

Transforming Estimating and Pricing Organizations to Attract and Leverage the Strengths of the New Workforce

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The incoming workforce to replace the Baby Boom/Reagan Cold War defense buildup professionals is going to require a new organizational model to attract the professional talent to maintain effective Estimating and Pricing organizations. Northrop Grumman Electronic Systems Estimating and Pricing Organization, located near Baltimore Maryland, has piloted and implemented a new organizational and management technique model and will be sharing the concept, implementation, and results in this paper.

Subjects to be addressed by the paper are an analysis of the demographic changes both experienced and anticipated in the next few years. The analysis examines the motivations, expectations, and career aspirations of the new workforce and an organizational model and management style to capitalize on the strengths and maximize effectiveness that attracts individuals into the Estimating and Pricing organization. Specific topics covered are: mentoring, expectation setting, group integration and physical location priorities, workforce engagement techniques and practices, training, team building, and tangible/measurable results.

The paper shares the model, implementation, and lessons learned of the organizational and management changes that transformed the NGES Estimating and Pricing organization to meet the new workforce demographic challenge that is either immediately or soon will be facing Estimating and Pricing organizations throughout out the defense industry and Government.

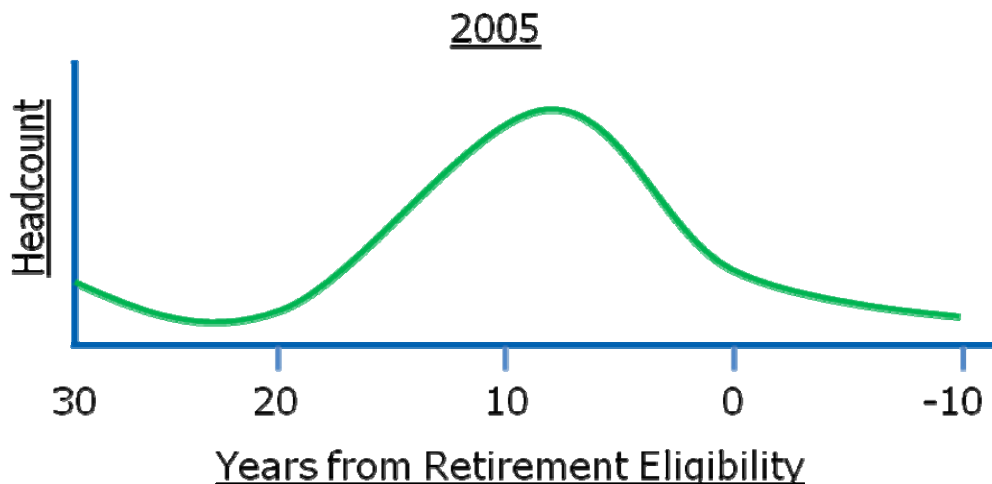
Transforming Estimating and Pricing Organizations to the New Workforce

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The incoming workforce to replace the Baby Boom/Reagan Cold War defense buildup professionals is going to require a new organizational model and management techniques to attract the professional talent needed to maintain effective Estimating and Pricing organizations. Northrop Grumman Electronic Systems office, located near Baltimore Maryland, has been experimenting with new organizational and management techniques and model. The focus of the paper is to share the concepts, implementation, and results of the organizational change that was implemented from 2006 through 2009. In order to discuss this, we believe it is necessary to begin with the expected demographic changes. We continue with an understanding of the expectations of the new work force, introduce the concept of the new organizational model, discuss the implementation of the model, and summarize the results.

