

# BRIDGING THE SKILLS GAP

New factors compound the growing skills shortage



©2009 by the American Society for Training & Development (ASTD)

All rights reserved. Printed in the United States of America

No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the publishers, except in the case of brief quotations embodied in critical reviews and certain other noncommercial uses permitted by copyright law.

Published by ASTD  
1640 King Street, Box 1443  
Alexandria, Virginia 22313-1443

For permission requests, write to ASTD, Publications Department, Box 1443, Alexandria, VA 22313-1443.

ISBN (print): 978-1-56286-737-9  
ISBN (electronic): 978-1-60728-372-0

## **ABOUT ASTD**

ASTD (American Society for Training & Development) is the world's largest professional association dedicated to the training and development field. In more than 100 countries, ASTD's members work in organizations of all sizes, in the private and public sectors, as independent consultants, and as suppliers. Members connect locally in 132 U.S. chapters and with 30 international partners.

ASTD started in 1943 and in recent years has widened the profession's focus to align learning and performance to organizational results, and is a sought-after voice on critical public policy issues. For more information, visit [www.astd.org](http://www.astd.org).



## MEMBERS OF THE BUSINESS COMMUNITY AND ASTD:

In 2006, ASTD published its first white paper about the skills gap, the impact on organizations, and what managers and learning professionals could do to address skills shortages in their workforce. While there were many other reports describing the reasons for the skills gap—changes in workforce demographics; the startling numbers of unprepared high school and college graduates; and more jobs in the knowledge economy requiring workers to have increased knowledge, training, and skills—we felt it was important to provide readers with a sense of what to do about the problem.

Updated in this paper, the “Action Plan for Taking Charge of the Skills Gap” provides an action plan and process for leaders, managers, and learning professionals to use to assess whether a skills gap exists and if so, how to successfully manage it within their organizations. This paper includes eight case studies from organizations in several industries. Their best practices will give you some creative options for tackling a skills gap in your own company.

While recent economic challenges have forced public- and private-sector organizations to execute their strategies with more precision than ever before and do it with fewer resources—especially people—many still struggle with a skills gap within their existing employee base. And, some experts predict that skills shortages will intensify in the coming years as employers find they need

to hire more knowledge workers for high-skilled jobs that will help their organizations grow as the economy rebounds.

Government has an important role as a partner in this discussion of skills shortages. Organizations in the private sector and the publicly-funded workforce system at the federal, state, and local levels in the U.S. should collaborate even further to identify cost-effective and creative solutions to help workers access the training and skills development they need to find meaningful employment and progress in their careers.

I invite your comments on this white paper and insights on the skills gap. Please send them to the ASTD Public Policy department by email: [press@astd.org](mailto:press@astd.org).

Thank you for your dedication to develop the workforce and for your contributions to the ASTD community. Working together, we can help organizations achieve success by building highly skilled and capable knowledge workers.

A handwritten signature in black ink that reads "Tony Bingham".

Tony Bingham  
President and CEO  
ASTD

# | ASTD PUBLIC POLICY COUNCIL |

Thank you to the members of the ASTD Public Policy Council for their insights and help in updating this white paper.

**Douglas E. Lynch**

*2009 Chair*

Vice Dean

University of Pennsylvania

Graduate School of Education

**Tony Bingham**

President and CEO

ASTD

**Mary Francone**

Learning Strategist

Board of Governors of the Federal Reserve System

**Mike Girone**

Senior Director, Enterprise Leadership Development

Agilent Technologies, Inc.

**Terry L. Hansen**

Manager, Public Partnerships

IBM Corporation

**Nancy Jacobsen**

Executive Director

iSeek Solutions/CareerOneStop

Minnesota State Colleges and Universities

**Marsha Love Morrow**

Director, Learning and Organization Effectiveness

Allstate Insurance Company

**Robert P. Leber**

Director, Education & Workforce Development  
Northrop Grumman Corporation

**Mary J. McNevin**

Director, McCain Learning Centre – Global  
McCain Foods Limited

**J.P. Orlando**

Director, Medical Education Development  
Division of Education

Lehigh Valley Hospital and Health Network

**Loretta Reeves**

Program Manager

Training & Development Policy

U.S. Office of Personnel Management

**Steven L. Sitek**

Director, Leadership Development & Learning  
Novartis

**ADVISOR:**

**C. Michael Ferraro**

President and CEO

TRAINING SOLUTIONS, Inc.

**STAFF CONTACT:**

**Jennifer Homer**

Vice President, Communications & Member Relations  
ASTD

# | CONTENTS |



1		WELCOME
2		ASTD PUBLIC POLICY COUNCIL
4		INTRODUCTION
11		THE ROLE OF THE LEARNING PROFESSIONAL IN ADDRESSING THE SKILLS GAP
12		THE ROLE OF GOVERNMENT
13		A VISION FOR THE WORKFORCE
14		ACTION PLAN
16		CASE STUDIES
26		REFERENCES

# | INTRODUCTION |

This report is the third from ASTD to cover the growing importance of talent to organizational performance and the skills gap that threatens so many organizations today. It updates the picture, including the role of job losses during the current recession, and looks at the influence of Web 2.0 and the Net Generation on workforce skills. In 2003, ASTD's first white paper to address the skills gap, *The Human Capital Challenge*, made the connection between knowledge capital and organizational success. In 2006, the initial *Bridging the Skills Gap* described how skills shortages threaten growth and competitiveness and recommended roles for individuals, organizations, and government in creating solutions to a growing problem.

## WHAT IS A SKILLS GAP AND WHY DOES IT EXIST?

ASTD defines a skills gap as a significant gap between an organization's current capabilities and the skills it needs to achieve its goals. It is the point at which an organization can no longer grow or remain competitive because it cannot fill critical jobs with employees who have the right knowledge, skills, and abilities.

It is not just individual organizations or sectors that are feeling the consequences of the skills gap. Communities, states, regions, and entire nations pay a heavy price when they cannot find or equip workers with the right skills for critical jobs.

In reality, organizations will always experience a skills gap if they are staying ahead of shifting conditions in their environment and changing expectations from their constituents, shareholders, or customers. The key to achieving success under such circumstances is to harness skilled talent to strategy and goals—a task that has become more and more challenging in an increasingly global, virtual, and changing world.

ASTD research in 2009 identified two underlying causes of the skills gap:

- Jobs are changing.
- Educational attainment is lagging the need for skills.

In addition to those factors which have long contributed to creating and widening skills gaps in the U.S., the large-scale loss of jobs during the recession that began in late 2007 also plays a role. The recession is the longest since World War II, and by the fall of 2009 the jobless rate topped 10 percent.

In 2008, job opportunities shrank in many industries. In a September 2009 article in the *New York Times*, Peter Goodman notes that Department of Labor data showed that job openings in manufacturing decreased 47 percent, in construction 37 percent, and in retail 22 percent. In the fall of 2009, job seekers in the U.S. outnumbered job openings six to one. Despite some signs of growth in the economy, companies remained reluctant to begin hiring.

Economists anticipate that the current recession will feature a jobless recovery—one in which firms do not hire new workers to achieve productivity gains with existing employees. Anthony Carnevale, director of the Center on Education and the Workforce at Georgetown University, notes that the last three recessions have been followed by jobless recoveries in which there was GDP growth without job creation.

Even though organizations may have skills gaps, they will not be filling them from the ranks of the unemployed. “Recessions accelerate the trend to eliminate low-wage, low-skills jobs,” notes Carnevale, “and those jobs don’t come back.” Instead, companies create jobs requiring more education and skill. Growth of these jobs is slow in part because they require paying higher salaries and providing costly technological infrastructure for these workers. “Employers will hire cautiously to fill skill gaps that they couldn’t address by hiring during the recession,” says Carnevale.

He predicts that pressure to fix skills gaps will intensify again, probably by 2013, when the economy has added back the millions of lost jobs and will need to create many millions more to produce growth. “In a recession, the economy goes to sleep, but when it awakens, there will be a need for higher-skilled people to fill skill-intensive jobs.”

Until there is job growth, organizations will have to address skills gaps by other means than hiring. At Qualcomm, for example, an organization-wide assessment of existing talent

is giving a better picture of skills on hand. “We are taking better stock of what we have,” says Tamar Elkeles, vice president of Qualcomm’s Learning Center.

When jobs are created again, actual hiring patterns will vary by industry and by geography, but one pattern is already clear according to Lisa Belkin in an October 2009 *New York Times* article. Many of the low-skill, low-wage jobs lost during the current recession were held by men. Many of the jobs that will be created during the recovery will be filled by women because they cost less to hire—women earn 77 cents to every dollar earned by a man—and because they are concentrated in industries, such as healthcare and education, that are expected to grow.

## THE CHANGING NATURE OF WORK

Peter Drucker was the first to identify the productivity of knowledge workers—people who think for a living—as a significant management challenge. In the decades following that observation, jobs involving transactions such as exchanging information, products, and services have come to dominate economic activity in developed countries. In the U.S., nearly 85 percent of work involves transactions. The remaining 15 percent involves growing or making things.

Economists use the term “tacit interactions” to describe transactions that rely heavily on judgment and context. U.S. Bureau of Labor statistics (BLS) show that the majority of new jobs created in recent years have tacit interactions as their main component.

In *Thinking for a Living*, author Tom Davenport describes knowledge workers this way: “Knowledge workers have high degrees of expertise, education, or experience and the primary purpose of their jobs involves the creation, distribution, or application of knowledge.”

