more than provide routine care. Christian, for example, recently helped to organize birthday parties for two residents who were turning 100. "I just feel like I needed to let them know how

Other work settings for long-term care

Nursing homes are just one of several settings for working with older people and others who need long-term care. Jobs exist in a variety of facilities and in individual homes.

Some settings have special units to care for residents with particular conditions, such as Alzheimer's disease or other forms of dementia. Other facilities specialize in offering care for certain populations; for example, hospice care is available at hospice centers, but it is also available in hospitals, long-term care facilities, and private homes.

Continuing care communities offer services that change as residents' needs evolve. Residents can transition from independent living to assisted living to nursing care as their conditions require.

Assisted living facilities are designed for people who need help with daily living activities but who do not need the skilled medical care provided in nursing homes. Workers in these facilities might help residents with bathing, dressing, eating, and managing their medications.

Independent living facilities are for people who need little or no help with daily living activities. These facilities may, however, provide optional services such as meals, laundry, and social activities.

In-home care is available for people who choose to stay in their own homes and receive the care or services that they need from home health aides, social workers, or other specialists.

Other housing options are similar to independent living facilities. Geared toward a specific population, this alternative is more like a private home but may offer opportunities for socializing or other services. For older people, examples of this type of housing include "senior apartments" and retirement communities.

special they are," she says. "I can't imagine living through all they've lived through."

Workers enjoy listening to residents—even those who may struggle from day to day. "They might not have good short-term memories," says Serio, "but they usually can tell you some really funny and interesting stories about their youth."

Having access to this treasure trove of living history is, for many workers, the best reward of all. "Residents love to talk about their lives," says Christian. "It's great learning from such wisdom."

For more information

Additional information about many of the occupations discussed in this article is in the *Occupational Outlook Handbook*. The *Handbook* is available online at **www.bls.gov/ooh** and in print at many career centers and public libraries.

To learn about State requirements for nursing assistants, licensed practical nurses, and registered nurses, visit the National Council of State Boards of Nursing online. From its Web site, the national board links to the sites of individual State boards of nursing, which have lists of approved training programs and other information on how to qualify for these occupations.

National Council of State Boards of Nursing
111 E. Wacker Dr., Suite 2900
Chicago, IL 60601
(312) 525–3600
info@ncsbn.org
www.ncsbn.org

To obtain a copy of the American Health Care Association study on retention, tenure, and vacancy rates in nursing facilities, contact the association here:

American Health Care Association
1201 L St. NW.
Washington, DC 20005
(202) 842–4444
www.ahca.org

For information about nursing assistants, contact the following organization:

National Network of Career Nursing Assistants
3577 Easton Rd.
Norton, OH 44203
cnajeni@aol.com
www.cna-network.org

For information about licensed practical nurses, contact the following organization:

National Federation of Licensed Practical Nurses, Inc.
605 Poole Dr.
Garner, NC 27529
(919) 779–0046
www.nflpn.org

For information about nurse assessment coordinators, contact:

American Association of Nurse Assessment Coordination
400 S. Colorado Blvd., Suite 600
Denver, CO 80246
Toll free: 1 (800) 768–1880
www.aanac.org

You're a what?

Foley artist

Dennis Vilorio

For almost 30 years, Alyson Moore has happily kept her work imperceptible. She creates sounds that meld so seamlessly with onscreen images that they go unnoticed, as though they were there from the start.

Alyson is part of a small occupation of sound reproduction specialists known as foley artists. Foley artists work behind the scenes in filmmaking and television, using props to recreate all the physical sounds that are integrated into a movie or TV show. These sounds need to be recreated because the microphones used on a set or on location are designed to capture dialogue. As a result, sounds other than dialogue seem quiet or are lost.

Foley artists create almost all sounds in a studio, far removed from the crews and crowds associated with a filming set. "We are the ghosts of the post-production world," Alyson says.

Alyson teams with a partner to share the workload on every project. They divide up the film's or TV show's characters and assume responsibility for their assigned characters' sounds. Each character has his or her own track, which foley artists produce in a series of 15-minute reels. Foley artists also delegate responsibility for the different sounds in a scene. For example, to recreate the sound of rainfall on an umbrella, one foley artist might flap a plastic sheet while the other pours water.

A typical workday begins with Alyson reviewing cue sheets: documents that specify the timing of movements in a particular scene. For example, in a scene that depicts someone getting into a car, the cue sheet might direct Alyson to record and properly time five sounds: the footsteps toward the car door, a hand lifting the door handle, the rustle of clothes as the person gets in the car, the jingling of keys, and the sound the key makes entering the car's ignition switch.

