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Cover Story

Where will all the talent come from?

By William D. Green and Peter Cheese

In today's multi-polar world, the war for talent has gone global. New technologies are transforming the nature of work, the skills demanded, the manner in which work is sourced globally and the ways in which people collaborate to perform processes and innovate. All these trends are making talent an ever-more critical and complex issue.

What role does human capital play in global economic competitiveness, and what responsibility does a private enterprise have to invest in educating and supporting people from the community and culture in which it operates? These are perennial questions—and perennially vexing ones at that.

On one side of the issue has been an attitude aptly summarized by the Quaker maxim that one “does well by doing good.” That is, through giving one receives; through acts of charity to a community and its citizens, a person or a corporation can achieve higher levels of success.

On the other side has been a point of view made famous by Nobel Prize-winning economist Milton Friedman: that the social responsibility of business is to increase profits. A corporation's most important social contribution is the creation of wealth, which a free society can in turn distribute as it sees fit.

Today, although both of those traditional arguments are still useful in framing the debate, they are no longer adequate responses to the geopolitical, economic and workforce realities of the 21st century. Companies in the developed, industrialized nations are facing critical talent shortages as well as educational

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shortfalls among many of the people entering the workforce. Meanwhile, familiar talent pools are shrinking, and new ones are emerging.

The global balance of economic power is shifting in a multi-polar world—one in which competition not only for consumers and product innovation but also for talent can come from almost anywhere. New technologies are transforming the nature of work, the skills demanded, the manner in which work is sourced globally and the ways in which people collaborate to perform processes and innovate.

All these trends are making talent an ever-more critical and complex issue for every organization. In response, businesses must take action along two parallel tracks.

First, they need to participate in a new, coordinated agenda among governments, businesses, educational establishments and philanthropic institutions to raise the general level of educational preparedness among their nations' citizens. This is no longer only a matter of "doing good"; it is in corporate self-interest as well.

Second, organizations must develop the capability to deal with talent issues more strategically, at the enterprise level. These issues are too important to be assigned only to specialist functions and regulated by specialist processes, however well designed those functions and processes may be. A more holistic approach is needed, one in which every part of an organization and every individual within it is connected and animated by the need to foster talent.

A new balance of power

A multi-polar world is one in which economic power—formerly concentrated among a few industrialized nations—is distributed among multiple centers of economic and business activity. This rebalancing of economic power is driven by several factors.

One is the development of communications and computing technologies that enable people from almost anywhere in the world to tap into knowledge and information, as well as to actually perform work. A second factor is the sourcing of work globally wherever skilled people are available at the most competitive price. Distributed or globally outsourced work has altered the way multinationals operate on a daily basis (see "A bold new look for global sourcing," *Outlook*, September 2007).

Another factor is the changing face of the consumer population. Over the next decade or so, a billion new consumers are going to be active participants in the global economy, and the overwhelming majority of them will come from emerging markets.

Developing nations are witnessing a vigorous expansion of domestic consumption. Spending power in these markets is expected to jump to \$10 trillion in 2025 from \$4 trillion today. As a group, these countries expanded an estimated 6.4 percent in 2007, led by China and India—or more than twice as fast as the 2.4 percent pace for high-income countries. In China, per capita disposable incomes in towns and cities, where more than 500 million people live, rose 10 percent in the first nine months of 2006 from a year earlier. In India, the number of households earning an annual income of at least \$10,000 is rising more than 20 percent a year.

These developments underscore the extent to which a nation's talent is now a key source of competitive advantage. Industry; natural resources; transportation, communications and technology infrastructure; access to health care—all are critical enablers to achieving economic power. But in the long run (and maybe even in the short run), nations and regions with the better skilled and educated people have a distinct edge.

In a global economy increasingly dependent on the capabilities of its people, talent-powered organizations have a vital stake in the general educational preparedness of the talent pool. They must develop more advanced talent management and learning capabilities to support the ongoing development of people once they are in the workforce.

Sounding the alarm

How prepared are young people around the world to assume responsible and productive positions in a knowledge-based economy? A number of studies have pointed to growing concerns about the ability of educational institutions in the developed world to deliver young people into the workforce with the basic skills necessary to succeed.

In the United Kingdom, employers complain of the quality of the science education of recent graduates, and of the shortage of physics, mathematics and language students at a time when social sciences, media and culture studies have become increasingly fashionable fields of study. In the United States, a survey of 4,000 hiring managers in more than 30 companies found that the average quality of candidates had declined by 10 percent since 2004.