The consulting firm Mercer defines knowledge workers in terms of both the breadth of their knowledge and the degree of innovation required of them. Knowledge workers such as accountants, financial analysts, software engineers, and research scientists often depart from established procedures to solve problems and may adapt or update their knowledge in order to do their work.

Although BLS does not include knowledge worker as a specific category, Davenport used BLS data to estimate that knowledge workers in the U.S. make up 28 percent of the labor force. Other estimates place the number as high as 45 percent.

Whatever their actual number, knowledge workers have grown more important to the economy because they contribute significantly to the value of a company. Companies with high numbers of knowledge workers are among the fastest growing in the economy. Often the market value of their human capital is greater than their book value or the value of their tangible assets.

Managing, motivating, and engaging knowledge workers to solve problems and update their knowledge independently are important parts of closing skill gaps. But not everyone handles those aspects of knowledge work in the same way. Of the four generations now in the workforce, the three youngest—all born after the introduction of the Internet—have these characteristics in common: they depart from convention; they seek knowledge on the fly using everyday web technology; and they work collaboratively. But many methods for managing, developing, and improving the performance of younger workers are out of synch with their defining characteristics, and that has added to the skills gap.

## INFLUENCE OF WEB 2.0 AND THE NET GENERATION

According to a classification used by Don Tapscott in *Grown Up Digital*, there are three generations in the workforce born between 1946 and 1997, and a fourth, born since 1998, who will start their first jobs in a few years. Three of the four were born after the launch of the Internet in 1962, and the Net Generation, born between January 1977 and December 1997, have been exposed to computers and digital media all their lives. Using these tools is as natural to them as the air they breathe.

The Net Generation is significant for a number of reasons. It is the largest age cohort today, accounting for 27 percent of U.S. population and a rising percentage in other countries. The work habits, learning styles, and collaboration skills of this group are already having a profound influence on organizations and that will only

grow greater. Tapscott writes “The sheer numbers of Net Generation, both from North America and nations with rising economies, offer an unprecedented bounty of talent. This wave of young workers will not only work for tomorrow’s global corporations, but will increasingly shape and direct the most successful corporations.”

Members of the Net Generation appear to be smarter than previous generations, notes Tapscott. “Raw IQ scores have been going up three points a decade since World War II, increasing across racial, income, and regional boundaries.” And they have advanced skills in three areas that are revolutionizing work—digital technology, interactive media, and collaboration. Getting the rest of the workforce up to their level in these areas is a significant part of solving the skills gap.

Tapscott identifies several “norms” of the Net Generation: they want freedom of choice and expression; they want to customize the media they use and not just observe but change what they see; they look for corporate integrity and openness; they want entertainment and interactive play in their work, education, and social lives; they have been bred to collaborate; they need speed; and they are innovators, especially when it comes to learning and work.

These attitudes and behaviors can create fresh approaches to work but they also challenge traditional practices in managing talent. Tapscott, and another researcher, Robert Bernard, concluded that old models of employee development—train, supervise, and retain—are outdated for this generation. Reciprocal, relationship-oriented approaches work better to engage Net Generation employees in their learning and their work. That is why social media, virtual games, and other Web.2.0 tools are recommended for helping this age group learn.

## IMPROVING SKILLS FOR A BETTER JOB—VIRTUALLY

A study from Pew Research found that 25 percent of Internet users have used it to seek material about how to improve their skills to qualify for better jobs. This is an especially popular search with younger adults: 43 percent of “economic users” ages 18-29 have done such searches, compared with 19 percent of those between the ages of 30 and 64. They also found that searches for improving skills were also popular among people in households earning less than \$50,000.

Here is a story from Pew’s qualitative online survey about how a respondent worked through the process of deciding how to upgrade his skills while seeking the job of an insurance analyst: *“I applied for, was interviewed in a four-step process, and was offered a new position at my company. Many of the responsibilities of this new position are familiar, but there is one subject area that I wasn’t very familiar with, so I researched this online, gathered information, saved information for later review and analysis, and made my decision accordingly. There are professional/educational organizations that deal with this topic (data quality), and an industry-standard certification process sponsored by one of these organizations, so I sought out materials online from these groups and reviewed these more carefully. In addition, I reviewed vendor materials about the data quality tools and resources they offer, although I gave these less importance than I did the trade organization information because of the fact that they are in essence marketing materials and may not be as factual. And finally I researched the topic of data quality control and assessment in general through science and technology articles in sources such as periodicals and newspapers. All of this research was done online.”*

SOURCE: PEW INTERNET, “THE INTERNET AND THE RECESSION”



## **BABY BOOMERS RETIRING—EVENTUALLY**

An overall loss of expertise and management skill is expected to result from the gradual departure from the workplace of the 77.2 million Baby Boomers, the oldest of whom turned 60 in 2006. According to the Social Security Administration (SSA) over the next two decades, almost 80 million Americans—more than 10,000 each day—will be eligible for social security benefits.

The National Study of Business Strategy and Workforce Development, conducted by the Boston College Center on Aging and Work, found that more than one quarter of U.S. organizations had failed to plan for the Baby Boom exodus from the workplace. Responses from sectors including retail trade, manufacturing, health care, and social assistance showed that only 37 percent of employers had strategies to encourage late-career workers to stay past retirement age.

In a recent survey of more than 2,200 U.S. workers by consulting firm Watson Wyatt Worldwide, 44 percent of respondents age 50 or older said they plan to postpone retirement; half of those say they plan to work at least three years longer than previously expected.

While many older workers postponed retirement because of the recession which began in late 2007, or because they want to remain active, a wave of retirements will still contribute to the skills gap.

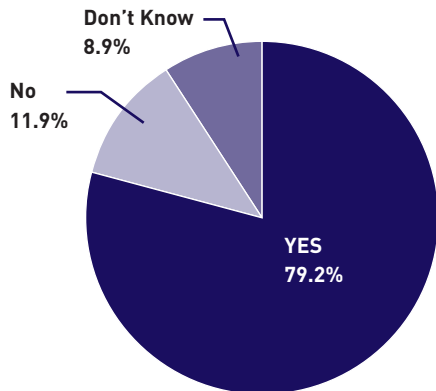
## **NEW GRADS ILL-PREPARED**

A skills gap among newly-hired graduates is hurting U.S. competitiveness. *The Ill-Prepared U.S. Workforce: Exploring the Challenges of Employer-Provided Workforce Readiness Training*, a report produced by Corporate Voices for Working Families, ASTD, The Conference Board, and SHRM in 2009, cited gaps in several industries. It draws from a survey of 217 employers about the training of their newly-hired graduates of high school and four-year colleges. The survey, conducted during 2008, included companies in manufacturing, financial services, non-financial services, government, and other non-profits. Almost half of the respondents said they have to provide readiness training for new hires. They reported that newly-hired graduates lacked such basic workplace skills as communication, creativity, and teamwork.

## ORGANIZATIONS CITE REASONS FOR SKILLS GAPS

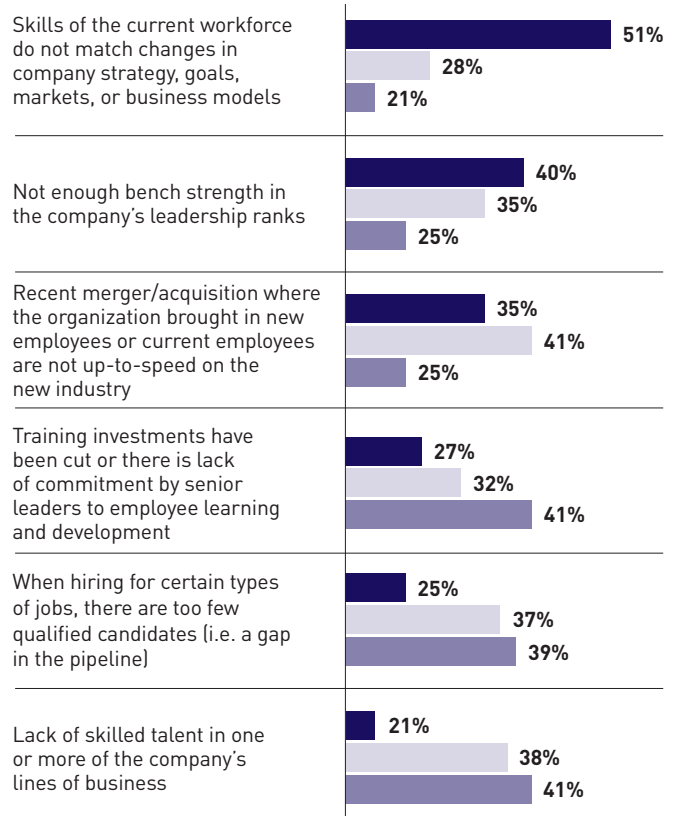
In a 2009 ASTD Skills Gap poll taken by 1,179 organizations, 79 percent said there is a skills gap in their organization now. Fifty-one percent said that the number one reason for a skills gap in their organization was that the skills of the organization's current workforce did not match changes in strategy.

### IS THERE A SKILLS GAP IN YOUR ORGANIZATION NOW?



Other reasons included a lack of bench strength in the company's leadership ranks; the effects of a merger or acquisition; and cuts in training investments. Inability to find qualified candidates for certain types of jobs was ranked number one by 25 percent of organizations.

