



# THE GLOBAL WORKFORCE: WHAT'S AHEAD IN THE NEW ERA OF WORK

THE WORKFORCE CONSTANTLY EVOLVES, BUT WHAT CAN COMPANIES DO TO PLAN FOR TOMORROW?

The global economy has forever changed the way businesses operate and attract employees. Gone are the days when companies look to hire only employees who live in the area or countries in which they operate.

The workforce of this new era is far more connected, dispersed, and mobile than ever before. This reality presents human resource professionals with a number of challenges that must be overcome if they are to ensure their companies have the best people in place today – and can attract the talent they need tomorrow.

## WHERE HAVE ALL THE WORKERS GONE?

According to the McKinsey Global Institute, the world could face a substantial shortage of qualified workers by 2020.<sup>1</sup> This shortfall shapes up in multiple ways. Developing nations may lack upward of 45 million workers with vocational training or secondary-school education. Advanced economies could end up needing up to 95 million workers with the proper skills for employment. And the entire world will likely have 40 million too few college-educated workers.

These figures seem a bit unbelievable considering the number of unemployed workers

worldwide sits at 197 million people.<sup>2</sup> By the end of the year, this number is expected to grow to 202 million. According to the International Labour Organization, total worldwide unemployment will continue to grow to 210.6 million by 2017.<sup>3</sup>

What has caused this large disparity? There are a number of factors at play. Economic growth has slowed worldwide, especially in China, India, Latin America, and the Middle East. Economic problems continue to plague the euro zone. Companies are still uncertain about government policies, consumer spending, and economic stability – all of which cause delays in hiring decisions. But the big problem is that companies throughout the world are struggling to find workers who have the skills that match their needs.

In the last decade, job growth in the U.S. has been attributed to positions that require complex problem-solving and contextual judgment. Jobs that are based on repetitive skills and one-to-one transactions are decreasing, and the educational system is not keeping pace with the change.<sup>4</sup> This situation is not limited to the U.S. For example, southern Europe could have as many as eight million workers without a post-secondary education who are unable to find work by 2020.<sup>5</sup> And in countries with aging populations like Japan and Germany, the smaller numbers of

young workers will cause an even larger divide between supply and demand.

Unfortunately, this gap won't be easy to bridge. To keep pace, college completions must grow by 2.5 times the historical rate of increase, and workforce participation by women and older workers must double.<sup>6</sup> One potential solution is to encourage employees to take advantage of massive open online courses (MOOCs), which were profiled in the Graebel ReloTRENDS<sup>SM</sup>, "[Boosting Employee Education through Online Learning.](#)"

By 2020, China alone will likely need 23 million more college-educated workers than it can supply, see Figure 1.<sup>7</sup> This shortfall stems from a combination of the country's aging population, rapid growth in the service sector, and a new focus on skill-intensive manufacturing. Further complicating the situation is the number of women already in the workforce. At 82-percent, China has the world's highest female labor-participation rate, which means it cannot tap this population as a resource for new workers. The country can, however, increase its share of college graduates in the labor force, but to accomplish a six-percent increase by 2020 would require 85-percent of China's secondary-school graduates to finish college.

**FIGURE 1: PROJECTED LABOR DEMAND AND SUPPLY<sup>8</sup>**

	HIGH-SKILL WORKERS	MEDIUM-SKILL WORKERS	LOW-SKILL WORKERS
China	-23 million	5 million	20 million
India	6 million	-13 million	27 million
Advanced economies*	-16 to -18 million	32 to 35 million	-1 million

\* Advanced economies comprise 25 countries with GDP per capita greater than \$20,000 in 2010.

<sup>1</sup> Richard Dobbs, Susan Lund, and Anu Madgavkar. "Talent tensions ahead: A CEO briefing." McKinsey Quarterly, November 2012.

<sup>2</sup> Tiffany Hsu. "Unemployment to break all-time record in 2013." LA Times, January 22, 2013.

<sup>3</sup> International Labour Organization. "Global Employment Trends 2013: Recovering from a second jobs dip." January 21, 2013.

<sup>4</sup> The Conference Board. "The State of Human Capital 2012: False Summit."

