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### IMD world talent ranking ; 2019

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2019



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November 2019  
**IMD WORLD TALENT RANKING 2019**

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# Preface

The IMD World Competitiveness Center is delighted to present the *2019 IMD World Talent Ranking* (WTR), a publication that evaluates the extent to which economies develop, attract, and retain highly-skilled professionals.

Fostering a skilled and educated workforce strengthens competitiveness and enables long-term prosperity, particularly in a dynamic landscape where AI, robotics, and other new technologies are redefining current and future challenges for business, policy makers, and educational institutions.

To assess the 63 economies we study, the *IMD World Talent Ranking* evaluates three factors: Investment & Development, Appeal, and Readiness. This year, some changes in the criteria studied have taken place. In order to make the Executive Opinion Survey more robust, three of the questions were modified. The questions on “personal security and property rights” and “the school system meets the need of a competitive economy,” were replaced by the survey questions “justice is fairly administered” and “primary and secondary education meets the needs of a competitive economy”. In addition, the question on “science in schools meets the need of a competitive economy” was replaced by the hard data criterion “percentage of total first university degrees in science and engineering.” Finally, two hard-data criteria were also added: “total public expenditure on education per student” and “exposure to particle pollution.” The former captures the additional important dimension of ageing in the percentage of GDP invested on education. The latter incorporates the increasing concerns over the quality of the environment. With the addition of the last two, the number of criteria studied in the *IMD World Talent Ranking* rises to 32.

A common thread of most economies that perform well is to emphasize the long-term talent development by focusing on Investment and Development. This emphasis, however, goes beyond purely academic aspects and encompasses the effective implementation of apprenticeship programs and employee training. This approach ensures an alignment between talent demand and supply of a given economy.

An undertaking like the *IMD World Talent Ranking* could not have been accomplished without the support and assistance of many stakeholders. Our *Partner Institutes*, the *IMD Alumni* community and our *Panel of Experts* from all the countries generously offer data and insights that are crucial for completing such a project. We are most grateful for their support.



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*For thirty years, the IMD World Competitiveness Center has pioneered research on how economies and companies compete to lay the foundations for sustainable value creation. The competitiveness of nations is probably one of the most significant developments in modern management and IMD is committed to leading the field. The World Competitiveness Center conducts its mission in cooperation with a network of 56 Partner Institutes worldwide to provide the government, business and academic communities with the following services:*

- Competitiveness Special Reports
- Competitiveness Prognostic Reports
- Workshops/Mega Dives on competitiveness
- IMD World Competitiveness Yearbook
- IMD World Digital Competitiveness Ranking
- IMD World Talent Ranking

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We also have the privilege of collaborating with a unique network of Partner Institutes, and other organizations, which guarantees the relevance of the data gathered.

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We would like to express our deep appreciation for the contribution of our Partner Institutes, enabling an extensive coverage of competitiveness in their home economies. The following Institutes and people supplied data from national sources and helped distribute the survey questionnaires:

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# Trends in the World Talent Ranking, 2019

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## Introduction

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Fostering a skilled and educated workforce strengthens competitiveness and enables long-term prosperity, particularly in a dynamic landscape where AI, robotics, and other new technologies are redefining current and future challenges for business, policy makers, and educational institutions.

To assess the 63 economies we study, the *IMD World Talent Ranking* evaluates three factors. The Investment & Development factor measures the resources committed to cultivate home grown human capital. The Appeal factor evaluates the extent to which a country attracts local and foreign talent. Finally, the Readiness factor quantifies the quality of the skills and competencies that are available in a country.

This year, some changes in the criteria studied have taken place. In order to make the Executive Opinion Survey more robust, three of the questions were modified. The questions on “personal security and property rights” and “the school system meets the need of a competitive economy,” were replaced by the survey questions “justice is fairly administered” and “primary and secondary education meets the needs of a competitive economy”. In addition, the question on “science in schools meets the need of a competitive economy” was replaced by the hard data criterion “percentage of total first university degrees in science and engineering.” Finally, two hard-data criteria were also added: “total public expenditure on education per

student” and “exposure to particle pollution.” The former captures the additional important dimension of ageing in the percentage of GDP invested on education. The latter incorporates the increasing concerns over the quality of the environment. With the addition of the last two, the number of criteria studied in the *IMD World Talent Ranking* increases to 32.

In this edition of the Talent Ranking, results indicate that one of the key characteristics of the leading economies is that they strive to achieve alignment between the talent demand they face and the domestic talent supply they are able to offer. Such alignment is reached through a two-pronged strategy that emphasizes first, continuous investments in the educational development of the workforce (e.g., expenditure on education and quality of the system) and, second, simultaneously offering opportunities beyond academic development. The latter implies a combination of apprenticeship schemes and employee training programs which ensures that the workforce’s skills match the needs of the economy.

In what follows, we begin by outlining the profile of the highest 10 ranked economies as well as the ones that realized the largest increase and decline of their positions compared to last year. Subsequently, we identify the top ranked economies at a sub-regional level, followed by some concluding remarks.

## Top 10

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Switzerland remains at the top of the talent ranking. At the factor level, it ranks 2<sup>nd</sup> in Investment and Development, and Readiness, and 1<sup>st</sup> in Appeal. In Investment and Development, Switzerland leads the ranking in the effective implementation of apprenticeships and health infrastructure (if it meets the needs of society). It ranks 2<sup>nd</sup> in total public expenditure on education (per student) and 5<sup>th</sup> in the prioritization of employee training by the private sector. Under Appeal Switzerland is 1<sup>st</sup> in several indicators

including quality of life, its attractiveness for foreign highly-skilled personnel, and remuneration. In Readiness, the country is 1<sup>st</sup> in two measures of the effectiveness of its education system: university and management education. There are a few somewhat weak performances at the indicator level, for example, those related the quality of education (pupil-teacher ratio, 32<sup>nd</sup> in primary school and 29<sup>th</sup> in secondary school), and in the female percentage of total labor force (22<sup>nd</sup>).

Denmark is 2<sup>nd</sup> in the overall ranking but remains at the top of the Investment and Development factor, it advances to 6<sup>th</sup> in Readiness and drops to 11<sup>th</sup> in Appeal. At the indicator level, it is 1<sup>st</sup> in the levels of worker motivation and in the fair administration of justice. It ranks 2<sup>nd</sup> in government expenditure on education (per student), the prioritization of employee training and the availability of language skills. Denmark ranks 3<sup>rd</sup> in several indicators including attracting and retaining talents by the private sector. Some of Denmark's weaknesses include the percentage of graduates in sciences (ICT, engineering, math and natural sciences), in which it ranks 43<sup>rd</sup>.

Sweden advances to the 3<sup>rd</sup> position (from 8<sup>th</sup>) as a result of improvements across all factor: it moves up to 7<sup>th</sup> in Investment and Development, to 3<sup>rd</sup> in Appeal and 9<sup>th</sup> in Readiness. These improvements originate in its performance in several indicators including the total public expenditure on education (as percentage of GDP) and the private sector's prioritization of talent attraction and retention (5<sup>th</sup> in both), and 4<sup>th</sup> in the fair administration of justice. Implementation of apprenticeships and student mobility (inbound) are low (30<sup>th</sup> and 29<sup>th</sup> respectively) and so is PISA educational assessment (25<sup>th</sup>) and the availability of skilled labor (23<sup>rd</sup>).

Austria remains in 4<sup>th</sup> place despite dropping to 4<sup>th</sup> in Investment and Development which seems to have been countered by improvements in Readiness. Among the country's best performances at the indicator level are attracting and retaining talents, worker motivation and quality of life (ranking 2<sup>nd</sup> in all). In addition, Austria ranks 1<sup>st</sup> in the prioritization of employee training and 3<sup>rd</sup> in the implementation of apprenticeships. Austria's performance is low in some indicators including in the total public expenditure on education as a percentage of GDP (28<sup>th</sup>), the availability of competent senior managers (41<sup>st</sup>) and of skilled labor (53<sup>rd</sup>).

Luxembourg returns to the top 5 with a strong performance in Investment and Development (5<sup>th</sup>) and Appeal (4<sup>th</sup>), although in Readiness it experienced a decline (17<sup>th</sup>). Some of Luxembourg's strengths are in total public expenditure on education (per student) and pupil-teacher ratio (primary education) (ranking 1<sup>st</sup> in both), and the availability of language skills (4<sup>th</sup>). Among its lowest performance are the percentage of graduates in sciences (55<sup>th</sup>), the female percentage of total labor force (51<sup>st</sup>) and the availability of skilled labor (50<sup>th</sup>).

While Norway drops to 6<sup>th</sup> mainly because of dwindling performance in Readiness, Iceland joins the top 10 in 7<sup>th</sup> with a strong boost across all factors, particularly in Appeal.

At the indicator level, Norway performs well in measures of Investment and Development such as pupil-teacher ratio in primary schools (3<sup>rd</sup>) and implementation of apprenticeships (5<sup>th</sup>). In regard to Appeal, Norway ranks 2<sup>nd</sup> in brain drain (if its impact hinders competitiveness). Student mobility inbound is low (38<sup>th</sup>) and, similarly, it ranks 45<sup>th</sup> in the percentage of graduates in sciences. Iceland ranks 2<sup>nd</sup> in total public expenditure on education (as percentage of GDP) and in remuneration (services); and 3<sup>rd</sup> in total public expenditure on education per student (all levels) and in the availability of language skills. Iceland ranks low in the percentage of graduates in sciences (49<sup>th</sup>). In addition, its other weaknesses include the availability of senior managers with significant international experience (50<sup>th</sup>) and, related, its attractiveness for foreign highly-skilled staff (44<sup>th</sup>).

Finland ranks 8<sup>th</sup>. Despite a drop in Investment and Development (10<sup>th</sup>), it improves in Appeal (16<sup>th</sup>), and in Readiness (3<sup>rd</sup>). It leads the rankings in the effectiveness of the primary and secondary education, and under Appeal to exposure to particle pollution. In the effectiveness of university education also reaches the top five (4<sup>th</sup>). Furthermore, in quality of life and the fair administration of justice, Finland places 3<sup>rd</sup>. Its attractiveness for foreign highly-skilled personnel is low (38<sup>th</sup>) as is the effective implementation of apprenticeships (34<sup>th</sup>).

The Netherlands drops to 9<sup>th</sup> because of a relative weak performance in Investment and Development (16<sup>th</sup>) and a drop in Readiness (7<sup>th</sup>), although it improves in Appeal (7<sup>th</sup>). In Investment and Development, the decline is partly due to the performance in measures of the quality of education (pupil-teacher ratio, 41<sup>st</sup> in primary education and 53<sup>rd</sup> in secondary) and to a lesser extent, in the total public expenditure on education (21<sup>st</sup>). Under the Readiness factor, The Netherlands ranks 60<sup>th</sup> in the percentage of graduates in sciences. Most measures of Appeal, however, remain high including the fair administration of justice (2<sup>nd</sup>), brain drain and attracting foreign highly-skilled staff (4<sup>th</sup> in both), and worker motivation and quality of life (5<sup>th</sup> in both).

Singapore rounds out the top 10 leading the ranking in Readiness and improving in Investment and Development. Singapore's rise to the top 10 results mainly from its performance in measures of Readiness, including PISA educational assessment (1<sup>st</sup>), percentage of graduates in sciences (2<sup>nd</sup>), the effectiveness of the primary and secondary education (3<sup>rd</sup>) and student mobility inbound (3<sup>rd</sup>). Singapore ranks relatively low in the implementation of apprenticeships and the prioritization of employee training (28<sup>th</sup> in both), percentage of female labor force (32<sup>nd</sup>), and levels of pollution as a measure of Appeal (43<sup>rd</sup>).

## Largest improvements

Outside the top 10, the largest increases are Taiwan, China 7 places up to 20<sup>th</sup>, Lithuania sees an increase of 8 places to 28<sup>th</sup> position, The Philippines is 49<sup>th</sup> which represents an improvement of 6 spots and similarly Colombia moves up to 54<sup>th</sup> (from 60<sup>th</sup> in 2018).

The improvement of Taiwan, China is mainly the result of the boosting of its Readiness factor (moving to 12<sup>th</sup>) particularly in terms of the availability of finance skills (22<sup>nd</sup>),

senior managers with international experience (36<sup>th</sup>) and the availability of competent senior managers (31<sup>st</sup>). In addition, there is a positive shift in business perceptions about the level of worker motivation (12<sup>th</sup>), the impact of brain drain (46<sup>th</sup>) and the quality of life (30<sup>th</sup>) as well as the prioritization of attracting and retaining talent (38<sup>th</sup>).