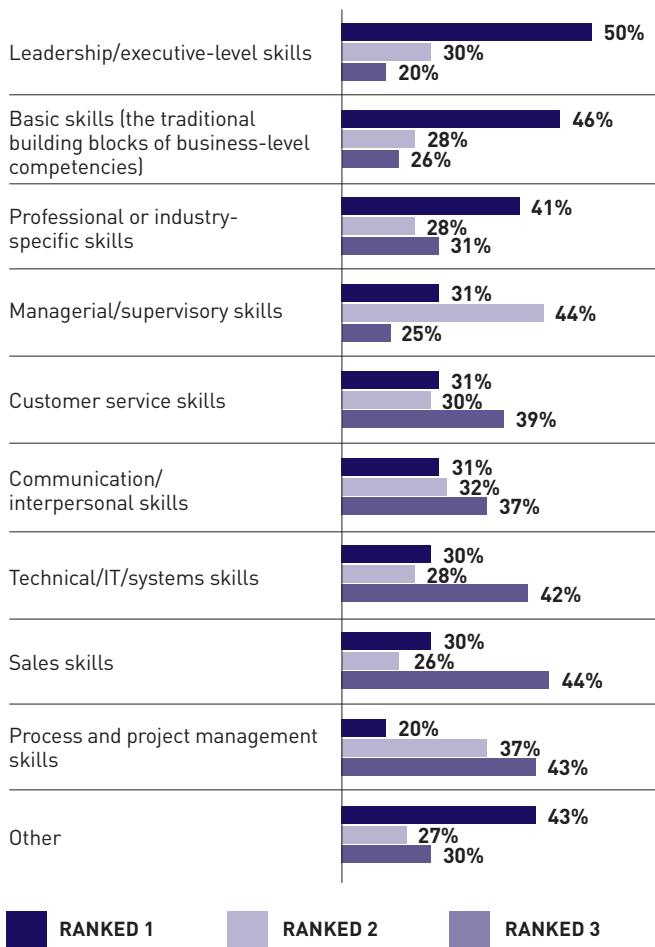
### WHY IS THERE A SKILLS GAP IN YOUR ORGANIZATION?



RANKED 1
  RANKED 2
  RANKED 3

The ASTD Skills Gap poll also identified categories of skills most lacking among the responding companies. In first place were leadership and executive-level skills, reported lacking by 50 percent of respondents. Following closely were basic skills at 46 percent, professional or industry-specific skills at 41 percent, and managerial and supervisory skills at 31 percent.

**WHAT ARE THE SPECIFIC SKILLS GAPS THAT YOUR ORGANIZATION IS EXPERIENCING NOW?**



**WHERE ARE THE BIGGEST GAPS?**

The Bureau of Labor Statistics (BLS) *Occupational Outlook Handbook, 2008-2009 Edition*, projects trends in employment opportunities in a broad range of industries and occupations. Employment opportunities, it points out, “result from demand for skills needed within specific industries.”

Looking out from 2006 to 2016, the data confirms a long-term shift from goods-producing to service-producing employment. These industry sectors are expected to grow: education and health services; professional and business services; leisure and hospitality; trade, transportation and utilities; financial activities; government; and information.

A closer look at BLS projections shows solid growth in knowledge work and jobs requiring advanced or specialized skills. Education and health services will add more jobs than any other industry sector. Management, scientific, and technical consulting services will grow 78 percent. According to BLS, “demand for these services will be spurred by the increased use of new technology and computer software and the growing complexity of business.”

Professional and related occupations will be one of the two fastest-growing and will add the most new jobs. Almost three-quarters of job growth will come from three occupations: computer and math occupations; healthcare practitioners and technical occupations; and education, training, and library occupations.

Many jobs will require more education and training. For 12 of the 20 fastest-growing occupations, an associate degree or higher will be required. The U.S. Department of Education’s National Center for Education Statistics projects that between 2006 and 2018 the number of associate degrees will increase eight percent; bachelor’s degrees will increase 16 percent; master’s degrees will increase 20 percent; and doctoral degrees will increase 27 percent. However, there will be a gap between the number of jobs requiring more education and the number of people qualified to take them.

In 1991, fewer than 50 percent of U.S. jobs required skilled workers. By 2015, 76 percent of U.S. jobs will require highly-skilled workers, e.g. those with special skills in science,

technology, engineering, or math. And 60 percent of new jobs will require skills held by 20 percent of the population.

The Institute of Medicine notes that as the first of the nation's 78 million baby boomers reach age 65 in 2011, the healthcare workforce will be too small and unprepared to meet their specific health needs. The report, *Retooling for an Aging America: Building the Health Care Workforce*, calls for immediate initiatives to train all health care providers in the basics of geriatric care.

A 2009 forecast by *Computerworld* magazine identified nine IT skills that are in high demand. The list includes skills such as programming and application development that were once considered prime targets for outsourcing but are being developed in-house because of budget cuts for external services.

A September 2009 study by the American Bankers Association (ABA) and the Corporate Executive Board (CEB) revealed that U.S. banks are underdeveloping high performing employees and risk losing them, posing a threat to long-term productivity. U.S. banks spend an average of just \$650 per employee on training. However, successful companies in other industries spend an average of \$1,068, according to the 2009 ASTD *State of the Industry* report. Forty percent of bank CEOs believe their banks are not doing enough to help employees grow, adversely affecting succession plans, and ultimately, long-term performance. Many banks have talent management practices that are only partly in place, according to the study. Sixty percent of banks fill positions internally yet continue to underinvest in employee training, contributing to a self-inflicted skills gap.

A separate CEB poll of 11,000 employees and their managers from 69 successful businesses across the globe found that one quarter of high-potential employees are considering leaving their organizations. High-potential employees put forth 21 percent more effort than others, the study found.

## IMPACT OF THE SKILLS GAP

An unprepared workforce can hamper the performance and growth of an organization. In their book, *The Chief Learning Officer: Driving Value Within a Changing Organization*, authors Tamar Elkeles and Jack Phillips write that "Nothing is

more devastating to an organization than not having a fully prepared workforce...An unprepared workforce can reduce profits, impede market share, create inefficiencies, lower morale, and/or increase attrition. More importantly, it can affect the quality of service provided to customers."

A lack of skilled workers also harms the economy, according to many sources.

"Eighty percent of U.S. manufacturers cannot find educated, skilled workers for their entry-level jobs. Without a skilled workforce, our manufacturers cannot continue to be the drivers of innovation and will not be successful in the global economy," says Emily Stover DeRocco, president of The Manufacturing Institute and senior vice president of the National Association of Manufacturers.

"America has a large middle-skills gap. Nearly 50 percent of the jobs in America demand middle skills obtained through education or training beyond a high school diploma. These skills are necessary for the United States to compete in a global economy," says Martin Scaglione, president and chief operating officer of ACT's Workforce Development Division.

## THE NEED FOR MORE WORKFORCE EDUCATION AND TRAINING INVESTMENT

A decade ago, studies showed that increases in educational attainment were responsible for 11 to 20 percent of growth in worker productivity in the U.S. according to a white paper from the National Center for Education and the Economy. "For 20 years, we have experienced extraordinary productivity in the private sector, and the increases in productivity have been supported both by technology improvements and a better educated workforce." But now, the white paper continues, "New investment in workforce education and training will have a more important function: to meet the demand for higher skilled positions."

In a 2009 *Time* magazine article on the likelihood of continued high unemployment and a decade of low job growth in the U.S., Harvard professor Roberto Mangabiera Unger stated "Making cheap low-end jobs won't deliver a workforce capable of sustaining a competitive advantage." The article pointed out that training helps break the cycle of low skills, low productivity, and low wages.

## | THE ROLE OF THE LEARNING PROFESSIONAL IN ADDRESSING THE SKILLS GAP |

Organizations draw on many resources and use many processes to find, develop, deploy, and retain appropriately skilled employees. There is a growing trend to take a holistic approach to managing talent so that all of these processes work together to ensure an organization's capability to achieve strategic goals.

Faced with the reality of rapidly changing skill needs and the increasing shortages of skilled people in the labor pool, many organizations recognize that old ways of thinking about talent no longer apply. These days it is not enough to hire smart people and develop their knowledge and skills. It is not enough to have a succession plan just for the top tier of leaders. It is not enough to work with the institutions—the schools and workforce development programs—that feed the labor pool. It is not enough to capture the knowledge of departing workers.

None of these actions taken alone will close the skills gap to the extent needed. Learning professionals should prepare themselves to determine what skills the organization needs, fully understand current employees' capabilities, and lead the way in closing any gaps. They should be open to the great variety of methods and tools that exist today for employee development. Data from ASTD's *State of the Industry* report shows formal classroom training giving way to technology-based training since 2001. Replacing and supplementing it are many new approaches that put the learner in control and facilitate informal, just-in-time learning. These approaches include mentoring and coaching, job rotation, informal learning, and the use of social media and other Web 2.0 tools.

Many organizations facing this challenge look to their learning professionals to take a leading role in managing talent and linking it to their strategic goals. Often it is learning professionals, working with their HR partners and with key managers, who are best able to integrate all the systems and processes that contribute to closing a skills gap.

ASTD recommends an integrated approach to managing talent in an organization that strategically unites all human capital functions to maximize organizational effectiveness. Such an approach integrates the processes for acquisition,

recruiting, and development into one effort with a common goal: a workforce capable of optimal performance.

