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ONE BY ONE, a 4-year-old arranges a cluster of wooden blocks on a table top, hoping to win a token prize. The contest isn't happening in a classroom or a living room, but rather, in a board room at KSB, a €2 billion German manufacturer of pumps and valves and provider of related services. A company recruiter carefully watches his every move. He's looking for a winner, but more importantly, he's eyeing the future of the company. KSB hosts contests and workshops with 4-year-olds to attract them to industrial careers and measure their aptitude for jobs within the company. KSB will follow the paths of children with potential in an attempt to eventually add them to its workforce.¹





Unorthodox recruiting practices at German companies like KSB are the product of an uphill battle against demographics being fought by many organizations. Siemens' CEO Peter Löscher has said that "the demographic shift will be an extreme challenge for Germany's economy."² A dearth of qualified engineers and a shrinking population are expected to make economic growth harder to come by.³ Employees at German industrial companies, including Siemens and Porsche, are enjoying bonuses and increased wages to keep them from seeking greener pastures elsewhere.⁴ Companies like KSB that may not have the brand recognition of Siemens or headquarters in a big city have recognized that attracting and retaining an ample workforce now and in the future will likely require innovative recruiting techniques.

Germany is not the only country facing stiff demographic headwinds. Recent research shows that demographic trends and their influences on workforces vary widely between countries and regions.⁵ Different regions—even countries within regions—are in different stages with regard to current and future labor forces, suggesting that labor strategies should be tailored to local situations. But variance in required strategies between regions and countries also presents important opportunities for companies with a presence in several regions. Recognizing and anticipating demographic differences in disparate parts of the world may help companies replenish otherwise shrinking talent pools.⁶

REGIONAL PICTURE: GROWTH, SHRINKAGE AND LIFE IN THE CITY

According to the U.S. Census Bureau, the global population is anticipated to grow from 6.9 billion in 2010 to 9.3 billion in 2050. Nearly 5.6 billion people live in what is currently described as the developing world (Africa, all of Asia except Japan, all of the Pacific except Australia and New Zealand, and Latin America), and approximately 1.3 billion live in the developed world (North America, Europe, Japan, Australia and New Zealand). The population in the developing world is expected to grow at a compound annual growth rate (CAGR) of close to 1 percent through 2050, while the developed world will likely show almost no growth.⁷

Yet, a closer look reveals demographics that differ across regions (see figure 1). Africa experienced the highest growth in population and potential labor force—the population that is 15–64 years of age—both in certain terms and as relative numbers in the period 2010–2050. Asia's population growth, on the other hand, is expected to slow down, and its potential labor force will begin to shrink in the period 2040–2050 with –0.1 percent CAGR.

Figure 1. Overview of population and potential labor force¹ for global regions

	2000	2010	2020	2030	2040	2050
POPULATION (millions)						
World	6,089	6,853	7,597	8,259	8,820	9,284
Asia	3,447	3,842	4,197	4,469	4,645	4,739
Africa and Near East	976	1,229	1,511	1,816	2,139	2,473
Europe	802	812	815	807	790	765
North America	313	344	378	412	446	480
South America	520	591	657	712	754	779
Oceania	30	35	39	43	46	49
POTENTIAL LABOR FORCE						
World	3,845	4,503	4,999	5,385	5,640	5,824
Asia	2,213	2,602	2,859	3,009	3,029	2,999
Africa and Near East	540	705	896	1,113	1,339	1,562
Europe	538	555	538	511	482	448
North America	208	231	242	252	270	290
South America	326	387	439	473	491	494
Oceania	20	23	26	28	29	31
CAGR²						
	2000–10	2010–20	2020–30	2030–40	2040–50	
POPULATION						
World	1.2%	1.0%	0.8%	0.7%	0.5%	
Asia	1.1%	0.9%	0.6%	0.4%	0.2%	
Africa and Near East	2.3%	2.1%	1.9%	1.7%	1.5%	
Europe	0.1%	0.0%	-0.1%	-0.2%	-0.3%	
North America	0.9%	0.9%	0.9%	0.8%	0.7%	
South America	1.3%	1.1%	0.8%	0.6%	0.3%	
Oceania	1.4%	1.2%	0.9%	0.7%	0.5%	
POTENTIAL LABOR FORCE						
World	1.6%	1.1%	0.7%	0.5%	0.3%	
Asia	1.6%	0.9%	0.5%	0.1%	-0.1%	
Africa and Near East	2.7%	2.4%	2.2%	1.9%	1.5%	
Europe	0.3%	-0.3%	-0.5%	-0.6%	-0.7%	
North America	1.0%	0.5%	0.4%	0.7%	0.7%	
South America	1.7%	1.3%	0.7%	0.4%	0.1%	
Oceania	1.5%	1.0%	0.8%	0.6%	0.5%	