Every sound the foley artist creates is custom made to match the scene. Furthermore, Alyson says, "it's important to get into character and properly capture the character's mood." For example, the footsteps of a calm person are light and steady, whereas an angry person stomps. To accurately recreate footsteps in a scene, foley artists must walk in their character's shoes—literally. That might mean wearing ballet shoes for a ballerina's graceful movements or combat boots for a soldier's disciplined steps.

To create most sounds, foley artists use props they have accumulated over the course of their careers. They don't have a cache of stock sounds, but the techniques for making some sounds—such as using gloves to simulate the sound of wings flapping—have become standard in the trade. Alyson chooses the best props and methods for creating sounds by asking herself: "What would that sound like?"

To help them think creatively, Alyson and her partner usually put all their props on display as they work. "The studio looks like the messiest garage you've ever seen," she says, "but we know where everything is." Displaying props forces them to consider many options and to play around, says Alyson.

But creating custom sounds sometimes requires that the foley artist invent ones that aren't obvious. To recreate the stitching of a wound in one scene, for example, Alyson slowly unraveled an old pair of jeans.

After deciding how to create the sounds in the cue sheet, the foley artist team practices matching the sounds to the action onscreen. Recording begins when the team feels ready. Sound designers tweak the completed reel, and sound mixers add these edited tracks to the voice and sound effects tracks.

In the end, the director approves the work or asks for another take of particular sounds. Although a director's involvement in

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foley work is usually limited, he or she may have distinct preferences that differ from the foley artist's interpretation. "What matters is not what I think something sounds like, but what the director thinks it sounds like," says Alyson.

There is no school or apprenticeship program for foley artists, and education requirements are minimal. As is the case throughout the film industry, connections are important. The best way to break into foley work is to find an established foley artist who is willing to mentor.

Working with a mentor is how Alyson got her start. Her father, an actor, introduced her to his friend, who was a sound editor. "I became his personal assistant and eventually started filling in as a backup foley artist," she says. "There weren't many of us back then."

Today, most foley artists still stumble into the occupation; many trained as dancers or actors. A film or sound production background is especially helpful to those who get into foley work.

Foley artists must have a good feel for rhythm, coordination, and timing to do their job. To master these skills, they often practice in front of a TV at home by mimicking movements, timing footsteps, and playing with sounds.

Entry-level foley artists work primarily in TV and independent films. Additionally, foley artists must live in the areas in which films and TV shows are produced. Most work in the Los Angeles area, but some work in smaller film-producing cities, such as New York, San Francisco, Toronto, and Vancouver.

The U.S. Bureau of Labor Statistics does not collect employment or wage data for foley artists. But according to the Motion Picture Editors Guild, the guaranteed wage for guild member foley artists is $2,000 per week, $340 per day, or $42 per hour. Additional anecdotal information suggests that the typical wage for an experienced foley artist is between $400 and $450 a day; non-union foley artists who have less experience can make $200 a day for uncredited work.

Photo of Alyson Moore by Bob Beresh

Matching her movements to the action onscreen, foley artist Alyson Moore uses props to recreate the sound of footsteps on grass.

Foley artists, especially those who are just starting out, must often supplement their wages with a part-time job because work is usually sporadic; steady income is not the norm. A typical film schedule is 10 to 15 days. Complex, sound-heavy films might take 30 days to complete. For TV, however, foley artists usually spend 1 day per 1 hour of show.

Shorter production schedules allow for limited practice time, which contributes to stress. In addition, foley work is physically demanding. Foley artists stand or kneel to produce most sounds, maneuvering props near recording equipment for optimal effect. "It can cause lots of wear and tear on your feet and knees," Alyson says.

But foley work also challenges the artist to be creative. For this reason, Alyson considers the job rewarding and "a dream come true." Her work has reverberated in award-winning films and sleepers alike, yet she remains largely anonymous. "If we do our job right," says Alyson, "no one knows we were there." And that sounds just right to her.