Recent analyses, including Thomas Friedman's book *The World Is Flat*, have sounded the alarm about declining academic standards in developed nations and increasing shortfalls in such disciplines as engineering and the hard sciences, especially when compared to education trends in parts of the developing world. Some of these assertions have been challenged as overblown. A recent Duke University study found, for example, that statistics regarding Chinese and Indian engineering graduates (sometimes

cited at 6 to 10 times the level of the United States) were misleading because they included two- and three-year degrees—what in the United States would be called “associate” degrees (as opposed to the traditional four-year bachelor's degree).

Concern is justified nonetheless. In China, 59 percent of undergraduates receive their degrees in science and engineering; in Japan, it's 66 percent. In the United States, just 32 percent do. Most European Union countries report a declining number of students choosing to study science. In the United Kingdom, the number of students pursuing education in mathematics, physics, chemistry and many branches of engineering has been falling significantly.

To be sure, the situation is hardly rosy in China, India and Russia, which are often cited as among the most important developing nations. In China, teaching at the university level is primarily lecture-based, with little opportunity for discussion and collaboration. As a result, many graduates lack the creative thinking skills necessary to contribute to innovation and growth in a competitive economy.

In India, the seven Indian Institutes of Technology are justifiably famous for turning out exceptional graduates, yet the rest of the Indian education system performs far below international standards. (Even the institutes do not rank anywhere near the top of international rankings of universities.) One report on the overall educational situation raised serious questions about facilities, teaching and accountability.¹ As for Russia, another recent study attributes the declining quality of skilled workers to, in part, the weakening of compulsory education.²

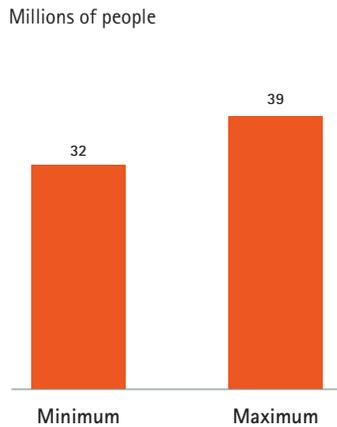
¹ "Tiny at the Top," by Philip G. Altbach, *Wilson Quarterly*, Autumn 2006, p. 50.

² "Talent War 2012: U.S.A. Set to Win," Accenture Global Services, October 3, 2007.

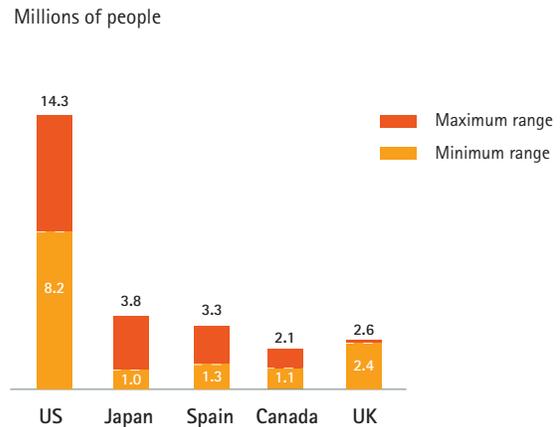
Workforce shortages in developed countries

According to Accenture data, companies and countries will need more than 3.5 billion people by 2010 to fill knowledge worker positions. By 2020, that number will exceed 4 billion. Other projections indicate that by then, there will be shortages of 32 to 39 million people to fill such positions. The United States will have the biggest shortfall—needing as many as an additional 14 million people.

Range of net workforce shortages in developed countries (2020)



Countries projected to have maximum workforce shortages (2020)



Ranges vary based on demand for labor (driven by economic growth) and actions taken by countries to manage shortfall (automation, increase in participation rates, etc.).
Source: United Nations; US Census Bureau; OECD; BCG analysis

Education's ROI

Investments in education made by governments as a percentage of GDP tell another part of the story. The United States spends 1.41 percent and the United Kingdom, 1.07 percent; China and India spend much less—0.50 percent and 0.37 percent, respectively. Overall, total levels of spending on education by governments has risen by more than 40 percent during the past 10 years, and steady increases in educational investment are expected in the next 10 years as well, especially among the developing economies.

