KELLY ENGINEERING RESOURCES

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A KELLY ENGINEERING RESOURCES® REPORT

Many engineers consider job satisfaction just as important as salary. Today's engineers place a high premium on work-life balance. A successful retention strategy can create an environment in which your employees — and your organization — can flourish.

Part II

THE ENGINEERING LABOR SHORTAGE: MAXIMIZING EMPLOYEE RETENTION IN A CHANGING WORKFORCE CLIMATE

The face of engineering is changing. Job opportunities abound, but finding the best person for a required skill set is becoming more challenging. Multiple factors affect this challenge:

- Increases in manufacturing are creating a greater demand for engineers.
- Highly specialized positions are harder to fill.
- Certain U.S. geographic areas are already short of engineering staff.
- In most engineering specialties, 97.5 to 99.8 percent of all engineers are already gainfully employed.
- Approximately 17 percent of all engineers pursue secondary degrees that make them highly marketable in other fields.
- Universities are producing fewer engineering graduates.

This complex mix of circumstances underscores the need to protect your company's greatest asset: your employees. That's why a proactive plan for retaining and developing your employees is paramount to your company's long-term success.

Keys to Retention

Although approximately 75 percent of all engineers across all specialties reported a salary increase last year, take-home pay

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was not the most important reason why engineers chose their profession or stayed in it.

Many engineers consider job satisfaction just as important as salary. Job satisfaction is perceived as:

- Challenging, fulfilling work
- Exposure to new technology
- A good work environment
- Ongoing education and advancement opportunities
- Job security
- Work-life balance

Today's engineers place a high premium on work-life balance. Non-monetary perks, family-friendly benefits and flexible scheduling are attractive to potential employees.

Benefits Package: a Starting Point

An attractive benefits package incorporates flexibility in tangible ways, such as flex time, job sharing, and telecommuting. All these options are highly desirable across every age group: baby boomers caring for aging parents, parents with young children, and others who simply prefer a more flexible lifestyle.

Benefits packages also typically include incentives and/or reimbursements for formal education. But corporate education should go beyond financing an employee in academia. Employees appreciate a company that invests in them personally. A provision for education and career advancement in all forms makes employees feel valued and also ensures that your workforce stays current with new technologies.

These tangible benefits are the first step in utilizing flexibility and education to meet corporate goals and increase employee retention. Much more can be done — to everyone's mutual benefit.

Flexibility through Cross-Training and Stretch Projects

Despite today's need for highly specialized workers, tomorrow's engineering staff will need to be able to fill more than one niche in your company. This fluidity is a requirement for meeting the shifting demands of manufacturing. "Hybridizing" your workforce can help ensure that you respond quickly to peak production demands without overtaxing any portion of your workforce.

This may require cross-training employees. Good candidates for cross-training possess the ability, aptitude, and willingness to learn additional skills, both within and outside of their departments or areas of expertise. When cross-training is presented as an opportunity, it can fill corporate needs *and* provide employees with new, challenging work.

Examples where cross-training may be highly successful:

- Work processes that typically have backlogs. If employees are cross-trained to work in those areas as needed, processes could be streamlined, workflow would become more efficient, and output would be more productive. (Quantify results, including employee satisfaction, before moving from a pilot program to full-scale implementation.)
- Niche positions that take the longest to fill if openings occur. Consider cross-training people for those jobs so that staff will be available to fill openings temporarily or permanently, if needed.
- Training across engineering disciplines. This is almost unheard of, but it may be feasible and beneficial to your company — fiscally and otherwise. For example, in developing a new microcatheter, a chemical engineer's knowledge of plastics may enable that person to assume some of the tasks of a biomedical engineer.

"Stretch projects" can challenge workers beyond their comfort level. However, selective use of stretching can make your workforce more fluid and your company more agile. Examples include:

- Technology development versus technology application. If engineers felt comfortable and competent working in both areas, how much faster could the company move ideas from drawing board to prototype or product?
- Utilizing staff besides engineers to perform select engineering tasks. This can help workflow and the company's bottom line. For example, an engineering technology graduate with strong drafting and design skills may prove to be just as productive in drafting as an engineer would be.

Flexibility through an Optimized Workforce

Another way to increase your workforce's flexibility is to analyze your mix of full-time, part-time, and contract employees — and adjust the mix according to production needs.

Many retired engineers perform consulting work as "free agents" or as contractors. They are well-suited for work by the project, particularly when specialized skills are needed.