Lithuania's upsurge is due to improvements to its Appeal and Readiness factors. This is the more so in relation to advances



in the emphasis given to attracting and retaining talent (28<sup>th</sup>), and the level of workers' motivation (28<sup>th</sup>), the effectiveness of university education (32<sup>nd</sup>) and of management education (34<sup>th</sup>) as well as the availability of language skills (12<sup>th</sup>). Under Investment and Development, Lithuania ranks 1<sup>st</sup> in the female percentage of total labor force and in measures of the quality of education (pupil-teacher ratio) it places 3<sup>rd</sup> in secondary education and 5<sup>th</sup> in primary education.

The Philippines improves across all factors which is the result of strong performances in the availability of skilled labor (3<sup>rd</sup>), the percentage of graduate in sciences (13<sup>th</sup>) and the availability of language skills (16<sup>th</sup>). Other contributors to the country's improvement include the prioritization of employee training (27<sup>th</sup>), the level of the motivation of the workforce (29<sup>th</sup>) and the availability of competent senior managers (21<sup>st</sup>).

## Largest declines

The more acute declines were experienced by Canada which is 13<sup>th</sup> representing a drop of 7 places, Portugal drops to 23<sup>rd</sup> down from 17<sup>th</sup> in 2018, Japan decreases 6 spots to 35<sup>th</sup>, Jordan drops 10 places to 51<sup>st</sup>, Turkey is down 7 positions to 58<sup>th</sup> and India drops from 53<sup>rd</sup> to 59<sup>th</sup>.

To different degrees Canada drops in all talent factors, with the largest decline in Readiness. This decline is mainly due to steep decrease in total public expenditure on education (36<sup>th</sup>) and to a negative turn in executive perceptions about the prioritization of employee training (22<sup>nd</sup>) and implementation of apprenticeships (15<sup>th</sup>). In Appeal, perceptions also shift, for example, the prioritization of attracting and retaining talents declines to the 24<sup>th</sup> position, worker motivation goes down to 21<sup>st</sup> and brain drain to 22<sup>nd</sup>. Under Readiness, the largest drops are in the availability of senior managers with international experience (40<sup>th</sup>) and the effectiveness of university education (16<sup>th</sup>).

Portugal's decline is mainly the result of the deterioration of the Investment and Development, which may have in turn affected the Readiness factor. Such a trend is underlined by a negative shift in executive opinions. In Investment and Development, Portugal ranks 25<sup>th</sup> in total public expenditure on education, 41<sup>st</sup> apprenticeships and 58<sup>th</sup> in employee training. The largest drops in Appeal are in the prioritization of attracting and retaining talents (48<sup>th</sup>), the level of worker motivation (47<sup>th</sup>) and, to a lesser extent, brain drain (35<sup>th</sup>). In Readiness, the availability of finance skills (40<sup>th</sup>), competent senior managers (45<sup>th</sup>) and of managers with international experience (54<sup>th</sup>), are at the core of the country's downturn.

Similarly, Japan declines in Investment and Development and Readiness. In Investment and Development, employee training declines (15<sup>th</sup>) and the effectiveness of the health infrastructure decreases to 21<sup>st</sup>. According to survey respondents, the country has experienced a slump in brain drain (44<sup>th</sup>) and worker motivation (27<sup>th</sup>). The deterioration of the Readiness factor largely arises from a weak performance in the availability of senior managers with significant international

Colombia's advancement in the overall ranking is mainly the result of improvements in the Appeal factor and to a lesser extent in the Readiness factor. Under Appeal, there is a positive shift in executive views in terms of attracting and retaining talent (52<sup>nd</sup>), level of worker motivation (44<sup>th</sup>), the impact of brain drain (39<sup>th</sup>) and the quality of life (55<sup>th</sup>). In Readiness, the country improves in measures of the availability of particular skills: skilled labor (39<sup>th</sup>), finance skills (45<sup>th</sup>), senior managers with international experience (41<sup>st</sup>) and competent senior managers (49<sup>th</sup>). The country also ranks 31<sup>st</sup> in the percentage of graduate in sciences. In the Investment and Development factor, Colombia improves in the implementation of apprenticeship schemes (21<sup>st</sup>) and to a lesser extent, in the prioritization of employee training (41<sup>st</sup>).

experience (63<sup>rd</sup>), language skills (62<sup>nd</sup>) and availability of competent senior managers (60<sup>th</sup>).

Jordan sees a steep decline in Readiness and lesser drops in the Investment and Development, and Appeal factors. Total public expenditure on education drops to the 51<sup>st</sup> position, the pupil-teacher ratio in primary education declines to 53<sup>rd</sup> and employee training to 31<sup>st</sup>. The availability of skilled labor also falls to 18<sup>th</sup> and that of finance skills to 32<sup>nd</sup>. Likewise, the effectiveness of university education (43<sup>rd</sup>) and management education (41<sup>st</sup>), experience a dip.

Turkey's performance is negatively affected by decreases within the Readiness factor. The availability of finance skills drops to 48<sup>th</sup> and that of competent senior managers and managers with international experience both to 38<sup>th</sup>. In addition, the effectiveness of management education experiences a downturn (55<sup>th</sup>) as well as that of university education (57<sup>th</sup>), albeit to a lesser extent. In the availability of language skills, Turkey remains in the 50<sup>th</sup> position. Elsewhere, under Appeal, executive opinions see a negative shift; placing brain drain down to the 55<sup>th</sup> rank and the prioritization of attracting and retaining talents to the 47<sup>th</sup> position. Employee training (59<sup>th</sup>) and the implementation of apprenticeship programs (52<sup>nd</sup>) also decline.

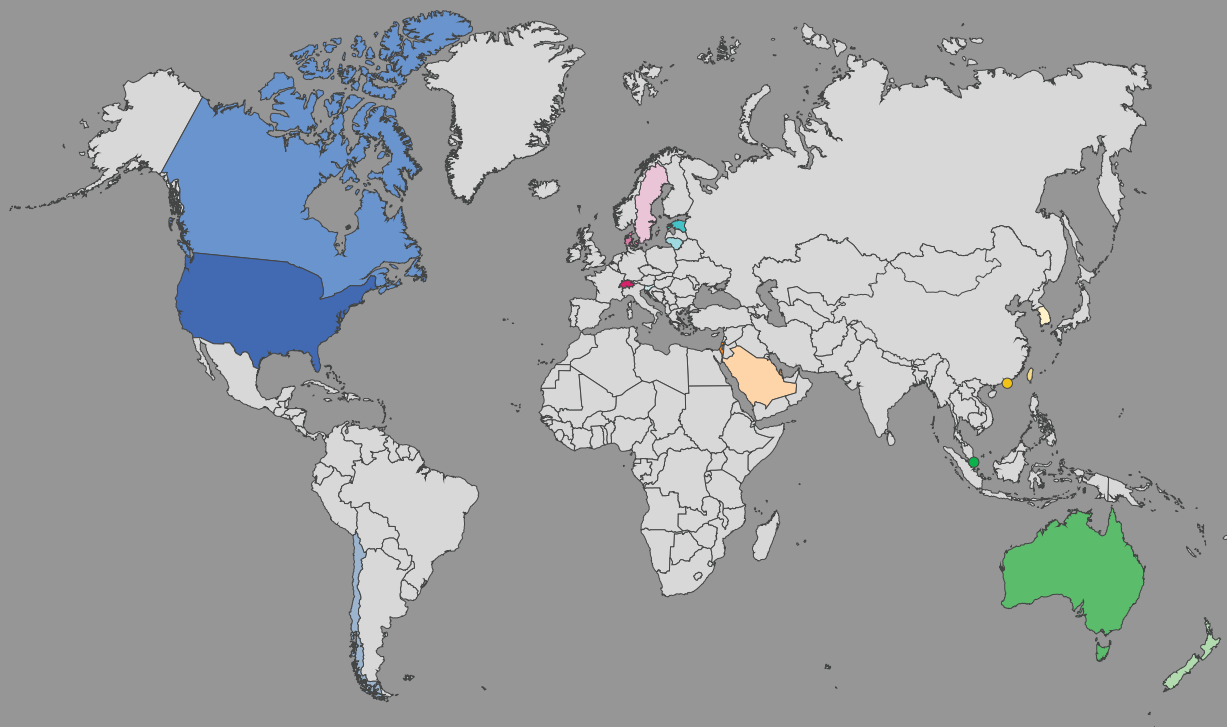
India's drop is largely the result of its performance in the Appeal factor. In the measure of pollution (exposure to particle pollution) India ranks 61<sup>st</sup>. The quality of life remains low at 51<sup>st</sup>, while the negative impact of brain drain in the economy remains at 31<sup>st</sup> and prioritization of attracting and retaining talents drops to 41<sup>st</sup>. Worker motivation slightly drops to 35<sup>th</sup> and so does the attractiveness of the country for foreign highly-skilled personnel (40<sup>th</sup>). India ranks 62<sup>nd</sup> in total public expenditure on education per student and measures of the quality of education (pupil-teacher ratio in primary and in secondary education).

## Sub-regions

To identify the regional economies that lead in the Talent Ranking we use the sub-regional specification that can be found in the Appendix 1. The following table provides the ranking of the three leading economies in each region as

well as their performance in the three factors. It outlines that regions have different strengths with respect to the factors studied.

Table 1: Sub-regional rankings, top 3



## Americas

		Investment & Development	Appeal	Readiness
12	USA	15	2	28
13	Canada	26	5	15
46	Chile	50	34	46

## Western Europe

1	Switzerland	2	1	2
2	Denmark	1	11	6
3	Sweden	7	3	9

## Eastern Europe

27	Estonia	21	23	35
28	Lithuania	14	35	33
31	Slovenia	22	42	30

## Eastern Asia

15	Hong Kong SAR	20	18	4
20	Taiwan, China	24	29	12
33	Korea Rep.	19	41	34

## Southern Asia & The Pacific

10	Singapore	25	20	1
16	Australia	34	15	5
17	New Zealand	29	14	11

## Western Asia

19	Israel	17	28	19
26	Qatar	41	21	20
29	Saudi Arabia	28	43	22



## **The Americas**

The Americas include both the North and South America and is led by the USA, followed by Canada (discussed previously) and Chile. The strongest performance is recorded in the Appeal factor.

The USA remains at 12<sup>th</sup> in the overall ranking. In Investment and Development, it ranks 15<sup>th</sup>, in Appeal remains at 2<sup>nd</sup> and in Readiness places at 28<sup>th</sup>. The country's strengths include the total public expenditure on education per student (4<sup>th</sup>), the private sector's prioritization of attracting and retaining talents (7<sup>th</sup>), the attractiveness of the country for foreign highly-skilled staff (7<sup>th</sup>), and remuneration (4<sup>th</sup> in services and 2<sup>nd</sup> in management). The USA experiences a drop in several indicators including pupil-teacher ratio of primary education (31<sup>st</sup>), the effectiveness of the health infrastructure (38<sup>th</sup>), the availability of skilled labor (25<sup>th</sup>) and of senior managers with international experience (29<sup>th</sup>).

Chile drops to the 46<sup>th</sup> place ranking 50<sup>th</sup> in Investment and Development, 34<sup>th</sup> in Appeal and 46<sup>th</sup> in Readiness. Overall, Chile's strengths include total public expenditure on education (19<sup>th</sup>), limited impact of brain drain (19<sup>th</sup>) and its attractiveness for foreign highly-skilled personnel (8<sup>th</sup>). The country exhibits a deficient performance in employee training (62<sup>nd</sup>), availability of language skills (61<sup>st</sup>), the quality of education as measured by pupil-teacher ratio (56<sup>th</sup> in secondary education) and student mobility inbound (53<sup>rd</sup>). In addition, this year, it experiences significant declines in other indicators including the implementation of apprenticeship (53<sup>rd</sup>), worker motivation (52<sup>nd</sup>) and the availability of competent senior managers (25<sup>th</sup>).

An important economy for the region is Brazil, which drops to the 61<sup>st</sup> place ranking 52<sup>nd</sup> in Investment and Development, 49<sup>th</sup> in Appeal and 62<sup>nd</sup> in Readiness. The effective implementation of apprenticeships declines to 51<sup>st</sup>, employee training to 53<sup>rd</sup> and the female percentage of total labor force to 44<sup>th</sup>. Similarly, the impact of brain drain drops to 52<sup>nd</sup> and the attractiveness of the country for foreign highly-skilled staff to 58<sup>th</sup>. The availability of skilled labor declines to 57<sup>th</sup>, the availability of managers with international experience to 58<sup>th</sup> and the effectiveness of the university education remains to 61<sup>st</sup>. Availability of language skills remains at 63<sup>rd</sup>. Total public expenditure on education remains high increasing to 8<sup>th</sup> and exposure to particle pollution (as a measure of Appeal) ranks 23<sup>rd</sup>.

## **Eastern Asia**

Hong Kong, SAR tops this region. Taiwan, China (discussed above) follows and Korea Rep. closes the sub-regional top 3. Table 1 outlines that the Appeal and Readiness are the factors that contribute most in the overall performance of the sub-region.

