

# CASE STUDY

## International Association of Machinists Boeing Joint Programs

### *A Decade of Learning*

“To identify and provide **opportunities** and the **environment** to support employee involvement in activities that will enable participants to meet their development needs, thereby providing **highly skilled workers** capable of meeting individual and company goals.”

*Mission Statement: IAM/Boeing Joint Programs*

#### **Summary**

- Who:** International Association of Machinists/Boeing
- Where:** Boeing Sites throughout the United States
- When:** Visit to Joint Training Center, Seattle, January 11, 2001
- Why:** Learning from Joint Programs

## Overview

The paragraph on the title page summarizes the goals of language first inserted in the 1989 collective bargaining agreement between the International Association of Machinists and Aerospace Workers (IAM) and the Boeing Corporation. It grew out of a year of informal discussions among Boeing executives and IAM representatives over how to give new life to what was then its rather ineffective “technology” committee language in Article 20 of their contract. While the language in the old article called for the company and union to work together to introduce new technology and involve the workforce, in reality not much of this was being done. Nor were there resources available to support such efforts. Moreover, the union leadership was wary of entering into joint programs with the company because its international union had a general distrust of management initiated “quality circles” or other processes that it feared would erode worker rights or drive a wedge between members and their union.

Both management and labor leaders, however, recognized the need to introduce and adapt to technological change to keep the company competitive and generate new opportunities. Both agreed that this was a practical and focused area of shared interest where a collaborative effort made sense. Moreover, as part of the joint study process that preceded the 1989 negotiations, the parties examined other joint training programs already in place, most notable those between the United Auto Workers and the Big Three auto companies, and between AT&T and the Communications Workers of America. From these efforts, the parties jointly developed new language for Article 20. Excerpts of this article and its accompanying letter of understanding are provided in Figure 1.

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The purpose of this brief note is to describe how this joint program has evolved over its first decade of experience. It is not an evaluation or assessment of the program. Instead, we present it here only to illustrate the potential of this type of joint effort for bringing life long learning to hourly workers in a world of continuous technological and

organizational change. We end by speculating about how the program might step up to the next level of development and impact.

## **Basic Design Features**

The IAM/Boeing Joint Programs are financed by a fund that receives 14 cents per payroll hour for all bargaining unit employees. In 1992, the company and union agreed to ensure a \$14 million minimum annual budget in the event that the payroll hour formula falls below this threshold. Additional funds beyond these levels are provided to cover the costs of the employee tuition assistance plan. Funds not spent in a calendar year are carried over to the next year. In 1999, the budget for the Joint Programs was approximately \$25 million. “This is a high level of funding but the importance and credibility of the training program is highlighted even more with the news that even in the current period of downturn, the company has allocated an additional \$1.25 million based on the program’s proven value.” Gary Jackson, QTTP IAM Co-Director from District 751 explained that each shop floor area has its own performance metrics that reflect the added value of the training programs. Floor managers now come and ask for help because of the levels of performance in other areas.

Facilities in three states, Washington, Oregon and Kansas, currently have QTTP initiatives underway. They are governed by a board consisting of international and district level union representatives, plus company line and employee and union relations executives. The company and union each appoint an executive director who oversees a full time staff. The staff is responsible for “developing, recommending and implementing training programs”. They use internal and external resources for curricular development and instruction. A critical aspect of this program is its linkage to the shop floor through the input and participation of shop floor managers and hourly workers in the development and implementation of training. Training topics and needs are determined by the recommendations from the shop floor.

## **Evolution and Expansion**

Among the Joint Programs’ initiatives are six of primary interest to this case study:

Layoff and Redeployment Assistance. The first several years of the program were focused on providing training opportunities for laid-off Boeing employees. This reflected the most pressing issue of the early 1990’s as cuts in defense spending and the effects of the 1991-1992 recession reduced demand for Boeing’s military and commercial

products and produced significant layoffs. Laid-off employees are entitled to up to \$2,500 a year for educational assistance. Employees eligible for government training funds under the Trade Adjustment Act (where the layoff was determined to be caused by foreign competition) must exhaust these public funds before drawing on their Boeing benefits. From time to time, the company and union have also obtained supplemental training funds from other government programs.

