TOTAL WORKFORCE INDEX™

2023 GLOBAL ANALYSIS

Talent Solutions
ManpowerGroup®

Introduction

Today's business landscape is a volatile one. Mounting cost pressures, unpredictable exchange rates and inflation, continued supply chain disruptions and fluctuating consumer demand have made planning workforces more difficult than ever.

The transition to return-to-office (RTO) has made some roles harder to fill, as workers opt out in favor of remote and hybrid options. Global demand for cybersecurity talent and infrastructure is driven by escalating digital threats and a growing attack surface, meaning all of the places a company is vulnerable to cyberattack. Cybersecurity roles are difficult to fill, as are many other roles at all skill levels.

As we head into 2024, ManpowerGroup's most recent Talent Shortage Survey found that 75% of employers report difficulty finding skilled talent, matching 2022's levels. Adjusted to meet the needs of the current reality, the Total Workforce Index™ (TWI) helps organizations respond.

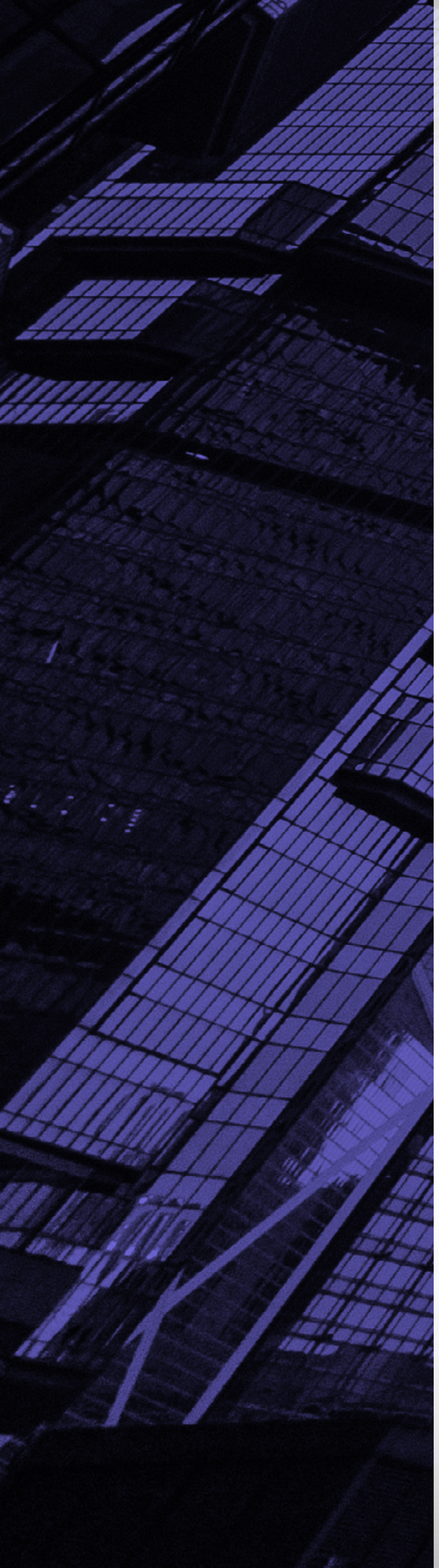
Challenging as these issues may be, they are more controllable than the complex geopolitical reality employers now need to navigate. The multi-year impact of Russia's war with Ukraine has drastically influenced the global labor market, essentially cutting off access to a large, highly skilled workforce. Hamas' attack on Israel and the subsequent war could have similar workforce implications, given the region's sizable contribution to workforce planning.

The TWI helps organizations navigate these challenges by providing insights into availability, costs, productivity and regulatory environments of workforces in over 60 countries. Now in its 10th year, we routinely refine our models to adapt to our clients' changing needs.

In response to shifts in the size of the working-age population and demand for skilled workers, the TWI's factors for education, training and the number of people engaged in the formal sector have been adjusted upward. At the same time, increasing focus on RTO contributed to eased weighting on remote readiness ranking. As always, we have continued to make adjustments to account for geopolitical and economic change.

These issues are testing employers' resilience and adaptability. As companies look to plan workforces for the long term, many are turning to the Total Workforce Index™ — a go-to predictive resource to inform critical business decision-making.