Hong Kong, SAR ranks 15<sup>th</sup> in the overall talent ranking leading the Eastern Asia region. It ranks 20<sup>th</sup> in Investment and Development, 18<sup>th</sup> in Appeal and 4<sup>th</sup> in Readiness. Its strengths include the female percentage of the total labor force (3<sup>rd</sup>), PISA educational assessment (3<sup>rd</sup>), the availability of competent senior managers (4<sup>th</sup>) and the percentage of graduates in sciences (5<sup>th</sup>). Conversely, Hong

Kong, SAR's deficiencies include the quality of life which drops to the 38<sup>th</sup> place and the total public expenditure on education in which it ranks 53<sup>rd</sup>.

Korea Rep., reaches the 33<sup>rd</sup> position in the overall ranking and improves across all factors. It is 19<sup>th</sup> in Investment and Development, 41<sup>st</sup> in Appeal and 34<sup>th</sup> in Readiness. Its improvements originate in its performance in several indicators including the government expenditure on education per student (3<sup>rd</sup>), implementation of apprenticeships (increases to 18<sup>th</sup>) and the prioritization of attracting and retaining talents (raises to 14<sup>th</sup>). Other strong displays are in the percentage of graduates in sciences and the PISA educational assessment (9<sup>th</sup> in both). The country lags in the availability of senior managers with international experiences (drops to 52<sup>nd</sup>), the effectiveness of its university education (down to 55<sup>th</sup>), in the measurement of particle pollution (53<sup>rd</sup>) and in the fair administration of justice (49<sup>th</sup>), among other indicators.

China is the largest economy in the sub-region. In 2019, China declines to the 42<sup>nd</sup> place. In Investment and Development, it ranks 42<sup>nd</sup>, in Appeal 55<sup>th</sup> and in Readiness 31<sup>st</sup>. Total public expenditure on education drops to 47<sup>th</sup> and total public expenditure on education per student remains ranks at 48<sup>th</sup>. While pupil-teacher ratio in primary education drops to 40<sup>th</sup>, the ratio in secondary education remains at 42<sup>nd</sup>. Under Appeal, China improves in the level of worker motivation (16<sup>th</sup>) and in the impact of brain drain (32<sup>nd</sup>). In the measure of pollution, it ranks 59<sup>th</sup>. There is a positive turn in executive opinions in terms of the skills available in the country. For instance, the availability of skilled labor improves to the 27<sup>th</sup> position, the availability of finance skills to 28<sup>th</sup> and the availability of competent senior managers to 26<sup>th</sup>. PISA assessment remains at the 6<sup>th</sup> rank. Student mobility inbound declines slightly to 57<sup>th</sup> and language skills drop to 42<sup>nd</sup>.

## **Eastern Europe**

This sub-region is led by Estonia. As a result of its strong performance (discussed previously), Lithuania follows, and Slovenia closes the sub-regional top which seem to perform better in the Investment and Development factor.

Estonia ranks 27<sup>th</sup> overall. Its highest position at the factor level is in Investment and Development (21<sup>st</sup>). It ranks 23<sup>rd</sup> in Appeal and 35<sup>th</sup> in Readiness. Its leading rankings at the indicator level include the PISA educational assessment (5<sup>th</sup>), the measurement of particle pollution (6<sup>th</sup>) and the female percentage of total labor force in which it ranks 7<sup>th</sup>. Conversely, in the availability of skilled workforce, Estonia ranks 63<sup>rd</sup>, in the availability of finance skills it places 58<sup>th</sup> and of competent senior manager is 57<sup>th</sup>. Furthermore, in the impact of brain drain in its economy, Estonia remains at 41<sup>st</sup> and the implementation of apprenticeships drops to 40<sup>th</sup>.

Slovenia places at 31<sup>st</sup> in the overall ranking. Its strengths in the Investment and Development factor in which it ranks 22<sup>nd</sup>. In this factor, it ranks 10<sup>th</sup> in government expenditure on education per student and 8<sup>th</sup> in pupil-teacher ratio (secondary education). In the implementation of apprenticeships, however, Slovenia slightly drops to the 60<sup>th</sup> position. In Appeal, it ranks 42<sup>nd</sup> reaching its highest

position at the indicator level in the quality of life (15<sup>th</sup>), although it remains in a weak position in its attractiveness for foreign highly-skilled personnel (53<sup>rd</sup>). In the Readiness factor, Slovenia slightly declines to the 30<sup>th</sup> place despite strong performances in the availability of language skills and PISA educational assessment, ranking 11<sup>th</sup> in both. The downturn in Readiness is mainly the result of a dip in the availability of senior managers with international experience (49<sup>th</sup>), and also the country's performance in the availability of competent senior managers (46<sup>th</sup>) and student mobility inbound (41<sup>st</sup>).

### **Southern Asia and The Pacific**

Singapore (discussed previously) leads the Southern Asia and The Pacific sub-region, followed by Australia and New Zealand. Table 1 identifies that the Readiness factor is the driving force of the performance in the sub-region with the Appeal factor also contributing to the final rankings.

Australia ranks 16<sup>th</sup> in the overall ranking, experiencing a decline in Investment and Development (34<sup>th</sup>). It improves in Appeal (15<sup>th</sup>) and Readiness (5<sup>th</sup>). It tops the student mobility inbound criteria, it ranks 7<sup>th</sup> in the fair administration of justice, 9<sup>th</sup> in the quality of life and 10<sup>th</sup> in its attractiveness to foreign highly-skilled personnel. Australia also performs well in the availability of skilled labor (10<sup>th</sup>) and exposure to particle pollution (11<sup>th</sup>). In the implementation of apprenticeship schemes and the prioritization of employee training, it drops to the 44<sup>th</sup> position in both indicators. The government expenditure on education per student is also a weakness in which Australia ranks 49<sup>th</sup> and so is the percentage of graduates in science (53<sup>rd</sup>).

New Zealand moves up to the 17<sup>th</sup> place in the overall ranking. It improves across all factors ranking 29<sup>th</sup> in Investment and Development, 14<sup>th</sup> in Appeal and 11<sup>th</sup> in Readiness. Under Investment and Development, it improves in the implementation of apprenticeships (27<sup>th</sup>), employee training (36<sup>th</sup>) and the effectiveness of the health infrastructure (26<sup>th</sup>). In this factor, however, the government expenditure on education per student drops (33<sup>rd</sup>) and the quality of education also declines (pupil-teacher ratio, 43<sup>rd</sup> in primary education and 49<sup>th</sup> in secondary). In the Appeal factor, New Zealand ranks well in the exposure to particle pollution (2<sup>nd</sup>) and the fair administration of justice (12<sup>th</sup>). In this factor, it experiences declines in the quality of life (down to 20<sup>th</sup>) and the emphasis of the private sector on attracting and retaining talents (25<sup>th</sup>). In Readiness, the availability of competent senior managers (28<sup>th</sup>), of managers with international experience (24<sup>th</sup>) and language skills (30<sup>th</sup>) all improve. In the availability of skilled labor and the percentage of graduates in sciences, New Zealand's performance is rather deficient (47<sup>th</sup> and 40<sup>th</sup>, respectively).

The important economy of the sub-region, Malaysia, remains at 22<sup>nd</sup>. It ranks 32<sup>nd</sup> in Investment and Development, 27<sup>th</sup> in Appeal and 16<sup>th</sup> in Readiness. It improves to 17<sup>th</sup> in the effectiveness of the health infrastructure, and also improves in the remuneration for both services professions and management (to 41<sup>st</sup> and 42<sup>nd</sup> respectively). Other advances include the availability of both skilled labor (5<sup>th</sup>) and competent senior managers (9<sup>th</sup>), and of language skills (25<sup>th</sup>). Conversely, the implementation of apprenticeships and employee training drop to 13<sup>th</sup> and 18<sup>th</sup> respectively, and the pupil-teacher ratio in secondary education to 31<sup>st</sup>.

The private sector's prioritization of attracting and retaining talents also falls to 37<sup>th</sup> and so does worker motivation to 24<sup>th</sup>. The PISA educational assessment remains low at 41<sup>st</sup>.

### **Western Asia**

Israel tops this sub-region. Qatar and Saudi Arabia complete the sub-regional top 3. Table 1 outlines that Readiness is the factor where this sub-region performs the best.

Israel remains at the 19<sup>th</sup> position. It ranks 17<sup>th</sup> in Investment and Development, the country's highest position at the factor level. Its strengths in this factor are the total public expenditure on education (4<sup>th</sup>) and the percentage of females of total labor force (11<sup>th</sup>). In the Appeal factor, Israel ranks 28<sup>th</sup>, ranking 9<sup>th</sup> in the prioritization of talent attraction and retention. In Readiness, it ranks 19<sup>th</sup>. Its strengths in this factor are the availability of skilled labor and of finance skills (8<sup>th</sup> in both). The country's weaknesses include the private sector's prioritization of employee training (46<sup>th</sup>) and student mobility inbound (47<sup>th</sup>).

Qatar falls to 26<sup>th</sup> place in the overall talent ranking. At the factor level, it slightly advances to the 41<sup>st</sup> position in Investment and Development, and while in Readiness remains at 20<sup>th</sup>, it drops to 21<sup>st</sup> in Appeal. The overall decline in Qatar's performance is partly due to a decrease in total public expenditure on education (58<sup>th</sup>) and to deficient measures of pollution (60<sup>th</sup>). Similarly, the female percentage of total labor force remains at the 62<sup>nd</sup> position and likewise PISA educational assessment stays at 51<sup>st</sup>. According to survey respondents, however, worker motivation increases to the 17<sup>th</sup> rank and the quality of life to 18<sup>th</sup>.

Saudi Arabia moves up to 29<sup>th</sup> in the overall ranking. Improvements come on the back of advancements in the Investment and Development (28<sup>th</sup>) and Readiness (22<sup>nd</sup>) factors. In Appeal, however, Saudi Arabia drops to the 43<sup>rd</sup> position. The implementation of apprenticeships increases to the 22<sup>nd</sup> place and the prioritization of employee training to 32<sup>nd</sup>. Access to particular skills also advances, for example, the availability of senior managers with international experience moves up to 11<sup>th</sup> as do finance skills to 35<sup>th</sup>. Similarly, the effectiveness of university education increases to 37<sup>th</sup> and the language skills to 36<sup>th</sup>. The availability of skilled labor, however, ranks low at 43<sup>rd</sup>. In exposure to particle pollution as a measure of Appeal, Saudi Arabia ranks 62<sup>nd</sup>. Other weaknesses in its performance include the female percentage of total labor force (61<sup>st</sup>).

The UAE drops to the 30<sup>th</sup> position as a result of decreases in the Appeal (12<sup>th</sup>) and Readiness (13<sup>th</sup>) factors. In Appeal, it slightly declines in the attractiveness to foreign highly-skilled personnel (5<sup>th</sup>) and it ranks low in measures of pollution (57<sup>th</sup>). In Readiness, the country's performance in the percentage of graduates in sciences (37<sup>th</sup>) and the PISA assessment (46<sup>th</sup>), seems weak. Under Investment and Development (53<sup>rd</sup>), total public expenditure on education ranks at 62<sup>nd</sup>, the female percentage of total labor force at 60<sup>th</sup> and the pupil-teacher ratio in primary education places at 57<sup>th</sup>. The UAE's strengths include the limited impact of brain drain (1<sup>st</sup>) and the availability of competent senior managers.

## Western Europe

Switzerland tops the Western Europe sub-region, Denmark and Sweden follow. These countries also dominate the overall talent ranking and have been discussed previously. Table 1 presents a more balanced picture among the three factors for this sub-region. The highest ranked three economies have strong presence in Investment and Development, Appeal and Readiness factors. Two economies that have a strong presence in the rankings are Germany and Ireland.

Germany moves down to 11<sup>th</sup> in the overall ranking. Its performance in Investment and Development drops also to 11<sup>th</sup> as result of a decrease in the total public expenditure on education (39<sup>th</sup>) and in the measures of the quality of education (pupil-teacher ratio, 33<sup>rd</sup> in primary education and 40<sup>th</sup> in secondary). In the Appeal factor, the country also drops to 9<sup>th</sup> mainly as a result of a negative shift in executive opinions regarding attracting and retaining talent (20<sup>th</sup>) and the impact of brain drain (17<sup>th</sup>). In the Readiness

factor, Germany moves up to the 14<sup>th</sup> position; ranking 1<sup>st</sup> in the percentage of graduates in sciences and improving (to 7<sup>th</sup>) in the effectiveness of its university education.

