

Recruitment

CASE STUDY

NASA: Searching for the Stars



Few agencies have a mission that captivates the public like the National Aeronautics and Space Administration (NASA). Its vision and mission are knowledge and discovery. The agency's ability to accomplish its unique mission ultimately depends on its people. Yet, as the 21st Century dawned, NASA found itself unable to attract the best science and engineering graduates. Faced with looming employee retirements and a shrinking talent pool, the Agency launched a comprehensive recruitment strategy that is attracting critical talent to NASA and saving time and money in the process.

EXPLORERS OF THE FINAL FRONTIER

As the world's preeminent organization for space and aeronautics research and development, NASA has, throughout its 45 year history, been on a pioneering journey of exploration and discovery. NASA is also a leading force in scientific research and in stimulating public interest in science, technology and aerospace exploration. The impact of NASA's research and work extends far beyond space. The Agency's cutting-edge technological innovations have influenced industries ranging from personal computers to satellites.

NASA employs more than 19,000 employees, 60 percent of whom are scientists or engineers, in Washington, DC and in nine Centers across the country.

SHRINKING SCIENCE AND ENGINEERING BENCH STRENGTH

In order to remain the leader in aeronautic and engineering innovation, NASA will need to continue to attract talented staff, especially scientists and engineers. However, the pipeline of science and engineering talent is shrinking at the same



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time that the demand is increasing in the private sector. In his testimony before a House subcommittee this spring, Sean O'Keefe highlighted the serious talent pipeline issues that NASA faces:

- ♦ *The shrinking scientist and engineer pipeline* - numerous studies have shown a continued precipitous drop in engineering, scientific and aerospace undergraduate and graduate enrollments over the last several years.
- ♦ *Increased competition for technical skills* - employment demand in scientific fields is projected to grow three times faster than the rate for all occupations between 2000 and 2010.
- ♦ *Skills imbalances, gaps and lack of depth within the NASA workforce* - NASA has current shortages in many key areas such as nanotechnology, systems engineering, astrobiology and robotics. Management talent in financial management, acquisition and project management is equally thin.
- ♦ *Significant loss of knowledge due to looming retirements* - Fifteen percent of NASA's talent can retire now and 25 percent of the total population will be eligible within the next five years. In many positions, the talent bench is only one person deep so that any loss of personnel could be mission critical.
- ♦ *Increased recruitment and retention problems* - the Agency has trouble competing with private sector offers and has been experiencing sharply increased attrition of new hires in the last ten years.

"History is made every day at NASA; but to maintain our leadership position, a new generation must be forged to carry our Nation's innovation and exploration forward."

Sean O'Keefe
NASA Administrator

None of these challenges was new to NASA. For the last few years, their leadership team has been grappling with how to deal with this talent crisis.



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NASA Recruitment Model:

Focus on the Candidate

Leverage Partnerships and Alliances

Tailor Recruitment Opportunities

BUILDING A NEW MODEL

In May 2001, NASA launched the National Recruitment Initiative (NRI) to develop hiring strategies and tools that focus on its current and future science and engineering recruitment needs. This initiative included an Agency-wide detailed analysis of their key issues, development of near-term tools and solutions and longer-term strategies to make NASA the "employer of choice" in the scientific arena. This effort reinforced the Agency's commitment to a more unified approach to recruiting, capitalizing on the strength of the NASA brand to win the War for Talent.

The NRI produced a new recruitment model for NASA and a series of innovations that are delivering results and contributing to significant efficiencies and savings. (See [NASA's National Recruitment Initiative](#).) The model consists of three strategies: Focus on the Candidate, Leverage Partnerships and Alliances, and Tailor Recruitment Opportunities.

Focus on the Candidate

Feedback from prospective and recently recruited employees reinforced what NASA already knew. The Agency's attention had previously centered on the process rather than on the people they were trying to attract. Offers took too long, and many candidates lost interest in the meantime. Managers had parallel complaints that the process consumed inordinate amounts of their valuable time and failed to deliver results. The hiring process varied among the Centers and Laboratories, and each was investing separately in uncoordinated attempts to make improvements.

To reconnect with candidates and speed up the process, NASA created several new tools. The centerpiece of their candidate-friendly model is NASA STARS, an automated Agency-wide hiring process. In typical NASA fashion, a series of working sessions was held where the Center teams mapped their respective processes and shared innovations. This effort evolved from a consensus reached by the NASA centers on the use of a single business process throughout NASA. (See the [NASA STARS](#) web site.)