Providing a complete picture in real time, the TWI enables organizations to stay ahead of the curve in a constantly changing world.



What is the Total Workforce Index™ ?

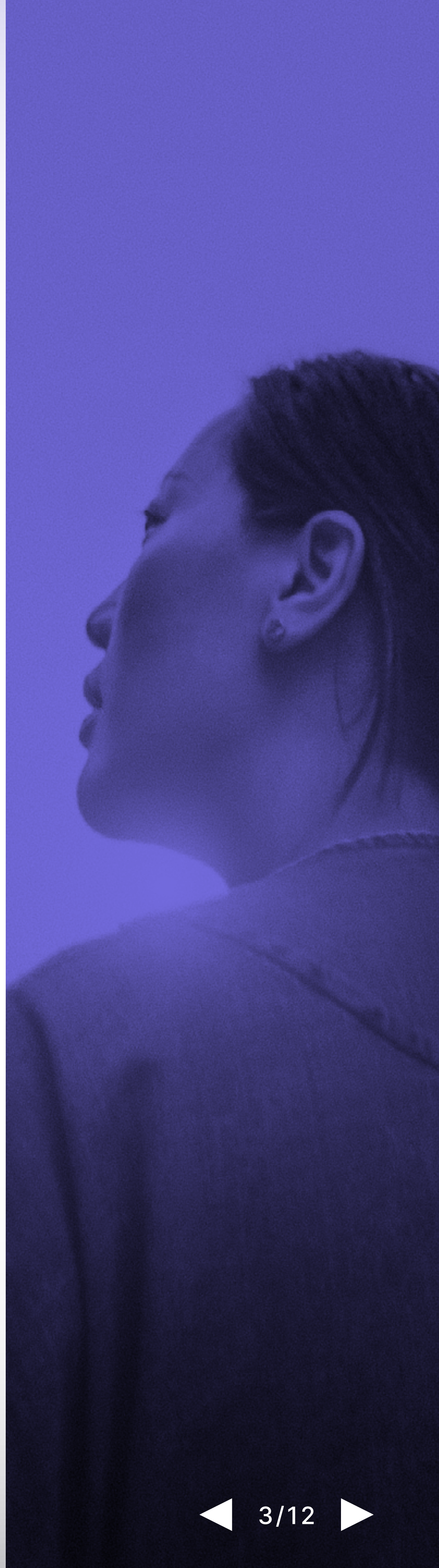
The Total Workforce Index™ scores each market on more than 200 unique factors. Each of these statistical factors is carefully weighted and grouped under one of four categories:

Availability | **Cost Efficiency** | **Regulation** | **Productivity**

The markets that rank highest in the TWI are those with the highest relative performance across all four categories. Markets that perform well have successfully responded to trends, such as remote workforce readiness, building technology infrastructure and closing skills gaps. They have demonstrated market and geopolitical stability, have relatively high gender participation and are skilling emerging workforces to meet changing demographic realities. High-ranking markets also exhibit favorable regulatory environments.

ManpowerGroup Talent Solutions uses customized versions of the Total Workforce Index™ to inform client decision-making across industries and global markets. Location decisions are a common use case, as are evaluations of emerging skills, career paths, anticipation of future talent pools, migration and opportunities to optimize workforce mix, among other areas.

For example, a scan of up-to-date supply, demand and cost information for in-demand roles and skills in specific countries reveals opportunities to expand talent pools or reduce costs. Analyzing demographics and workforce composition, such as gender, age, household composition and financial situations, enables us to identify personas and create targeted attraction and retention strategies.



What’s New in 2023

In recent years, the Index has included a focus on the impacts of COVID-19. Many long-term effects, such as the need for a remote-ready workforce, are now built into the TWI. Other areas, such as the importance of border access related to COVID lockdowns, have now been removed.

As populations age, the availability of the working-age population becomes increasingly important. Last year, we increased the weighting of Gen Z and millennial populations to account for this. This year, we added to previous population-related changes by prioritizing the availability of highly skilled workers and age dependency — specifically, the ratio of working-age people to retirement-age individuals.

Cost of living and wage inflation rates were new factors introduced in 2022. This year, the weighting on cost of living was maintained while inflation was increased. This change ensures the Index better accounts for extremely volatile inflation environments like those in Argentina and Venezuela.

