

The Next Chapter: From Employee to Independent Consultant in the Oil and Gas Industry

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Hal Miller is the President of Subsurface Consultants & Associates, LLC. He has over 35 years experience in the upstream oil and gas industry, and a deep understanding of the factors at play in the pending "great crew change".

"We have been anticipating for years that industry demographic factors would result in an exodus of highly experienced and skilled geoscientists and petroleum engineers. The recent market downturn and subsequent staff reductions have accelerated the loss of senior professionals, leading to a vacuum in the senior technical mentor ranks. History has shown that as the industry recovers, demand for highly experienced geoscience and petroleum engineering consultants should increase dramatically."

Late career professionals are well-positioned to become consultants and assume critical roles when the industry rebounds, helping companies large and small to expand their operations and transition less experienced staff into the next generation of oil finders, developers, and producers. "



- Hal Miller

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CHAPTER 1: Why Become a Consultant?

Senior Professionals - Is your career in transition?



Due to the combination of the "Baby Boom" generation entering the retirement window and the overriding impact of the current industry slump, an entire generation of workers is rapidly transitioning out of the full-time workforce. The following generations still need time to receive the full benefit of a handoff of skills, knowledge and experience from the "Baby Boomers" (see Appendix: The Great Crew Change). That puts you in a strong position when the industry rebounds to explore potential consulting engagements.

Whether you've recently transitioned out of a full time position or have chosen to retire and want to stay professionally engaged, a career in consulting can offer greater flexibility, diverse project opportunities, and attractive compensation.





...consultants with critical skills...are in a strong position when it comes to exploring potential consulting engagements."

Consulting offers seasoned professionals:

- ✓ The opportunity to select from diverse project opportunities.
- ✓ Limited-time engagements. You have options to work a contract as short as a few weeks up to six months or more, and then take a break before choosing your next project.
- Opportunities to mentor junior and mid-level professionals, and pass your knowledge on to the next generation.
- Attractive compensation.
- ✓ International assignment opportunities.
- ✓ Work from home opportunities.
- ✓ Partial work-weeks or alternate schedules.

Consulting is a great choice for those who seek more balance between their professional and personal lives.



What sorts of assignments are available?

Typical consulting scenarios may consist of one of the following:

- ✓ Filling a skills gap on an existing team within a client's office.
- ✓ Handling a "one-off" or specialized assignment in a client's office, from home, or on location.
- Being part of an outsourced project team, based either from home or working from a consulting company's office.
- Specialized consulting projects, ex. petrophysical analysis, technical advisory services, data room analysis.

Some recent SCA examples include:

- Evaluation of petroleum exploration potential of a large exploration block located in the East Java Sea, Indonesia for an investor with emphasis on resource estimation and assessment of the geologic chance of success (Pg). SCA provided a senior geologist and geophysicist with knowledge of the basin to visit a physical and virtual data room, plus research publically available data.
- A senior SCA geoscientist conducted an ongoing evaluation of the drilling activity in the Gulf of Mexico "Deep Shelf" play, including monitoring news releases, quarterly earnings reports, and analyst calls to identify the implications of drilling results. The consult played a key role in discussions with the management teams of the operating company.
- SCA provided a team of experts to advise on the global exploration and production asset portfolio of a super-major. Each of the experts offered recent knowledge of industry activity in the various plays and regions.
- Technical review of the Brown Dense Limestone (BDL) to identify the play fairway, evaluate the key risks and performance drivers, and estimate potential resources and asset values for a primary operator. A report was generated that included key technical observations and questions for the operator management team.



CHAPTER 2:

Self-Managing



Becoming a consultant is similar to starting a small business. Success lies in your ability to manage time, maintain workflows, and bring entire projects to completion with no outside supervision or guidance. You will also be responsible for maintaining and expanding your skill sets to keep pace with an evolving professional landscape.



