InfoComm Industry Cluster Working Group
Workforce Report

Presented as an addendum to the panel discussion
held during the Potomac Conference on June 11, 1999

Defining Our Mission and Scope

Our charter was to address the workforce shortage issue in the InfoComm industry cluster. The InfoComm cluster has become the key economic driver in the Greater Washington Region. With 345,000 employees and growing, the InfoComm workforce already exceeds that of the current federal government. The growth within the InfoComm cluster is compelling in itself, but its impact on employment in other industries cannot be ignored. In a recent study commissioned by the Potomac KnowledgeWay it was determined that for each InfoComm cluster job created, one additional job is created in other industry sectors.

Because all industries are experiencing workforce shortages and because of the interdependency of the InfoComm cluster and other industries in the region, determining the workforce shortage exclusively in the InfoComm cluster of was difficult. Moreover, despite periodic downsizing from M&A and restructuring – including the federal government layoffs which reduced its regional workforce nearly 16% since 1993 from 392,000 to 333,000 (December 1998) — most available workers have been absorbed into the workforce.

The Problem

First, there are not enough workers with the right InfoComm skills to meet the demand in this region. New job growth continues to outpace the number of InfoComm workers made available in the region by universities, special training programs, commercial schools, community colleges, etc. Current estimates for job openings in this region's InfoComm cluster range from 19,000 to 50,000+. Not only is that number very hard to quantify; it is also difficult to qualify. To date, no study has been able to articulate the various levels of jobs and related skills that those numbers reflect for the InfoComm industry cluster in this region.

Second, this region is not creating enough new workers to fill the short- and long-term industry needs. Current anecdotal and quantifiable research indicates that InfoComm businesses in this region rely on strategies mirrored around the nation – a) poaching skilled workers from regional competitors, b) recruiting skilled workers from outside the region and c) importing workers with H-1B visas.

However, none of these strategies compensate for the lost opportunity costs of growing our own workforce. Furthermore, these strategies do nothing to minimize the skills gap that is perpetuated in this region when industry does not invest in growing its own workforce. The practice of stealing experienced InfoComm workers from regional competitors may boost employee salaries, but will lose its appeal as more companies must fight for the same small pool of workers. Similarly, the nationwide shortage of qualified InfoComm workers

and the aggressive recruiting of newly trained workers in other technology centers, such as Silicon Valley, Boston, Austin, etc., impact the ability of InfoComm companies here to attract new workers to the area.

It is well known that importing workers from other regions has been one of the traditional ways to fill vacancies when local resources dry up or require more time to renew. However, even the importation of workers in technical professions from outside of the United States has not dented the current InfoComm workforce shortage. Although Congress attempts to compensate for the IT worker shortage by temporarily boosting the number of H-1B visas from 65,000 to 115,000, these numbers can be misleading for our region. First, the total number of visas granted includes **all job categories** of which InfoComm is only a small portion. Second, the total number of InfoComm visas granted is meant to address **the national IT worker shortage** of which our region is, again, only a small portion. It should be noted that since H-1B visas have a six-year limit, the importation strategy must be considered a minimal, short-term fix for this region's InfoComm industry cluster.

Current Strategies

Including the three strategies mentioned above, there are eight current strategies used to address the InfoComm workforce shortage in the Greater Washington Region:

♦ Steal employees from one another
♦ Recruit workers from other regions
♦ Import IT professionals from abroad
♦ Rejuvenate (re-train) existing workers
♦ Export the jobs to other regions
♦ School-to-Work programs
♦ Slow down growth
♦ Do nothing

Our InfoComm cluster's regional workforce shortage is having both an immediate impact on many InfoComm companies' ability to grow, and also, given the current economic outlook, it will have serious long-term implications. Even if all of the current job openings were filled immediately, there still would be a shortage of InfoComm workers in the near and distant future.

Ownership of the Workforce Problem

The federal government, state governments and universities will not be able to solve the problem on their own. It is the responsibility of the InfoComm industry cluster to take the lead in cooperating with government agencies, universities, other learning institutions and not-for-profit organizations throughout the region to address the issue. If this region's InfoComm cluster is to maintain its leadership position, then this region must also become the top producer of qualified technology workers.

There is no silver bullet, or cure-all, for this region's InfoComm workforce problem. More-

over, the Greater Washington Region is unique from other high tech centers around the country in that our InfoComm cluster spans two states and the District of Columbia. As a result, there is no existing regional authority that can address the workforce problem.