The Health and Safety Institute. The HIS provides a range of training and related services for individuals and site safety committees. Site committees, for example, are training to perform accident investigations and safety audits, and can draw on the HIS video, display, and other employee communication resources. HIS also contracts with an outside organization that provides rehabilitation training to injured employees seeking to return to work. Both Wichita and Puget Sound locations use mobile training trailers to deliver safety training to employees at diverse locations. A major initiative aimed at building a stronger safety culture has just been launched at Boeing's Wing Responsibility Center in Fredrickson, Washington.

Career and Personal Development. The Career and Personal Development services offered under the program are perhaps the most sophisticated of any in the country. Active employees can receive payment of the full costs of tuition and books for courses and/or classes that are regionally or nationally accredited as well as up to \$2,000 (\$2,500 for laid-off workers) tuition assistance for non-accredited courses. Allowing employees to choose what to study represented a shift from an earlier company tuition assistance program that required two levels of management to certify that a proposed course was job relevant. Under that program, payment was made only after providing evidence the course was completed successfully. Only 300 hourly employees participated in that program in the three years prior to the beginning of the current program.

Tables 1 and 2 chart the usage rates under the new tuition assistance program for 1996 through 2000. Over this time more than 23,000 individuals participated in the educational assistance program, receiving course vouchers for approximately 35,500 courses. There was some fear (and some criticism) that allowing people to take courses they chose would lead many employees to use the funds to pursue personal hobbies or other courses of dubious career relevance. This has not been the experience to date. As Figure 3 shows, computer classes consistently rank as the top course selection, with courses on hobbies ranking at or near the bottom of the list of courses taken.

One of the most innovative career services offered by the joint program is its career advising and planning initiative. By integrating a thorough analysis of the qualifications of the jobs open to hourly workers with personal counseling, aided by a simple but flexible computer-based training, certification, and application system, the program has built a state-of-the-art individual career assessment and planning tool. Program staff, many of whom are union members, conducts on-site assessments and employee interviews to identify the knowledge, skills, and abilities required to qualify for different bargaining unit jobs. This information is then translated into a list of courses or skills certifications employees must have to apply for each position. These data are then placed on the program's website. Interested employees can scan the website for these jobs and see the list of courses and/or certifications that are needed to apply for different positions. Then, employees can sit down with a job counselor and use the web based information and software to create individual training plans that show the requirements they have met and those courses or "challenge" exams they need to complete before being eligible to file an Employee Request for Transfer (ERT) for a given position. The system also can tell employees how many others have applied for a given position, thus allowing an assessment of their chances of bidding successfully for the jobs available. As of November 6, 2001, guides for 832 different bargaining unit jobs have been completed (with the balance to be completed in 2002). The plan is to have all the bargaining unit jobs analyzed and on line within the next year. When completed, this should be an extremely useful tool for creating individual career plans for individual employees.

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Classroom Training. Some classroom instruction is provided on site and some at various community colleges and technical schools. One course the parties are most proud of teaches employees American Sign Language (ASL). Interest in this course came from a number of co-workers in a unit with several hearing impaired employees. These co-workers wanted to learn how to communicate with their colleagues by learning ASL. Out of this has now come a tailored course in which instructors and employees have developed signs for a number of shop-specific, or Boeing specific, technical terms used on their jobs. It is not uncommon to find employees without hearing impairments using this mode of communicating in operations where noise levels make verbal communication difficult.

Personal Enrichment. Personal Enrichment classes also get high marks from employees and unit managers. These courses focus largely on the behavioral and group process skills needed to work together in teams and in problem solving processes. They cover topics such as communications, group dynamics, negotiations and conflict resolution, motivation, self-esteem, and leadership. These have been used in specific areas where considerable change and job consolidation are taking place and can be tailored to fit the specific challenges or issues facing a particular group.

High Performance Work Organization. Gradually, over the first ten years of its evolution, the joint programs have expanded to support other company and union initiatives. The most recent is the High Performance Work Organization (HPWO) program that the IAM and Boeing are working to get off the ground. HPWO is a joint union-management effort to foster employee participation on the critical issues affecting jobs and the competitiveness of the company. The first major effort to initiate a HPWO is underway in Boeing's Wichita operations. The company is committed to providing additional resources as required for training and other supports as this program expands.