Points to consider when self-managing your career as a consultant:

- Organize and document your tasks, including a timesheet for invoicing your hours.
- Develop and maintain a strong network of trusted colleagues and advisors.
- ✓ Build a strong working relationship with your clients. Demonstrate your commitment to their success and encourage their collaboration toward achieving the project objectives.
- Maintain regular communication through in-person meetings, scheduled phone calls or teleconferences.
- Commit a certain percentage of your time and budget to continuing education, whether in project management, technical subjects, or software.
- Clarify with the client the expected final deliverables, and stay on track with client expectations for reporting and delivery.
- Set a consistent schedule and plan an agenda for your day, even if working from home.

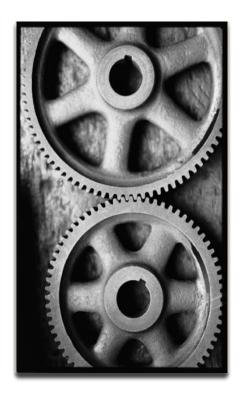


If you are consulting within a client office:

Success in consultancy is not solely based on experience, expertise and technical ability but also depends largely on the quality of the relationship between client and consultant. A shared commitment to successfully achieving the project goals is essential. Clients value consultants who are willing to "go the extra mile", provide flexibility with shifting project goals and demonstrate the ability to express objections or challenges to direction only if they reflect an intelligent understanding of the client and are delivered with a measure of diplomacy and sensitivity.

Be sensitive to the client's company culture.

- ✓ Every workplace has its own organization culture. As a Consultant, you may be placed in a variety of client office environments from large international corporations to small local start-up companies. In any case, you will be working on the client's home turf, so it's important to understand the corporate structure.
- ✓ Consultants should earn the respect, not only of the project manager but also of the client staff at all levels in the organization. Respect can be earned by demonstrating intelligence, commitment and recognizing and respecting the experience and knowledge of client staff. Take some time to watch and observe the client team's interactions and be adaptable to the management style of the client.





Understand how the client's expectations of you as a consultant may be different from those of a typical employee.

- As a consultant, you are an independent contractor, not an employee of your client. You are expected to bring a professional level of experience and expertise to the client in order to solve a problem, complete a project, or analyze client provided data to create a report. It's important that the description of the scope of work and the project objectives required are communicated clearly and include a defined beginning and conclusion of the project.
- Learn whether or not your client company has specific rules related to co-employment that are different from those for the client's employees? Ask for clarification from your client manager or supervisor regarding attendance of company meetings (e.g. planning meetings or safety meetings) and company sponsored social events.
- Consultants are self-employed and may work for multiple clients so it's also important that you disclose any limits to your availability and avoid any scheduling conflicts. You may work with a project team in the client's office or work independently from your own office.

Clarify and understand client expectations around participation in or allotting time to projects outside of the initial scope of work.

- Solid communication is key. It's vital for both sides to share a clear understanding of the client's goals and expectations. The client and consultant should work together to form a detailed list of deliverables, scheduled deadlines for project delivery, determine the frequency expected for the consultant to communicate progress during the process and how results will be measured.
- The expectation is that consultants do only the work that has been agreed under the original scope of work. Additional billable work, even if it is clearly essential to satisfactory completion of the assignment, must always be approved by the client in advance. It's the consultant's responsibility to ask the right questions and find out everything necessary to successfully complete the project.

Be aware of the client's expectations regarding mentoring and technology exchange.

- Some clients may expect the Consultant to coach or mentor their employees or other members of the project team. It's important that this objective be clearly communicated between the client and the consultant. It's essential not to overstep your bounds and interfere with the management of the group unless it is done with approval by the client. Consideration should also be given to any additional billable time required to provide instruction.
- Additionally, there should be a clear agreement between the consultant and client on how technology, whether brought in by the consultant or furnished by the client, is introduced and used to deliver the finished project.

The Next Chapter: From Employee to Independent Consultant

Key Expectations for the Consultant

- Commitment, and willingness to 'go the extra mile'
- Passion for the task at hand
- Flexibility
- Willingness to challenge the client (and be challenged by the client)
- Openness and integrity
- Ability to gain the respect of client staff
- Respect for the experience and knowledge of client staff
- Understanding of the client's business and sector



CHAPTER 3:

Understanding Independent Contractor Status

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Independent Contractor

What this means:

You are self-employed. You enjoy the benefit of maximum flexibility, limited-time or longer-term engagements, and your choice of diverse project opportunities. You will be hired for your expertise and will be expected to work independently. You have creative control and the ability to dictate your hours and working location.