<sup>5</sup> Richard Dobbs, Susan Lund, and Anu Madgavkar. "Talent tensions ahead: A CEO briefing." McKinsey Quarterly, November 2012.

<sup>6</sup> Ibid.

<sup>7</sup> Ibid.

<sup>8</sup> Ibid.

India faces an entirely different situation. It may actually have a surplus of highly skilled workers, but not enough medium-skill workers to fill jobs in the growing construction, manufacturing, retail, wholesale, and service sectors.<sup>9</sup> Additionally, the country could have 27 million too many low-skill workers by 2020. To position these low-skill workers to take advantage of opportunities, India will need to focus on job creation and substantially invest in improving education, especially vocational training.

Unfortunately, these numbers will only get worse as the global economy picks up steam. An ever-widening divide could lead to significant social problems including higher unemployment, lost generations, and social unrest.<sup>10</sup>

### BOOSTING WORKFORCE EFFICIENCY

In a recent survey by the McKinsey Global Institute and The Conference Board, 75-percent of human resource professionals reported the talent shortage has negatively impacted their businesses.<sup>11</sup> To counteract these effects, companies will need to find more efficient uses for their skilled employees.

One strategy is to pass less strategic or value-added tasks to others, so the most-skilled employees can focus on value-creation activities. Other companies are disaggregating jobs. In other words, they are breaking jobs into highly specialized tasks, allowing employees to focus on the areas in which they are most skilled to maximize scarce talent.<sup>12</sup>

Leveraging technology and advances in communications allows employees to work virtually. Along with reducing overhead, this strategy can be highly attractive to a wide array of employees. According to Towers Watson, 47-percent of the 32,000 employees from large and midsize organizations surveyed in their 2012 Global Workforce Study work remotely or in flexible arrangements.<sup>13</sup>

One example of a company that has successfully made the transition to a virtual workplace is security software company Symantec.<sup>14</sup> Doing so required a shift in the company's focus – from when and where employees' work is done to employees' overall contributions and results. Managers underwent training on remote management, which covered how to:

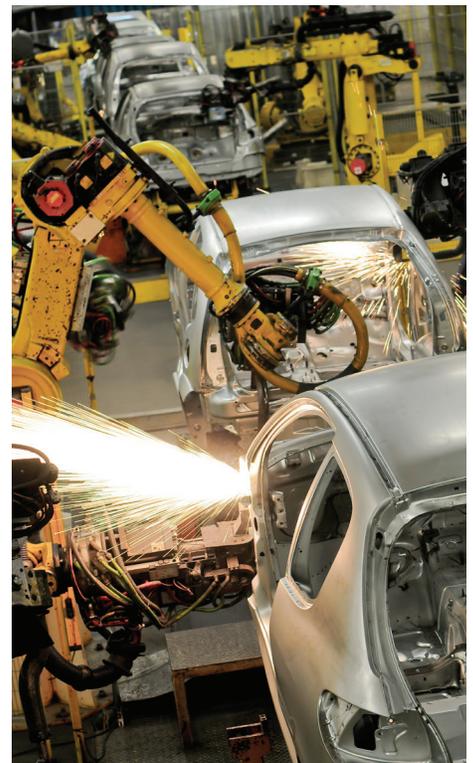
- > Bring people from different cultures together into fluent teams
- > Communicate clearly and concisely
- > Evaluate employees on measurable deliverables, not the hours they work

Companies can also use a mixed employment strategy, creating a blended workforce of traditional full-time, part-time, remote, and contract workers. This mix enables a company to lower its overhead costs and better meet the ebbs and flows in demand. With more than 10 million workers or 7.4-percent of the U.S. population classified as independent contractors by the Bureau of Labor Statistics, companies have a large pool of temporary workers to help them flexibly meet demand and control costs.<sup>15</sup> In the U.S. alone, contract work grew four times faster than total employment over the last decade.<sup>16</sup>

### THE RISE OF ROBOTICS

Today, the world sits on the cusp of another revolution. Much like the Industrial Revolution did nearly 200 years ago, the robotics revolution will significantly change the way the world works.