Ireland moves up to the 18<sup>th</sup> position. It ranks 44<sup>th</sup> in Investment and Development, 8<sup>th</sup> in Appeal and 8<sup>th</sup> in Readiness. Ireland's performance is underlined by improvements in employee training (19<sup>th</sup>), the impact of brain drain (6<sup>th</sup>), quality of life (11<sup>th</sup>) and its attractiveness for foreign highly-skilled staff (3<sup>rd</sup>). The country also ranks well in student mobility inbound and the PISA educational assessment (17<sup>th</sup> in both). Conversely, its weaknesses include the total public expenditure on education as a percentage of GDP (54<sup>th</sup>) and the implementation of apprenticeship schemes (47<sup>th</sup>).

## Concluding Remarks

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Data show that there is potential for some economies to experience disruption in the effectiveness of their talent pool. For example, Germany performs strongly in apprenticeships (2<sup>nd</sup>) and employee training (3<sup>rd</sup>) but ranks low in the expenditure on education (39<sup>th</sup>). Will putting more emphasis on apprenticeship and training suffice to meet future demands for domestic talent? Similarly, the USA performs well in attracting overseas staff (7<sup>th</sup>) because of the levels of remuneration that it offers (4<sup>th</sup> for services and 2<sup>nd</sup> for management). Nevertheless, the quality of life

and the fair administration of justice in the country (23<sup>rd</sup> in both) raise questions about the sustainability of its appeal. Finally, The Netherlands ranks high in the availability of skills (e.g., 9<sup>th</sup> in skilled labor and 3<sup>rd</sup> in finance skills). In the percentage of graduate in sciences, however, it ranks 60<sup>th</sup>. What will be the impact of the latter rank for the future of The Netherlands' talent pool in the context of a technology-oriented economy?

## Appendices

### Composition of sub-regions and regions.

Western Europe	<ul style="list-style-type: none"> <li>Austria</li> <li>Belgium</li> <li>Cyprus</li> <li>Denmark</li> <li>Finland</li> <li>France</li> <li>Germany</li> <li>Greece</li> <li>Iceland</li> <li>Ireland</li> </ul>	<ul style="list-style-type: none"> <li>Italy</li> <li>Luxembourg</li> <li>Netherlands</li> <li>Norway</li> <li>Portugal</li> <li>Spain</li> <li>Sweden</li> <li>Switzerland</li> <li>United Kingdom</li> </ul>	Europe, Middle East & Africa
Eastern Europe	<ul style="list-style-type: none"> <li>Bulgaria</li> <li>Czech Republic</li> <li>Estonia</li> <li>Croatia</li> <li>Hungary</li> <li>Lithuania</li> </ul>	<ul style="list-style-type: none"> <li>Latvia</li> <li>Poland</li> <li>Romania</li> <li>Slovenia</li> <li>Slovak Republic</li> <li>Ukraine</li> </ul>	
Western Asia & Africa	<ul style="list-style-type: none"> <li>Israel</li> <li>Jordan</li> <li>Qatar</li> <li>Saudi Arabia</li> </ul>	<ul style="list-style-type: none"> <li>South Africa</li> <li>Turkey</li> <li>UAE</li> </ul>	
Ex-CIS & Central Asia	<ul style="list-style-type: none"> <li>Kazakhstan</li> <li>Mongolia</li> </ul>	<ul style="list-style-type: none"> <li>Russia</li> </ul>	
Eastern Asia	<ul style="list-style-type: none"> <li>China Mainland</li> <li>Hong Kong SAR</li> <li>Japan</li> </ul>	<ul style="list-style-type: none"> <li>Korea Rep.</li> <li>Taiwan</li> </ul>	Asia & Pacific
Southern Asia & The Pacific	<ul style="list-style-type: none"> <li>Australia</li> <li>India</li> <li>Indonesia</li> <li>Malaysia</li> </ul>	<ul style="list-style-type: none"> <li>New Zealand</li> <li>Philippines</li> <li>Singapore</li> <li>Thailand</li> </ul>	
North America	<ul style="list-style-type: none"> <li>Canada</li> <li>Mexico</li> </ul>	<ul style="list-style-type: none"> <li>USA</li> </ul>	The Americas
South America	<ul style="list-style-type: none"> <li>Argentina</li> <li>Brazil</li> <li>Chile</li> </ul>	<ul style="list-style-type: none"> <li>Colombia</li> <li>Peru</li> <li>Venezuela</li> </ul>	



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# IMD WORLD TALENT RANKINGS 2019

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All data are available from the  
World Competitiveness Online.

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# The 2019 IMD World

Overall Rank 2019		One Year Change	Overall Score 2019	Factor Ranks 2019		
				Investment & Development	Appeal	Readiness
1	Switzerland	-	100.00	2	1	2
2	Denmark	-	90.80	1	11	6
3	Sweden	+ 5	86.94	7	3	9
4	Austria	-	86.91	4	13	10
5	Luxembourg	+ 4	86.65	5	4	17
6	Norway	- 3	85.95	3	10	21
7	Iceland	+ 9	85.15	6	6	18
8	Finland	- 1	83.14	10	16	3
9	Netherlands	- 4	81.81	16	7	7
10	Singapore	+ 3	81.80	25	20	1
11	Germany	- 1	80.78	11	9	14
12	USA	-	79.24	15	2	28
13	Canada	- 7	78.63	26	5	15
14	Belgium	- 3	78.42	9	17	24
15	Hong Kong SAR	+ 3	78.14	20	18	4
16	Australia	- 2	76.41	34	15	5
17	New Zealand	+ 3	75.57	29	14	11
18	Ireland	+ 3	73.29	44	8	8
19	Israel	-	73.26	17	28	19
20	Taiwan	+ 7	71.56	24	29	12
21	Cyprus	- 6	71.35	8	33	32
22	Malaysia	-	70.82	32	27	16
23	Portugal	- 6	69.80	13	32	27
24	United Kingdom	- 1	69.09	38	19	23
25	France	-	68.53	23	25	29
26	Qatar	- 2	67.36	41	21	20
27	Estonia	+ 1	66.88	21	23	35
28	Lithuania	+ 8	66.51	14	35	33
29	Saudi Arabia	+ 5	65.71	28	43	22
30	UAE	- 4	65.69	53	12	13

The IMD World Talent Ranking 2019 shows the overall ranking for 63 economies. The economies are ranked from the most to the least competitive, and the change from the previous year's ranking are also shown. The scores are actually indices (0-100) generated for the unique purpose of constructing graphics.

# Talent Ranking

					Factor Ranks 2019		
Overall Rank 2019		One Year Change		Overall Score 2019	Investment & Development	Appeal	Readiness
31	Slovenia	- 1	<div></div>	64.16	22	42	30
32	Spain	- 1	<div></div>	63.59	35	22	41
33	Korea Rep.	-	<div></div>	62.54	19	41	34
34	Latvia	+ 1	<div></div>	62.08	12	48	40
35	Japan	- 6	<div></div>	61.59	30	26	49
36	Italy	- 4	<div></div>	60.79	31	38	37
37	Poland	+ 1	<div></div>	58.83	27	46	45
38	Kazakhstan	+ 2	<div></div>	57.98	39	39	38
39	Czech Republic	- 2	<div></div>	56.92	40	45	39
40	Greece	+ 4	<div></div>	54.77	37	51	44
41	Indonesia	+ 4	<div></div>	54.47	51	24	42
42	China Mainland	- 3	<div></div>	54.02	42	55	31
43	Thailand	- 1	<div></div>	53.84	49	30	43
44	Ukraine	+ 4	<div></div>	52.67	18	60	51
45	Hungary	+ 4	<div></div>	50.28	33	56	57
46	Chile	- 3	<div></div>	49.97	50	34	46
47	Russia	- 1	<div></div>	49.20	45	59	36
48	Argentina	- 1	<div></div>	49.10	43	50	52
49	Philippines	+ 6	<div></div>	48.41	61	31	26
50	South Africa	-	<div></div>	46.77	56	37	48
51	Jordan	- 10	<div></div>	44.52	57	44	54
52	Bulgaria	+ 5	<div></div>	43.94	46	58	55
53	Croatia	+ 1	<div></div>	43.10	36	61	60
54	Colombia	+ 6	<div></div>	43.03	60	36	53
55	Romania	+ 1	<div></div>	42.83	54	52	50
56	Peru	- 4	<div></div>	40.80	55	47	58
57	Slovak Republic	+ 2	<div></div>	40.70	47	54	59
58	Turkey	- 7	<div></div>	40.48	58	53	56
59	India	- 6	<div></div>	39.12	63	57	25
60	Mexico	+ 1	<div></div>	38.83	62	40	47
61	Brazil	- 3	<div></div>	36.23	52	49	62
62	Venezuela	+ 1	<div></div>	34.76	48	62	61
63	Mongolia	- 1	<div></div>	20.93	59	63	63

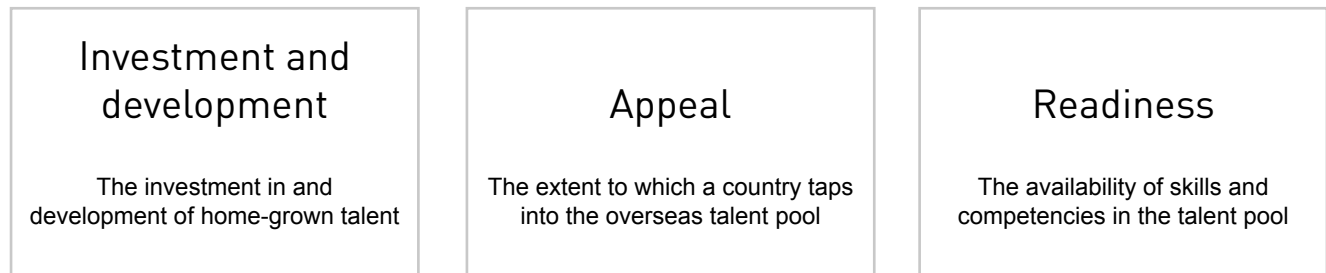


# Methodology in a Nutshell

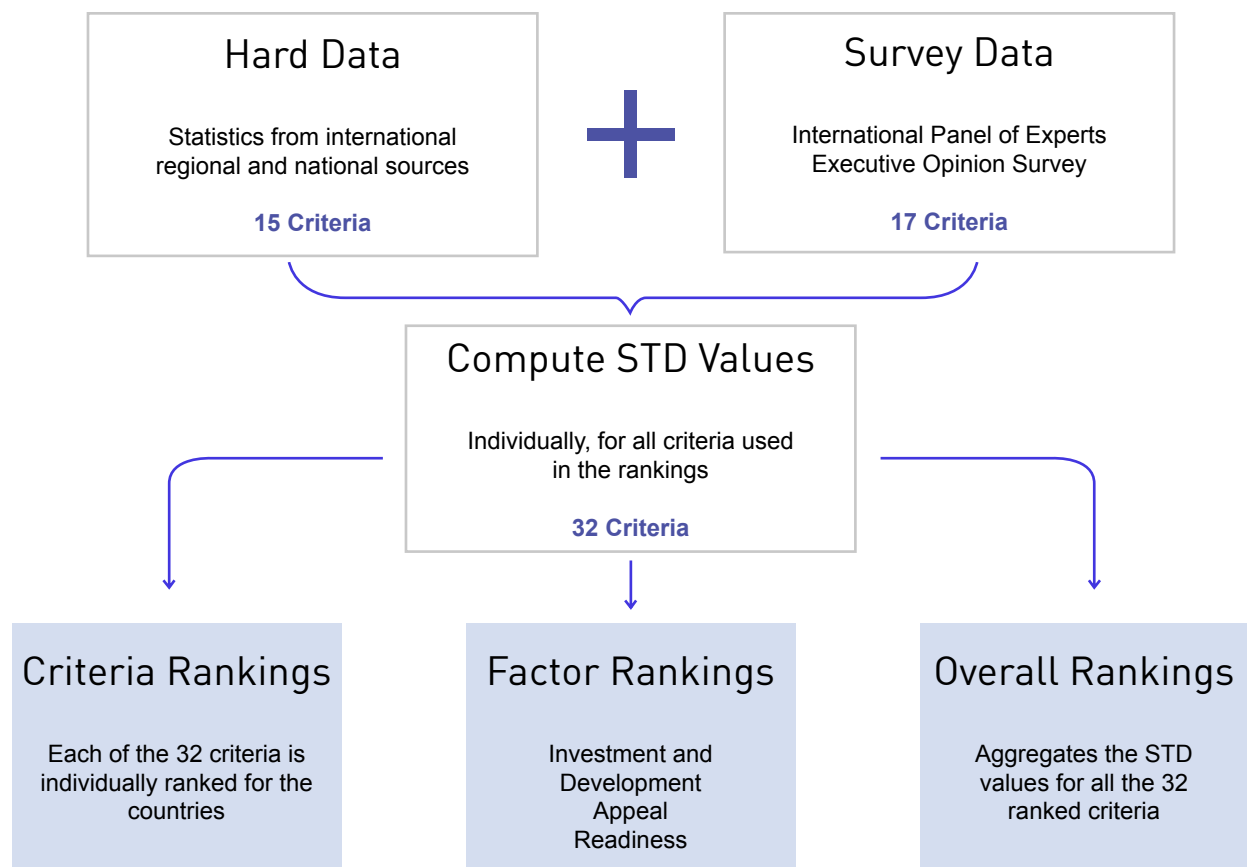
1. The IMD World Talent Ranking (WTR) assesses the status and the development of competencies necessary for enterprises and the economy to achieve long term value creation. It does so by using a set of indicators which measure the development, retention and attraction of a domestic and international highly-skilled workforce.
2. Based on our research, the methodology of the World Talent Ranking defines Talent Competitiveness into three main factors:
  - Investment and Development
  - Appeal
  - Readiness
3. These 3 factors comprise 32 criteria, although each factor does not necessarily have the same number of criteria (for example, it takes more criteria to assess Readiness than to evaluate Investment and Development).
4. Each factor, independently of the number of criteria it contains, has the same weight in the overall consolidation of results that is 1/3 ( $3 \times 33.3 \sim 100$ ).
5. Criteria can be hard data, which analyze talent development as it can be measured (e.g. Total Public Expenditure on Education) or soft data, which analyze the quality of these investments as they can be perceived (e.g. Management Education).
6. Finally, to compute the overall World Talent Ranking, we aggregate the criteria to calculate the scores of each factor which function as the basis to generate the overall ranking.