¹Potential labor force means the population 15–64 years of age

²CAGRs > 1% are marked with green; negative CAGRs are marked with red

Source: U.S. Census Bureau

If growing populations are the rule in the near future, Europe is the exception. The population in Europe is expected to start declining in the coming decades, implying a shrinking potential labor force. This trend is not isolated to a single country; virtually all regions in Europe are expected to experience declining potential labor forces with stronger declines occurring in eastern and southern Europe.⁸

In addition, around the world, people are migrating to cities in unprecedented numbers. In 2010, 70–80 percent of the population in North America, Latin America, Europe and Oceania lived in cities, and urbanization is expected to reach 80–90 percent by 2050. Similarly, in Africa and Asia, urbanization is experiencing a significant uptick, from 15 percent in 1950 to around 40 percent today. Approximately 60 percent of the population is expected to live in cities by 2050, suggesting that an even larger percentage of the future workforce will be located in cities than is currently the case.⁹ Companies with offices outside of cities that struggle to attract a properly skilled workforce could consider establishing offices in big, popular, growing cities where talent may be more willing to live and work.

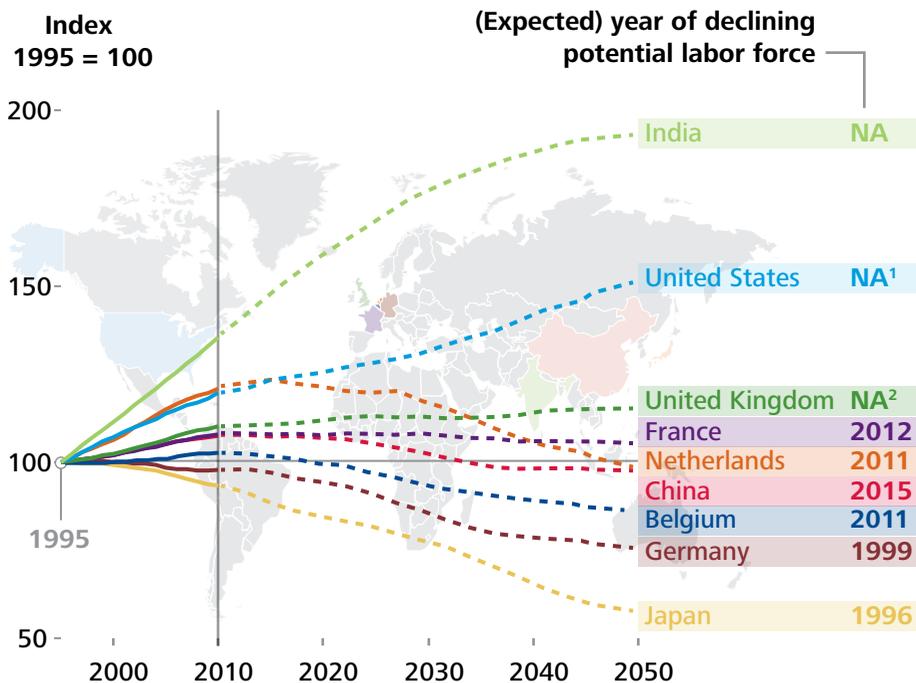
We have already seen strategic responses to this trend. Vodafone Netherlands, for example, opened a second head office in Amsterdam in addition to its office in the far south of the Netherlands. The company relocated most of its commercial and management functions to its Amsterdam office. In addition to being closer to its customers, which are located mostly in the large cities in the west of the country, Vodafone made the decision based on the fact that it wanted to be closer to critical talent. Vodafone discovered that online marketing and sales talent and workers with international ambitions were typically unwilling to move to the south of the country, prompting the company to relocate closer to its desired talent pool.¹⁰

SHORTFALLS AND SOLUTIONS

The potential labor force development of key countries depicted in figure 2 suggests that with the exception of India, the United States and the United Kingdom, the remaining countries shown expect a decline in their potential labor force. India's ongoing growth is introducing opportunities for companies trying to supplement their workforce. Porsche, for example, started to search in India and other emerging countries because the company could not find enough qualified engineers for a planned plant expansion in East Germany.¹¹

In Germany, the potential labor force started shrinking in 1999 after an ongoing population decline, and Japan's potential labor force, which has been declining for 15 years, is anticipated to continue its downward trajectory for the foreseeable future. In several other countries, a decline appears imminent. For example, China's potential labor force is expected to dwindle by 2015.