### **Next Step?**

About a decade after they were launched, the IAM/Boeing Joint Programs have achieved considerable size and scope, reaching somewhere between 40 and 50 percent of bargaining unit employees. Yet these programs are far from reaching their full potential. Consider, for example, their relationship to another major Boeing initiative, lean production. Boeing, like most other manufacturing companies, has a major effort underway to implement principles of lean production – low inventories, less work in process, reduced cycle time between customer orders and product delivery, improved work flow, efficient use of space, etc. Inevitably, implementing these principles requires considerable organizational change, job consolidation, and employee participation. Yet most of the lean initiatives at Boeing are conceived and led by operations managers and engineers, with relatively little employee input. In one labor intensive component manufacturing operation, for example, a line manager who articulated a very clear vision of the changes that needed to be made to implement lean principles was asked if he knew of the QTTP program. He had only a vague idea of what this was and had no plan to make use of it in the change efforts in his area. When asked how the job combination process would play out as they undertook the changes planned, he said: “We will soon hit the wall. Given the changes in

processes and job considerations they will entail, we'll end up with a lot of arbitrations.”

For their part, joint program staff members are also reluctant to get too deeply involved in this type of effort, particularly once a change process has been started and grievances over job changes or other contractual issues have been filed. As the co-chairs of the program stated in an interview, “We are careful not to go there [into contractual or grievance issues or disputes].”

So, the question is: Would it be possible to bring the resources and various components of the joint training programs to bear on lean production or related organizational change initiatives? Joint training for workers, union representatives, area supervisors and managers about to embark on a lean implementation project could be provided, tailored to the specific problems they are likely to encounter. Individual employee career assessment and training plans could be developed to assess the breadth and depth of skills available for the new jobs and options for employees whose current jobs are changed or eliminated.

## Summary

The joint training programs have a number of attractive design features for promoting and extending life-long learning opportunities to the hourly workforce. A steady stream of funds are provided via the hourly payroll formula and the parties have seen fit to establish a minimum budget to assure that adequate funding is available if work hours fall below a certain threshold. The program is jointly governed and staffed and thereby provides shared ownership and buy-in from management, the union, and the workforce. This helps it avoid being held hostage to the ups and downs of normal labor relations -- union elections, bargaining rounds, management and/or union leadership turnover, etc. It is flexible and can be demand driven, as illustrated by the ASL and Personal Enrichment classes. It can take on specific high priority concerns such as health and safety training, HPWO training, and if the parties choose to use it for this purpose, lean production training. It can support career development and life-long learning for both current employees and those on lay off.

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Several challenges face this program despite its high level of creative and excellent programming. Its full potential will be realized only when line managers and shop stewards in different areas of Boeing's

vast operations see it as a natural resource to be used to assist in whatever set of organizational and/or technological changes they anticipate or experience. Moving to this next level of development is one of the challenges and opportunities facing this innovative union-management learning and change initiative. Despite the superb program supported by Boeing and the IAM, it can still be held hostage to industry instability cycles and the rapid advances in technology.



Figure 1  
Excerpts from Article 20 – Quality Through Training

The Union and the Company agree that it is to their mutual benefit, in a competitive global economy and environment of rapid technological innovation and change, to work together to improve the quality of work life and productivity. The parties, utilizing participative principles, will offer a diverse range of opportunities for training, retraining, and personal growth to enhance employee development and satisfaction and support, increased market share, and improved economic performance of the Company.

It is in the interests of the parties to develop and implement a wide variety of mutually agreeable training, education, and learning programs that serve as well as support other joint activities. These activities will...target training in the following areas: (1) for employees who may be impacted or have their job duties and responsibilities affected by technology changes and/or job combinations; (2) for employees who wish to meet their individual career/personal development goals; (3) for laid-off employees to enable them to become better qualified for employment within or outside the Company; (4) for employees who are involved in High Performance Work Organizations (HPWO).

General direction and guidance of the IAM/Boeing Quality Through Training Program (QTTP) shall be the responsibility of the IAM/Boeing Joint Programs National Governing Board [consisting of four international and district officers of the IAM and four company executives, including the Vice President of Operations and the Vice President of Employee and Union Relations].