# What is the IMD World Talent Ranking?

## World Talent Ranking Factors

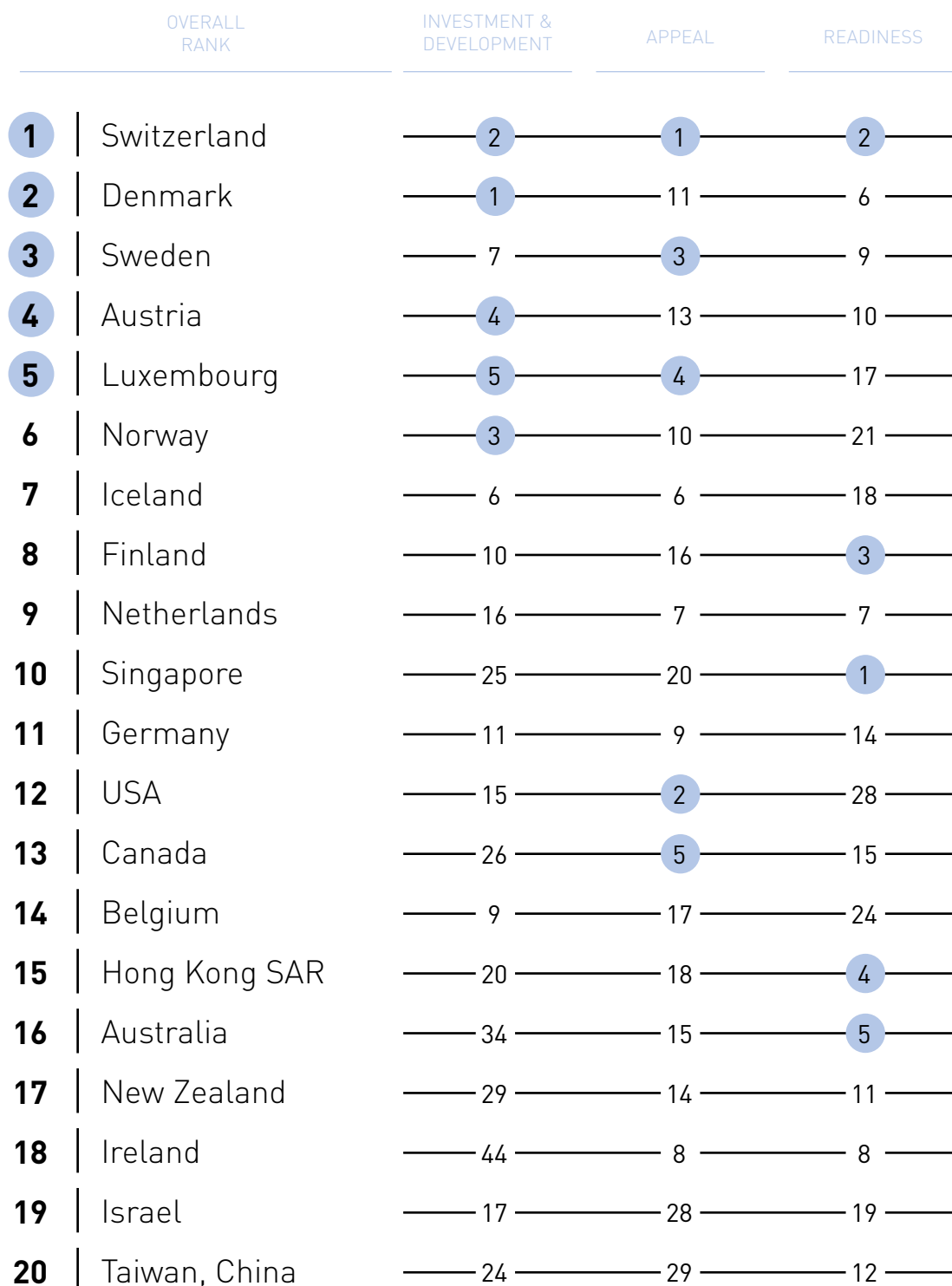


## Computing the Rankings



# The 2019 IMD World Talent Rankings: Selected Breakdowns

## Talent Ranking Leaderboard



The investment in and development of home-grown talent

Rank 2019		One Year Change	Score 2019
1	Denmark	-	100.00
2	Switzerland	+ 2	99.24
3	Norway	-	95.74
4	Austria	- 2	94.09
5	Luxembourg	+ 13	89.01
6	Iceland	+ 6	87.87
7	Sweden	+ 2	83.96
8	Cyprus	- 3	83.50
9	Belgium	- 1	83.46
10	Finland	- 4	77.55
11	Germany	- 1	75.53
12	Latvia	- 1	73.57
13	Portugal	- 6	71.76
14	Lithuania	- 1	71.43
15	USA	+ 13	71.29
16	Netherlands	- 1	71.02
17	Israel	- 3	70.93
18	Ukraine	+ 4	67.55
19	Korea Rep.	+ 1	67.12
20	Hong Kong SAR	+ 11	66.29
21	Estonia	- 5	66.10
22	Slovenia	+ 5	65.81
23	France	- 2	65.17
24	Taiwan, China	+ 1	64.95
25	Singapore	+ 9	64.71
26	Canada	- 7	64.54
27	Poland	- 3	64.34
28	Saudi Arabia	+ 7	63.26
29	New Zealand	+ 3	62.86
30	Japan	- 7	61.95
31	Italy	+ 2	61.24
32	Malaysia	- 15	60.49
33	Hungary	+ 8	59.41
34	Australia	- 8	58.36
35	Spain	+ 1	57.65
36	Croatia	+ 3	56.42
37	Greece	- 8	56.36
38	United Kingdom	- 1	55.67
39	Kazakhstan	- 9	54.52
40	Czech Republic	- 2	53.58
41	Qatar	+ 3	51.02
42	China Mainland	- 2	48.89
43	Argentina	+ 10	47.46
44	Ireland	- 2	47.23
45	Russia	- 2	44.09
46	Bulgaria	- 1	41.97
47	Slovak Republic	-	39.98
48	Venezuela	-	37.52
49	Thailand	- 3	36.70
50	Chile	+ 5	32.83
51	Indonesia	-	32.50
52	Brazil	- 3	32.45
53	UAE	+ 6	31.49
54	Romania	-	29.61
55	Peru	- 3	28.88
56	South Africa	-	27.83
57	Jordan	- 7	27.70
58	Turkey	-	27.12
59	Mongolia	- 2	19.91
60	Colombia	-	19.39
61	Philippines	+ 1	6.53
62	Mexico	- 1	4.68
63	India	-	0.00

The extent to which a country taps into the overseas talent pool

Rank 2019		One Year Change	Score 2019
1	Switzerland	-	96.28
2	USA	-	87.17
3	Sweden	+ 6	81.58
4	Luxembourg	-	81.47
5	Canada	- 2	80.57
6	Iceland	+ 14	78.24
7	Netherlands	+ 3	77.53
8	Ireland	+ 3	77.31
9	Germany	- 3	75.76
10	Norway	+ 2	74.85
11	Denmark	- 4	73.98
12	UAE	- 7	73.84
13	Austria	-	73.31
14	New Zealand	+ 3	70.79
15	Australia	+ 4	70.49
16	Finland	+ 5	70.43
17	Belgium	- 1	67.40
18	Hong Kong SAR	- 4	66.71
19	United Kingdom	- 1	65.74
20	Singapore	- 5	64.70
21	Qatar	- 13	63.62
22	Spain	+ 3	63.38
23	Estonia	+ 10	63.15
24	Indonesia	+ 10	62.20
25	France	- 3	61.85
26	Japan	+ 2	61.44
27	Malaysia	- 1	61.26
28	Israel	- 5	60.02
29	Taiwan, China	+ 3	57.94
30	Thailand	- 6	57.49
31	Philippines	+ 7	56.62
32	Portugal	- 3	55.74
33	Cyprus	- 6	55.34
34	Chile	- 4	54.12
35	Lithuania	+ 11	53.13
36	Colombia	+ 9	51.32
37	South Africa	-	51.04
38	Italy	- 2	50.73
39	Kazakhstan	+ 10	49.44
40	Mexico	+ 3	49.07
41	Korea Rep.	-	48.88
42	Slovenia	-	48.22
43	Saudi Arabia	- 12	47.70
44	Jordan	- 5	47.67
45	Czech Republic	- 10	47.34
46	Poland	- 6	45.43
47	Peru	-	43.36
48	Latvia	+ 4	42.87
49	Brazil	+ 4	42.69
50	Argentina	- 2	41.40
51	Greece	+ 3	40.99
52	Romania	+ 3	39.47
53	Turkey	- 3	38.55
54	Slovak Republic	+ 2	37.65
55	China Mainland	- 4	36.57
56	Hungary	+ 3	36.13
57	India	- 13	34.49
58	Bulgaria	-	33.19
59	Russia	- 2	32.29
60	Ukraine	+ 1	31.72
61	Croatia	- 1	30.94
62	Venezuela	+ 1	29.96
63	Mongolia	- 1	14.08

The availability of skills and competencies in the talent pool

Rank 2019		One Year Change	Score 2019
1	Singapore	+ 1	96.85
2	Switzerland	- 1	85.34
3	Finland	+ 4	82.29
4	Hong Kong SAR	+ 5	82.27
5	Australia	+ 1	81.24
6	Denmark	+ 2	79.25
7	Netherlands	- 4	77.73
8	Ireland	+ 4	76.18
9	Sweden	+ 6	76.11
10	Austria	+ 8	74.19
11	New Zealand	+ 2	73.91
12	Taiwan, China	+ 15	72.64
13	UAE	- 9	72.59
14	Germany	+ 7	71.90
15	Canada	- 10	71.63
16	Malaysia	+ 8	71.56
17	Luxembourg	- 6	70.34
18	Iceland	+ 1	70.19
19	Israel	- 3	69.67
20	Qatar	-	68.30
21	Norway	- 11	68.11
22	Saudi Arabia	+ 16	67.02
23	United Kingdom	- 6	66.71
24	Belgium	- 10	65.25
25	India	+ 5	63.73
26	Philippines	+ 11	62.92
27	Portugal	- 5	62.76
28	USA	- 5	60.10
29	France	- 1	59.41
30	Slovenia	- 1	59.29
31	China Mainland	+ 1	57.44
32	Cyprus	- 6	56.06
33	Lithuania	+ 12	55.81
34	Korea Rep.	-	52.48
35	Estonia	- 4	52.23
36	Russia	+ 10	52.08
37	Italy	- 4	51.26
38	Kazakhstan	+ 4	50.84
39	Czech Republic	- 3	50.69
40	Latvia	+ 3	50.64
41	Spain	- 1	50.60
42	Indonesia	+ 7	49.57
43	Thailand	+ 7	48.19
44	Greece	+ 3	47.81
45	Poland	- 6	47.59
46	Chile	- 11	43.80
47	Mexico	+ 7	43.59
48	South Africa	+ 3	42.30
49	Japan	- 8	42.22
50	Romania	+ 2	40.27
51	Ukraine	+ 5	39.59
52	Argentina	- 8	39.29
53	Colombia	+ 6	39.23
54	Jordan	- 29	39.06
55	Bulgaria	+ 3	37.52
56	Turkey	- 8	36.63
57	Hungary	- 4	36.15
58	Peru	- 1	31.01
59	Slovak Republic	+ 1	25.33
60	Croatia	+ 2	22.79
61	Venezuela	+ 2	17.63
62	Brazil	- 1	14.39
63	Mongolia	- 8	9.65