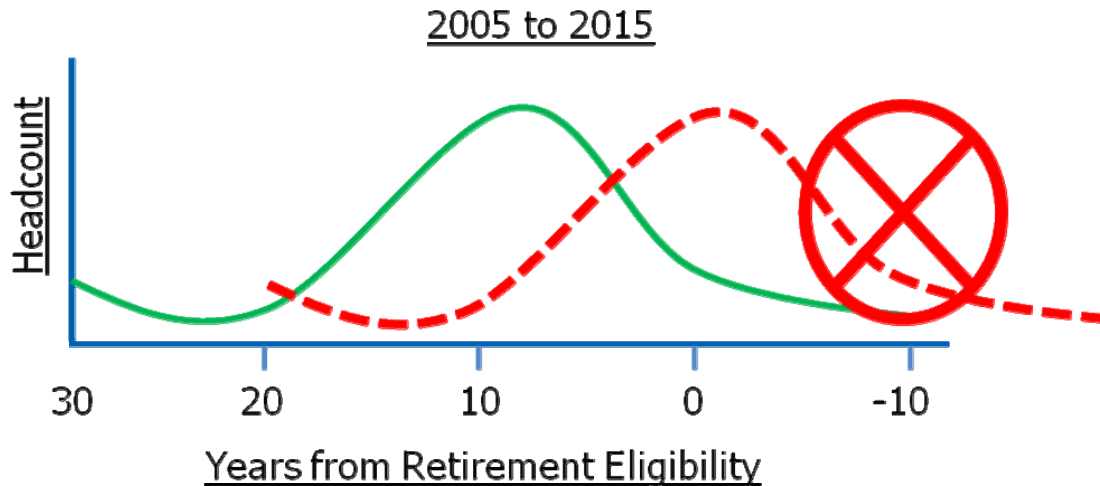
1. **Demographic changes of the professional worker in the next decade and the need for organizational transformation**

Analysis during the 2003 to 2005 timeframe indicated that around 70% of the existing workforce within the Estimating and Pricing (E & P) department would be eligible to retire within the next 5 to 10 years, including many critical skills.



If we were to do nothing and not address the issue of a very stable workforce that was nearing retirement, the department was going to face a skills and manpower crisis. This

would have a significant negative impact on the acquisition of new business and the ability to produce high quality and compliant proposals. The figure below illustrates our prediction of what would happen if we did not address the challenge of a significant part of the workforce nearing retirement age.



It was evident to the organization that doing nothing was not a viable option, especially with the department having very little success during this timeframe in attracting new employees into the group.

There was also a desire from upper management to have Business Management, particularly E&P, become more engaged earlier in the proposal process. The desire was to increase our involvement in the upfront business opportunity assessment and assume the leadership role in cost volume management. The combination of the knowledge base approaching retirement, lack of new employees entering the department, and the desire for more upfront involvement, resulted in the E&P management designing a new role and mission for the group which addressed these issues. The result was the organizational transformation that was developed and implemented.

2. Professional expectation of the new workforce

“Typical for every generation, the work expectations and the influences a generation has to an organization's culture is often a byproduct of their generation's unique upbringing and life experiences”(1). The generation invading the workforce right now has been taught to expect and demand more from their place of employment. They want to learn abundantly and accelerate to the top faster than previous generations, all while maintaining a reasonable work-life balance.

“They are considered to be one of the most coddled, well informed, open-minded to diversity, and technically enriched generation America has ever produced”(2). This generation has been raised with more support and hand-holding from their parents than previous generations. Parents of this generation were more willing to stand up for their

children when they got in trouble instead of reprimanding them based on what other authorities said. These parents valued their children's opinions from the time they were toddlers and gave them choices, rather than making decisions for them.

Traditional Workplace

- Security from the institution
- Promotions based on longevity
- Loyalty to the organization
- Wait to be told what to do
- Respect based on position/title

New Generation Workplace

- Security from within
- Promotions based on performance
- Loyalty to the team
- Challenge authority
- You must earn respect

(3)

Definition of the Generations

	<u>Year of Birth</u>
Generation Y	1980-1994
Generation X	1965-1979
Baby Boomers	1946-1964
“Mature”	1945 and earlier

(4)

In order to accomplish their high-reaching goals, this work force is looking to be in a specific job or role for a short duration in order to learn what they can, before moving on to the next thing. They want to build on top of the skills they already have and gain additional experiences, without getting stagnant in one position. With a variety of work experiences under their belt, and new skills added, this workforce expects to be moved up the corporate ladder quite fast.

Moving up the “corporate ladder” doesn't just come with generic job experiences, and this new workforce knows it. They also require leadership development to be part of their short term assignments. They don't just want to be managers; they want to learn the skills required to be in management. They want independence, while still having some guidance and support. They want to make decisions, but they also want to be assured that they are making the correct decisions. This is a true reflection of their upbringing; they want a similar version of the hand-holding and encouragement that they received from their parents when they were growing up.