Recommendations to the Potomac Conference Leadership

The InfoComm Industry Cluster working group recommends that the leadership of the Potomac Conference take one major action:

> **Identify an existing organization or group of organizations that will determine what problem this region is trying to solve regarding the InfoComm workforce issue.**
>
> **Subsequent to that determination, the identified organization will:**

♦ **Establish a regional vision and agenda regarding the development of the InfoComm workforce.**
♦ **Articulate guiding principles for regional workforce development efforts.**
♦ **Work to understand the problems and challenges inherent in the workforce shortage and investigate both short- and long-term solutions in this region and others.**
♦ **Define its relationship with other leadership and educational organizations throughout the region.**
♦ **Promote regional collaboration and coordination.**
♦ **Develop a communications strategy to inform all stakeholders about and increase general awareness of the workforce issues and efforts in the region.**

The working group recommends that the identified organization, once established, focus on the following action items to enhance near-term economic competitiveness and augment workforce development efforts in the Greater Washington Region.

> **Action I.** Petition the federal government to adjust the experience qualifications required under government contracts.
>
> **Action II.** Enhance the clearinghouse of workforce development programs by working in conjunction with educators and employers to design methods for evaluating these programs. In this process, it will be important for the employers not only to provide input but also to provide ongoing support for these programs.
>
> **Action III.** Provide an instructional resource designed to 1) train employers on best practices of internship and hands-on training programs and 2) enable more companies to integrate successful internship programs into their short- and long-term workforce development strategies.

Objectives

In an effort to establish sustainable patterns of regional cooperation among the various industry sectors, the companies within those sectors, the learning institutions involved in training and education, and the government agencies, the InfoComm Industry Cluster working group suggests the following objectives for the organization:

1. Increase the number of qualified training programs.
2. Increase the number of science/math students.
3. Retain more college graduates in the region. Statistics show that only 15% of graduates remain in the area.
4. Increase the number of training programs to convert other skilled/semi-skilled workers to technology workers.
5. Increase and improve the intern programs – beginning with high school
6. Increase the cooperation and support of industry and youth development programs and organizations.
7. Increase level of industry support of leadership development programs, (such as the Fairfax County Leadership program and NVRT Lead the Future program.)
8. Assure that every high school is adopted by a member of industry.
9. Increase the number of workers and students in technology certificate programs.

How to Meet the Suggested Objectives

The InfoComm Working Group identified a number of steps that a coordinating organization could endorse and work on with appropriate regional resources to meet the proposed objectives above:

1. Create a central, web-based "clearinghouse" of resumes of available workers seeking employment in this region.
2. Facilitate a better connection between H-1B immigrant workers and job openings in this region.
3. Support the regional effort to market this region with a consistent image and message.
4. Support technology industry scholarship programs. Share information on funding sources available for scholarships, education and training programs.
5. Launch a marketing and action campaign to encourage graduates of DC, Maryland and Virginia universities, to stay and work for regional employers.
6. Learn from other regions that face a similar problem and have developed action plans to address the issues. (For example, the Silicon Valley Workforce Gap study.)
7. Quantify the required skills and degrees of the current 20,000 job openings in this region
8. Develop a marketing campaign to increase student interest in math and science at the secondary and university level.
9. Motivate companies to encourage their employees to teach in local schools to increase the bond between students and industry at an early age.

10. Determine how to resolve the disconnect between employers and special training programs that are producing graduates who are not being hired by industry.
11. Finally, determine how to secure increased federal and state funding for training and education. Because the shortage is a national dilemma, it clearly needs more attention than Congress (and some state governments) is giving it. This matter should be given the same attention and priority that the shortage of skilled workers, especially scientists and engineers, received prior to and during World War II.

Conclusions

We need to come together as a region. We need to engage the InfoComm industry cluster leadership to become a proactive participant in setting a regional workforce agenda. And we need the various groups in the region, while respecting their specific missions, to work together, applying focused resources and energy to certain goals that will benefit the entire region.

The Potomac Conference InfoComm Industry Cluster Working Group

One of the contributing factors to the effectiveness of this working group was its engaged and focused core of voices from all regional jurisdictions – the District of Columbia, Maryland and Virginia. Approximately 50 people representing industry, associations, tech councils, higher education, government agencies, not-for-profit organizations, and specific workforce development programs actively participated in seven meetings and countless conference calls held over the past four months.

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