“Today’s labor markets operate differently than they have in the past. Since the start of the pandemic, we’ve seen the impacts of wage pressure and inflation, unprecedented consumer demand, demographic shifts, large-scale hiring, mass layoffs and geopolitical upheaval. The TWI provides the real-time data and insights that allow employers to plan and pivot as needed in an environment that is constantly evolving.”

– Becky Frankiewicz
President, North America Region & Chief Commercial Officer

Top 10
Highest Ranking Markets

1. United States
2. Singapore
3. Canada
4. Malaysia
5. Israel
6. Ireland
7. United Kingdom
8. Australia
9. Philippines
10. Switzerland

The top three (3) overall markets — the United States, Singapore and Canada, respectively — maintain their leading positions for the third consecutive year, thanks to availability of highly skilled workers, employment-friendly regulations and remote-ready infrastructures. These markets perform so well in the Availability, Regulation and Productivity categories that it offsets the fact they are mediocre performers on Cost. (Canada has the highest Cost rank of the three at 22.)

Malaysia has jumped from No. 10 to No. 4, due to an increase in workers with tertiary education, relative reductions in employer taxes and advances in innovation measures.

Notably, **Israel is now fifth on the list, rising from seventh last year**. Data for this report was compiled in the weeks before the attack on Israel and the subsequent war. The workforce ramifications will take months or years to be fully understood. Early on, a significant percentage of the labor pool was called into military service; global companies shut down operations in-country; and work permits have been paused for thousands of Palestinians who work in Israel. Until recently, Israel was an increasingly popular location for workforce investments because of its large, highly skilled workforce, excellent gender parity, strong technology infrastructure, favorable regulations and a Sunday–Thursday workweek that enabled companies to expand operating days.

Top 10 Highest Ranking Markets (continued)

Ireland, the United Kingdom and Australia claim spots No. 6 through No. 8, with only slight shifts from last year when the markets ranked fourth, sixth and fifth, respectively. These countries are similar to the top three in that what they lack in cost efficiency, they make up for in all other categories. The same applies to **Switzerland, who jumped from 13th place last year to 10th place this year**, due to improvements in the Regulation category.

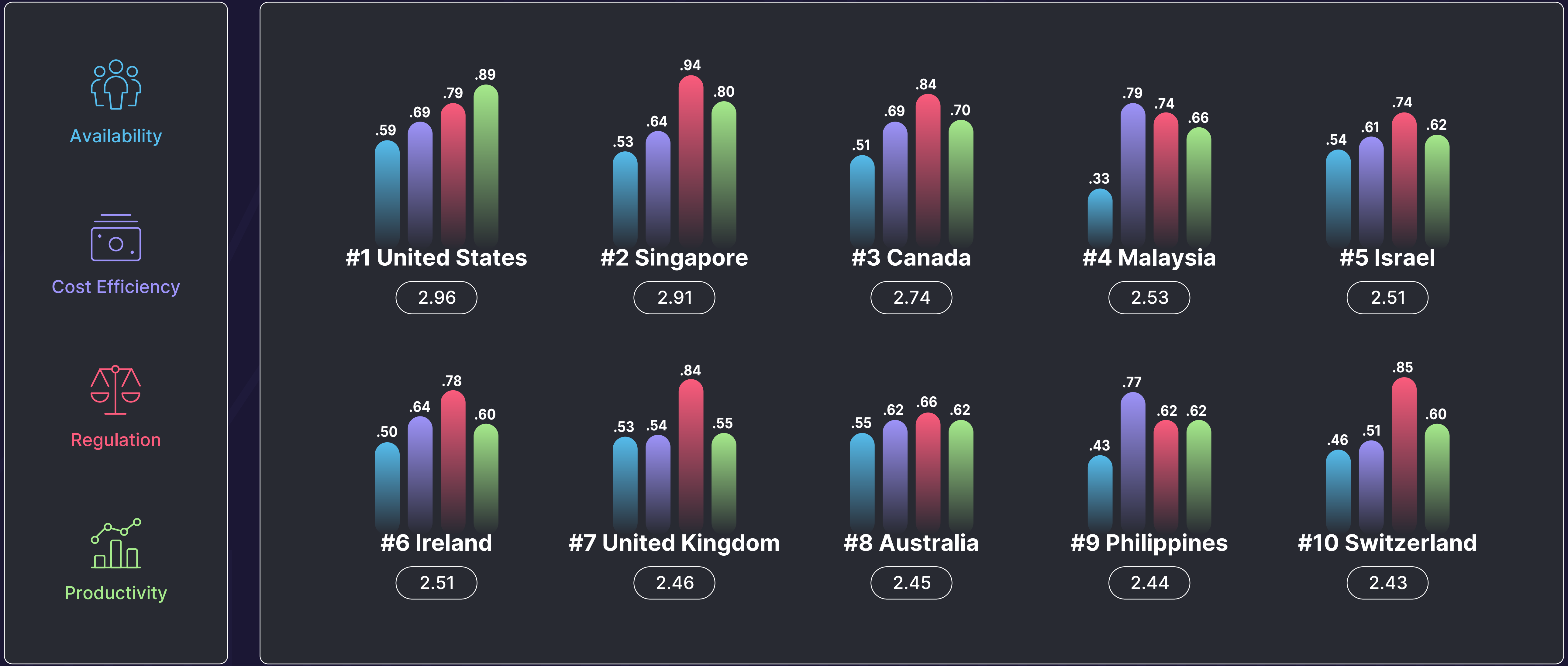
At No. 9, the Philippines maintains its position of strength following a significant jump between 2021 and 2022 (from No. 54 to No. 8). The country's rise is due to offshoring/nearshoring government incentives, employers' scaled-back education and English-proficiency requirements and demand for a wider variety of skills needed for back-office environments, shared services and IT.