Figure 2. Potential labor force development of key countries



1 U.S. potential labor force growth is mainly driven by immigration (Population Reference Bureau, 2007: “new immigrants and their children will account for all of the growth in the U.S. labor force between 2010 and 2030”)

2 Potential labor force in the UK shows decrease in 2029, followed by a stable period and growth in 2037

Source: U.S. Census Bureau

Robots and automation

Fertility rates and immigration are the primary drivers of these waning numbers. Countries suffering the sharpest drops in labor force have already sustained low fertility rates—the number of births per woman—for a long time. A stable population requires 2.1 births per woman in developed countries. Japan fell below this number around 1970, and as of 1990, the birth rate had dropped below 1.5 births per woman—with a further decline to 1.4 in 2000 and 1.3 in 2010. Japan is turning to technology to offset its ongoing demographic challenges. With more than a fifth of its population in the 65+ age group, the country is banking on robots to replenish its workforce and care for its elderly. Robots—already a staple in Japanese factories, rice paddies and sushi bars—are now working as receptionists, janitors and caretakers for the elderly.¹²

China’s fertility rate, which hovered above 5.5 live births per woman in 1970, fell below the required 2.1 births for a stable population as of the early 1990s¹³ due to the implementation of the one-child policy. Immigration levels have not kept pace with this decline, helping to explain the country’s ebbing potential labor force.

Recruit thy neighbors

Immigration is another key driver of the potential labor force. This is especially true for the United States where the growing potential labor force is driven primarily by immigration as its fertility rate is 2.1 (the number needed for a stable population). Countries such as Japan and Germany, on the other hand, have far lower levels of immigration that cannot compensate for their relatively low fertility rates.

German companies are developing strategies to strengthen their workforces by attracting foreign talent. More than 50 German high-tech companies and schools are planning to launch a project in Poland next year. The aim is to recruit dropouts from Polish schools and train them to work in Germany. Given a lack of qualified German applicants for their skilled positions, German companies are increasingly looking east to countries like Poland to supplement their waning workforce numbers.¹⁴

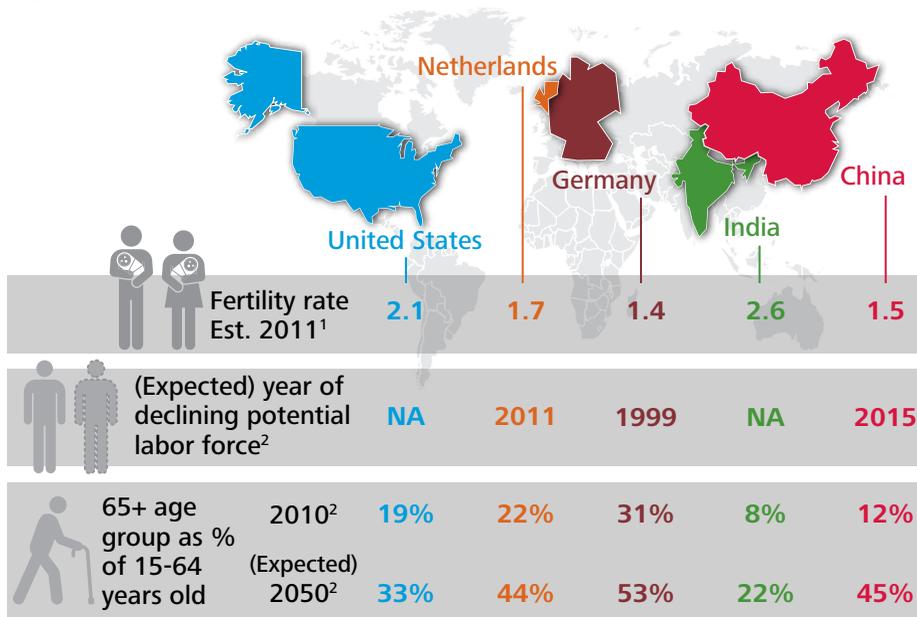
While Germany and the Netherlands' declines look quite similar (see figure 3), the German decline appears to be much steeper. Germany's forecasted shortage of employees in 2050 is estimated at 8.2 million or 19 percent of their current labor force, compared to only 275,000 or 3 percent in the Netherlands.¹⁵ The main reason for this differing decline is Germany's lower fertility rate of 1.4 compared to 1.7 births per woman in the Netherlands. To envisage the magnitude of the implications, the forecasted German labor shortage in 2050 will be higher than the total current workforce in the Netherlands.