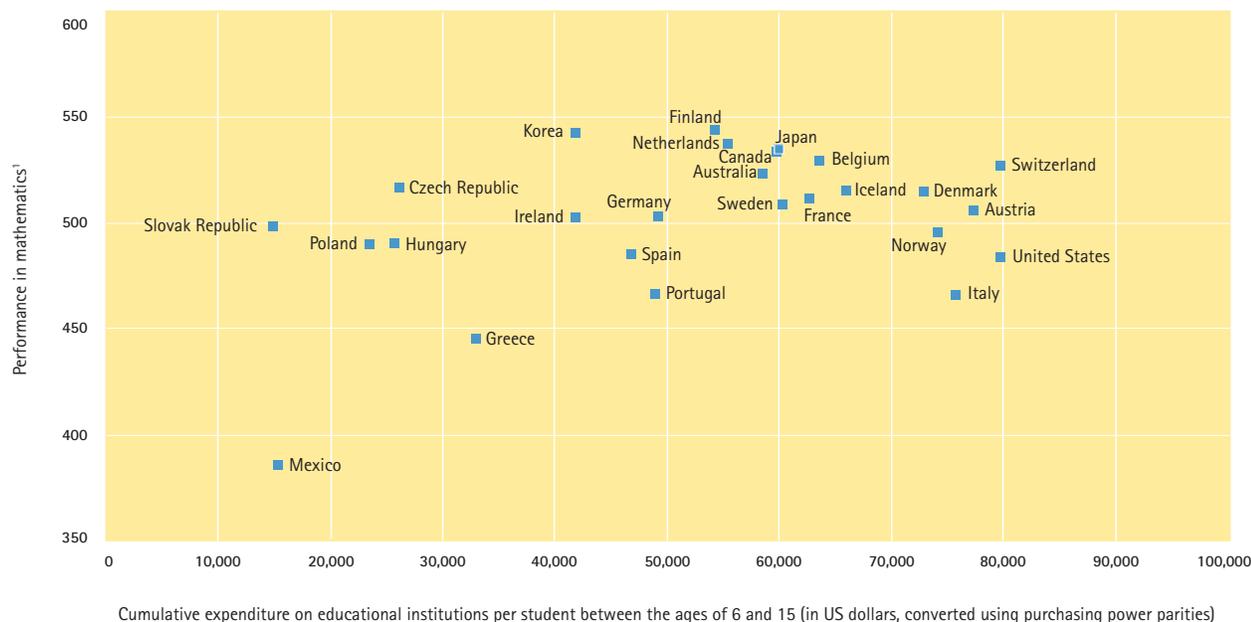
But despite the general rise in education spending, what's even more important is what countries are getting for their money. In terms of the overall economy, the benefits of strong investments in education are clear. Recent data from the Organization for Economic Co-opera-

tion and Development show a strong correlation between higher levels of tertiary education and a decline in unemployment among the general population, particularly among the less educated. Investments in education can create more jobs and make a country more competitive.

However, when it comes to producing a strong supply of qualified workers in a knowledge economy, it's another story. The chart below offers evidence that educational investment levels alone are not enough to produce qualified workers. In mathematics, for example, the United States spends the most on education but produces students with some of the lowest math performance scores in the industrialized world. Korea and the Czech Republic, on the other hand, spend far less on education, but their students still outscore their US counterparts by a wide margin.

Investment returns?

There is no solid correlation between how much a country invests in education and how well its students perform in math.



1. Performance on the PISA (Programme for International Student Assessment) mathematics scale. Source: OECD; Programme for International Student Assessment, 2003 database

In other words, investments in education are not necessarily delivering an adequate return, measured in terms of the ability to generate graduates capable of assuming a productive role in the economy. As a consequence, almost every company today that depends on science, IT and engineering skills is concerned about the increasing competition for talent and the ability to retain the necessary numbers of employees to achieve sustained growth and high performance.

In the United States, for example, the Bureau of Labor Statistics has estimated that 300,000 of the new information technology jobs created in the past 10 years will go unfilled. In 2005, Europe had a skills shortfall in advanced network technology of about 160,000 people, a number expected to grow to 500,000 this year. In India, the National Association of

Software and Service Companies has predicted a shortfall of 500,000 professionals in the IT sector by 2010.

Despite the urgency of the situation, the business community in general has yet to fully appreciate the role it must play in creating a workforce ready to support sustained high performance. In a recent Conference Board survey in the United States, only 11.4 percent of employers thought that workforce readiness was primarily the business community's responsibility.