Mexico is the only country to leave the top 10, falling from No. 9 to No. 21 — largely due to the implementation of regulations limiting contract workers for staffing businesses. This has uniquely positioned Mexico to support recruitment process outsourcing, permanent recruitment and, most recently, booming of nearshoring and offshoring in most industries due to relocation of factory and shared service centers from other geographies. At the same time, regulation has resulted in reduced rankings across every category — worker Availability and Productivity decrease while Cost and Regulation increase for the staffing industry in particular. It is a striking example of the impact of legislation across every dimension of work.

"Geopolitical events influence global labor markets in many ways — from trade policies and economic sanctions to changing labor demand, skills shortages and migration. As we saw with Russia's war on Ukraine, when the world's third-largest workforce was fundamentally altered, these events can shape markets well beyond those immediately impacted. When employers need to re-establish operations quickly, nothing takes the place of the right intelligence."

– Ian Brown
Vice President, Global Talent Solutions Consulting

Top 10 Highest Ranking Markets

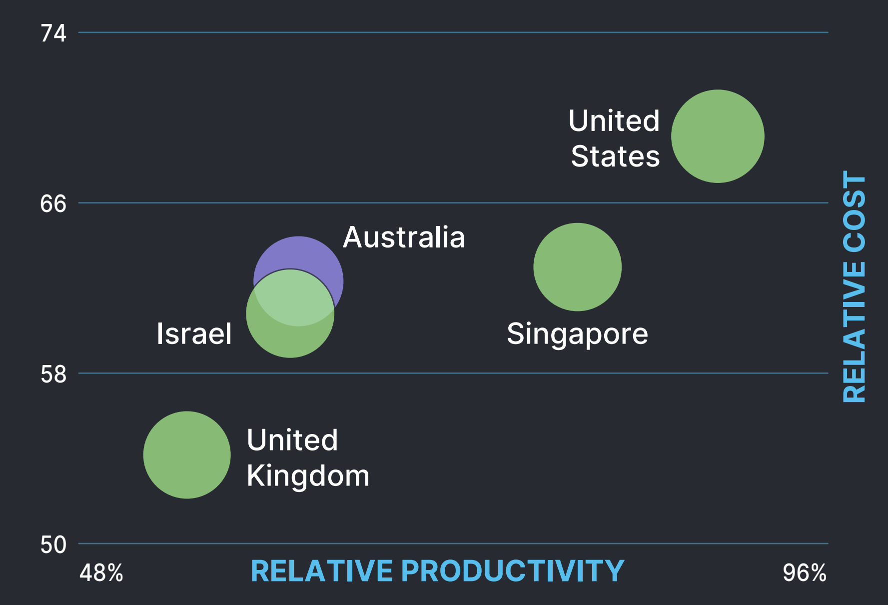


Availability

Workforce Availability measures the relative comparison of the current skilled workforce and likely sustainability of that workforce based on demographic trends, such as age and influx of immigrants. Markets scoring favorably in the Availability category have high availability of skilled workers, labor force participation, gender participation, remote work capabilities and access to remote talent.