## Factor rankings

	OVERALL					Investment & Development				
	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
Argentina	51	52	50	47	48	45	51	55	53	43
Australia	13	16	19	14	16	30	29	36	26	34
Austria	12	5	4	4	4	4	3	3	2	4
Belgium	3	3	3	11	14	1	2	2	8	9
Brazil	54	45	52	58	61	39	39	45	49	52
Bulgaria	61	58	58	57	52	47	44	44	45	46
Canada	10	12	11	6	13	26	22	22	19	26
Chile	41	48	44	43	46	51	59	53	55	50
China	40	42	40	39	42	46	45	42	40	42
Colombia	52	57	55	60	54	54	57	59	60	60
Croatia	53	53	60	54	53	35	38	32	39	36
Cyprus	-	-	17	15	21	-	-	8	5	8
Czech Republic	33	33	38	37	39	36	35	39	38	40
Denmark	2	2	2	2	2	2	1	1	1	1
Estonia	28	26	29	28	27	12	13	14	16	21
Finland	4	6	5	7	8	3	4	4	6	10
France	25	28	27	25	25	22	24	20	21	23
Germany	9	10	8	10	11	14	11	10	10	11
Greece	34	35	41	44	40	31	23	31	29	37
Hong Kong SAR	17	9	12	18	15	32	27	24	31	20
Hungary	49	51	54	49	45	34	41	46	41	33
Iceland	15	18	18	16	7	11	12	11	12	6
India	56	54	51	53	59	60	60	62	63	63
Indonesia	43	47	47	45	41	52	55	56	51	51
Ireland	20	17	14	21	18	33	30	34	42	44
Israel	21	19	20	19	19	19	19	17	14	17
Italy	38	32	36	32	36	37	32	33	33	31
Japan	26	31	31	29	35	23	20	18	23	30
Jordan	42	40	49	41	51	55	56	60	50	57
Kazakhstan	36	44	30	40	38	24	34	23	30	39
Korea Rep.	32	38	39	33	33	38	33	38	20	19
Latvia	27	30	35	35	34	9	9	13	11	12
Lithuania	23	24	33	36	28	10	10	12	13	14
Luxembourg	5	11	10	9	5	13	15	16	18	5
Malaysia	19	21	28	22	22	17	17	19	17	32
Mexico	55	50	56	61	60	58	58	61	61	62
Mongolia	60	60	62	62	63	48	49	54	57	59
Netherlands	8	8	6	5	9	15	14	15	15	16
New Zealand	16	14	15	20	17	21	25	28	32	29
Norway	6	7	7	3	6	8	6	6	3	3
Peru	59	59	57	52	56	57	54	50	52	55
Philippines	57	55	45	55	49	61	61	63	62	61
Poland	29	29	34	38	37	18	18	21	24	27
Portugal	22	25	24	17	23	6	8	7	7	13
Qatar	30	22	22	24	26	49	48	47	44	41
Romania	50	56	61	56	55	50	47	51	54	54
Russia	45	41	43	46	47	40	42	40	43	45
Saudi Arabia	-	-	26	34	29	-	-	26	35	28
Singapore	14	15	13	13	10	42	40	41	34	25
Slovak Republic	44	39	46	59	57	41	37	43	47	47
Slovenia	37	36	37	30	31	25	21	27	27	22
South Africa	47	43	48	50	50	53	50	57	56	56
Spain	35	34	32	31	32	29	31	30	36	35
Sweden	7	4	9	8	3	5	7	9	9	7
Switzerland	1	1	1	1	1	7	5	5	4	2
Taiwan, China	24	23	23	27	20	28	28	25	25	24
Thailand	39	37	42	42	43	44	43	48	46	49
Turkey	48	46	53	51	58	56	52	52	58	58
UAE	31	27	25	26	30	59	53	58	59	53
Ukraine	46	49	59	48	44	16	16	35	22	18
United Kingdom	18	20	21	23	24	27	36	37	37	38
USA	11	13	16	12	12	20	26	29	28	15
Venezuela	58	61	63	63	62	43	46	49	48	48

Appeal					Readiness					
2015	2016	2017	2018	2019	2015	2016	2017	2018	2019	
55	52	53	48	50	50	43	46	44	52	Argentina
15	17	18	19	15	3	6	13	6	5	Australia
20	18	15	13	13	26	19	16	18	10	Austria
17	14	16	16	17	9	7	12	14	24	Belgium
44	47	47	53	49	61	54	61	61	62	Brazil
60	57	57	58	58	59	57	59	58	55	Bulgaria
5	7	6	3	5	4	11	9	5	15	Canada
27	28	27	30	34	43	49	43	35	46	Chile
49	55	54	51	55	34	36	30	32	31	China
36	39	39	45	36	54	55	57	59	53	Colombia
57	58	59	60	61	57	58	62	62	60	Croatia
-	-	21	27	33	-	-	25	26	32	Cyprus
39	34	40	35	45	31	30	36	36	39	Czech Republic
14	11	10	7	11	8	4	4	8	6	Denmark
40	35	38	33	23	42	34	35	31	35	Estonia
22	24	24	21	16	5	9	5	7	3	Finland
30	30	29	22	25	25	29	28	28	29	France
4	9	8	6	9	15	18	15	21	14	Germany
48	50	56	54	51	29	35	40	47	44	Greece
16	4	11	14	18	7	5	6	9	4	Hong Kong SAR
59	60	61	59	56	49	53	54	53	57	Hungary
24	20	20	20	6	18	17	21	19	18	Iceland
38	41	43	44	57	32	28	29	30	25	India
29	31	32	34	24	44	45	47	49	42	Indonesia
7	5	5	11	8	17	13	10	12	8	Ireland
31	25	28	23	28	14	22	23	16	19	Israel
45	37	41	36	38	40	33	34	33	37	Italy
13	21	22	28	26	47	51	48	41	49	Japan
28	32	44	39	44	36	25	44	25	54	Jordan
46	54	37	49	39	39	52	32	42	38	Kazakhstan
34	42	42	41	41	28	42	42	34	34	Korea Rep.
50	46	52	52	48	37	41	38	43	40	Latvia
41	36	48	46	35	30	32	45	45	33	Lithuania
3	3	4	4	4	10	16	17	11	17	Luxembourg
19	22	30	26	27	20	26	27	24	16	Malaysia
33	33	33	43	40	55	46	53	54	47	Mexico
53	56	60	62	63	60	56	56	55	63	Mongolia
11	13	7	10	7	6	3	3	3	7	Netherlands
18	12	14	17	14	11	8	8	13	11	New Zealand
9	15	13	12	10	12	14	14	10	21	Norway
42	44	46	47	47	58	60	58	57	58	Peru
35	38	34	38	31	27	23	11	37	26	Philippines
51	45	45	40	46	24	24	33	39	45	Poland
37	40	36	29	32	33	31	31	22	27	Portugal
10	10	9	8	21	21	10	18	20	20	Qatar
47	51	58	55	52	46	47	55	52	50	Romania
56	53	55	57	59	41	38	39	46	36	Russia
-	-	31	31	43	-	-	26	38	22	Saudi Arabia
21	19	17	15	20	1	2	2	2	1	Singapore
52	49	50	56	54	45	39	49	60	59	Slovak Republic
54	48	49	42	42	38	37	37	29	30	Slovenia
23	29	35	37	37	52	50	52	51	48	South Africa
32	27	25	25	22	48	44	41	40	41	Spain
12	6	12	9	3	16	15	19	15	9	Sweden
1	1	1	1	1	2	1	1	1	2	Switzerland
26	26	26	32	29	23	27	22	27	12	Taiwan, China
25	23	23	24	30	51	48	50	50	43	Thailand
43	43	51	50	53	35	40	51	48	56	Turkey
6	8	3	5	12	13	12	7	4	13	UAE
58	59	62	61	60	56	59	60	56	51	Ukraine
8	16	19	18	19	19	20	20	17	23	United Kingdom
2	2	2	2	2	22	21	24	23	28	USA
61	61	63	63	62	53	61	63	63	61	Venezuela





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# TALENT COUNTRY PROFILES

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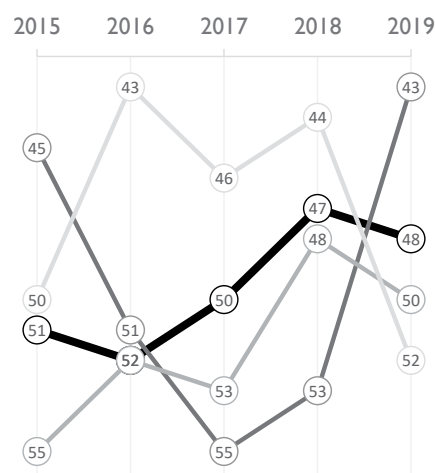
All data are available from the  
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# ARGENTINA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
▶ Total public expenditure on education	Percentage of GDP	5.5 %	18
▶ Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	21.8 %	26
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	2,471 US\$	43
▶ Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	13.48 ratio	23
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	19.01 ratio	54
Apprenticeships	are sufficiently implemented	4.63 Survey [0..10]	38
▷ Employee training	is a high priority in companies	4.70 Survey [0..10]	56
Female labor force	Percentage of total labor force	40.86 %	50
Health infrastructure	meets the needs of society	4.64 Survey [0..10]	41

### Appeal

		Value	2019 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	78.80 index	30
▷ Attracting and retaining talents	is a priority in companies	5.70 Survey [0..10]	56
Worker motivation	in companies is high	4.87 Survey [0..10]	50
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.67 Survey [0..10]	33
Quality of life	is high	4.90 Survey [0..10]	52
Foreign highly-skilled personnel	are attracted to your country's business environment	4.20 Survey [0..10]	47
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	12,539 US\$	45
▷ Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	63,282 US\$	56
▶ Effective personal income tax rate	Percentage of an income equal to GDP per capita	12.45 %	19
▷ Justice	is fairly administered	2.47 Survey [0..10]	58
▶ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	14.27 micrograms	27

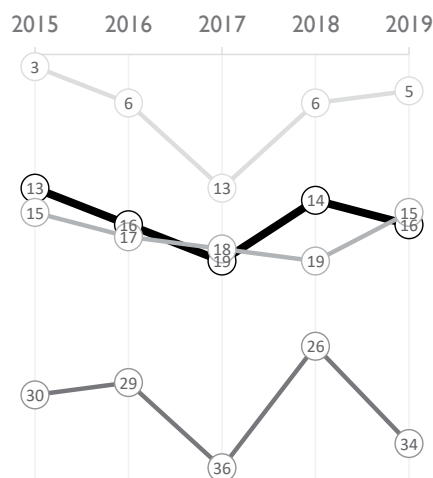
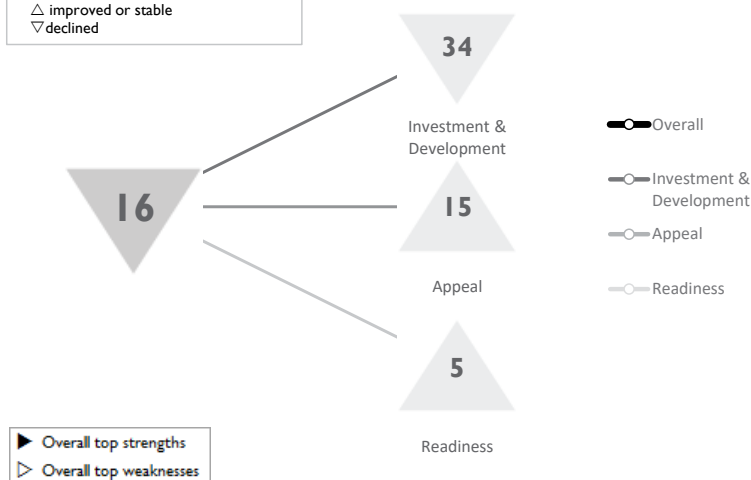
### Readiness

		Value	2019 Rank
Labor force growth	Percentage change	1.00 %	29
Skilled labor	is readily available	5.80 Survey [0..10]	30
Finance skills	are readily available	6.20 Survey [0..10]	36
International experience	of senior managers is generally significant	5.53 Survey [0..10]	30
Competent senior managers	are readily available	5.10 Survey [0..10]	42
Primary and secondary education	meets the needs of a competitive economy	3.83 Survey [0..10]	55
▷ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	16.14 %	58
University education	meets the needs of a competitive economy	6.10 Survey [0..10]	36
Management education	meets the needs of the business community	5.77 Survey [0..10]	45
Language skills	are meeting the needs of enterprises	5.77 Survey [0..10]	41
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	2.02 number	34
Educational assessment - PISA	PISA survey of 15-year olds	421 Average	48