Looking ahead, it is important to increase employers' motivation to invest in developing workforce skills, especially given several important trends, including declines in long-term employment relationships, the rise in the sourcing of talent outside a company's home country, and even declines in unionization (unionized

organizations typically offer more workforce training).

Access, affordability, accountability

The workforce skills gap experienced in every part of the globe today needs to be seen as a common concern for governments, educational institutions, philanthropic organizations and businesses. Increasing the return on educational investment requires a new spirit of collaboration and cooperation.

Three principles must drive this collaboration.

- **Access:** providing access to educational opportunities.
- **Affordability:** making education available at all socioeconomic levels.
- **Accountability:** ensuring that what educational institutions and business are delivering is both relevant and a good value.

Access to education is one area where collaboration among business, government and private philanthropy can produce excellent results. For example, private philanthropic organizations such as the Bill & Melinda Gates Foundation are becoming more active in providing access to educational opportunities for people in developing countries. In turn, governments at various levels are attempting to increase access to broadband and wireless technologies that would enable people—whether in cities or in remote areas—to tap into the information and opportunities made available by the Internet.

Other kinds of partnerships include the Sector Skills Councils in the United Kingdom—employer-led organizations, covering 25 different business sectors, that seek to increase opportunities to boost the skills and productivity of everyone in the sector's workforce and to reduce skill gaps and shortages of qualified work-

ers. Another organization, the Higher Education Funding Council for England, seeks to ensure that higher education students benefit from a high-quality learning experience fully meeting their needs and the needs of society. Widening access and improving participation in higher education to everyone who can benefit from it is an explicit goal of the HEFCE, something it believes to be critical to the nation's economic competitiveness.

Another proven way to increase educational access is to offer business financial or tax incentives to locate in a region and collaborate directly with the area's educational institutions to develop the needed skills in the workforce. Dell, for example, built a new manufacturing facility in North Carolina, drawn there by financial incentives to set up the business but also to partner with local community colleges to equip the local workforce with the skills they need to work for Dell. The facility is creating at least 1,500 new jobs and is expected to have a multibillion-dollar impact on the state over the next 20 years.

Increasingly these days, "access" to education means the ongoing availability of continuing education opportunities for adults. Although a great deal of discussion about educational improvement focuses rightfully on children and youth, the reality is that about 70 percent of the workforce that will be in place by 2020 is already out of school and college. Thus there is a critical need for both government and business to devote resources to adult learning and development.

Currently, the vitality of lifelong learning opportunities varies considerably by region. Within the European Union, for example, Austria and some of the Nordic countries fare best, with almost twice the participation level in adult learning as in Germany and Spain.

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poration today, have become important in advancing lifelong learning as well. Building on a broadband infrastructure, nations can leverage private-sector innovations in learning delivery to improve access to education for the general population. In Finland, for example, a national program called “Education, Training and Research in Information Society” provides for a “virtual” school (including a secondary school, a polytechnic institute and a university) offering online training and education services that are not limited by the time and place of study.

Affordability is a particular kind of access issue. Although, as noted, levels of government investment in education have been rising, the cost of education has often outpaced such investments. In the United States, for example, tuition and fees at public and private universities rose last year at more than double the rate of inflation, with prices increasing faster at public institutions. In many countries—the United Kingdom, Australia, Japan and Korea among them—the burden of educational costs has been shifting to students and their families, although more low-interest loans have been made available in some cases to relieve some of that burden.

Finding new and innovative ways to finance tertiary education is essential. One approach is to encourage more joint public-private funding. At the same time, more can be done to ensure that the money spent actually produces the right kinds of skills, and this means businesses must be more directly involved in shaping the educational programs.

In this regard, *accountability* is, in many respects, the greatest challenge. As the OECD’s 2007 report on education highlighted, education must reinvent itself in ways that other professions have already done to provide more value. But businesses must become more involved in the content

and quality of education, as well, since they are the primary end users of what a nation’s schools ultimately produce.

In the United States, the Business Roundtable is a good example of such involvement. This association of chief executive officers of leading corporations is committed to advocating public policies that, among other things, can improve US educational performance in the name of fostering vigorous economic growth and a dynamic global economy. The group has outlined several goals aimed at bridging the talent gap between students’ schooling and future job opportunities, including strengthening math and science education programs. For example, the Roundtable seeks to double the number of bachelor’s degree graduates in science, technology, engineering and mathematics by 2015.