Major changes in 2023 include increases to the weighting of those engaged in the formal sector, highly skilled populations and old-age dependency ratio. We also reduced the emphasis on the size of the contingent workforce as the measure fails to capture the movement of workers between contingent and permanent populations. These shifts ensure the Index is better able to account for the size of the working population. Given the emphasis on RTO, we have also reduced the weighting on the Remote Readiness ranking.

Top 5 Markets for Availability



Bubble size reflects Relative Availability of each market, while color reflects Relative Regulation:

- **Minimal Regulatory Impact**
- **Moderate Regulatory Impact**
- **Restrictive Regulatory Impact**

"Automation, migration and changes in the working-age population are reshaping labor markets in Europe, the Middle East and Africa. Companies continue to look to opportunities in Eastern Europe and Asia for remote availability and Western Europe for large, highly skilled populations, while Africa and the Middle East offer promising opportunities related to cost. There is no shortage of opportunity — depending on what you need and where you look."

\- Marceline Beijer
Global RPO Brand Leader & Senior Vice President, EMEA

Key Findings

The top five markets for Availability are the United States, Australia, Israel, Singapore and the United Kingdom. With a highly skilled labor force, large youth population and high participation of women in the workforce, the United States retains the top spot. Australia jumps from No. 10 to No. 2, boosted by increases in immigration rates, highly skilled workers and population-related weightings.

Ranked third, Israel's inclusion is due to its growing diverse workforce and access to IT talent. Israel entered the top five for the first time in 2022, as employers sought to move production environments, IT centers and operations hubs out of the Russian market. As the situation in Israel continues to unfold in 2024, employers will consider their investments in the region, likely impacting future rankings.

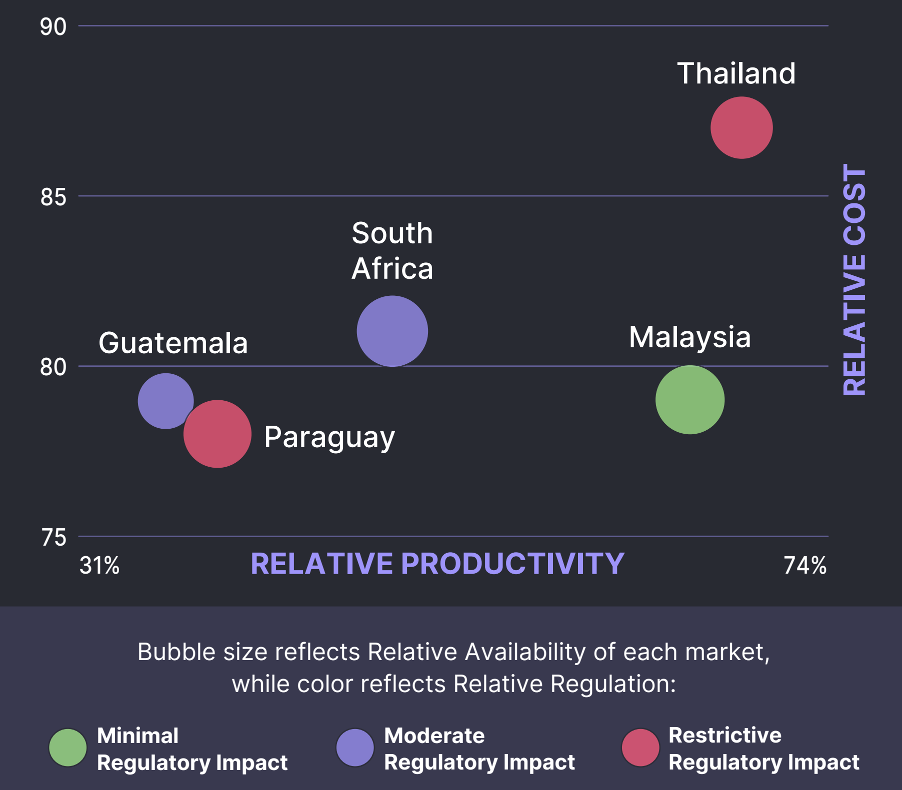
Singapore rises from No. 6 to No. 4, also due to a growing population working in the formal sector and a high percentage of highly skilled workers. The United Kingdom drops from second to fifth — more a reflection of other countries' upward movement than changes in the U.K. In fact, the country's Availability score is unchanged from 2022.