You are responsible for your own health insurance, employment taxes, liability coverage, etc. These expenses should be factored in when considering your hourly rate.

You can also work for multiple clients simultaneously over the course of a year, subject to any exclusivity agreements and your ability to meet the contractual obligations and objectives of individual projects.

If you are contracting directly with the client, you will likely be responsible for contract negotiations, invoicing and collections. If you decide to contract through a consulting firm such as SCA, many of these responsibilities will be managed on your behalf.

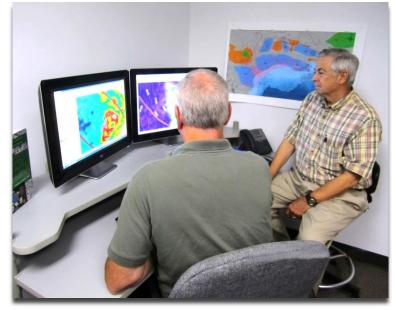


What computer equipment or software will you be expected to maintain?

Depending on your contract, you may need to invest in computer equipment and software for a home office.

Alternatively, consulting assignments obtained through a consulting firm may include workspace and technical tools for your use during the contract.

Assignments at client offices will likely include access to company work stations and software.





CHAPTER 4:

Financial Planning, Taxes and Legal Considerations



If you have always been an employee of a company, there are many financial and legal implications to becoming an independent contractor that you should consider.

Before launching your consulting venture, it would be wise to consult with a tax accountant and a legal advisor. We at SCA also encourage you to consult some of the outside resources named in this chapter.



Start-up capital and access to credit

Depending on the terms of your contract, it may be 60-120 days before you see your first check after starting a consulting project. You will want to ensure you have funds available to stay afloat during your start-up period.

Below are potential timeline scenarios for a new consultant beginning an assignment, issuing an invoice, and receiving payment. Timelines vary depending on whether you contract with the client directly or with a consulting company. Reputable consulting companies such as SCA commit to paying the consultant's invoice prior to receiving payment from the client.

Scenario A: Consulting through SCA or other reputable company



Scenario B: Contracting directly with the Client

Contract 30 days: First 60-90 days: Client pays you directly.

• 30 DAYS + 30-60 DAYS

Scenario C: Consulting with Alternate Consulting Company

Contract begins

45 Days: Consulting company invoices Client and awaits payment before paying you

30 days: First invoice submitted to

consulting company

90-120 days: Alternate consulting company pays you



30 DAYS

Your consulting partner in the upstream oil and gas industry.

+ 45-75 DAYS

Taxes

As a self-employed Independent Contractor, you will need to take the same approach as any small-business owner when it comes to tracking and reporting your business income and expenses, and paying applicable taxes.

Federal Employer Tax ID (EIN)

SCA encourages you to obtain a EIN number connected with your business entity(even if you are the sole employee). It is a simple process that can be conducted online. See this <u>link</u> to the IRS website to start the process. (http://www.irs.gov/Businesses/Small-Businesses-&-Self-Employed/Apply-for-an-Employer-Identification-Number-(EIN)-Online)

Quarterly tax payments

If you are self-employed, you are required to make quarterly tax payments to the IRS based on your estimated income. Failure to pay on schedule can result in a substantial tax payment on April $15^{\rm th}$, as well as fines for underpayment.

Tracking and itemizing deductions

Remember to document and retain receipts for your business expenses such as travel costs and professional association dues, as well as any costs associated with purchasing your own health insurance.

Self employment tax

As both employee and employer, you are now responsible for <u>self-employment tax</u> (http://www.irs.gov/Businesses/Small-Businesses-&-Self-Employed/Self-Employment-Tax-(Social-Security-and-Medicare-Taxes). This is separate from income taxes and consists of the Social Security and Medicare taxes which are typically withheld from your pay by your employer.