# AUSTRALIA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
Total public expenditure on education	Percentage of GDP	5.0 %	23
▷ Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	15.0 %	49
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	8,829 US\$	18
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	15.12 ratio	29
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	11.99 ratio	30
▷ Apprenticeships	are sufficiently implemented	4.31 Survey [0..10]	44
▷ Employee training	is a high priority in companies	5.39 Survey [0..10]	44
Female labor force	Percentage of total labor force	46.97 %	19
Health infrastructure	meets the needs of society	7.53 Survey [0..10]	16

### Appeal

		Value	2019 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	89.20 index	47
Attracting and retaining talents	is a priority in companies	7.35 Survey [0..10]	22
Worker motivation	in companies is high	6.32 Survey [0..10]	23
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	6.50 Survey [0..10]	12
▶ Quality of life	is high	9.12 Survey [0..10]	9
▶ Foreign highly-skilled personnel	are attracted to your country's business environment	7.29 Survey [0..10]	10
▶ Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	46,494 US\$	10
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	166,659 US\$	30
Effective personal income tax rate	Percentage of an income equal to GDP per capita	22.12 %	43
▶ Justice	is fairly administered	8.38 Survey [0..10]	7
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	8.54 micrograms	11

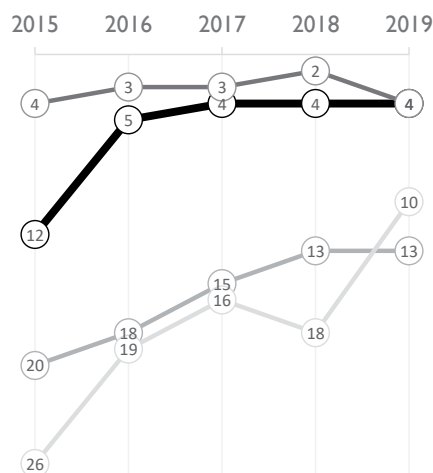
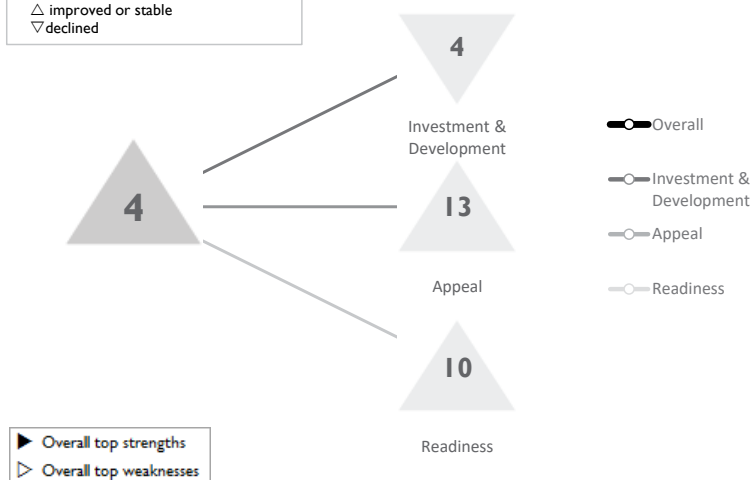
### Readiness

		Value	2019 Rank
Labor force growth	Percentage change	1.55 %	20
Skilled labor	is readily available	6.62 Survey [0..10]	10
Finance skills	are readily available	7.33 Survey [0..10]	12
International experience	of senior managers is generally significant	5.28 Survey [0..10]	35
Competent senior managers	are readily available	6.21 Survey [0..10]	19
Primary and secondary education	meets the needs of a competitive economy	7.71 Survey [0..10]	12
▷ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	18.30 %	53
University education	meets the needs of a competitive economy	7.54 Survey [0..10]	17
Management education	meets the needs of the business community	7.13 Survey [0..10]	21
Language skills	are meeting the needs of enterprises	6.50 Survey [0..10]	31
▶ Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	15.50 number	1
Educational assessment - PISA	PISA survey of 15-year olds	502 Average	19

# AUSTRIA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
Total public expenditure on education	Percentage of GDP	4.8 %	28
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	27.7 %	4
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	11,348 US\$	10
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	11.27 ratio	9
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	9.17 ratio	7
▶ Apprenticeships	are sufficiently implemented	8.07 Survey [0..10]	3
▶ Employee training	is a high priority in companies	7.96 Survey [0..10]	1
Female labor force	Percentage of total labor force	46.72 %	21
Health infrastructure	meets the needs of society	8.40 Survey [0..10]	7

### Appeal

		Value	2019 Rank
▶ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	87.20 index	43
▶ Attracting and retaining talents	is a priority in companies	8.15 Survey [0..10]	2
▶ Worker motivation	in companies is high	7.82 Survey [0..10]	2
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	6.13 Survey [0..10]	16
▶ Quality of life	is high	9.63 Survey [0..10]	2
Foreign highly-skilled personnel	are attracted to your country's business environment	6.53 Survey [0..10]	17
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	46,305 US\$	12
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	287,770 US\$	5
▶ Effective personal income tax rate	Percentage of an income equal to GDP per capita	29.67 %	62
Justice	is fairly administered	7.91 Survey [0..10]	14
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	12.66 micrograms	22

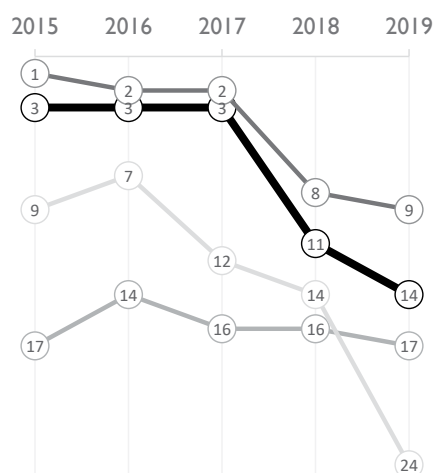
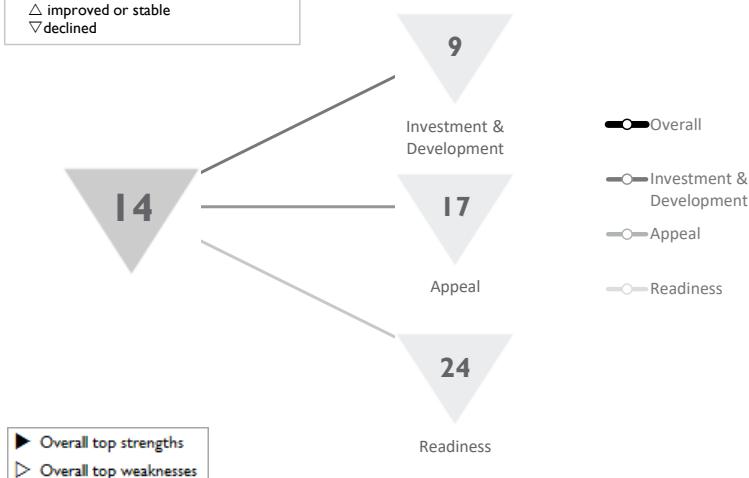
### Readiness

		Value	2019 Rank
▶ Labor force growth	Percentage change	0.75 %	37
▶ Skilled labor	is readily available	4.13 Survey [0..10]	53
Finance skills	are readily available	6.84 Survey [0..10]	24
International experience	of senior managers is generally significant	6.40 Survey [0..10]	13
▶ Competent senior managers	are readily available	5.10 Survey [0..10]	41
Primary and secondary education	meets the needs of a competitive economy	7.13 Survey [0..10]	19
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	30.30 %	8
University education	meets the needs of a competitive economy	7.78 Survey [0..10]	12
Management education	meets the needs of the business community	7.27 Survey [0..10]	17
Language skills	are meeting the needs of enterprises	7.03 Survey [0..10]	24
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	8.41 number	4
Educational assessment - PISA	PISA survey of 15-year olds	496 Average	23

# BELGIUM

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
▶ Total public expenditure on education	Percentage of GDP	6.3 %	7
▶ Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	25.7 %	8
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	10,269 US\$	12
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	12.90 ratio	20
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	9.42 ratio	10
▷ Apprenticeships	are sufficiently implemented	4.24 Survey [0..10]	46
Employee training	is a high priority in companies	6.18 Survey [0..10]	29
Female labor force	Percentage of total labor force	46.65 %	23
▶ Health infrastructure	meets the needs of society	8.63 Survey [0..10]	2

### Appeal

		Value	2019 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	80.80 index	33
Attracting and retaining talents	is a priority in companies	7.61 Survey [0..10]	15
Worker motivation	in companies is high	6.09 Survey [0..10]	25
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	5.48 Survey [0..10]	26
Quality of life	is high	8.33 Survey [0..10]	17
Foreign highly-skilled personnel	are attracted to your country's business environment	5.79 Survey [0..10]	28
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	38,108 US\$	18
▶ Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	265,945 US\$	10
▷ Effective personal income tax rate	Percentage of an income equal to GDP per capita	22.28 %	45
Justice	is fairly administered	6.27 Survey [0..10]	27
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	13.06 micrograms	24

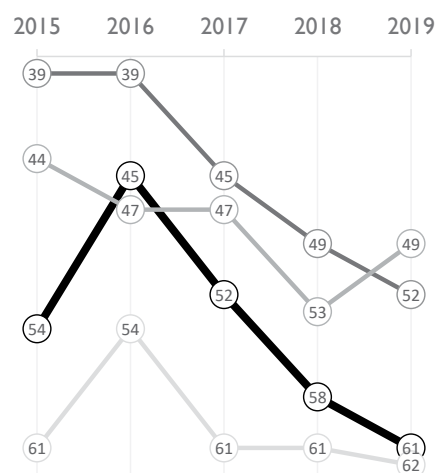
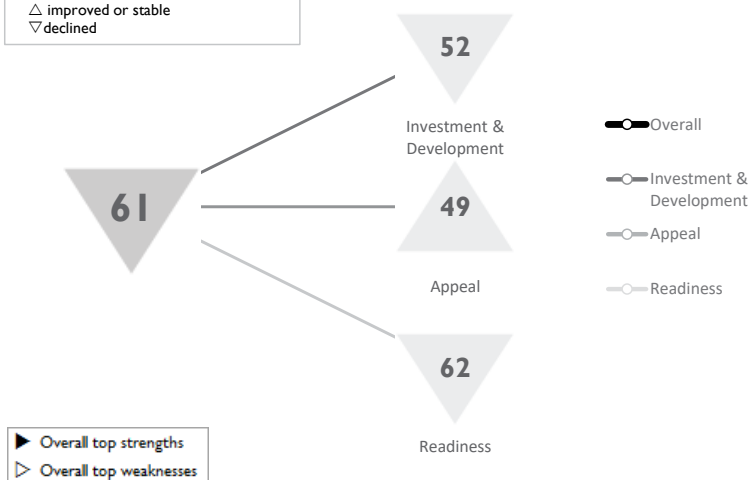
### Readiness

		Value	2019 Rank
▷ Labor force growth	Percentage change	0.86 %	34
Skilled labor	is readily available	5.67 Survey [0..10]	32
Finance skills	are readily available	6.94 Survey [0..10]	20
International experience	of senior managers is generally significant	6.75 Survey [0..10]	10
Competent senior managers	are readily available	6.18 Survey [0..10]	20
Primary and secondary education	meets the needs of a competitive economy	7.34 Survey [0..10]	16
▷ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	17.56 %	57
▶ University education	meets the needs of a competitive economy	7.88 Survey [0..10]	9
Management education	meets the needs of the business community	7.37 Survey [0..10]	16
Language skills	are meeting the needs of enterprises	7.94 Survey [0..10]	14
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	3.95 number	20
Educational assessment - PISA	PISA survey of 15-year olds	504 Average	15

# BRAZIL

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
▶ Total public expenditure on education	Percentage of GDP	6.2 %	8
▶ Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	21.7 %	28
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	1,948 US\$	44
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	24.26 ratio	56
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	24.65 ratio	59
Apprenticeships	are sufficiently implemented	4.08 Survey [0..10]	51
Employee training	is a high priority in companies	5.06 Survey [0..10]	53
▶ Female labor force	Percentage of total labor force	44.02 %	44
▷ Health infrastructure	meets the needs of society	2.14 Survey [0..10]	61

### Appeal

		Value	2019 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	82.40 index	35
Attracting and retaining talents	is a priority in companies	5.83 Survey [0..10]	49
Worker motivation	in companies is high	4.99 Survey [0..10]	48
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	3.35 Survey [0..10]	52
Quality of life	is high	3.97 Survey [0..10]	58
Foreign highly-skilled personnel	are attracted to your country's business environment	3.06 Survey [0..10]	58
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	15,916 US\$	36
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	100,107 US\$	48
▶ Effective personal income tax rate	Percentage of an income equal to GDP per capita	9.02 %	14
Justice	is fairly administered	2.98 Survey [0..10]	51
▶ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	12.79 micrograms	23