Cost Efficiency

Cost Efficiency measures the relative comparison of wage, benefits, tax and operations metrics to suggest potential opportunities to maximize overall cost. Traditionally, the lowest-cost markets also tend to be the least mature and generally have less restrictive regulations and higher workforce availability.

The 2023 Index boosts the importance of year-over-year inflation, given its impact on employers' ability to project workforce costs. Requirements for employers to cover health insurance costs have also been added. Although this is not relevant across markets, costs have increased significantly where it does apply. Lastly, the average manufacturing wage has been added to the Index as a supplement to overall wages, given that these two measures can vary significantly, and many companies are looking for traditional and advanced manufacturing opportunities.

Top 5 Markets for Cost Efficiency



Bubble size reflects Relative Availability of each market, while color reflects Relative Regulation:

"Large populations of highly skilled, remote-ready, English-speaking workers — often at a lower cost relative to comparable markets — mean that countries in the Asia-Pacific region offer a strong value proposition for organizations to attract and retain top talent."

- Keith Campbell
  Director, Talent Solutions, APAC

Key Findings

The top five markets for Cost Efficiency include Thailand, South Africa, Malaysia, Guatemala and Paraguay. Thailand has held the top spot since 2021, due to relatively low taxes, competitive wages and a low cost of living. South Africa takes the No. 2 spot, rising from No. 4 in 2022.

With the exception of Thailand and South Africa, volatility has been a hallmark of the Cost Efficiency category in recent years — the result of wage pressure, inflation and exchange rate instability. Market saturation can also be an issue. As employers move into a market to take advantage of attractive savings, the market eventually becomes more expensive to operate in.

The No. 3 through No. 5 spots belong to Malaysia (rising from No. 8 in 2022), Guatemala (up from No. 10) and Paraguay (previously No. 7). Guatemala and Malaysia had slower wage growth than markets that fell out of the top five. Paraguay's average wage remained flat and South Africa's declined. Steady inflation and more favorable cost-of-living indicators are also characteristics of markets showing improvements in the Cost category this year.

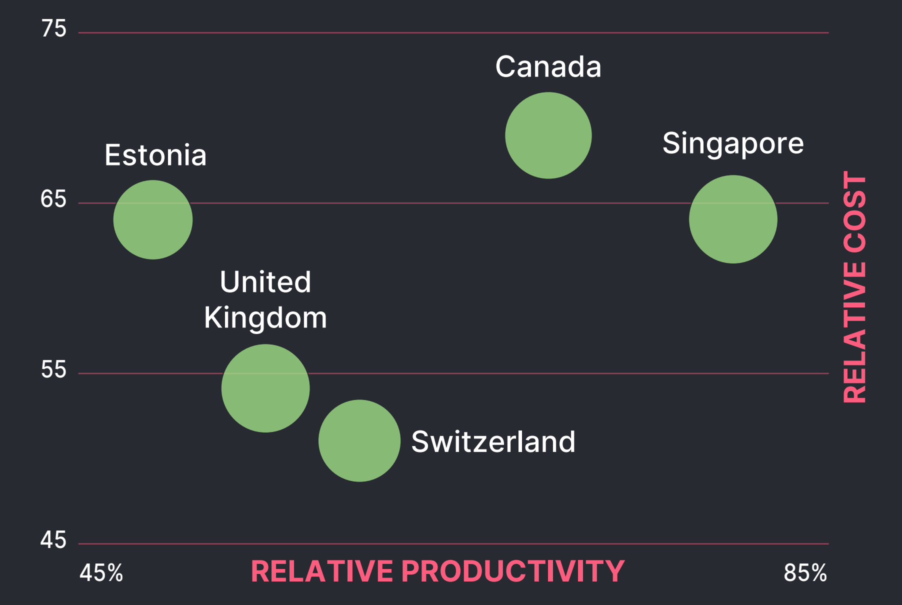
Indonesia, Bahrain and the Philippines fell out of the top five. This was due to significant increases in averagely month wages; however, in Indonesia and the Philippines, increases in employer taxes also made these markets less favorable than in past years.