Tax advisor specializing in IC's

You may find peace of mind engaging with a tax advisor who has knowledge of the issues facing independent contractors, and who will be able to recommend sound strategies for navigating those issues.

Accounting and tax preparation software

Alternatively, for the do-it-yourselfers, there are many software packages tailored to small businesses that will help you with accounting and tax preparation.

Helpful Links:

IRS Tax Guide for Small Business: www.irs.gov/pub/irs-pdf/p334.pdf Small Business Administration (SBA): www.sba.gov



Legal Considerations

Establishing a DBA, LLC, or other entity

We recommend that you establish a name for your business that is separate from your own name. This is known as a DBA or "Doing Business As" name, and the name you choose must not be the same as another existing business. DBAs should be registered with your county clerk or state government, depending on your state of residence.

Some consultants may choose to establish a Limited Liability Company, or LLC. This is similar to a DBA, but offers increased protection from personal liability related to decisions or actions taken while conducting business under the LLC. It also requires submittal of an application to your state (rules vary by location). The State of Texas LLC formation information and application form is available here. (http://www.sos.state.tx.us/corp/forms/205_boc.pdf)

Single-member LLCs file taxes in the same way as a typical sole proprietor. See the IRS website for information specific to LLCs.

(www.irs.gov/Businesses/Small-Businesses-&-Self-Employed/Limited-Liability-Company-(LLC))

General Liability Insurance

Many contracts require proof of general liability. If you are operating under your own name or a sole-proprietorship/DBA, a personal general liability policy will suffice. However, if you have established an LLC, you may wish to investigate purchasing a general liability policy to cover this separate legal/business entity.



Legal Considerations (cont.)

Intellectual Property

Any work, discoveries, or other products that are the result of work performed under a contract become the property of the client. If you wish to protect your intellectual property it is important to document these items when establishing the contractual relationship.

Confidentiality

Any non-public knowledge you acquire during the course of your contract, including but not limited to trade secrets, data, reports, knowledge of specific leases, discoveries, proprietary tools, technology, or techniques, or future plans, must remain confidential. The specific terms of that confidentiality will depend on the contract.

Conflict of Interest

Specific guidance around conflicts will vary from organization to organization, but in general you can avoid conflicts or the appearance thereof by:

- Not accepting employment with a direct competitor of the client
- ✓ Not accepting gifts or offers of value from the client or a client's representative which may appear to influence the outcome of your work.
- Not accepting items of value from people or entities seeking to do business with your Client.
- ✓ Not extending promises of items of value (outside of the work performed) in connection with any transaction of business between yourself, your consulting company, or the Client.



CHAPTER 5: Navigating the Path to Consulting



Securing a prime consulting engagement depends on many factors, but marketing yourself well is at the top of the list. You will quickly discover that landing your first and subsequent consulting assignments can be a full-time job in itself.

Customizing your CV and Navigating the Online Application Process

The job application process has changed dramatically with the advent of online job listings and applications. Recruiters employ automated screening methods to manage incoming resumes and search for candidates or consultants. Regardless of your years of experience and specialized knowledge, if your CV is not optimized to the latest recruiting and candidate screening methods, it may get lost in the shuffle. See an article on the following page by SCA's recruiter, Mark Connor, for specific advice on resume content.



Resume Content – What Recruiters Want to See

by Mark Connor, SCA Recruiter

Resumes have evolved significantly over the past 20 years, due in large part to the arrival of the Computer Age and, more recently, the social media revolution. Gone are the days when a resume would be printed on parchment quality paper and "snail mailed" to a prospective employer. In today's job market, a resume is a digital document, formatted as a Word or PDF file and attached to a "cover letter" email. In all probability, the resume itself will soon be a thing of the past as companies begin to explore the potential of "Profile Pages" offered by websites such as LinkedIn, and even video resumes, giving applicants a chance to sell themselves and their backgrounds in a short video clip.