The parties agree that the Company will provide the necessary funding in support of the ...HIS, QTTP, and other activities approved by the IAM/Boeing Joint Programs National Governing Board...

The Company will spend in each year fourteen (14) cents for each bargaining unit compensated hour, but not less than fourteen (14) million dollars per year. In addition, the Company will provide funding for the QTTP Education Assistance Program up to four (4) million dollars per year.

Amounts not spent in one annual period shall carry over to the next year, but not beyond the expiration of the Agreement. Additionally, the Company will provide training transition funds and other funds, approved by the Governing Board, to support the Joint Programs' statement of work.

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Sources: Article 20 and Letter of Understanding No. 20 of the 1999 Collective Bargaining Agreement.

**Figure 2**  
**Activities Supported by the Joint Program**

Career and Personal Development

Job Combinations

Technology Change

High Performance Work Organization Initiatives

Laid-off and Reemployment Training and Services

Industrial Skill Training

Certification and Regulatory Requirements' Training

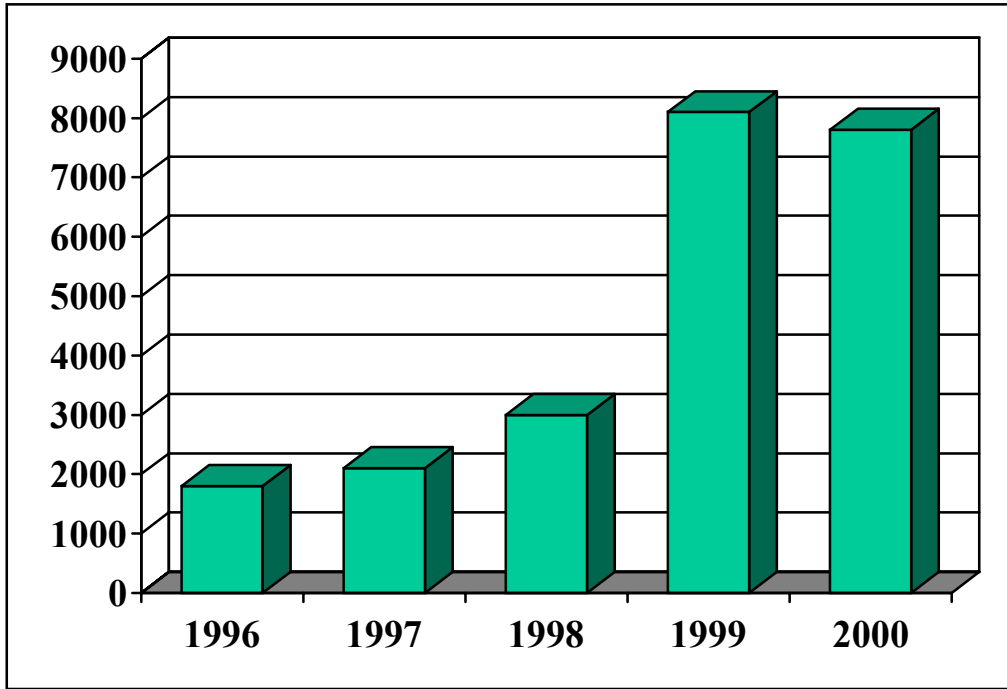
Transfer Process Improvement and Support

Support for "The Mutual Objectives of the Union and the Company"