First introduced in the 1960s, industrial robots were designed to perform rigid, predetermined repetitive movements – most commonly on assembly lines.<sup>17</sup> Industrial robots typically cost more than \$100,000 each, but where they become unattainable for smaller companies is in their upkeep. Maintenance, programming, and training expenses can be four-times the original purchase price.<sup>18</sup>



Now, significant advances in technology have made robots smaller, nimbler, and more responsive. As a result, over the next 10 to 15 years, manufacturing and service industries will greatly increase their use of robotics.<sup>19</sup>

Already, manufacturing companies are seeing the benefits of robotics. In the past two years, U.S. manufacturers have hired nearly half a million employees thanks in part to robots.<sup>20</sup> While this may seem counterintuitive, it's not. Automation enables companies to reshore their operations. Rising wages in the developing world, specifically China, Mexico, and India, plus shipping and other costs have made offshoring more expensive. But by employing more affordable, nimble robots – and the staff who can program and run these tools – manufacturers are able to keep factories stateside and remain competitive. Graebel covered this topic in-depth in the whitepaper, "[Offshoring? Reshoring? Nearshoring?](#)"

<sup>9</sup> Ibid.

<sup>10</sup> The Conference Board. "The State of Human Capital 2012: False Summit."

<sup>11</sup> Ibid.

<sup>12</sup> Susan Lund, James Manyika, and Sree Ramaswamy. "Preparing for a new era of work." McKinsey Quarterly, November 2012.

<sup>13</sup> Towers Watson. "2012 Global Workforce Study."

<sup>14</sup> McKinsey Global Institute. "The evolution of work: One company's story." McKinsey Quarterly, November 2012.

<sup>15</sup> Jeffrey A. Eisenach. "The Role of Independent Contractors in the U.S. Economy." Navigant Economics, December 2010.

<sup>16</sup> Susan Lund, James Manyika, and Sree Ramaswamy. "Preparing for a new era of work." McKinsey Quarterly, November 2012.

<sup>17</sup> David L. Chandler. "The robot revolution is just beginning." MIT News Office, April 23, 2012.

<sup>18</sup> Kevin Kelly. "Better Than Human: Why Robots Will – And Must – Take Our Jobs." Wired Magazine, December 24, 2012.

<sup>19</sup> Art Pine. "Just Ahead: The Robotics Revolution." Kiplinger, January 8, 2013.

<sup>20</sup> Christopher Matthews. "Can Robots Bring Manufacturing Jobs Back to the U.S.?" Time, September 27, 2012.

Advances like Baxter, a new generation of robot from Rethink Robotics, aim to make robotics affordable for any size organization. Baxter costs just \$22,000 and is considered so safe and simple that unskilled workers in technology can train and operate the machine, according to Rethink Robotics.<sup>21</sup> Low interest rates, which allow companies to borrow money to upgrade facilities, make purchases of these robots even more affordable today.

The adoption of robotics will spread throughout the world. In 2011, sales of robots increased by 38-percent globally, the highest level ever (see Figure 2).<sup>22</sup> At present, Japan is the number-one employer of robots in the world,<sup>23</sup> but other countries are gaining quickly. China quadrupled its robot supply between 2006 and 2011, making it the country with the largest growth of robot installations.<sup>24</sup> Korea has the highest robot density in the world with a ratio of 247 robots to every 10,000 employees.<sup>25</sup>

**FIGURE 2: YEAR-OVER-YEAR GROWTH OF ROBOT SALES IN 2011<sup>26</sup>**

	PERCENTAGE INCREASE	TOTAL ROBOT SHIPMENTS
U.S.	43%	20,555
Canada	72%	1,848
Brazil	125%	1,440
Germany	39%	19,533
United Kingdom	72%	1,514
Turkey	156%	864
Japan	27%	28,000
Republic of Korea	9%	25,536
China	51%	22,577
India	100%	1,547
<b>Global average</b>	<b>38%</b>	<b>166,028</b>

### THE FUTURE OF JOBS IN A WORLD OF ROBOTICS<sup>27</sup>

Jobs that will likely go away:

- > Utility company engineers and repairmen
- > Drivers of taxis, limos, buses, and trucks
- > Mail and freight deliverymen
- > Inspectors
- > Farmers, miners, and fishermen

New jobs that may be created:

- > Micro-grid engineers, managers, and regulators
- > Traffic monitoring system managers
- > Delivery dispatchers
- > Robot designers, engineers, and repairmen
- > Robot trainers

### WILL ROBOTS REPLACE WORKERS ONSITE AS BUSINESSES EMBRACE THE VIRTUAL WORLD?

By the end of the 21<sup>st</sup> century, 70-percent of today's occupations may cease to exist.<sup>28</sup> Automation will have replaced the human worker in many of the roles we currently play. Robots will replace assembly line workers, workers in warehouses, fruit and vegetable pickers, pharmacists, cleaning crews, long-distance freight drivers, and likely many other jobs.<sup>29</sup> In the relocation industry, robots may eventually replace other skilled workers, too.

Already, significant strides have been made in automating elements of our jobs. Narrative Science is a company that develops algorithms to use artificial intelligence to train computers to write newspaper stories on sports and companies' stock performance.<sup>30</sup> Military forces rely on robots to disarm explosives and unmanned drones to explore dangerous areas, keeping troops out of harm's way.

Now, robots are branching into health care. Robot-assisted surgeries are quickly becoming standard for many procedures. Unlike humans who can experience hand tremors, robots can keep a steady hand and provide an unsurpassed view of small, tight surgical fields like the prostate.<sup>31</sup> With advances in artificial intelligence, robots will be able to learn surgical techniques and apply them in common operations. Doctors may even be able

to control robots through wireless technology, opening up opportunities to perform operations on patients in underdeveloped countries.<sup>32</sup>

In Japan, concerns over caring for its aging population are driving researchers to develop robots that can assist with eldercare. Nursebots lift elderly patients and bring them meals. And Panasonic has developed robots that wash hair, deliver drugs, and help patients communicate.<sup>33</sup>

While robots will replace humans in a number of jobs, they may also create millions of jobs – just as computers and the Internet did back in the 1990s.<sup>34</sup> In some cases, robots are better suited to do certain jobs than any human. For example, jobs that require precision, control, and unwavering attention – such as producing computer chips or inspecting every point on a CAT scan for cancer – are best left to machines.<sup>35</sup>

New jobs will be born from the machines themselves. These opportunities are ones that we cannot even imagine will exist because they are jobs the machines will make up. Consider the jobs and activities that exist today but weren't even a blip on the radar 100, 50, or even 10 years ago. Likely, the highest earning professions in 2050 will directly result from automation and machines that have yet to be invented.<sup>36</sup>

<sup>21</sup> "Coming home." *The Economist*, January 19, 2013.

<sup>22</sup> International Federation of Robotics. "World Robotics 2012 Industrial Robots."

<sup>23</sup> Art Pine. "Just Ahead: The Robotics Revolution." *Kiplinger*, January 8, 2013.

<sup>24</sup> International Federation of Robotics. "World Robotics 2012 Industrial Robots."

<sup>25</sup> *Ibid.*

<sup>26</sup> *Ibid.*

<sup>27</sup> Thomas Frey. "2 Billion Jobs to Disappear by 2013." *www.futuristSpeaker.com*.

<sup>28</sup> Kevin Kelly. "Better Than Human: Why Robots Will – And Must – Take Our Jobs." *Wired Magazine*, December 24, 2012.

<sup>29</sup> Kevin Kelly. "Better Than Human: Why Robots Will – And Must – Take Our Jobs." *Wired Magazine*, December 24, 2012.

<sup>30</sup> Steven Levy. "Can an Algorithm Write a Better News Story than a Human Reporter?" *Wired Magazine*, April 24, 2012.

<sup>31</sup> David Von Drehle. "Meet Dr. Robot." *Time*, January 23, 2011.

<sup>32</sup> *Ibid.*

<sup>33</sup> Thomas Rogers. "Rise of the elder care robot." *Sydney Morning Herald*, August 20, 2012.

<sup>34</sup> Art Pine. "Just Ahead: The Robotics Revolution." *Kiplinger*, January 8, 2013.