OOChart

Garden-variety job growth

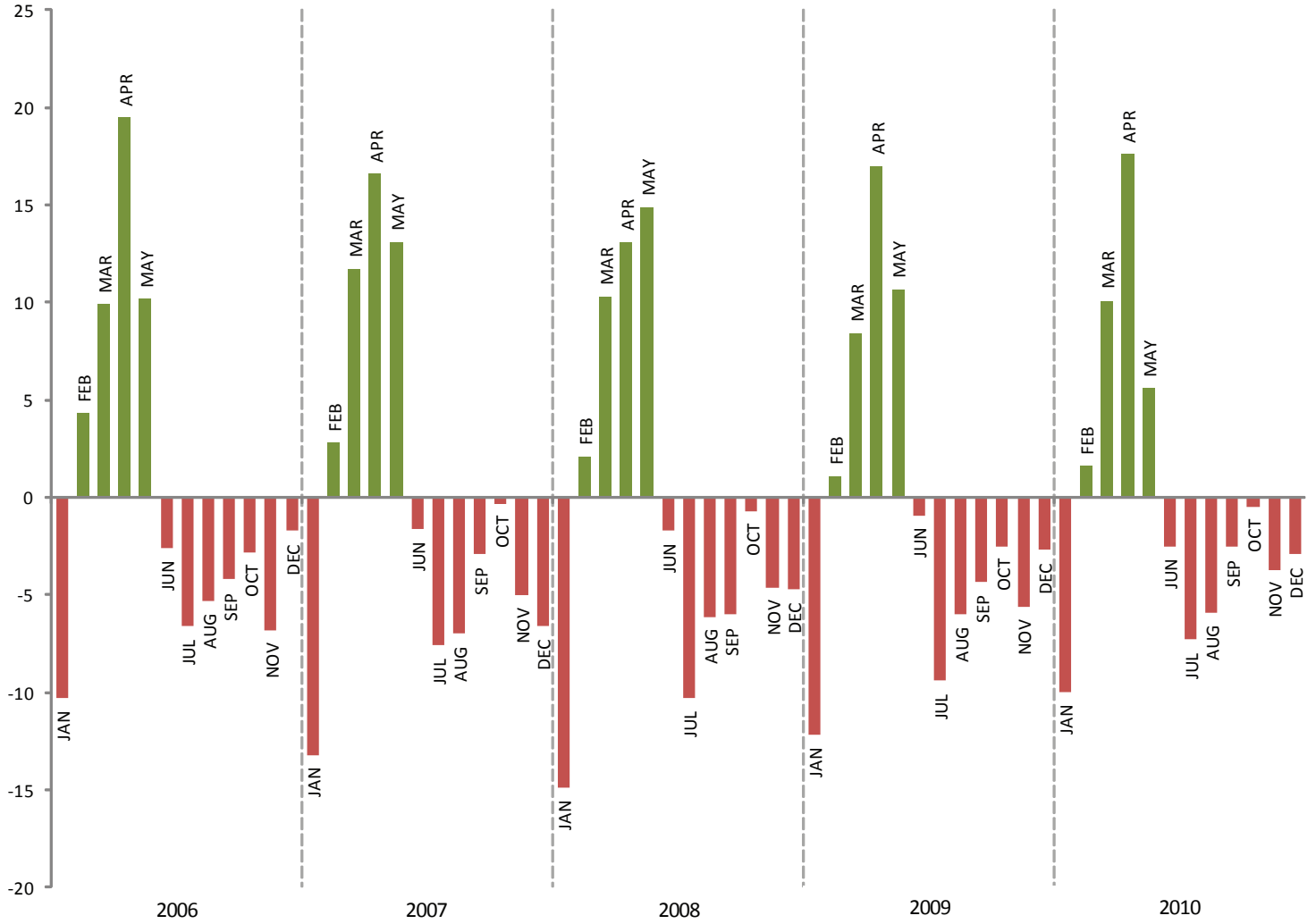
Spring is the season when the outdoor world comes alive. And as plants begin to grow, so does the workforce in many planting-related industries. In fact, employment in one such industry—nursery, garden, and farm supply stores—usually begins to bloom well before the first daffodil.

As the chart shows, the first sprouts of job growth appear in February and increase over the next 3 months. Nursery, garden, and farm supply stores sell trees, plants, seeds, and other horticultural supplies, and seasonal job gains coincide with the planting season in much of the Nation. Over the past 4 years, these stores have added an average of about 41,000 workers to their payrolls from February to June. This gain has been offset by an equivalent job loss occurring over the remainder of the year.

Other industries that cater to the public's fondness for plants and planting, such as landscaping services and retail home centers, have similar seasonal employment patterns. Warm-weather businesses that add workers in the summer and trim payrolls in the fall include amusement parks, construction companies, and hotels and other traveler accommodations. And industries such as ski resorts experience seasonal employment buildups in the fall and winter.

For more information about employment in these and other industries, visit the Current Employment Statistics survey Web site at **www.bls.gov/ces**.

Nursery, garden, and farm supply stores, over-the-month employment changes, 2006–10, not seasonally adjusted, in thousands



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Nursing jobs in nursing homes

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