Separately, some member companies also provide funding and guidance for programs such as the Gulf Coast Workforce Development Initiative. This partnership of federal, state and local government agencies, businesses, community organizations and construction trade groups has the goal of recruiting and training up to 20,000 new construction craft workers to help rebuild Gulf Coast areas that were devastated during the 2005 hurricane season. These companies have committed up to \$5 million to fund the initiative.

With a wide range of task force studies and research reports, as well as active engagement with government leaders concerning educational policy issues, the Business Roundtable is an excellent example of the level of engagement and dialogue that must take place between government and business leaders if a steady supply of workers with relevant skills is to be made available to the business community.

Strategic talent management
Successfully competing on talent requires working in concert with governments and private foundations

to improve access, affordability and accountability in education. But it doesn't end there. Businesses also must improve their own capabilities in strategic talent management and develop what we call a "talent-powered organization" (see "Talent: Leveraging your most important asset," *Outlook*, September 2007).

At the heart of the truly talent-powered organization is a distinctive capability that has become essential in delivering long-term sustainable competitive advantage. This strategic talent management capability focuses on three things in particular: talent definition and competency planning; talent sourcing; and talent development.

Talent definition and competency planning. Organizations must be able to understand their talent needs in terms of both the general and the specific competencies—the critical set of skills, knowledge and behaviors—that are necessary to execute their business strategy. High performance can be achieved and sustained by building the right set of competencies in the workforce and aligning and deploying these most effectively to particular job functions.

This alignment requires a clear definition of the talent and skill needs of the business, which are, in turn, linked to the business strategy—in other words, a human capital strategy, something that is now as important as a marketing strategy or a finance strategy. Organizations must understand their current workforce and organizational capabilities and future needs, identify where the gaps are, and put in place practical steps to fill those gaps.

An important tool here is a competency framework that sets the standards organizations can use to map their talent needs. The key elements of this framework are the competency categories the organization needs to track. These should focus on both the critical

and common competencies required for different work groups, and aim for the right balance between being pragmatic (keeping the number of competencies to a manageable number) and giving sufficient insight into what the workforce needs to perform well.

At Accenture, we use such a competency framework to identify our own current and future talent needs. The framework combines common competencies required in all workforces—for example, for some of the professional competencies—together with specific technical and functional skills needed for each workforce area.

These competency models must be maintained to provide the most timely information possible. We use self-assessments, skills surveys, and peer and manager reviews to inventory current capabilities, making sure the competency models are aligned with the current proficiency levels of our people. This inventory gives us a basis to plan, source and select talent, develop and retain talent, reward and manage talent, and plan its deployment throughout the organization.

Talent sourcing. One of the characteristics of a multi-polar world is global competition for talent. Increasingly, organizations' workforces are becoming more diverse across every dimension: age, gender, ethnicity, personal circumstances and location.

Leading organizations today are building capabilities to understand and source talent more strategically, based on clear definitions of skills gaps and needs for the future. Several specific capabilities are required. Companies must understand such things as:

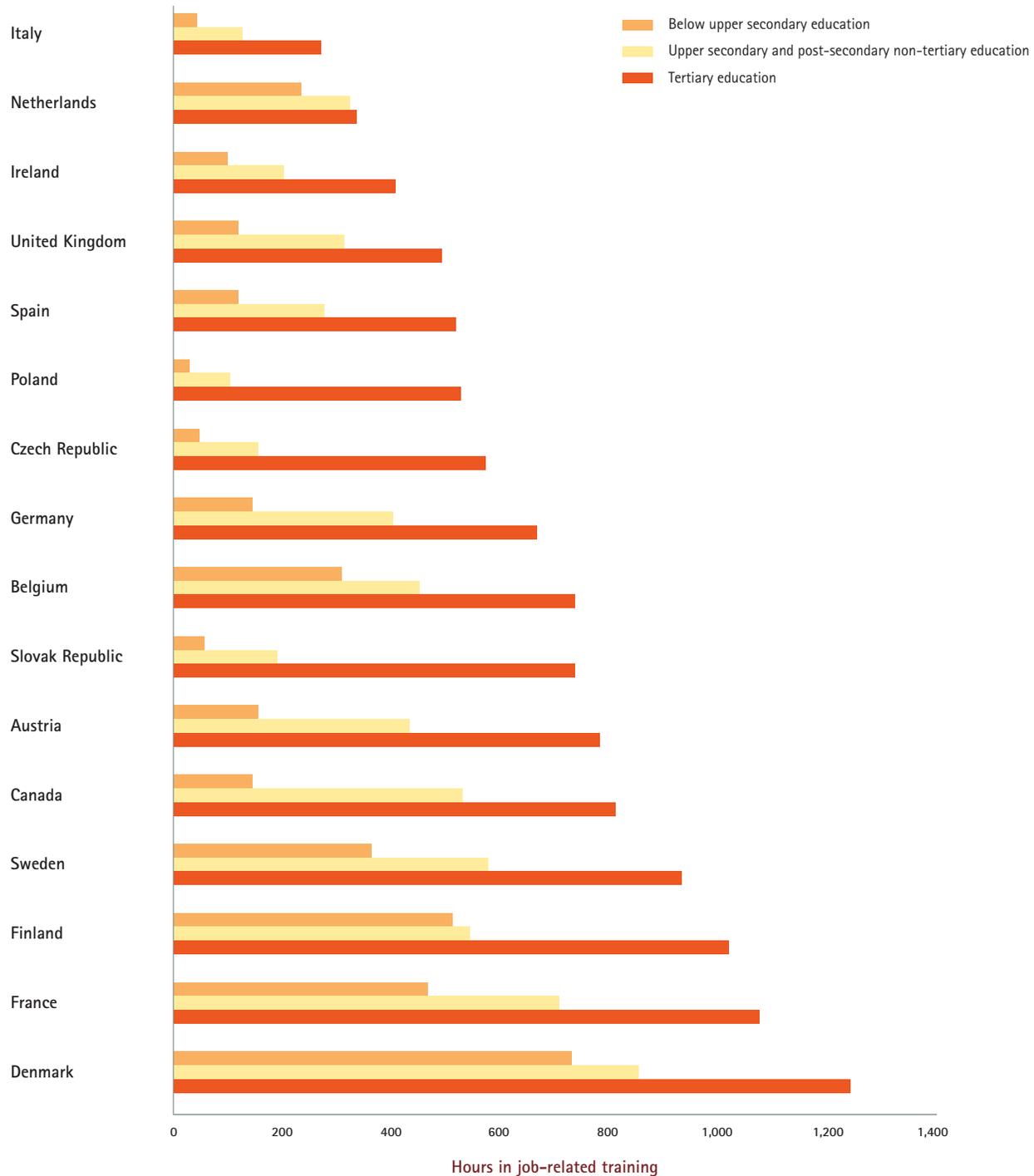
- What talent pools are available to meet their needs, how those pools are changing and what new ones are emerging;

(Continued on page 10)

Virtuous circle

In every country, those with the highest level of education get the most on-the-job training, making them even more valuable knowledge workers.

Expected hours in job-related education and training for employees aged between 25 and 64, by level of educational attainment (2003)



Source: OECD, "Education at a glance, 2007"

(Continued from page 8)

- How those talent pools can best be accessed and whether the organization has the ability to attract talent successfully based on such things as market image and brand, recruitment capacity and capability, and Internet presence;
- What alternative sourcing options exist, including contract or contingent labor, co-sourcing and outsourcing;
- What needs to change in the employee value proposition to attract more diverse talent—things such as employment terms, benefits, rewards and training programs;
- What kinds of management and leadership capabilities need to be developed to manage a more diverse workforce effectively; and
- How the operating model of the business needs to change to support the work of globally located employees—a question that deals with how work is organized, what measurement systems are in place and what technology investments need to be made.

These are challenging issues for many organizations. As new locations emerge—consider Eastern Europe five years ago, for example, or Southeast Asia today—boasting fresh talent pools whose members have strong basic educations and the right skills, they are rapidly becoming swamped by both multinationals and locally based companies competing for that talent.

Those battles for talent will intensify in the coming years. In India, the competition for IT talent has already moved the search for skills beyond cities such as Bangalore into other parts of the country. But whether they are in India or elsewhere, companies must have both

the scale and the adaptability to move quickly to where they will find the next sources of talent. They must also have robust and integrated talent management processes to ensure that such talent, once acquired, is retained.

Talent development. It's clear that businesses must begin to focus more on the general readiness of the talent pool from which they recruit their workforce. However, they must also improve their method of developing people after they are hired.

Several trends in the field of enterprise learning are especially important to companies looking to develop and retain the people they need to succeed in the long term.