Regulation

Regulation measures the relative comparison of how restrictive the terms and practices of workforce engagement are based on a standard set of regulations. Favorable regulatory environments are created when many types of workforce engagements are available to organizations and where notice periods and severance requirements are minimal or not required.

A cybersecurity measure was added to the Index in 2023 to account for the prevalence of remote work, rapid technological advancements across industries, increased frequency and sophistication of cyberthreats and economic impact these have on business, and steadily growing demand for IT talent worldwide. The strength of a country's financial risk rating was also increased to account for risk associated with political, economic and exchange-rate volatility, alongside higher interest rates, which can increase the chance of a country going into default, decreasing stability and increasing inflation.

Top 5 Markets for Regulation



Bubble size reflects Relative Availability of each market, while color reflects Relative Regulation:

- **Minimal Regulatory Impact**
- **Moderate Regulatory Impact**
- **Restrictive Regulatory Impact**

"Regulations uniquely influence employment markets. Countries with employment-friendly regulations tend to provide advantages relative to cost, availability and productivity. And even where regulation-friendly countries aren't strong in other areas, they make up for it with regulations that are particularly welcoming."

- Max Leaming
VP, Global Market Intelligence

Key Findings

Singapore, Switzerland, the United Kingdom, Canada and Estonia make up the top five on Regulation. After several volatile years for this category (2022's top five were all different from 2021), things have stabilized. Singapore, the U.K. and Canada have all retained their top five status this year.

Switzerland and Estonia are new entrants, replacing Ireland and Australia. Both countries benefit from the addition of a cybersecurity ranking while also showing modest increases in peace and stability measures.

Australia fell from No. 3 to No. 18, due to new regulations that restrict fixed-term contracts in certain situations, and limits on renewable contract length. Ireland's drop from second to eighth is also the result of new limits on renewable contract length.

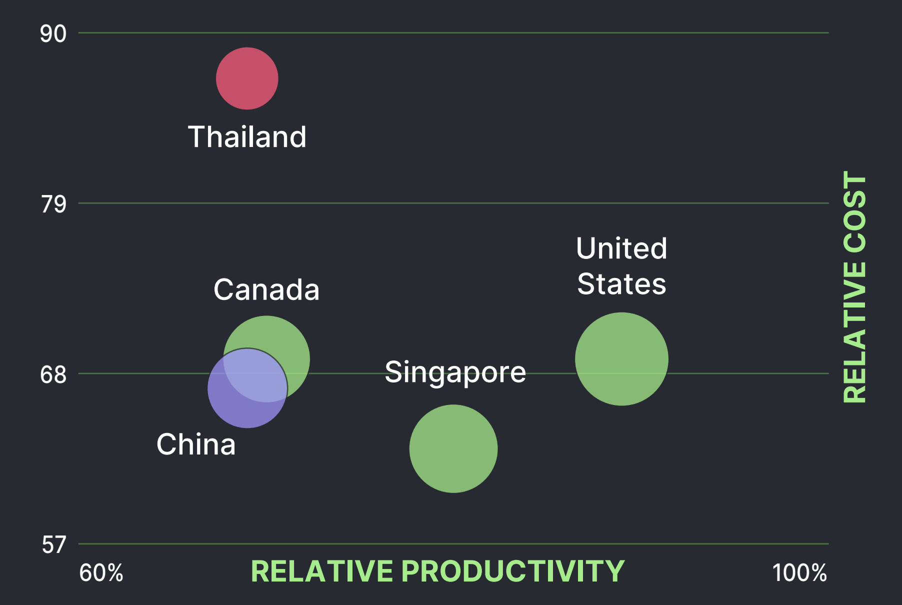
The shifts observed in the Productivity category are consistent with broader changes in the regulatory environment. Employers increasingly face legislation around pay transparency, work-life balance, gender equality and flexible work. This is expected to become increasingly common in years to come.