<sup>35</sup> Kevin Kelly. "Better Than Human: Why Robots Will – And Must – Take Our Jobs." *Wired Magazine*, December 24, 2012.

<sup>36</sup> *Ibid.*

Automation and robots will – and already have – made lives easier and businesses more efficient. And just like the buggy whips of the past, jobs will come and go as a result. Technology is expected to take a large bite out of certain jobs, specifically for lower-skilled workers, which is why companies and countries will need to invest in developing the skills and knowledge of their people.

### WHAT SHOULD BUSINESSES DO?

By developing and investing in their talent, companies can realize a great return – in the form of low turnover, greater brand value, and higher bottom lines.

According to The Conference Board, companies conducting business in different countries should take the following steps to make sure they can attract and retain the right talent.<sup>37</sup>

- > Remain abreast of trends in education, employment, incomes, and skills.
- > Identify what types of skills and capabilities are required – and look for sources and talent pools to tap.
- > Assess their current workforces and evaluate what is needed to meet future business needs.
- > Grow skilled employees into the leaders who will guide the company in the future.
- > Effectively use expatriates. Instead of short-term assignments, companies should consider using longer-term placements so the expats can build expertise, adapt to local cultures and environments, and remain productive for a longer length of time. Of course, companies must make sure these expats have a proper reintegration when they return to their home countries.

While some problems such as stagnant population growth cannot be solved by businesses, other causes for the talent crunch can be stymied by businesses.<sup>38</sup> In a recent quarterly report, the McKinsey Institute recommended that global companies strive to increase the number of women they employ in managerial and executive roles. Another simple solution is to focus on breaking down cultural and language barriers through training.

Businesses also have the opportunity to focus on developing the skills of the broader population with the hopes that their efforts will empower and prepare the workforce of tomorrow. For example, businesses can:<sup>39</sup>

- > Develop partnerships with education facilities, not just colleges but also primary and secondary schools, to help develop curriculum and interest in science, technology, engineering, and mathematics (STEM) jobs.
- > Invest in internal training programs.
- > Create strategies to hire, train, and retain employees from underutilized labor pools.

Graebel takes great care to attract and retain the best people in the relocation and transportation logistics industry and to ensure best-in-class service to its Fortune 500 and global 100 clients everywhere, every time. In 1999, the company formed Graebel University to provide in-house training on the organization's best practices and processes for each service line. Employees are encouraged to earn and retain various industry certifications from the American Moving & Storage Association (AMSA) and Worldwide Employee Relocation Council (WERC). In fact, Graebel employees collectively hold more industry credentials than any other relocation company.

Educational programs include a Graebel-developed management training regimen, "Good to Great," for its high-potential, high-performance people. Through partnerships with higher education organizations, Graebel offers internships to up-and-coming young professionals. Specifically, the relocation division employs interns who assist with the research and development of clients' city and country profiles, which helps them better understand what globally active companies and their employees need to make good business and relocation decisions.

Graebel understands that maintaining a strong and knowledgeable workforce is key to delivering excellent service and protecting its brand. That's why the company strives to keep its employees happy and healthy. Graebel's human resource team routinely reviews and assesses workers' benefits to keep them competitive. Graebel also offers diverse well-being programs such as weight loss programs, exercise boot camps, smoking cessation assistance, and stress management seminars. As a result, employees have not experienced an increase in their health insurance premiums for two years in a row.

By taking these steps, Graebel is confident that it will continue to deliver the world-class single-source solutions for global mobility and relocation services; move management; and transportation and logistics, including commercial cargo freight, office relocation, and workplace services, that Fortune 500 and global 100 companies have come to depend on – in this new era of work and beyond.



**Transform Your Approach to Global Mobility with Graebel. Thinking Ahead. Moving You Forward.**



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<sup>37</sup> The Conference Board. "The State of Human Capital 2012: False Summit."

<sup>38</sup> Susan Lund, James Manyika, and Sree Ramaswamy. "Preparing for a new era of work." McKinsey Quarterly, November 2012.

<sup>39</sup> The Conference Board. "The State of Human Capital 2012: False Summit."