Learning professionals can work with their partners in the business to identify critical skills needed in every job in the organization. By understanding the organization's goals and strategies, and working with managers, learning professionals can map skill needs to business requirements and manage learning and development opportunities, create individual development plans, and help measure performance.

Learning professionals, in the role of talent managers, can help to ensure that employees have the knowledge, skills, and abilities to drive organizational performance. A unified focus on talent management means that once separate processes such as recruiting, succession planning, development, and retention, gain synergy.

Your role in talent management (based on tips from Lynne Morton, co-founder of TalentScope and President/Principal of Performance Improvement Solutions, Inc.):

- Identify critical jobs—not individuals—that have the biggest impact on organizational performance. Look beyond the top rank of leaders.
- Define the competencies—the skills, knowledge, abilities, and behaviors—of key jobs. Competencies should also reflect the values and leadership models of the organization.
- Engage managers in identifying skills gaps that could hurt performance or curtail growth.
- Use workforce planning techniques to look for potential skills gaps due to changing workforce demographics, retirements, and changing needs within the organization.
- Integrate processes for finding and closing skills gaps with your organization's performance management efforts.

## | THE ROLE OF GOVERNMENT |

Traditionally, government has assisted people who face challenges finding work. More recently, it also plays an important role in coordinating programs that help organizations find knowledgeable, skilled workers and assists industries by funding partnerships to develop the skills of the current and future workforce.

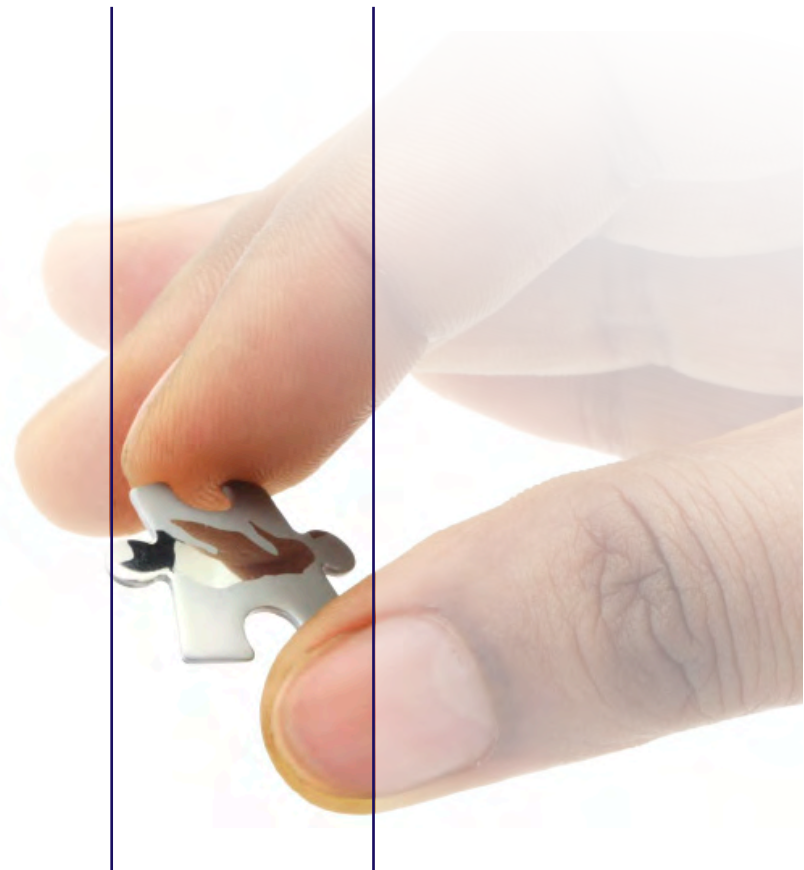
Through the publicly-funded workforce investment system, organizations receive incentives such as tax credits and grant opportunities to train and upskill their workforce. And, through fair policies and resources, the public sector assists individuals who need to embrace a new mindset in which learning is seen as a continual process during the course of one's lifetime, instead of a finite goal marked by the receipt of a degree or a job in a new field.

To more effectively assist individuals and organizations to narrow skills gaps, the public sector can provide more guidance in navigating complex training programs and policies by simplifying the steps to access the publicly-funded workforce investment system and increasing awareness about the services available to workers (both incumbent and dislocated individuals) and organizations. Here are several recommendations:

- Link more closely regional economic development, education, and workforce development, and directly tie their programs and services to the needs of employees.
- Reauthorize the Workforce Investment Act, which improves the law by legislating better local representation by the education, economic, and workforce development communities, and by providing greater flexibility in allocating federal training dollars.
- Simplify and standardize processes for accessing public sector training dollars so that stakeholders can navigate the workforce system more easily, and better coordinate their use of its training programs.

- Provide support to individuals for lifelong learning programs through training tax credits, such as the current HOPE and Lifelong Learning tax credits, and education savings accounts.
- Continue to fund Section 127 of the Internal Revenue Service tax code so employers can provide education assistance benefits to employees, tax-free.

With government as a partner, individuals can obtain the skills they need for engaging, challenging, and well-paid work, while fulfilling their responsibilities to further their development. By partnering with government and accessing its training resources, organizations benefit by attracting skilled, knowledgeable, and adaptable workers. And, the economy benefits from a strong tax base and a steady flow of new products and services created by a high skilled workforce.



# | A VISION FOR THE WORKFORCE |

Responding to today's skills shortages with short-term fixes is not enough to drive growth and innovation. The more critical challenge is to address skills gaps in ways that improve organizational effectiveness and contribute to long-term success.

Ensuring a highly-skilled workforce takes a commitment from many players—leaders in the public and private sectors, the education community, the workforce development system, as well as workplace learning professionals. Each of these communities contributes to the development of the workforce. Together they help ensure an adequate level of key workplace skills. According to the 2009 Skills Gap poll from ASTD, organizations are experiencing gaps in these skills:

- leadership and executive skills
- basic workplace competencies such as literacy and numeracy that are the building blocks of successful performance in any job
- professional or industry-specific skills
- managerial and supervisory skills
- communication and interpersonal skills
- technical, IT, and systems skills
- sales skills
- process and project management skills.

In addition, most experts agree that these additional skills are needed for sustained high performance in the knowledge economy:

- Adaptability—the capacity to change in response to ever-shifting conditions in the economy and the marketplace, and to quickly master the new skills that such changes require.
- Innovative thinking and action—the ability to think creatively and to generate new ideas and solutions to challenges at work.

- Personal responsibility for learning—the willingness of individuals to take responsibility for continually improving their work-related capabilities throughout their careers.

By addressing these skills gaps in the current workforce, organizations will equip themselves for better performance and increased effectiveness in the short term. If the whole workforce development system addresses them, long-term success will be within reach of most organizations in the future.

## **ACTION PLAN**

1. Understand the organization's or unit's key strategies, goals, and performance metrics.
2. Identify competencies that map to strategies and performance metrics.
3. Assess the skills gap.
4. Set goals and prioritize the path to filling gaps.
5. Implement solutions.
6. Monitor and measure results and communicate the impact.

# | AN ACTION PLAN TO TAKE CHARGE OF THE SKILLS GAP |

Organizational leaders should look to their learning professionals to help identify the skills and competencies needed now and in the future and to align their development to key drivers for the organization. The following action plan identifies six steps for taking charge of skills gaps.

## **STEP 1: UNDERSTAND THE ORGANIZATION'S OR UNIT'S KEY STRATEGIES, GOALS, AND PERFORMANCE METRICS**

Be sure you know the answers to the following questions and can articulate the connection between performance goals and employee capability.

- What factors in the economy, culture, or market most influence your organization?
- What are the organization's key strategies and goals?
- What are the performance metrics for key strategies and goals?
- What capabilities must employees at all levels have to be able to meet the performance metrics?
- How is the organization's business and leadership model communicated throughout the organization?
- What behaviors or values play key roles in how work is performed?
- How are the demographics of the organization's workforce changing, and what impact will they have on knowledge, skills, and behaviors?
- What is the state of the supply chain of talent for the business or industry, given specific strategies?

## **STEP 2: IDENTIFY COMPETENCIES THAT MAP TO STRATEGIES AND PERFORMANCE METRICS**

- Identify the business functions that are most critical to achieving the strategies.
- Working with leaders of core business functions, determine which skills and competencies their employees need to be able to meet key goals and be effective at implementing key strategies.
- Identify current needs as well as those for the next one to three years.
- Map current and future competencies to current and future strategies and goals.
- Prioritize capabilities, skills, and competencies in order of their relevance to desired performance. Which ones must the organization have to grow and be effective?

## **STEP 3: ASSESS THE SKILLS GAP**

- Use performance consulting tools (e.g. Gilbert's performance grid or Brinkerhoff's impact mapping) and processes to identify organizational and individual factors that influence performance. Identify the root cause of skills gaps, taking care to distinguish gaps in skills or knowledge from factors in the organization's environment that also affect performance.
- Use analytical tools, such as impact mapping, to identify performance behaviors required to meet specific goals.
- Conduct a capability audit to determine where gaps exist in employees' knowledge, skill, or behavior.





## STEP 4: SET GOALS AND PRIORITIZE THE PATH TO FILLING GAPS

- Establish baseline measures of employees' current skills.
- Set goals for closing gaps between existing skill sets and those needed to support the current and future goals of the organization.
- Determine which paths to take to fill particular gaps: outsourcing, hiring, training and development, coaching and mentoring, retention strategies, apprenticeships, job rotation and sharing, and social learning with Web 2.0 tools, etc.
- Determine how results in filling skills gaps will be measured.
- Create an internal communication plan to educate and involve managers and employees in programs to close skills gaps.