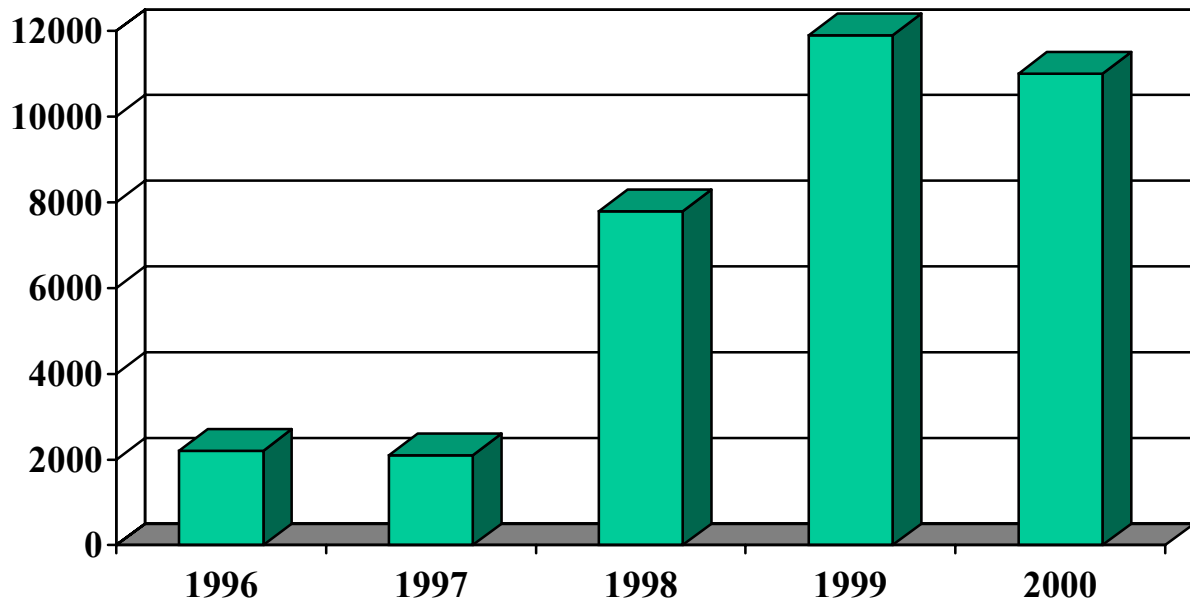
**Figure 3**  
**Leading Course Selections under the Educational Assistance Program**

<b>1998</b>	<b>1999</b>	<b>2000</b>
Computer	Computer	Computer
Machinist	MCSE	Safety Shoes
Aviation	Math	MCSE
Math	Communications	Math
Science	Aviation	Communications
Business/Office	Business/Office	Business/Office
Foreign Language	Science	English/Reading
Communications	English/Reading	Hobbies
English/Reading	Hobbies	Science
Hobbies	Foreign Language	Aviation

**Table 1: Education Assistance Participants  
1996 through 2000**



**Table 2: Education Assistance Vouchers  
1996 through 2000**





## Teaching Notes

*It is people who are at the heart of new work systems – establishing stability and then driving continuous improvement. The Labor Aerospace Research Agenda (LARA) at MIT is committed to furthering our understanding of the human and institutional aspects of these new work systems, especially as they relate to broader issues of employment and vitality in the aerospace industry.*

*These case studies were written by a MIT-based research team and were developed in conjunction with representatives from each of the sites with the help of representatives of the United Auto Workers and the International Association of Machinists.*

*These case studies will be valuable to union leaders, labor educators, college professors and human resource trainers as well as anyone interested in discussing current dilemmas in the aerospace industry around employment. These can be used in a classroom setting, in small discussion groups, or by individuals as thought starters. This case study was prepared as an example of the challenges of instability in the aerospace industry. It was written as a basis for dialogue and learning, not as an illustration of either effective or ineffective actions. There may be many possible answers to these questions. They are designed to foster constructive dialogue and action on these very challenging issues.*

<b>Potential Discussion Questions</b>
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- How does the establishment of a joint training fund help to advance the core mission of the union? How does it help to advance the core mission of the employer?
- In what ways does a joint training fund serve both parties better than the traditional forms of internal training provided separately by the employer and the union?
- What are the limitations of the joint training model?
- Could a funding stream for joint training be established in your location similar to this case? What protections and understandings would be required for labor and management?
- Or, if you have such a funding stream, how is it functioning?

- How would you compare and contrast the use of joint training funds for each of these topics mentioned in the case:

Layoff and Redeployment Assistance  
The Health and Safety Institute  
Career and Personal Development  
Classroom Training  
Personal Enrichment  
High Performance Work Organization

- Which of these topics are likely to be more or less difficult to deliver?
- Which are going to be more or less difficult to administer on a joint basis?
- What other topics might be appropriate for consideration under a joint training fund?

Thomas A. Kochan prepared this case that has subsequently been updated by Betty Barrett. Other members of the LARA team provided additions. This case study is an example of the challenges of instability in the aerospace industry and was written as a basis for dialogue and learning – not as an illustration of either effective or ineffective actions.

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