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In the 21st century, your generation is going to lead the world... and possibly, even leave this world to live on another. These opportunities might lead to adventures such as living on the International Space Station; or working on a research station on a near-Earth asteroid; developing a colony on Mars; or peering thousands of trillions of miles into the vastness of space, looking for Earth-sized planets, and searching for an answer to the big question: Are we alone?

Source: NASA STARS

NASA STARS Key Features

- ◆ Automated rating and ranking tools for applicants' resumes
- ◆ On-line resume guide and resume builder
- ◆ Job search, application status, and job notification service to applicants
- ◆ On-line vacancy builder and library for human resource staff
- ◆ Electronic referral of certificates to managers
- ◆ On-line archiving of information and report production capability

NASA leaders understand that automating application and hiring processes requires more than simply "throwing a switch" on a new system. Through their Integrated Financial Management program, NASA is engaged day-to-day in reengineering its business infrastructure and then developing and implementing transition plans to ensure success. The transition to NASA STARS, for example, involved a well developed communications and training campaign with outreach to all who would be impacted by the system, including managers, HR teams, employees and unions.

In addition to utilizing NASA STARS to meet its day-to-day hiring and staffing needs, the program is also being used to make more timely offers of employment at job fairs and during on-campus interviews. This expedited hiring program, coupled with the use of hiring and pay flexibilities, makes NASA more competitive on college campuses. Moreover, the NASA STARS system has also been used to select educators to join NASA's astronaut corps through the Educator Astronaut Program.



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Planned a mission to Mars lately? Ever replaced a gyro on an orbiting telescope traveling at 17,600 mph in a full vacuum? As a NASA civil servant, you will participate in or provide critical support to activities just like these. Each day you will be helping to make our Nation's history...and create our future.

Source: NASA's online recruitment brochure

Leveraging Partnerships and Alliances

NASA conducts its work through an extended family of employees, partners, contractors and research institutions, leveraging many of the organization's natural business partnerships for recruiting assistance:

- ♦ NASA uses its research grant network to help identify candidates for employment. Every research grant awarded by NASA is monitored by a Principal Investigator, usually a professor. These Principal Investigators supervise the campus talent that conducts important research and are ideally suited to recommend the "best and brightest" to NASA.
- ♦ NASA works to increase candidate diversity through the Minority University Research and Education Division (MURED) programs. In FY 2001, MURED spent \$82,000,000 on internships, tuition assistance, research grants and developing math, science and engineering curricula.

Tailoring Recruitment Opportunities

NASA's National Recruitment Initiative emphasized the fact that one-size-fits-all solutions are not effective in recruiting the diverse array of talent NASA needs to attract. Different employee groups value different benefits. Experienced professionals, for example, value job security while college graduates are more concerned with growth opportunities.

To help managers target specific audiences, NASA created an Agency-wide recruiting toolkit. This web-based resource includes a wide array of tools like workforce planning links, recruiting event calendars, tips for marketing to targeted audiences and interviewing skills, and NASA branding materials. The toolkit also includes guides for managers and HR teams on "closing the deal" using flexibilities to craft customized offers. For instance, managers are encouraged to package student loan repayments, recruiting and relocation bonuses in offers of employment. Updated NASA marketing materials round out the toolkit, and managers agree that the NASA brand "sells." (See [NASA's Hiring Brochure](#) and the [NASA Recruiting Page](#) on nasa.gov.)



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RESULTS AND NEXT STEPS

NASA's focus on its future workforce needs has resulted in the development of an agency-wide strategy for recruiting and retaining top talent. The development of recruitment tools and new websites has also helped both managers and applicants alike to identify career opportunities at NASA.

While it is relatively new, NASA STARS has had a significant impact on how staffing and hiring activities are conducted at the Agency. The most notable result is that the NASA STARS system has saved one million dollars per year in lost productivity due to rating and ranking of job applicants. Applicants have also responded positively about the system: 97 percent use the online resume builder and over 98 percent indicate they are satisfied with the process. Applicants now receive notification of receipt of their resume within a day and can track the status of the vacancy. Managers now receive hiring certificates in less than 30 days from the date of initial request to fill a position. This streamlined process is making NASA more competitive and the Agency is losing fewer good candidates to discouraging and lengthy delays. Finally, the system is saving HR professionals time - time they can now spend assisting NASA management with workforce planning and strategic management issues.

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NASA has truly made great strides in its recruitment and staffing programs by maximizing internal and external human capital flexibilities. In the future, NASA will continue plans to enhance its human capital management by focusing more on workforce planning efforts. By making the most of existing authorities and employing sound workforce planning, NASA is positioning itself to be able to attract and retain the critical talent it needs for the 21st Century.

CONTACT

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