But, for the time being, the resume still has its place in the hiring process and the information it contains need to be more concise and accessible than ever before. As discussed previously, it is important to keep in mind that your resume is likely to be screened by several people before any interview is arranged, so what information should a resume include?

Traditionally, a resume can contain information that is unnecessary and even detrimental to your chances of being selected for interview. Information such as marital status, names and ages of your children, religious or political groups, your hobbies or even the current status of your health are facts that you may feel proud to disclose, but are of little interest to a Recruiter trying to determine your technical abilities. Personal statements can also be a minefield – your own opinion regarding your work ethic, mentioning the fact you always give 110% and that you are "equally capable of working alone or as part of a team" does little to separate you from other applicants making the same claims. For consulting positions in the Geology, Geophysics and Reservoir Engineering community, there are three key pieces of information that Recruiters are looking for:

What are your areas of specialization with your technical discipline?

What areas of the world have you worked?

What software are you capable of operating

When companies request a consultant, they typically have a specific problem that needs to be resolved. It is likely to be project specific and have defined technical deliverables with the tasks performed on which ever software the company uses. No learning curves, no training - Hiring Managers need a fully qualified and uniquely experienced expert to "hit the ground running". Managers approach specialist consulting companies to identify the right person because they know that the Consultant will be screened, vetted, interviewed, and referenced before a resume even reaches the hiring managers desk.

A good resume containing the right information will allow a Recruiter (and, later, a Hiring Manager) to identify your suitability for a specific assignment almost immediately, so focus as much of your resume as you can on the three key areas above. Keep it factual, objective and detailed enough to supply sufficient evidence that you can provide the solution to the companies problem. Recruiters want to place consultants just as much as consultants want to be placed, so make sure the information is easy to access and Recruiters and Hiring Managers will be able to match you to your next consulting assignment time and time again.



Networking and Professional Societies

As you embark on your consulting career it is important to maintain relationships with your former colleagues and utilize networking opportunities provided by professional societies such as the AAPG, SIPES, SPE, and SEG. Your professional networks are good avenues to market your skills and become aware of potential consulting opportunities.



Partnering with a consulting company is an efficient way to get placed on the inside track to attractive assignments. Reputable consulting companies will have established relationships with key hiring managers and other decision-makers who rely on their services to provide well qualified candidates. It can be especially effective to allow the consulting company to make the initial contact and then encourage the hiring manager to seek a recommendation from references in your personal network.



Interviewing with the client

Once you have been offered an interview, ensure that you are well-prepared to assess the opportunity and give the best possible impression. Important tips:

- 1. Research the company beforehand. Visit the company website and look for recent news about the company in the oil and gas industry press. Understand their general position within the marketplace, any recent developments of note, or sensitive topics to avoid (i.e. lawsuits or negative press). Seek information about the company through your personal network.
- 2. Gain an understanding of the position and how your qualifications are a good potential match. Have in mind appropriate examples of past work history.
- 3. Arrive on time and dress appropriately for the occasion. With few exceptions, this means a suit (men) or equivalent business formal attire (women).
- 4. Bring extra copies of your CV to the interview and be prepared to address your previous experience as well as any employment gaps.
- 5. Be prepared with intelligent questions about the position.
- 6. Listen more than talk. Answer questions in detail, but resist the temptation to provide more information than the interviewer is seeking.
- 7. When describing your suitability for the position, relate your achievements to the opportunity and the potential benefit to the client.
- 8. Avoid negative remarks about past employers or other organizations.
- 9. Have a good answer to questions like, "What was your biggest failure and how did you handle it?"
- 10.Avoid discussions around salary expectations until you have an offer in hand. If the client asks for your salary range, a good response is, "I'm very interested in the position and I'm happy to consider your best offer."
- 11.Be positive and enthusiastic about the opportunity. If you are interested, say so.
- 12. Thank the people you interview with, and follow-up promptly with a thank you email.

Establishing your rate

Following a successful interview, the next steps will include negotiating your contracted rate. Most clients prefer an hourly rate model, although day rates or "turn-key" project rates sometimes apply. Do your own research or work with your consulting company to determine what an industry-acceptable rate is for the skills you will be required to use. Ensure that your rate covers any costs you will be expected to carry, such as health insurance or technical tools.