Including more part-time engineers and/or those who are hired on a project basis can smooth production ebbs and flows, while supporting employees' desires for work-life balance (an increasingly important element of job satisfaction). Consider:

- projects and work areas that would benefit most from part-time or contract staffing
- employees who might prefer part-time or flex-time work
- employees who are nearing retirement and would like to phase into it by working part-time or by-the-project

With baby boomers retiring, it's important to retain that "brain trust." Mentoring can pair seasoned engineers with younger ones, to pass on both skills and knowledge.

Consulting a staffing company can help you determine the best ways to ensure the right mix of employees.

Flexibility through Skills Development

A third way to increase your engineering workforce's flexibility is through education — both formally and informally.

Apprenticeships are highly structured experiences that help college students develop hands-on engineering skills. Commonly known as a "co-op," this type of program also introduces students to your organization's culture. If you don't already offer a co-op program, consider starting one. It can become a source of "ready-made" employees. When calculating recruitment and retention costs, it ultimately may cost less to hire and orient a recent graduate who has worked through your co-op program, rather than another person with work experience but no exposure to your company.

Coaching bridges skills gaps that may exist in current employees. Although coaching may be used in many ways at all staff levels, consider also how it can enhance staff utilization. What additional tasks could someone with an associate engineering degree do, if given the right coaching? For example, a person with an AAS in computer electronics could successfully set up and/or calibrate testing equipment. Coaching may also become a stepping stone for employees to earn advanced degrees.

Flexibility through Mentoring

Mentoring may be today's most under-utilized career development and retention strategy. Whether done formally or informally, mentoring can identify employees who show promise for advancement, help employees chart a career path in your company, provide "shortcuts" to learning organizational processes and corporate culture, and equip employees to take advantage of those opportunities. A recent international survey of more than 4,500 leaders shows that 91 percent of those who had a mentor said that the experience provided moderate or great benefit to their careers.

While mentoring increases employee satisfaction, it also increases the corporate ledger. Companies with stronger leadership development systems enjoy significantly higher success rates (22 percent+) of implementing business strategies, as well as higher returns on equity and profit, as compared to their competitors.

Mentoring is particularly important to engineering. The average age of today's engineer is in the mid- to late-40s. Most people who are tapped for succession planning or leadership development are age 25 to 44 (the fastest shrinking portion of today's labor pool in terms of sheer numbers, according to the U.S. Bureau of Labor Statistics). Furthermore, national statistics show that half of all engineers retire between ages 61 and 64. Baby boomer engineers will retire in droves during the next two decades. It's important to retain that "brain trust" — the repository of knowledge, experience, and problem-solving skills that academic learning can't convey. Mentoring can pair seasoned engineers with younger ones, to pass on both skills and knowledge. Mentoring is also highly successful in acclimating international hires to American industrial culture.

Flexibility through Research and Advanced Education

Perhaps engineering's biggest challenge is to continue producing relevant research and innovative manufacturing solutions. One would expect an engineer to become more heavily involved in research as his or her tenure increases, but the opposite is actually true today in America. Companies can reverse this trend by incorporating research and development responsibilities as career enrichment opportunities.

Historically, only engineers with advanced degrees have been involved in research and development (R & D) work. Although fewer people are earning these degrees today, that should not deter you from encouraging innovation and R & D in your company:

- Seek out people with forward-thinking abilities and a "no limits" approach to problem solving. R & D requires out-of-the-box thinkers.
- Engage engineers who are passionate about technology development.
- Assess whether an engineer truly requires an advanced degree to do some of your R & D.
- Empower your employees to think creatively and act on those ideas.
- If an advanced degree is needed, subsidize the cost in part or in whole.
- Greater financial contributions can be tied to tenure and/or in-demand positions for which employees desire to train.
- Actively seek grants, partnerships, government funding and other opportunities to underwrite the cost of research and development. Changes in federal funding are allowing companies to pursue more "high-risk" research — that which is most likely to result in true innovation.

Flexibility through a Staffing Source

A staffing supplier can serve as your "master vendor" to help you with all your staffing needs, whether they are for permanent or contract employees, specialty staff, or management. Much like a general contractor, a master vendor staffing source can handle administrative and recruiting work, offer consultation on retention programs, and utilize the best selection of subcontractors as needed.

Conclusion

Retaining and growing tomorrow's engineering workforce requires forethought, planning, and creative nurturing to ensure retention and continuing innovation. But it can be accomplished through adept strategizing. The most successful retention programs will support corporate goals while ensuring continual employee growth.

About Kelly Engineering Resources

Kelly Engineering Resources is a highly specialized and rapidly expanding business unit of global staffing provider, Kelly Services®. Launched in 1998, Kelly Engineering Resources currently employs more than 4,000 professionals on an average workday and maintains more than 40 company-owned and -operated offices throughout North America, Europe, and the Pacific Rim. Visit ***kellyengineering.com****.*

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