The new workforce relies on their managers to provide leadership development. They want to build a relationship with their managers, to feel that management is more of a mentor than a dictator. The desire exists for management to show not just a professional interest, but also a personal interest in the lives of this new workforce. They want to be

able to easily and freely approach their managers, and expect feedback on the work they've accomplished. The best way for the new workforce to grow professionally is to receive positive feedback for a "job well done" and constructive feedback for how to correct something they may not have done correctly the first time around. Positive reinforcement is what this new workforce is familiar with and continues to need.

If a job or department cannot provide these components that are demanded, this new workforce will look elsewhere, and they will have success. Many employers are changing the structure of their departments to meet these new needs of this ever growing workforce.

3. **Organizational change model to meet new expectations/requirements**

In order to design an organizational model to meet the expectations of the new E & P professional and manager, we considered a number of elements:

- the duration of assignments
- the physical location of employees
- the mix of direct management and matrix management to reduce effective span of control
- strategic proposal reviews by professionals to E & P management to build accountability and facilitate mentoring
- expanded and standardized training to ensure knowledge transfer and product quality
- increasing budgets and departmental support for training and travel
- implementing a stepped developmental process including early exposure to senior management
- changing the names of positions
- incorporating Quality of Life initiatives and team building

The recognition of the rotational desires of the new workforce needed to be designed into the organizational model. There are two rotational assignments within E & P now - a short term rotation of 6 to 8 months for college new hires and a longer rotation of 18 to 24 months for more experienced professionals and managers. The elements of the organizational model mentioned previously needed to be designed around having a significant number of the E & P professional staff utilizing the rotational concept of career development. We also recognized the desire for travel by the new professional and management staff. As opportunities would arise, special consideration would be given to include these newer employees for travel assignments and corporate training classes. This was recognized and planned for in subsequent travel and training budgets.

The physical co-location of employees by age considering the demographic composition was a very important first step in planning for the organizational transformation. A recurring theme appeared in discussions with potential employees in the under 30 years of age demographic. The employees wanted to work in a diverse demographic environment close to a significant number of people in their age group. The focus of the

transformation was to attract at least 30 percent of the management and professional staff and to co-locate the majority of the under 30 professionals in the same area of the office space. We redesigned the workspace to accommodate 2 professionals per cubicle in order to facilitate professional to professional mentoring.

Strategic Floor Plan



We were also cognizant of possible alienation of the existing employees that were typically in the 45 to 60 years of age demographic group. We accommodated this by forming three clusters of under 30 professionals intermixed by clusters of the 45 to 60 age group. This helped accommodate the desire for demographic co-location while reducing the possible “us versus them” phenomenon that might have occurred if we had located the two demographic groups into two separate areas.

The next step was to institute a mix of direct management and matrix management to reduce effective span of control. The organizational construct was to create sub-estimating and pricing homerooms dictated by the type of work being performed. The groups were: Strategic/Competitive Proposals Pricing, Sole Source Pricing, Advance Concepts and Technology Demonstration Pricing, Parametrics and Independent Cost Estimates, and Estimating and Spares. Each one of these groups supported all divisions within the Sector and had a home room manager. In addition, there were 6 proposal managers that were assigned to the significant proposals, each manager coordinated and directed the assigned homeroom professionals for the tasks required to prepare the proposal. This doubled the effective management coverage, mentoring, and direction.

rotational E & P professional could understand and execute the processes covered in the training. The package of courses expanded included:

- TINA
- Procedures and Processes
- BOE writing
- Strategic Engagement and Cost Volume Preparation
- Government Funding
- Specific BOE and Pricing Tool application training

In addition to these formal courses for new employees, a detailed desk manual was prepared and continuously updated by the users as part of their job assignment. This manual was a step by step process including the screen shots of what steps to be performed in order to prepare a development cost proposal typical of our Advanced Concept and Technology Development business area, which is where both long and short term rotational professionals begin working within the E & P group. In order to improve peer to peer mentoring, the placement of new professionals with more experienced professional in the same homeroom group was instigated. Regular staff meetings on a weekly basis were established and the importance of mentoring was reinforced regularly. Training was regularly conducted through the lunch hour with the meal provided. Time during these lunch time training sessions was specifically allotted non-training discussions to facilitate team building.