As the Netherlands and Germany are neighboring countries, a severe employee shortage in Germany might have implications for the Netherlands. A young, talented Dutch engineer could easily live in the middle of the Netherlands and travel east several days a week. Given the shortage of engineers in Germany—a skill shortage that, in all probability, will grow as a result of the declining labor force—the proximity and similar languages of the two countries could spur German companies to start recruiting aggressively in the Dutch market. Higher wages and excellent career opportunities can be very attractive for the talent involved, but it would leave companies in the Netherlands struggling to find employees with technical skills and incite them to take appropriate measures to counter the potential talent drain. The ripple effects of demographics, therefore, are far more intricate than the macro-level trends alone would suggest.

Respect thy elders (and keep them on the payroll)

When it comes to demographics, death is as significant as birth rates. Life expectancy is growing and is projected to continue growing in the coming decades. This increases population but not the potential labor force, which is currently

Figure 3. Comparing five countries more in depth



¹The replacement fertility rate for a stable population is approximately 2.1 births per woman. For developing countries it ranges 2.5–3.3 because of higher mortality rates. Source: CIA World Factbook

²Source: U.S. Census Bureau, 2010 measurement Source: CIA World Factbook, Eurostat, United Nations, 2010

defined as people in the 15–64 age range. In the developed world, the number of people in the 65+ age group as a percentage of 15–64-year-olds is expected to grow significantly between now and 2050.¹⁶

Countries with an aging population and a shrinking potential labor force will most likely show only small GDP growth through 2050. A declining labor force implies that a country can only boost its GDP by improving labor productivity per person. Consequently, the heavy burden of healthcare and retirement costs will be placed on fewer shoulders and lead to lower net income for the working population, suggesting reduced spending power among consumers in the 15–64 age range to drive consumption and the economy.

However, a grayer population can have a silver lining. The 65+ age group could become a large addition to the labor force if countries and companies can provide appropriate incentives and, in some cases, redesign how work gets done. Flexible work arrangements, greater support, and recognition from managers can help companies retain older employees.¹⁷ Making it financially attractive for 65+ employees to continue working may require new government policies in many countries that allow people to work beyond the current retirement age and incentivize this with, for example, adjusted tax rules.

The average age of BMW's plant workers is on the rise and expected to hit 47 years of age by 2017.¹⁸ As a result, the company piloted a production line in Germany consisting of employees with an average age of 47 years. The carmaker improved the ergonomics of assembly lines based on requests from workers and introduced workstation changes every four hours, fitness exercises during work time, and even a relaxation room for short naps. BMW made 70 relatively small alterations that reduced errors on its assembly line and physical strain on its workforce. Absenteeism declined, and the defect rate on the assembly line dropped to virtually zero. BMW expanded the pilot to several other plants and plans to introduce it to more plants in the coming years.¹⁹



"In Germany, I consider it a duty for companies in particular to promote interest in technical occupations through active interaction with children and youth," said Wolfgang Malchow, former board member for human resources at Bosch.

"This is the only way we can win over qualified junior staff for tomorrow and beyond."

Influence choices at a young age

A dearth of young people also implies a smaller pool from which companies can select employees, magnifying the importance of matching educational backgrounds with workforce needs. German companies, for example, have begun to focus on aligning education with the needs of its industries.

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The Bosch Solar Energy business division and Staatliches Gymnasium, a public high school in Arnstadt, Germany have realized the need to promote interest in technical occupations at an early age. They recently signed an agreement to offer early career orientation for students within the context of the KnowledgeFactory ('Wissensfabrik' in German), a cooperation between companies and schools in

Germany. This association—founded by German giants including BASF, Bosch and Thyssen-Krupp—tries to kindle enthusiasm for technology and business among school-aged children.²¹

Emerging countries and the long arm of recruiting

The prospect of a declining labor force and an aging population looms over China's longer-term circumstances, but the country's current problem is precisely the opposite. The college-educated Chinese workforce is expanding faster than its economy, adding more than 6 million graduates each year. China's economy is growing, but it is not producing enough professional jobs, so nearly a quarter of its graduates fail to find work.²² This may turn around in the current decade, but the abundance of college graduates from China and other emerging countries provides opportunities for companies seeking college-educated workers.