## STEP 5: IMPLEMENT SOLUTIONS

- With key leaders in the organization, prioritize solutions.
- Led by the organization's learning function, create an organization-wide plan to address skills gaps.
- Engage the organization's senior leadership in supporting the plan, cascading goals through the organization, and participating as teachers.
- For identified knowledge or skill gaps, create learning opportunities using appropriate delivery options.
- Create individual learning plans and paths for employees. Have systems in place to measure and document skills and competencies before, during, and after training and development. Link all learning and development goals to the organization's skill needs and priorities.
- Leverage technology, including Web 2.0 tools, to facilitate knowledge sharing, skill development, and informal learning.

## STEP 6: MONITOR AND MEASURE RESULTS AND COMMUNICATE THE IMPACT

- Monitor and measure employees' progress on learning plans against individual and organizational goals.
- Use assessment tools to measure progress before and after learning and development takes place.
- Measure gains in learning's efficiency and effectiveness and employees' speed to competence.
- Link results of skill development initiatives back to organizational strategies and goals.
- Test for senior leaders' awareness of progress toward results in closing skills gaps.
- Identify a successful stakeholder—work with that person to communicate the results.
- Communicate progress and results regularly to all stakeholders.

Consider these questions:

- Did the solutions implemented have a measureable effect on narrowing skills gaps in the organization and making it more effective?
- Is the organization's workforce better equipped to meet key goals and implement strategies?
- What business results can be attributed to improvements in skill, knowledge, or desired behavior?
- Which methods of filling skills gaps—hiring, outsourcing, training and development, etc.—were most effective?

## | CASE STUDIES |

### **COMPUTER SCIENCES CORPORATION (CSC) Building Skills Through Apprenticeships**

**Computer Sciences Corporation (CSC) is a global business technology company offering IT consulting, systems integration, and outsourcing services. Based in Falls Church, VA, the company has been in business for 50 years. CSC employs 91,000 people in 80 countries. It reported revenue of \$16.74 billion for the 12 months ending April 3, 2009.**

In 2008, the company launched an onshore delivery initiative to provide an affordable alternative to offshore information technology (IT) outsourcing services. Located in Blythewood, S.C., the Onshore Delivery Center offers a broad range of IT services to aerospace, defense, and North American public sector clients as part of CSC's World Sourcing Services. Blythewood is one of more than 50 global delivery centers for these services.

In response to an emerging shortage of skilled UNIX engineers in South Carolina in 2008, the Onshore Delivery Center sponsored the state's first federally recognized apprenticeship program in information technology. In conjunction with Apprenticeship Carolina, a division of the South Carolina Technical College System, CSC recruited 55 apprentices and trained them in UNIX and Oracle software. The IT skills gap in South Carolina has been cited as a contributor to the state's high unemployment rate, which remains at about 12 percent.

"We were unable to find enough skilled employees in the community," said Gary Adams, director of the CSC Onshore Delivery Center. "The apprenticeship program helped solve that problem." CSC was able to put more than 40 people to work on client accounts as a result of the fast-track UNIX and Oracle training they provided to the apprentices.

"We are pleased to partner with the state of South Carolina in a training program that enables CSC to meet its need for skilled workers," said Adams. "As a leader in the IT sector, we recognize the need to build talent and are firmly committed to evaluating more training programs in association with the state."

An apprenticeship is a time-tested method of employee career development that combines supervised on-the-job learning and job-related education. A program registered with the U.S. Department of Labor shows an employer's commitment to developing a high-quality workforce that meets nationally recognized training standards. Registered apprenticeship programs also enable employees to receive incremental wage increases as they demonstrate new competencies throughout the training program. CSC's apprentice program will train and mentor participants on the job for approximately two-and-a-half years and provide 440 hours of additional education.

The Onshore Delivery Center's charter is to deliver top IT services to its clients at labor rates that are 10 to 30 percent less than the North American average for CSC. By "growing their own," the Blythewood center was able to hire talent that had minimal IT skills and train them with a tailored curriculum that met its requirements. "If we had not been able to provide these resources, our account teams would have had to go to other markets and pay higher rates for the talent. So this is a win-win for CSC and our clients," said Adams.

### **DELOITTE TOUCHE TOHMATSU**

#### **Speed to Productivity Gives Firm a Boost**

**Becoming the standard of excellence at delivering a differentiated level of client service is a top business issue for professional services organization Deloitte LLP. A talent management strategy is addressing this issue through specific programs that prepare new professionals to deliver value more quickly. Deloitte believes that having the best talent attracts prominent clients, and prominent clients attract the best talent to work at Deloitte.**

No matter how smart or well-educated, a new hire will not be productive on day one. And while that is true in any organization, it has more direct consequences in a blue-ribbon professional services organization where associates' knowledge and skill drive new business and customer satisfaction. Speed to productivity among new professionals is critical to standout performance at such organizations.

With that in mind, in 2008 Deloitte created an onboarding program, “Welcome to Deloitte,” to help ensure that new hires become productive and successful as quickly as possible. Other goals were to make new hires feel more connected to the organization and reduce voluntary turnover in the first year of tenure. Deloitte’s U.S. organization hires 9,000 people a year on average. New-hire attrition of about nine percent was costing more than \$8 million a year in recruiting dollars in 2007. New hires were leaving because they did not feel connected or welcomed.

Prior to starting the new program in 2008, onboarding was not the same across the organization. There was no customization for people working in different parts of the business, there were no metrics of success, and leaders in the organization were not engaged in onboarding.

“Welcome to Deloitte” changed all that. Onboarding now begins before the first day on the job. When new hires accept an offer to join Deloitte, they gain access to an interactive pre-hire website that takes the pain out of the administrative paperwork that was formerly completed during the first week on the job. The pre-hire center is a virtual environment where new hires use an avatar to explore Deloitte.

New hires are assigned an onboarding advisor—a peer-level professional in the same service line—who makes contact with them before they join. This important relationship continues into a new hire’s first year and beyond. This advisor helps new hires build their networks and navigate their new roles, and provides practical advice and informal training.

In two day-long sessions, learning occurs through gaming, videos, and case studies in a social-learning environment that simulates on-the-job challenges and includes personalized coaching from client service and talent leaders. For example, new hires learn about the organization by participating in an interactive board game—a “discovery map”—where they explore the organization. Using real client examples, they experience what it’s like to work at Deloitte. They create a profile for the company’s internal “social networking” website and learn to use it to begin building a network. At the end of one year with the company, there is an opportunity to reflect and focus on continued development.

The goals of “Welcome to Deloitte”—to improve new-hire retention, accelerate time-to-productivity, increase connection to the organization in the first year, and increase feelings of being welcomed and engagement—are measured through surveys given to new hires at their 30-, 60-, 90-, and 365-day mark in their tenure. Their counselors and engagement managers also assess their progress. Early results, covering the experiences of more than 6,000 new hires, were promising: 86 percent rated the experience favorably; 89 percent felt welcomed into the organization; and 87 percent said they knew how to access information they needed. In fiscal year 2007, the organization lost nine percent of new recruits during their first year; but in fiscal year 2008 after the program was implemented, the number fell by nearly a full percentage point.

“Welcome to Deloitte” now also includes additional onboarding activities for new hires in their particular part of the business—audit, tax, consulting, or financial advisory. And customized onboarding is available for direct-admit partners or principals and newly hired directors.

In addition, the U.S. learning function oversaw the development of an industry learning and apprenticeship program that uses mentors and coaches to develop sector-specific capabilities. The program includes a national certification program to recognize four levels of industry proficiency based on learning, client service, and outstanding contributions. A revamped curriculum provides professionals with information on industry-specific news, networking events, and learning opportunities. Hundreds of professionals have been certified as industry proficient. There has been a 15 percent increase in the number of Deloitte professionals who have industry specialization—enabling 10,000 more industry learning solutions to be delivered in 2008 than in 2007.

## EMC CORPORATION

**Information—how it is used, managed, and stored—is at the heart of EMC, a global IT firm headquartered in Hopkinton, MA. EMC provides the technologies and tools that help companies design, build, and manage flexible, scalable, and secure information storage infrastructures. EMC employs approximately 40,000 people, 40 percent of whom work outside the United States. The company boasts the world’s largest sales and service force focused on information infrastructure.**

EMC has seen continued growth and expansion, despite challenging economic conditions. In 2008, when many companies were cutting back, EMC experienced the largest revenue year (\$14.9 billion) in its 30-year history. Major factors contributing to this exceptional growth include the explosion of data creation, its criticality, and businesses’ increasing dependence on digital information. Coupling this data growth with emerging technologies and concepts such as virtualization and cloud computing leads to larger and more complex information storage environments that are increasingly challenging to manage. Businesses are beginning to realize that the ability to efficiently store, protect, and manage information so that it can be made accessible, searchable, shareable, and, ultimately, actionable, is critical to business success.

As an industry leader, EMC has first-hand knowledge of what success demands and the intricacies needed to achieve it. Annually, the company commissions a global survey of IT professionals to determine strengths, weaknesses, challenges, and growth opportunities in the industry. IT managers use the survey information to benchmark their plans to align with overall trends in the industry.