Additional factors that can impact your rate:

- Length of assignment.
- ✓ The need for specialized expertise or intensive technical work.
- Size of the client.
- Whether travel is involved (domestic, international, high-risk areas, etc.)
- ✓ Whether you will have the flexibility of working from home, or are expected to base your activities from the client's office.
- ✓ Whether you will be using your own software. This relieves the client of this financial burden and may be built into your costs.
- ✓ Market conditions and the availability of qualified people.



CHAPTER 6: Strategies for Success on the Job

How to Hit the Ground Running

Before starting your new assignment, learn what you can about the company from their website, trade news, and your personal network.

Soft Skills

As you change assignments, do your best to acclimatize to each company's unique culture. Maintain a professional attitude and communication style.

Demonstrate Your Value

Consultants are often considered discretionary line-items in corporate budgets. Be sure to demonstrate your value to the client by providing tangible, high quality work products.



Multiple Clients

Over the course of your consulting career, you may encounter potential conflict of interest situations or areas where you possess confidential knowledge that could benefit your current client. In the interest of your professional reputation and that of your clients and consulting partners, be sensitive to legal and ethical obligations.



CHAPTER 7: The

Advantages of Working with a Consulting Company



As you determine your approach to embarking on a consulting career, consider partnering with a reputable consulting company.

Below are some other benefits of working with a reputable consulting firm:

- ✓ You hold a single contract with the consulting company, who negotiates directly on your behalf with multiple clients.
- ✓ Your services will be marketed to a global client network. They can help you find your next assignment.
- ✓ You have access to diverse opportunities that may not be public.
- ✓ You have access to a recruiter who should serve as your advocate.
- ✓ You can count on regular paychecks (depending on which consulting firm you work with). See page 16 for an illustration of typical timelines.
- Many larger companies will not work directly with IC's due to concerns around co-employment laws. By working with a consulting company you can expand your universe of potential employers.



How to find a firm that will best represent you to potential clients?

Seek firms that specialize in your professional discipline.

Large, general "head-hunting" operations or staffing companies may not have the technical expertise to adequately represent their candidates. They rarely invest the time in screening and understanding the skill sets of their prospective consultants and are less effective at matching consultants to opportunities.

Alternatively, a firm like SCA is staffed by veterans of the oil and gas industry. We understand what our clients need and the roles they are seeking to fill. We strive to provide our consultants with a positive and rewarding experience, and have built a loyal roster of professionals who we are proud to recommend to our client network.





What you should expect during the application/interview process

(And what you get when you work with SCA)

- Responsiveness. Timely answers to emails and returned phone calls.
- ✓ Knowledge and understanding of your areas of expertise.
- Clear descriptions of the positions for which you are being considered.
- ✓ Potential assignments are discussed with you prior to your information being submitted to the client.
- Clearly defined expectations of the finished product
- Regular updates on the progress of potential consulting assignments.

Managing the consulting firm/recruiter relationship

- Maintain regular communication.
- ✓ If you're interested, say so.
- ✓ Be clear about your availability, willingness to travel, compensation requirements, potential conflicts, and other "irons in the fire." This will allow SCA to most effectively represent you to potential clients and avoid any duplication of effort.



To learn more, visit our website at: www.scacompanies.com

If you're interested in speaking to an SCA representative about getting started as a consultant, contact us today.

Phone: +1, 713,789,2444

Email: recruiting@scacompanies.com



Follow SCA on LinkedIn for updates on new consulting opportunities and industry news.



Appendix: The Great Crew Change

The Great Crew Change in the Oil and Gas Industry

By Hal Miller

The oil and gas industry has been fretting about the imminent loss of oil finding and producing talent for years now. The generally acknowledged passage of the baby boom demographic bubble, those of us born from 1945 to 1964, into the retirement window is impacting all industries but is especially exaggerated in the oil and gas business due to slow hiring in the 1990s. The resulting dearth of mid-career, up-and-comers available to replace the retiring management teams and to ease the loss of oil finding experience is a continuing source of conversation and concern. Geoscience and engineering consulting service providers are well positioned to be a "finger-on-the-pulse" of the demand for and supply of these skills. Indications are that the current environment has softened the blow that could have occurred had the mass exodus of experience actually occurred as predicted.