The Japanese arm of the Boston Consulting Group (BCG) is responding to China's surplus of aspiring talent by recruiting many of China's best and brightest graduates to supplement the workforce in its Japanese office. Although Japanese companies have long been recruiting in China for their Chinese affiliates, recruiting for positions in Japan is a new development. For Chinese students, this means a chance at much higher pay and professional development. This strategy is spurred by more than a declining labor force in Japan: Chinese personnel are a critical part of the marketing strategies at Japanese companies trying to foster a foothold in China. ("Sales pitches by Japanese staff in China have their limits," according to an official with a major food company.)²³ The goal is to cultivate Chinese talent that can eventually develop new markets in China for this Japanese company.²⁴

Big business on campus

Collaborating with universities and vocational training schools has yielded additional paths around the demographic walls. India provides some telling examples. With an expected fertility rate of 2.6 in 2011 and the youngest population of the representative countries, India's demographic picture bodes well for talent-strapped companies trying to expand their workforce. For example, Infosys started the Campus Connect initiative to help increase India's competitiveness. Infosys and engineering institutions collaborate to deepen the pool of IT talent. The initiative targets college campuses that feed the IT industry and fuel its growth. It includes, for instance, training sessions at colleges, aligning curriculums with industry requirements and publishing Infosys courseware on the Web.²⁵

(However, in the "Nothing good lasts forever" department, India's fertility rate has been declining since 1970 when the fertility rate was 5.5. This, coupled with a longer life expectancy, will add to India's percentage of people aged 65+ relative

to people aged 15–64. This percentage is expected to almost triple in the next 40 years.)

Dutch companies are also exploring innovative ways to develop an ample skilled workforce. IHC Merwede, one of the largest ship building companies in the Netherlands, recently invested heavily in a new technical education organization to anticipate future shortages of specialized, technical employees. IHC Merwede brings in employees as teachers, and metal study objects are, if made successfully by the students, actually used in the end product (ships). By bringing theory to practice, IHC Merwede hopes to attract motivated students to the metal sector.²⁶



Goldman Sachs uses [an] otherwise unfortunate trend as an opportunity to recruit underutilized female talent, and it now has more women than men in its office in Seoul.

Recruiting and retaining women

Many companies are devising creative solutions that take demographic realities into account, including deliberate steps to make better use of countries' entire potential labor forces by creating more professional opportunities for women. In South Korea, for example, only 60 percent of female graduates in the 25–64 age group are employed, making college-educated South Korean women “the most underemployed in OECD countries,” according to *The Economist*.²⁷ South Korean women often encounter social pressures to trade professional life for parenthood, making it difficult to maintain an upward career trajectory. Many companies, as a result, fill their senior-level positions exclusively with men, leaving large numbers

of talented females professionally eclipsed. Goldman Sachs uses this otherwise unfortunate trend as an opportunity to recruit underutilized female talent, and it now has more women than men in its office in Seoul.²⁸

So too at Siemens, which expands its talent pool by recruiting women, including mothers. It established 400 day care centers for employees' children and plans to double that figure. Furthermore, the company created a science camp for talented high school-aged female mathematics and physics students and started a mentoring program for female undergraduates.²⁹

Flexible careers and flexible hours

Companies may not be able to alter the demographics of the countries in which they operate, but adapting their talent strategies to the needs of their workforces can go a long way in offsetting demographic pressures. Cisco is pursuing a new model for career development that accommodates lateral as well as vertical moves to cultivate its next generation of leaders. The corporate lattice model is a more flexible approach to performing work, building careers and developing talent.³⁰ More flexible career paths can help retain employees with young children and older employees who want to continue working but at a slower pace.

In the Netherlands, 75 percent of women work part time. Job sharing is the norm, especially in female-dominated sectors like healthcare and education. Part-time work has become a powerful tool to attract and retain talent—male and female—in a competitive Dutch labor market. Part-time work isn't the sole province of the female workforce; 23 percent of Dutch men work reduced hours, and 9 percent work a full week in four days.³¹ Dutch companies are accommodating this trend by allowing for flexible hours as well as work spaces. At the headquarters of a large Dutch company, for example, designers created a space without assigned work stations, and the company allows employees to work “anywhere, anytime.”³²

LOOKING AHEAD

The numbers can be discouraging, but companies operating in countries with declining populations are not powerless in the face of demographic headwinds. In some cases, they have turned these challenges into competitive opportunities. Understanding the potential challenges and opportunities a company might encounter in the coming decades begins with three fundamental considerations:

- The demographic realities that define the major countries where a company operates.
- The potential talent-related problems and opportunities a company may encounter when operating in a specific country.

- The bigger picture—possible solutions and opportunities across countries and regions.

Demographics may be destiny, but they don't have to be doomsday. An ounce of demographic foresight can yield insights as to where a company's customers and its workforce will likely live. Knowing the future whereabouts of its workforce and its customer base can help a company decide where to establish factories, offices and headquarters. Multinational companies can use shifting populations to their advantage by allowing abundance in one location to offset scarcity in another. **DR**

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