Another desire of the new workforce professional is to have positive interaction with upper management. The opportunity for positive exposure can be one of the best features in attracting professionals into the organization. Professionals, with the support of the full proposal team, were encouraged to prepare and present the management review packages on their proposals. In addition, professionals were encouraged to participate in the pre-RFP planning stages of the business acquisition process, defined as the Strategic Engagement Process. The key points of E & P interaction into the proposal process are outlined in the following illustration:

Strategic Engagement Model



In addition, the professionals were trained in risk evaluation and also presented the proposal risk profile during the proposal approval process. Utilizing professionals as the package presenters offered unique opportunities for upper management exposure that is not available in most other entry or near entry level Business Management positions. Discussions about this exposure during the interview process with potential E & P candidates greatly enhanced the number of professionals that were interested in joining the organization.

The result of the training, mentoring, and job assignments was a stepped developmental process where the professional entering the organization quickly learned the tools and processes. The professional then steps through increasingly difficult proposals. The names of the positions were also slightly modified from the entry level “Pricing Analyst” to the more comprehensive “Proposal Strategist” which includes strategic proposal support through the entire process - from opportunity assessment through proposal preparation and risk analysis.

4. Integrating the new workforce into the existing workforce

With the organizational model in place the focus shifted towards initial recruitment both in leadership and professional workforce. While the Business

Management community within NGES is driven by the 18 to 24 month rotational assignments described above, the E&P organization traditionally had not been a typical stop within that process. As a result, management's exposure to the younger rotational employees was minimal. By recruiting a Director who had performed varying tasks within Business Management albeit outside of E&P, the department gained access to a variety of capable professional contacts. These contacts, in conjunction with an attractive organizational plan, allowed for initial recruitment of matrix managers and successful professionals.

As with most organizations the informal networking within business management is very strong. A majority of professionals start off in the Professional Development Program (PDP) directly out of college where they participate in 3-4 6-month rotational assignments. From there, the typical professional continues on 18 month rotations with increasing levels of responsibility. With 20-25 professionals starting a year, the network of employees within this program is consistently growing and word of mouth regarding the pros and cons of each rotation develops rapidly. The key was to recruit an initial group of PDP's into the department, then allow word of mouth to travel elsewhere throughout the organization. The Advanced Concepts & Technology Division (AC&TD) at NGES awarded us the perfect platform for this opportunity.

By definition, the AC&TD organization handles a high volume of competitive, low dollar proposals supporting mainly DOD research organizations. These types of proposals allowed the department to create a segment strictly for employees in the PDP program and integrated perfectly within the department model. Three or Four PDP employees were centrally located, given autonomy to assist in multiple proposals, received visibility with various levels of management, and their direct oversight was typically a younger first level manager. By establishing a "Rotation of Choice" for the PDP program, the department was able to use the word of mouth networking to begin to attract additional younger talent.

While the AC&TD rotation provided a model starting ground to attract younger employees, several of the other organizational changes noted above needed to be implemented to truly sustain the department as a Rotation of Choice. The training, mentoring, visibility, and work/life balance techniques described above had to be correctly implemented in order to sustain this image.

In terms of the training curriculum, the PDP program followed a strict rotational schedule so we found that we had several new employees often starting around the same time. This allowed the department to follow a cyclical training program that introduced new employees to the overall proposal process through a stepped approach. The detailed curriculum discussed above accompanied the new employee as they entered the department and served as a transition tool as well as introduced the new employee to department knowledge experts who would mentor them throughout their rotation.

This introduces the second aspect of implementation and sustainment: the informal mentoring relationship. As part of the departmental transition, several key area experts

were identified and retained with expertise in the areas of labor and material estimating, DCAA compliance, data mining, and FAR acquisitions. By establishing key points of contact in each of these areas who were willing to take on an informal mentoring role, we created an environment where the professional could essentially manage a proposal independently, but have immediate access to experts in significant areas of the proposal process with which to obtain the necessary knowledge to succeed. They also received reinforcement and support for any decision during the proposal process.

Another aspect of implementation was to develop a structured format for the upper management proposal reviews that were discussed above. For proposals that were in the pre-RFP phase, professionals were required to present status updates to upper management once a month. Proposals being worked after the receipt of an RFP were required to be presented once every two weeks. This enabled the professional to build upon the presentation techniques in front of upper levels of management as well as receive reinforcement and feedback regarding their progress. In addition, the success of the proposal status reviews, in combination with buy-in from executive business management, allowed our professionals access to reviews and approvals from the executive levels of Northrop Grumman. While professionals often did not present at these meetings, they were allowed to attend which increased their visibility to executives as well as exposed them to a crucial part of the approval process.