Productivity

The Productivity category measures the relative potential productivity of a workforce based on the number of hours an employer can compensate a worker at base pay. Productivity is a category influenced by all three other categories (Availability, Cost Efficiency and Regulation). When the ideal mix aligns with workforce planning initiatives, organizations can meet productivity goals.

The inputs to the Productivity category are largely unchanged from 2022's Index. The most significant adjustments focused on adding innovation measures related to a market's ability to support knowledge and technology outputs and freedom for institutions to innovate.

Top 5 Markets for Productivity



Bubble size reflects Relative Availability of each market, while color reflects Relative Regulation:

Minimal Regulatory Impact | Moderate Regulatory Impact | Restrictive Regulatory Impact

"Companies increasingly need to plan for specialized, limited-term workforce needs, scarcity of skill sets and changing production cycles. Workforce planning requires access to the insights necessary to strategically design workforce mix."

\- Dave McGonegal
Vice President, Strategic Client Solutions, ManpowerGroup

Key Findings

The top countries for productivity don't tend to shift as much as other categories because they are based on workweek factors, such as holidays, overtime laws, tenure rules and sick leave. These requirements are often ingrained in culture and resistant to change.

The top five for 2023 are the United States, Singapore, Canada, China and Thailand. Of these, only Thailand has moved into the top five, up from No. 6 last year. It replaces Mexico, which moved from the third spot in 2022 because of significant increases in paid leave requirements and lower innovation scores than countries performing well in this category.

Within Productivity, employers increasingly recognize the importance of well-being and wellness and their relationship to sustainable approaches to workforce productivity. For many companies, taking care of their people is now a key element of employer value propositions.

Governments have also made the connection between well-being and and gross domestic product (GDP), with new legislation supporting work-life balance. For example, right-to-disconnect laws have recently passed in Canada and Belgium, while flexible work considerations are now required in the U.K. and Australia.

Conclusion

Across Europe, North America, Latin America, Africa and Asia, employers are experiencing an evolution in workforce needs arising out of demographic change, new regulations, shifting prices, persistent turnover and changing cultural expectations.

These changes influence how companies adjust their workforce strategies. From location strategy and workforce mix to cost savings, diversity and talent mobility initiatives, organizations must plan for the social, political, environmental and economic changes taking place.

That is where the Total Workforce Index™ comes in. Our data and custom analysis can assist when organizations need specific skills; are looking for infrastructure and demographics that intersect with workforce strategy; or seek regulatory environments and locations that match their specific needs.

The TWI helps organizations navigate a changing world with actionable data and insights. By providing a complete picture of the landscape in real time, the Total Workforce Index™ enables companies to stay ahead in a world that is constantly changing.

"Ongoing labor market challenges and cost pressures are forcing employers to identify unrealized efficiencies and new sources of talent — onshore and off, on-site and remote. As organizations look to expand opportunities, they are turning to the data that allows them to identify game-changing strategies."

- Kate Donovan
President, Talent Solutions Strategy and Center of Excellence

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Next Steps

Visit www.totalworkforceindex.com to:

1. **Explore Comprehensive Data:**
   See detailed data, including market profiles for over 60 markets.
2. **Request a Custom TWI Analysis:**
   Get your own custom TWI analysis (on a city, province, state or country level) for a deeper, targeted analysis based on the factors most important to your business.
3. **Speak to a Talent Solutions Consultant:**
   Connect with an expert who will learn more about your specific challenges and objectives and recommend an appropriate solution tailored to your organization's unique needs.
4. **Access Related Content:**
   Find answers to your workforce challenges by viewing market reports, blogs, success stories and more.

Sources and Disclosures

The primary data sources for this Index are based on statistics from the ministries of labor for the markets within the scope, World Bank, Trading Economics, International Labor Organization, Eurostat, United Nations and internal data collected as part of ManpowerGroup global reporting efforts. Learn more about the methodology at www.totalworkforceindex.com.

Disclaimer

This report is intended to provide an overview of general business information relative to global employment conditions and considerations. It should not be interpreted as legal advice. Please consult with legal counsel to ensure that you are in compliance with all applicable laws.

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