### **Critical Skills Gap**

In its 2009 study, EMC surveyed more than 1,400 IT professionals and issued a white paper focused on storage infrastructure. A key finding of the survey was that IT/storage managers and storage professionals across companies of all sizes face a critical lack of skilled storage professionals. This revelation carries potentially dire

consequences. Businesses are increasingly dependent on data and digital information, so poorly designed or managed information storage infrastructures can put enterprises at risk of catastrophic failure.

EMC believes that in addition to reliable equipment, a “well-structured storage group of highly skilled professionals is critical to build and maintain a high-performance, high-availability storage infrastructure.” EMC’s survey revealed that “overall, the (IT) managers estimate that approximately one-third of their team is very capable while the other approximately two-thirds of the team requires further development.” The survey also revealed that companies forecast a growth in their existing staff of more than 17 percent, despite the severe shortage of experienced or certified professionals in the marketplace. This critical skills shortage combined with a lack of storage technology education in the marketplace and in educational settings have restricted the growth of information storage and management functions, according to EMC.

### **Taking the Lead to Address the Problem**

EMC recognizes that while the information storage skills gap is a critical business problem, there are also opportunities for the next generation of IT professionals or others looking to build a career in a high-growth and dynamic industry. Addressing both the short term needs and long term opportunities, EMC has taken the lead in storage technology education in several ways, through EMC Education Services, which are globally available to EMC customers, partners, and employees.

EMC Education Services “education solutions” include:

*Information Storage Technology ‘open’ curriculum.* This unique offering leads with concepts and principles, covering all segments of Information Storage and Management technology. It has been adopted by large numbers of universities world-wide. For non-EMC users, the curriculum is taught in public classes by independent training providers.

*EMC Technology-Specific Learning Paths.* Designed to leverage the extensive capabilities of EMC technology and solutions, Learning Paths comprehensively cover all segments of EMC technology, and prepare the learner for EMC certification.

*EMC Proven Professional Certification.* The capstone of the EMC Education Services portfolio, EMC Proven™ Professional certification bestows formal validation of skills and knowledge and can be “open” and/or specialized to more than 10 EMC technology specialties. Certification features three levels of recognition—associate, specialist, and expert—to differentiate the knowledge and skills of certified professionals as they advance their expertise.

In addition to its own Education Services program, EMC is actively addressing the skills gap in the information storage and management industry by introducing exclusive programs for university students and non-EMC users. These programs include the EMC Academic Alliance (EAA) Program and the EMC Learning Partner (ELP) Program. Both programs offer an “open” curriculum.

EAA, introduced in 2006, is targeted to help build a highly skilled pool of future storage managers and professionals, and is being used in many universities around the world.

ELP is offered by leading, independent IT training companies, designed to build or improve storage technology skills leading to better design and management of storage infrastructures.

EMC experts have also created the most comprehensive book on information storage and management in the industry. The content of the Information and Storage Management (ISM) book focuses on concepts and principles, rather than product specifics, mirroring the “open” approach used by EMC Education Services to teach information storage and management. Written to be applicable to all IT environments, this book will be a valuable reference resource for storage professionals and students alike to fill in gaps in their knowledge, especially in rapidly changing areas where they need to come up to speed.

EMC has earned its educational leadership role in the information storage and management arena. EMC Education Services is leading the effort to close the skills gap, implementing courses, curricula, and programs that develop a pipeline to meet the growing demand for skilled information storage and management professionals.

Feedback received from EMC training participants confirms the effectiveness of EMC’s approach to learning.

*“Learning about cutting-edge technologies at a university level in conjunction with EMC, the world leader in storage technology, opened me up to the tremendous possibilities in data storage in the business environment. Through the course, I learned the importance of data and how its availability, integrity, and recoverability are essential in today’s corporate world...”*

*“I have been in the SAN world for almost 10 years. Information Storage and Management clarified a lot of things that I had a working knowledge of but didn’t really have the deeply detailed information about.”*

## IBM

### Global Mentoring Meets Business Needs While Building Skills

**IBM has been in the information handling business for over 100 years. It was a pioneer in information technology and was known for innovation in computers and IT systems. Today the company still provides computer hardware and software but also business consulting, training, and outsourcing services to clients around the world. According to its 2008 annual report, approximately 65 percent of IBM's revenue of \$103.6 billion was generated by its non-US operations. IBM operates in more than 170 countries and has a workforce of almost 400,000 employees. A key goal for IBM is to become a globally integrated company.**

In this context, the company saw a need to develop a mentoring culture where knowledge could be transferred easily and employees could meet their career goals through collaborative learning no matter where they work for IBM. The goal was to make mentoring accessible, simple, and pervasive across the global enterprise. In late 2005, work began to revitalize the global mentoring program.

“If mentoring is done properly, it can be used as a tool to build new skills and harness critical skills in the business,” said Sheila Forte-Trammell, HR consultant and author of *Intelligent Mentoring: How IBM Creates Value Through People, Knowledge, and Relationships*. The mentoring program was also intended to support the business goals of moving knowledge from established markets to emerging ones, and accelerating connectivity among employees.

The revitalized mentoring program has three pillars:

- using organizational intelligence to bridge knowledge gaps
- connecting people to enhance collaboration across geographies, business units, and skill sets
- enhancing the business impact of mentoring as a tool to develop a more skilled workforce that can deliver quality products, services, and solutions.

Internal and external benchmarking and focus groups provided data for a baseline understanding of existing mentoring at IBM. Mentoring tools were developed and employees were educated about the new program. Executives relayed to employees the business and personal imperatives of mentoring.

Today, employees are accountable through their individual development plans for participation in mentoring as mentors or mentees. Three types of mentoring take place: expert mentoring for specific skills; long-term career mentoring; and socialization mentoring for new employees. Certain employees, such as IT architects and project managers, are required to mentor others to be certified or recertified for technical leadership positions. “IBM expects employees to give back to their communities and to help build the pipeline for the future,” said Forte-Trammell. A minimum of 40 hours of mentoring is expected of employees in certain job roles.

The company's global employee directory of about 400,000 names has become a key tool to connect employees for the mentoring program. In their individual profiles, employees list what kind of mentoring they want or could give others.

#### Results

Mentoring now takes place across every level of IBM in every country in which it operates. Thousands of employees use the system to network, request and provide information, get career guidance, and increase their mentoring skills.

There are multiple generations in the IBM workforce and the company believes that mentoring is an effective tool for addressing multi-generational issues such as work style and culture. Rod Adkins, a senior vice president for the Systems and Technology Group, engages in reverse mentoring. He invites new employees to mentor him about the company from their viewpoint and to propose solutions to issues they raise. His goal is to help push decisions down to lower levels. Speed to resolve issues, learn, and be competent are the currency of success at IBM.

There are also communities of practice that are part of the mentoring program. “They foster collaborative learning, learning agility, and establish fertile ground for innovation and creativity,” said Forte-Trammell.

Focus groups and surveys in 2008 showed that the mentoring has been effective for building morale, supporting retention, providing career assistance, easing transitions to new jobs, and sharpening the leadership and coaching skills of mentors.

### **New Developments**

The mentoring program now includes a cross-geography initiative to transfer technology, sales, and leadership skills from established markets to emerging ones. In South Africa, for example, this program provides mentoring in business acumen and global leadership. In India the focus is on websphere skills. Experts in sales skills are mentoring employees in China, India, Singapore, Philippines, South Africa, Australia, and Latin America in such skills as closing a sale, selling value, technical, and leadership.

The cross-border mentoring revealed that the process can be challenged by language differences so a language mentoring community is being developed. “We are creating virtual communities where people can practice skills in other languages,” said Jennifer Pelham, a career program manager who is working on this effort.

## **MCCAIN FOODS LIMITED**

### **Leadership, Language, and Sales Skills Help This Global Food Company**

**McCain Foods Limited is a privately held multinational producer and distributor of frozen food. Incorporated in New Brunswick, Canada, in 1957 with 30 employees and one french fry plant, the company now operates on six continents and employs 20,000 people. Its two divisions, retail and food service, provide a range of frozen foods to supermarkets and restaurants around the world. McCain Foods is the world’s largest producer of frozen potato products and its plants process over one million pounds of potato products each hour.**

Like many large global enterprises pursuing growth strategies in a competitive world environment, it depends on a skilled workforce, and like many such firms, has identified and targeted the development of specific skills.

### **Leadership Skills**

The Asia Pacific region is a high-growth market for McCain Foods so the company must develop strong leadership skills in this region. In 2009, the McCain Learning Centre, the company’s central learning function, brought together employees from Taiwan, China, India, Korea, Thailand, Singapore, Malaysia, Indonesia, and Vietnam to take part in a training program called Leadership Essentials. “We believe that these sessions are key to ensuring that the leaders in the Asia Pacific region have the skills to help us reach our growth potential and lead the markets there,” said Mary McNevin, global director of the McCain Learning Centre.

The Leadership Essentials curriculum was designed to teach the company’s leadership model and to build skills to inspire leadership, teamwork, and people development. It employs a “leaders as teachers” module philosophy, in keeping with the model established by CEO Dale Morrison and CHRO, Janice Wismer, who jointly host a quarterly leadership session for the most senior levels of the organization, serving as teachers-in-chief. All company leaders are responsible for the development of others and for transmitting the company’s values and goals. These leadership skills and behaviors are deemed essential for the company’s success. “We train our leaders to inspire results, develop people, be role models, and create the future,” said McNevin.