In addition, this formula served as a positive step for the professional to transition to management. By providing greater autonomy, increased visibility, and the opportunity to oversee the entire proposal process, the department had created a rotation that not only appealed to the youngest employees, but also to those 3-10 year of service employees who were looking to transition to management. The department saw this as another recruiting tool which it could use to select talent from across the business management organization. Employees who had demonstrated success in the professional ranks within E&P were promoted in order to fill vacancies left by managers who had rotated to other positions. The characteristics of the professional job had prepared them for this transition and, as promotional cases grew, this was yet another draw to attract talented professionals to the organization.

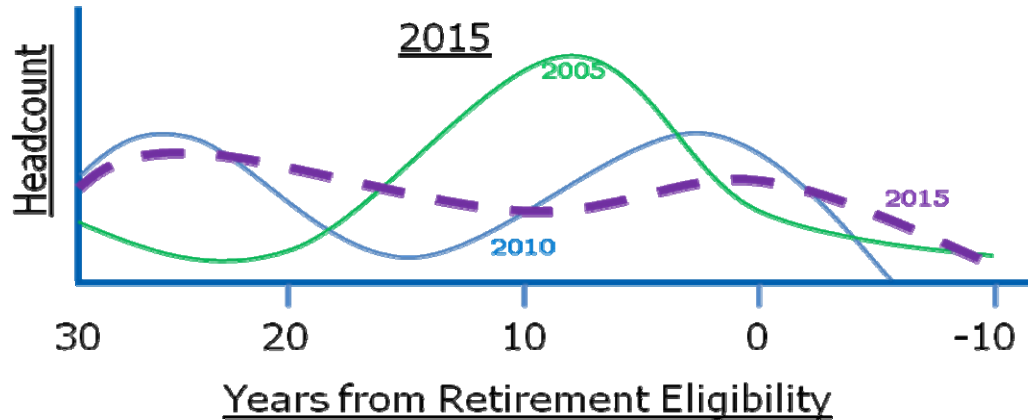
Finally, several steps were taken in order to create a positive team atmosphere within the organization. A Quality of Life committee was formed with the intention to create fun activities for the department to do either during lunch breaks or after work hours. The goal was to conduct some sort of major event at least once a month. This included group lunch trips, miniature golf outings, happy hours, bowling, and other social events. As other departments within NGES began to take notice of the success of such activities, inter-departmental events and rivalries began to develop. As a whole these events were well attended and the success of these events went a long way towards easing the departmental transformation process.

5. Tangible results

After a gradual and carefully guided implementation of the new E & P organizational model, the results were evident as early as 2006 and full implementation was achieved by 2009. The illustration below portrays the demographic shift within the department as a result of the model implementation.



Today, the organization has become one of the “departments of choice” by many early and mid career professionals and managers. The team building, management visibility, and involvement in the strategic positioning involved with the early engagement responsibilities, have all created a working environment that has allowed E&P to strategically recruit professional and managerial talent that was not interested prior to implementation of the new model. The department now has a “waiting list” of talented individuals wanting to join the organization. Our belief is that the continuation of the now proven model will allow the department to adapt to the changing demographic climate facing the industry.



Our forecast of the future in five years is a further leveling of the demographic spectrum which ensures that the critical skills and knowledge transfer will continue within the department long into the future. As the illustration above shows, we predict a much more level distribution as the result of establishing the Estimating and Pricing new work force model that addresses the necessary changes needed to attract the new professional and managerial workforce.

Footnotes:

- 1) "The New Workforce: Working Generations Compared" by Bryan, http://cmsreport.com/generation_next_2
- 2) "Generations at Work: Managing the Clash of Veterans, Boomers, Xers, and Nexters in your Workplace", (Zemke et al., 2001, pp. 127-134)
- 3) "Baby Boomer Versus Generation X: Managing the New Workforce" 2001, Gregory P. Smith, <http://www.managerwise.com/article.phtml?id=110>
- 4) <http://api-inc.com/news/articles/wheredidtheworkersgo.pdf>