- **Integrating learning with knowledge management.** A growing number of successful learning organizations are incorporating learning with knowledge management and performance support. By doing so, they are able to capture and deliver relevant knowledge and experience to the workforce at the point of need. Customers are served more effectively, and employees have a greater chance of succeeding at their jobs—something critical to their satisfaction and engagement.

The integration of learning and knowledge management serves another important purpose: to help organizations cope with the potential loss of critical knowledge and experience as the workforce ages. Given the dramatic demographic changes in the multi-polar world, such a capability will become increasingly important.

- **Using greater variety in learning delivery.** People learn best when knowledge is passed to them in more than one form, and in particular through experiential learning. Technology investments that enable greater variety and more immediate

What's hot—and what's not

In 2005, Accenture surveyed 1,600 university graduates in five countries to determine which industries they viewed as the most—and least—attractive.

Most attractive industries

	No. 1	No. 2	No. 3
US	Health and life sciences	Government	Electronics/high tech
UK	Media and entertainment	Health and life sciences	Government
Spain	Media and entertainment	Banking/financial services	Health and life sciences
France	Banking/financial services	Health and life sciences	Communications
Germany	Media and entertainment	Health and life sciences	Communications

Least attractive industries

	No. 1	No. 2	No. 3
US	Metals and mining	Retail	Chemicals
UK	Metals and mining	Retail	Aerospace and defense
Spain	Metals and mining	Government	Insurance
France	Metals and mining	Chemicals	Government
Germany	Metals and mining	Aerospace and defense	Capital markets

Source: *The Talent Powered Organization: Strategies for Globalization, Talent Management and High Performance*, by Peter Cheese, Robert J. Thomas and Elizabeth Craig. London and Philadelphia: Kogan Page, 2007.

relevance of learning are paying off. At BT Group, for example, learning delivery based on performance simulation techniques and tools—learning applications that provide a training environment simulating actual job performance—has produced significant benefits. The use of e-learning and knowledge support systems by the company's customer contact advisors has given employees the data and knowledge they need to drive significant improvements in productivity and customer service and satisfaction.

- **Aligning learning with the business.** At many organizations, investments in training are fragmented and uncoordinated, and

prone to be cut when times get rough. By contrast, a talent-powered organization bases its learning programs on their potential business impact. It also creates effective measurement systems that provide more insight into its return on learning. Telstra Corp., the Australian telecommunications giant, has recognized the importance of learning to its business, and has recently invested in a learning academy for its critical workforces, supported by highly visible commitment and sponsorship from top executives at the company.

- **Partnering with government and educational institutions.** As we have already noted, greater collaboration between businesses and

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government and educational institutions provides a significant opportunity to improve workforce skills. Most governments, at national as well as regional levels, provide incentives for training, often in collaboration with local educational institutions. Tesco, the UK's leading retailer, has undertaken a number of initiatives around the world, working with local communities to provide better training and education opportunities. In Thailand, for example, each time a local Tesco Lotus Value store opens, the company sets up 50

scholarships for local high school students from economically deprived backgrounds.

The task of finding and managing talent has become more complex, turbulent and contradictory than ever before. But the three areas discussed here—talent definition and competency planning, talent sourcing, and talent development—can create an infrastructure that will help organizations develop a talent strategy, and then find, develop and retain the talent needed to sustain high performance in the challenging years ahead.

The talent crisis that is either at hand or already upon us—depending on what industry or region of the world a business is located in—will require new kinds of partnerships and approaches to attracting, developing, supporting and retaining workers.

In terms of cooperation between the private and public sectors, the focus on education and competitiveness is an opportunity to redefine the nature of corporate social responsibility. It is a rare convergence of the planets, as it were, in which the needs of society perfectly coincide with the self-interest of corporations.

Organizations can no longer take for granted a steady supply of trained workers, ready to assume and execute a job. To achieve and sustain high performance, organizations need to become more involved in shaping and delivering education in their home nations and in others—particularly in the developing world. At the same time, the market helps those who help themselves. As companies invest in education, so must they develop their own capabilities as talent-powered organizations. A key factor in determining the long-term success of any organization is its ability to create value from human talent—to discover it, develop it, deploy it, motivate it and energize it.

Human talent—the combined capacity and will of people to achieve an organization's and a nation's goals—is a productive resource like no other. And it offers a unique capacity to drive high performance.

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