### **Language Skills**

With operations in almost 40 countries, the company faced a challenge in teaching its leadership model to employees whose first language was not English. A needs assessment of the company’s global leaders revealed gaps in comprehension and ability to participate fully in leadership sessions conducted by the company CEO, Dale Morrison, and other English-speaking executives. The assessment also showed that these key employees were spending time struggling to communicate in English in emails, reports, and meetings.

In 2008, McCain began to offer English as a Second Language (ESL) training to top-level employees in 36 countries where the company had plants and operations. This group completed about 4,500 hours of English language training through an online service from Global English. The 266 active users completed an average

of 39.35 hours of training. Measurable and specific productivity gains were reported by learners who saved an average of approximately 1.39 hours per week on emails, presentations, and meetings due to improved English skills. The total productivity gain by the employees who took the ESL courses was estimated to have a value of \$556,900.

### **Sales Skills**

To win in the marketplace and achieve profitable growth, McCain Foods depends on having a skilled sales force. To enhance sales results, improve customer satisfaction, and build future leaders, the company has invested in sales training. In December 2008, the Centre introduced “Selling the McCain Way,” a program designed to promote consistent selling processes throughout the company and enhance the skills and competencies of the sales force. As with the company’s Leadership Essentials program, it uses a “leaders as teachers” format to train sales representatives, merchandisers, and the company’s strategic partners in key selling skills. The program is delivered in English, French, Spanish, Japanese, Greek, and Dutch.

## **OUR PEOPLE ARE OUR GREATEST STRENGTH**

Nothing happens without responsible, talented and high-performing people. Our people have been, and will continue to be our greatest strength. While always looking forward, our management team stands on the shoulders of those that came before them—the men and women that built McCain over the past 50 years into the global success story it is today. Our leaders inspire results by acting in accordance with our values, living and breathing the business, developing a clear vision and strategy for success, driving results, championing change and developing people at all levels of the organization to live up to their fullest potential as individual contributors and future leaders.

—Dale Morrison  
President and CEO, McCain Foods Limited

## **NVR, INC.**

### **Pre-emptive Talent Management Helps Homebuilder Survive Market Crash**

**NVR, Inc. builds and sells single-family homes and condominiums in the eastern and southern U.S. under a variety of names including Ryan Homes, NVHomes, Fox Ridge Homes, and Rymarc Homes. Its primary market is first-time home buyers and a category known as “first-time move-up” buyers.**

Over a 52-week period ending in October 2009, its share price increased from a low of \$310 to a high of \$698. But that upward trend is recent news. In 2005, before the steep decline in the housing market, NVR was one of the ten largest homebuilders in the country, building and selling hundreds of homes a month.

With that kind of volume, the biggest challenge was to be able to identify and fix quality issues in real time. They needed to spot problems with processes and skill gaps in their personnel that were critical to quality and to fix them right away.

Jim Caprara, then vice president of learning at NVR, looked for a non-traditional way to link the learning function to this key business challenge. “We wanted to create a solution that was fast and efficient and that made sense for NVR. Our solution was to shift NVR’s customer service function into the learning organization,” he said.

By monitoring all the customer call activity and managing the company’s customer satisfaction surveys, the learning function was able to identify valuable opportunities for improving products and services. They could identify and target specific development needs for field managers, salespeople, and production employees. And they could monitor and measure the results of their development through the learning function’s field training organization.

Merging customer service into the learning organization dramatically accelerated the speed with which the company could identify and respond to problems. That non-traditional approach clearly improved the readiness of the organization to perform. And there was customer satisfaction data to prove it.

By 2006, the homebuilding market was approaching the start of an historic downturn in sales brought on by the failure of mortgage banks and other lending institutions. But the shaky housing market gave Caprara’s team another opportunity to demonstrate the power of talent management as a business tool. “Even then, well before the crash, we knew the housing market was weakening. That



gave the learning organization the chance to do some predictive forecasting of business performance,” said Caprara. Using two measures of success for salespeople, they were able to predict with great accuracy the impact of the downturn well before it hit. This allowed the company to take clear preventive action.

They used two measures of salespeople’s readiness to perform: skills retention and skills utilization. They conducted proctored tests of the entire NVR sales force. Salespeople and their managers were tested to determine how much of their skills training they had retained.

The learning organization was then able to target and deliver specific skills training that the sales teams needed to be ready to meet the challenges that were headed toward the company.

“Understanding the company’s level of skills retention brought us half-way there,” said Caprara. Using NVR’s sales training staff in the field, they began to test how many of those sales skills were being used. Within two weeks they conducted more than 180 “secret shopping” experiences using the same script in every location and videotaping each session. They were looking for utilization of the skills uncovered in the previous study of retention. In other words, how many of the skills that salespeople retained were they actually using? The results showed that in areas such as Maryland and Washington, D.C., where the housing market was still strong, salespeople were not using sophisticated skills to close their sales. In the weaker markets, by contrast, NVR salespeople had to call on many more of the skills on which they’d been trained.

The diagnostic procedures used to analyze the data from the secret shopping experiences revealed the specific strengths and weaknesses of the sales force for the whole company, division by division. That information gave the learning organization even more ability to target the readiness of the sales force for the coming downturn. The results yielded clear predictions of sales performance if the housing market continued to shift downward.

Several of the sales teams with the highest performance histories were identified to be at risk. They had never had to use the skills required in a tough market. This was a shock to management. The study also revealed that many of the company’s lowest performing sales teams were better equipped for challenging conditions because they were actively using the skills that a bad market requires.

By early 2007 when housing sales everywhere began to fall, NVR’s learning organization had already accurately predicted the strengths and weaknesses in the sales organization’s skills, and learning programs were already

in place to improve readiness to perform. Tests and control groups and additional secret shopping for the next twelve months showed significant improvements in the company’s readiness.

Caprara labeled his team’s actions pre-emptive talent management. “If we had waited for a skills training need to emerge as housing sales went down, the results for NVR would have been catastrophic,” he said. As events unfolded, NVR was one of only a few large homebuilding companies in a position to make a strong recovery as the market began to improve in July 2009.

## STEELCASE

### Performance Consulting Identifies Skill Development Needs

**Steelcase is a global office furniture company founded in 1912. With 13,000 employees and 600 dealer locations around the world, it is a major player in the office furniture market. Steelcase furniture designs are based on observations of how people work and are intended to help improve the performance of people and teams at work.**

Steelcase University, the center of learning for Steelcase, takes a similar approach. A group of 11 internal performance consultants works with key business leaders every year to understand their goals and to help ensure that their employees have the right skills to accomplish them. Each performance consultant has, on average, three business units as clients. The CEO and his team are one set of clients.

The performance consultants from Steelcase University use an analytical tool known as the Gilbert performance grid. This behavioral engineering model identifies three organizational factors and three individual factors which can interfere with performance capability. The organizational or environmental factors include: clear communication about roles and expectations; the existence of tools, systems, processes, resources, and technology that help employees do their jobs; and rewards and incentives that are tied to the performance that is expected. The three individual factors in the Gilbert performance grid are: knowledge, skills, and attitudes; capacity to do the required work; and motivation.

Steelcase University consultants use this model because it helps managers focus on both individual and environmental factors that influence business results. Historical data shows that 80 percent of performance problems come from organizational factors and only 20 percent from individual

factors. This process, used at the front end of the consulting engagement, gets at root causes of performance gaps and avoids an automatic assumption that training is the right solution to a performance problem.

The performance consultants next use a process called impact mapping, based on the work of Robert Brinkerhoff, to identify the performance behaviors required to meet specific business goals. If gaps in skill or knowledge become apparent that would hinder successful performance, Steelcase University assigns to the business unit a project manager with instructional design experience to create a performance-based solution. Almost 90 percent of such courses are designed internally and are unique to the company.

Learning programs are piloted and then implemented by Steelcase University staff, SMEs, and a few selected contractors. Results are measured by surveys of employees and their managers. For many courses, surveys are administered at 30-, 60- or 90-day intervals depending on the complexity of the behaviors that have been taught. For some programs, managers are trained to observe behaviors to determine if those that are required for success are being used.

One such program has recently been developed for the office of the CEO, Jim Hackett, and his executive team. A performance consultation identified a need to develop this group's critical thinking skills so they could be more innovative and creative. The resulting development program, called Think 2.0, has four modules.

Steelcase's annual process of consulting to the leaders of key business units identifies skill and knowledge gaps before they can become a problem to the company.

### **Looking for Patterns**

Steelcase University also deploys a team of organizational development professionals to examine the six job families—three for leadership and three for non-leadership jobs—that cover all positions at the company. Every two years the job families and their related competencies are reviewed to be sure they still meet the company's requirements. Employees may take online assessments of the competencies required in their particular roles, and they and their

managers can identify development needs. The assessment tool also provides lists of courses and a menu of learning opportunities based on the needs that are identified.

### **TENNESSEE VALLEY AUTHORITY (TVA)**

**The Tennessee Valley Authority (TVA) is the largest public power producer in the United States. Headquartered in Chattanooga and Knoxville, Tennessee, it serves power to local utilities in seven states. It employs 12,000 people of whom 1,000 are manager-level supervisors. TVA fills an average of 129 supervising management positions each year and about 70 percent of these are first-line supervisors.**

Tom Kilgore, TVA's president and CEO, has said that first-line supervisors are critical to achieving the organization's goals and strategies.