Many geoscientists who have recently taken advantage of retirement opportunities remain in the workforce, some entering the consulting ranks for the first time. One could argue that in some respects the global recession came at a good time, as the dramatic shrinkage of retirement accounts has caused many geoscientists to alter or postpone their retirement plans. The reality of full or even semi-retirement at age 55 or 60 does not seem like such a good idea for many when there is a reasonable probability that their suddenly diminished retirement nest-egg will need to last for another 25 years or more. Perhaps those of us now facing the prospect of having to work a little longer should have saved (or lived) a little harder, but from an industry perspective this appears to be a good thing. Beyond the revised retirement plan factor, most geoscientists with oil finding in their blood are not happy sitting on the sidelines for long, especially when the demand for their skills and experience remains reasonably strong. Not as strong as it was in 2006 perhaps but companies are still hiring more than firing. Even the demand for entry level staff appears to continue at a moderate pace; hopefully a sign that the industry and academia are finally approaching the steady state equilibrium that allows geoscience departments to provide an optimal pool of new grads to supply the industry's needs. At the very least it appears that employment prospects for oil and gas geoscientists are more optimistic than for the US national workforce in general.

In the consulting business, demand for senior geoscientists with specific skills and geographic experience to supplement in-house teams and mentor new employees has remained steady. The positive oil price environment is attracting large amounts of investment funding from within and outside the US, stimulating development of many new start ups and expansion of existing players, all in need of experienced staff. Seasoned consultants who have seen the globe and know where and where not to find hydrocarbons fit nicely into roles with these companies. Many of the majors and large independents significantly reduced or eliminated their consulting staff during 2009-2010 while attempting to preserve and reallocate their internal geoscience resources. The continuing regulatory uncertainties surrounding deepwater exploration in the Gulf of Mexico has resulted in many deepwater exploration teams being sidelined or redirected. But indications are surfacing of resurgence in 2011 as even large companies find the need to plug gaps in their skill base, caused in many cases buy ongoing retirements and repatriations. Additionally, there are clear indications of growth in many non-US companies trying to build their national staff organizations as governments around the world encourage the search for and securing of energy resources for their growing economies (a novel concept!). These companies often have experienced staff concentrated in the management ranks, and an abundance of bright and capable geoscientists in the earlier stages of their careers needing senior, hands-on geoscience consultants for technical guidance and mentoring.

It also appears that the unconventional revolution is having a significant impact on geoscience careers. As advances in horizontal drilling and multi-stage frac technology enhance our ability to make reservoirs out of what were once seals, virtually every source rock in basins around the world is now a candidate for exploration and development. Success has impacted the supply and suppressed the price on the gas side, but the hunt for these plays continues to be aggressive with an emphasis on finding the "sweet spots" and reducing costs to enhance the economics.

All of these factors—heavy investment funding, new company growth, expansion of international players outside the US, bottoming out of large company hiring slumps, and growth of the unconventional resource plays—have steadied the demand for late career geoscientists. The good news for companies large and small is that the supply of well qualified and experienced geoscientists is relatively high. The opportunity to work for a more diverse spectrum of companies, in an expanding array of plays and geographic areas, and under more flexible working arrangements (plus the need to reinforce retirement portfolios) is motivating many to work longer. A large pool of broadly experienced consultants means that companies can find specific skills and knowledge of plays or even specific fields to supplement their internal knowledge bases. There is increasing flexibility in the working relationships between individuals and companies, ranging from short term "quick hit" assignments to long term consulting relationships with the potential to evolve into full time employment. This model is well suited to the handoff from the baby boomers to subsequent generations of oil finders with less likelihood of any significant fumbles. The great crew change is developing into a more traditional transition from one generation to the next.