An employee engagement survey, however, revealed serious gaps in the supervisors' interpersonal and leadership skills. Employees were asked "If you could change one thing about your workgroup that would improve productivity and engagement, what would it be?" Five to ten percent of responses were directed at supervisors and managers. Analysis of the results of the 31-item survey confirmed the need to develop first-line supervisors' leadership skills.

With the encouragement of the CEO, staff from the organization's training function established a leadership advisory board comprising senior managers and executive leaders to lay the foundation for a supervisor academy. Input from the strategic business units helped determine how to build the strength of current and future supervisors. The academy is aligned with the TVA's talent management initiative and its curriculum addresses leadership skills that will ensure the success of the first-line supervisors.

The processes for selecting and preparing supervisors were improved. Screening interviews for supervisor candidates were followed by a rigorous assessment to identify their leadership strengths and development needs in such areas as managing change and communication. Evaluations provided more objective measures of candidates' readiness for supervisory roles than had existed in the past. Using an

assessment center approach improved the predictability of success for each candidate.

Within two months of becoming a first-line supervisor, the candidates attend the TVA Supervisor Academy, where their development is guided by the results of the skills assessments that were made prior to their selection. Topics covered during the week-long training include the roles and responsibilities of first-line supervisors at TVA, performance management, and understanding yourself and others.

The DiSC assessment tool—which identifies observable behaviors in a four-quadrant model—is administered to help candidates understand and work with their behavioral styles and those of others. CEO Kilgore supports the academy by kicking off the first day of training. “Right now we have an opportunity to begin shaping a new culture at TVA—one that makes first-line supervisors and TVA a model for others,” he said.

After four months on the job, with opportunities to practice their new skills, the supervisors return to the academy for a second week of training. At the end of one year in the supervisor position, each one takes part in a 360 assessment to create a baseline for ongoing development.

Sue Hall, manager of TVA’s Leadership Institute, of which the Supervisory Academy is a part, reports that evaluations and interviews show that the new supervisors are putting into practice the coaching and feedback skills they learned during their training. “They are also developing their performance management skills and doing a better job communicating the requirements of work they are assigning,” said Hall.

Recent Level 3 behavior data on the Supervisor Academy shows that managers of Supervisor Academy graduates indicate their support for the program. In response to the question, “How would you characterize your employee’s overall supervisory performance?,” 55 percent indicated their supervisors were in the second quartile while 45 percent indicated their supervisors were in the top quartile. One-hundred percent of the managers responding indicated they thought their supervisors would be top quartile performers in one to two years.

“First-line supervisors are not only the gateway to motivating and inspiring our workforce, they are the bridge to bringing our future senior leaders on board.”

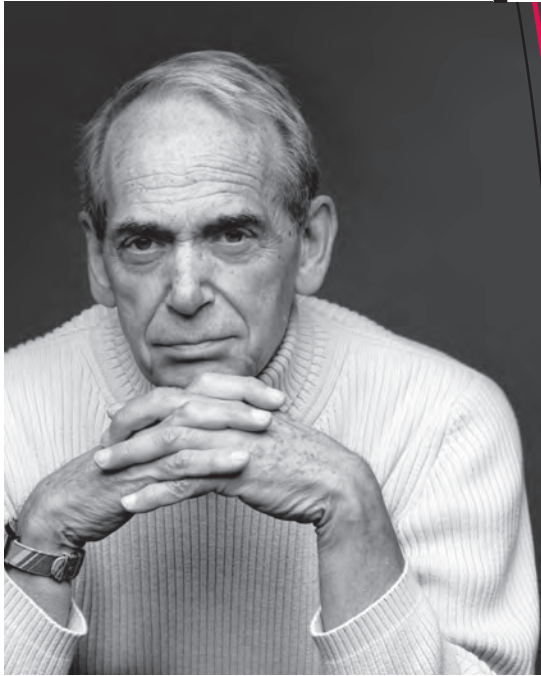
—Tom Kilgore, President and CEO

## REFERENCES

- American Bankers Association and The Corporate Executive Board Company, "Talent Management Survey Results: Executive Summary," (New York, NY: September 2009) <http://www.vertexcommunication.com/aba/ABA.Talent.Management.Summary.9.1.09.pdf>
- ASTD, *State of the Industry Report 2008* (Alexandria, VA: ASTD Press, 2008)
- ASTD, *State of the Industry Report 2009* (Alexandria, VA: ASTD Press, 2009)
- ASTD, *The Human Capital Challenge* (Alexandria, VA: 2003)
- Belkin, Lisa, "The New Gender Gap," *The New York Times Magazine*, October 4, 2009, p 11
- Corporate Voices for Working Families, ASTD, The Conference Board, and SHRM, *The Ill-Prepared U.S. Workforce: Exploring the Challenges of Employer-Provided Workforce Readiness* (New York: The Conference Board, 2009)
- Davenport, T.H., *Thinking for a Living: How to Get Better Performance and Results from Knowledge Workers*, (Cambridge, MA: Harvard Business School Press, 2005),
- Elkeles, T. and Phillips, J.J., *The Chief Learning Officer: Driving Value Within a Changing Organization*, (Burlington, MA: Butterworth-Heinemann, 2007)
- Goodman, Peter S., "U.S. Job Seekers Exceed Openings by Record Ratio," *The New York Times*, September 27, 2009, p1
- Hoffman, Thomas, "The Nine Hottest Skills for '09," *Computerworld*, Dec. 30, 2008 [http://www.computerworld.com/s/article/330106/The\\_9\\_hottest\\_skills\\_for\\_09](http://www.computerworld.com/s/article/330106/The_9_hottest_skills_for_09)
- Joshua Cooper Ramo, "Unemployment Nation," *Time*, 174, n 11, (2009) 26.
- Pitt-Catsouphes, M., Smyer, M. A., Matz-Costa, C., & Kane, K. "The National Study Report: Phase II of the National Study of Business Strategy and Workforce Development," (Chestnut Hill, MA: The Center on Aging & Work/Workplace Flexibility, 2007) [http://agingandwork.bc.edu/documents/RH04\\_NationalStudy\\_03-07\\_004.pdf](http://agingandwork.bc.edu/documents/RH04_NationalStudy_03-07_004.pdf)
- Rainie, L. and Smith, A., "The Internet and the Recession," Pew Internet & American Life Project (Washington, D.C.: July 2009) <http://www.pewinternet.org/Reports/2009/11-The-Internet-and-the-Recession.aspx>
- Tapscott, D. and Barnard, R., "Talent 2.0: The Net Generation and the World of Work," Syndicated Research Project, (Austin, TX: nGenera, October, 2006)
- Tapscott, D., *Grown Up Digital: How the Net Generation Is Changing Your World*, (New York: McGraw Hill, 2009)
- The Institute of Medicine, *Retooling for an Aging America: Building the Health Care Workforce* (Washington, D.C.: The Institute of Medicine, April 2008)
- The U.S. Bureau of Labor Statistics, *Occupational Outlook Handbook, 2008-2009 Edition* (Washington, D.C.: U.S. Bureau of Labor Statistics, 2009)
- U.S. Department of Education, National Center for Education Statistics, *Projections of Education Statistics to 2017* (Washington, D.C.: U.S. Department of Education, September, 2008)
- Uhalde, R., et al, "Toward a National Workforce Education and Training Policy," (Washington, D.C.: National Center for Education and the Economy, 2003)
- Watson Wyatt Worldwide, "Older Workers Delaying Retirement, Watson Wyatt Survey Finds," (Washington, DC: June 2009) <http://www.watsonwyatt.com/us/news/press.asp?ID=21512>

# ASTD

# MEMBERSHIP



As ASTD members **we are shaping the future** of our organizations by **developing the workforce of today.**

With ASTD as a partner, **we have access** to the trends, methods, resources, and networks **that empower us to achieve world-class results.**

**We trust ASTD to provide inspiration and lead us to success** as workplace learning and performance professionals.

**PUT ASTD ON YOUR TEAM. JOIN TODAY.**

[www.astd.org/joinastd](http://www.astd.org/joinastd)

ASTD has more than **130 local chapters** throughout the U.S.

To find a chapter near you go to, [astd.org/chapters](http://astd.org/chapters).

To learn more about international partnerships go to, [astd.org/international](http://astd.org/international).

# The Public Manager



*The Public Manager* advocates and disseminates the best practices that lead to transcendent governments, here and abroad, which benefit and sustain the citizens of the world. We welcome articles from scholars and public-service professionals at all levels, and accept print and online advertising of interest to public servants.

- **Quarterly Journal.** *The Public Manager* offers indispensable information from government managers writing from experience.
- **Online Community.** At [www.thepublicmanager.org](http://www.thepublicmanager.org), we have 38 years of searchable articles, our editor-in-chief's blog, *Agile Bureaucracy*, and topical e-forums.
- **Public Discussions Program.** Our audience-driven public discussion program features forums, symposia, and conferences throughout the year.

Join our global audience of more than 20,000 and continue benefitting from the content addressed at the conference by subscribing online at [www.thepublicmanager.org](http://www.thepublicmanager.org).

[WWW.THEPUBLICMANAGER.ORG](http://WWW.THEPUBLICMANAGER.ORG)

Stay  
**INFORMED**

Get  
**INVOLVED**

Lead  
**THROUGH SERVICE**



1640 King Street Box 1443  
Alexandria, VA 22313-1443 USA  
t: 800.628.2783 703.683.8100  
f: 703.683.8103 www.astd.org