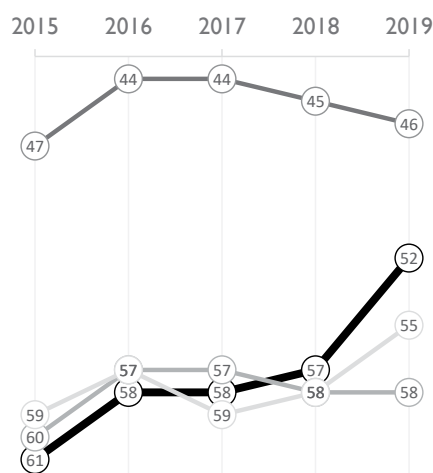
### Readiness

		Value	2019 Rank
Labor force growth	Percentage change	0.93 %	31
Skilled labor	is readily available	3.50 Survey [0..10]	57
Finance skills	are readily available	4.34 Survey [0..10]	60
International experience	of senior managers is generally significant	4.28 Survey [0..10]	58
Competent senior managers	are readily available	4.03 Survey [0..10]	56
▷ Primary and secondary education	meets the needs of a competitive economy	2.13 Survey [0..10]	62
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	17.73 %	56
▷ University education	meets the needs of a competitive economy	3.59 Survey [0..10]	61
▷ Management education	meets the needs of the business community	3.97 Survey [0..10]	61
▷ Language skills	are meeting the needs of enterprises	2.88 Survey [0..10]	63
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	0.10 number	58
Educational assessment - PISA	PISA survey of 15-year olds	389 Average	56

# BULGARIA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
Total public expenditure on education	Percentage of GDP	3.6 %	48
▶ Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	21.7 %	27
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	1,464 US\$	50
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	17.61 ratio	46
▶ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	12.64 ratio	36
Apprenticeships	are sufficiently implemented	4.00 Survey [0..10]	53
Employee training	is a high priority in companies	4.84 Survey [0..10]	55
▶ Female labor force	Percentage of total labor force	46.48 %	25
Health infrastructure	meets the needs of society	2.84 Survey [0..10]	58

### Appeal

		Value	2019 Rank
▶ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	62.10 index	4
▷ Attracting and retaining talents	is a priority in companies	5.26 Survey [0..10]	60
Worker motivation	in companies is high	4.32 Survey [0..10]	57
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	2.67 Survey [0..10]	56
▷ Quality of life	is high	3.96 Survey [0..10]	59
Foreign highly-skilled personnel	are attracted to your country's business environment	3.89 Survey [0..10]	50
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	9,351 US\$	52
▷ Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	49,907 US\$	58
Effective personal income tax rate	Percentage of an income equal to GDP per capita	19.89 %	36
Justice	is fairly administered	2.77 Survey [0..10]	53
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	20.18 micrograms	45

### Readiness

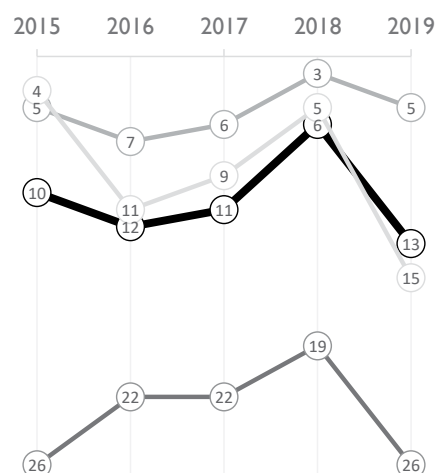
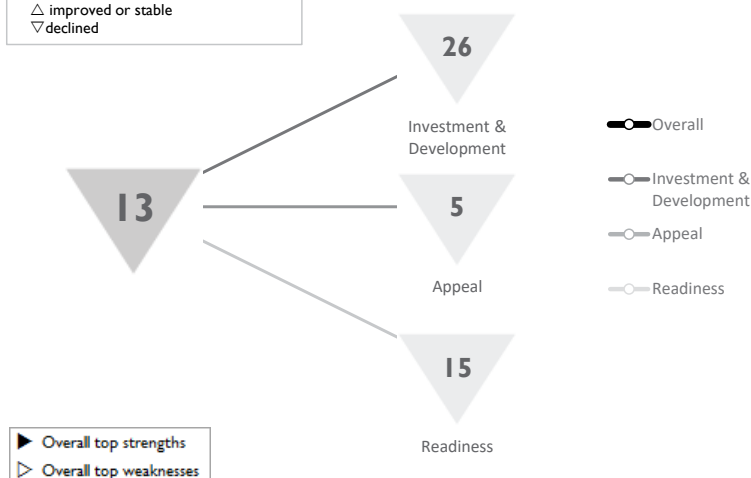
		Value	2019 Rank
▶ Labor force growth	Percentage change	2.86 %	3
Skilled labor	is readily available	4.35 Survey [0..10]	51
Finance skills	are readily available	4.60 Survey [0..10]	57
International experience	of senior managers is generally significant	4.60 Survey [0..10]	55
Competent senior managers	are readily available	4.60 Survey [0..10]	51
Primary and secondary education	meets the needs of a competitive economy	4.04 Survey [0..10]	51
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	19.66 %	47
▷ University education	meets the needs of a competitive economy	3.65 Survey [0..10]	59
▷ Management education	meets the needs of the business community	3.86 Survey [0..10]	63
Language skills	are meeting the needs of enterprises	5.82 Survey [0..10]	39
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	1.71 number	37
Educational assessment - PISA	PISA survey of 15-year olds	443 Average	42



# CANADA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
▶ Total public expenditure on education	Percentage of GDP	4.4 %	36
▶ Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	18.3 %	41
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	10,909 US\$	11
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	16.23 ratio	37
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	13.09 ratio	41
Apprenticeships	are sufficiently implemented	5.79 Survey [0..10]	15
Employee training	is a high priority in companies	6.44 Survey [0..10]	22
Female labor force	Percentage of total labor force	47.53 %	15
Health infrastructure	meets the needs of society	7.32 Survey [0..10]	19

### Appeal

		Value	2019 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	73.30 index	23
Attracting and retaining talents	is a priority in companies	7.30 Survey [0..10]	24
Worker motivation	in companies is high	6.39 Survey [0..10]	21
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	5.87 Survey [0..10]	22
Quality of life	is high	8.26 Survey [0..10]	19
Foreign highly-skilled personnel	are attracted to your country's business environment	7.14 Survey [0..10]	13
▶ Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	46,489 US\$	11
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	204,279 US\$	20
Effective personal income tax rate	Percentage of an income equal to GDP per capita	14.44 %	27
Justice	is fairly administered	7.74 Survey [0..10]	19
▶ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	6.48 micrograms	4

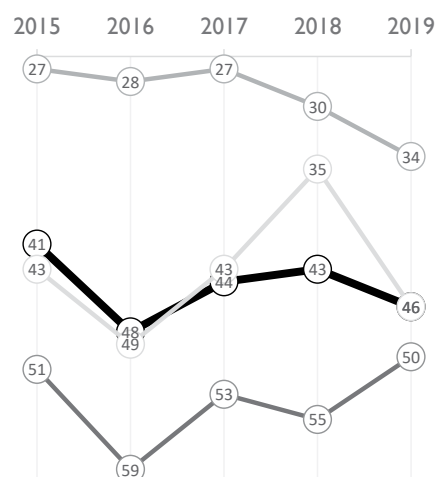
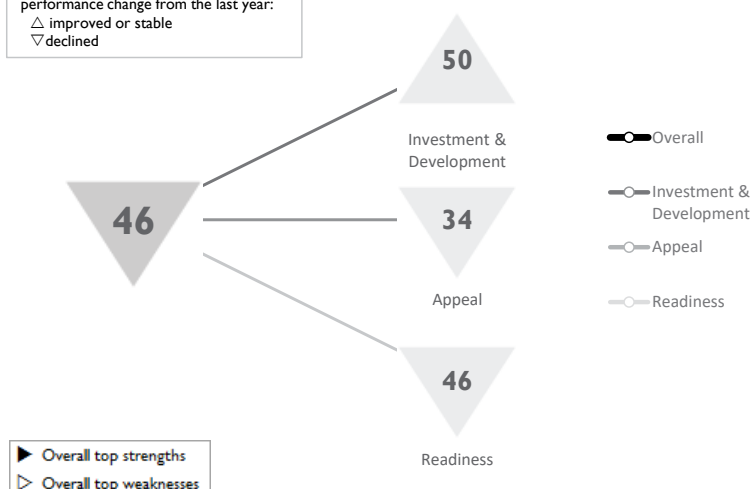
### Readiness

		Value	2019 Rank
▶ Labor force growth	Percentage change	0.76 %	36
▶ Skilled labor	is readily available	6.91 Survey [0..10]	4
Finance skills	are readily available	7.01 Survey [0..10]	17
▶ International experience	of senior managers is generally significant	5.13 Survey [0..10]	40
Competent senior managers	are readily available	6.55 Survey [0..10]	13
Primary and secondary education	meets the needs of a competitive economy	7.61 Survey [0..10]	13
▶ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	21.74 %	39
University education	meets the needs of a competitive economy	7.66 Survey [0..10]	16
Management education	meets the needs of the business community	7.43 Survey [0..10]	12
Language skills	are meeting the needs of enterprises	7.43 Survey [0..10]	21
▶ Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	5.74 number	10
▶ Educational assessment - PISA	PISA survey of 15-year olds	522 Average	7

# CHILE

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
▶ Total public expenditure on education	Percentage of GDP	5.4 %	19
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	18.2 %	42
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	2,964 US\$	42
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	19.77 ratio	51
▷ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	20.91 ratio	56
Apprenticeships	are sufficiently implemented	4.00 Survey [0..10]	53
▷ Employee training	is a high priority in companies	3.97 Survey [0..10]	62
Female labor force	Percentage of total labor force	41.76 %	49
Health infrastructure	meets the needs of society	4.23 Survey [0..10]	43

### Appeal

		Value	2019 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	80.60 index	32
▷ Attracting and retaining talents	is a priority in companies	5.66 Survey [0..10]	57
Worker motivation	in companies is high	4.82 Survey [0..10]	52
▶ Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	6.00 Survey [0..10]	19
Quality of life	is high	6.59 Survey [0..10]	35
▶ Foreign highly-skilled personnel	are attracted to your country's business environment	7.69 Survey [0..10]	8
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	23,844 US\$	29
▶ Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	195,050 US\$	22
Effective personal income tax rate	Percentage of an income equal to GDP per capita	16.97 %	32
Justice	is fairly administered	5.74 Survey [0..10]	33
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	22.17 micrograms	51

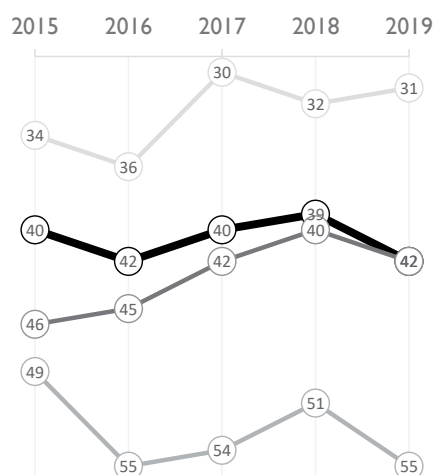
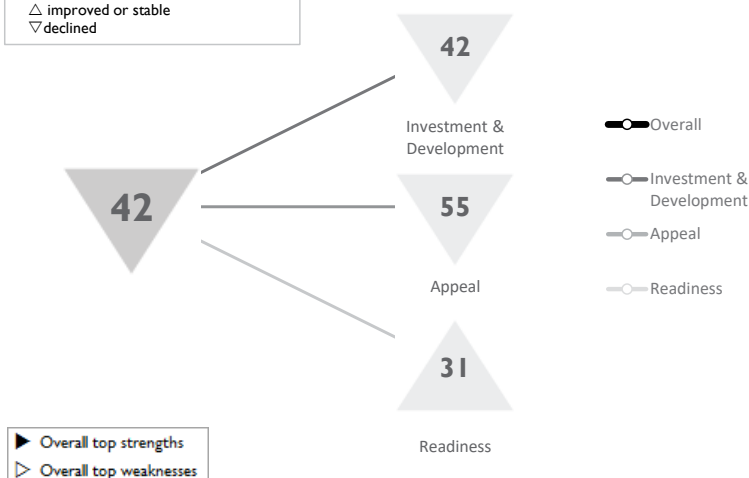
### Readiness

		Value	2019 Rank
▶ Labor force growth	Percentage change	1.70 %	17
Skilled labor	is readily available	4.96 Survey [0..10]	45
Finance skills	are readily available	5.94 Survey [0..10]	42
International experience	of senior managers is generally significant	5.66 Survey [0..10]	27
Competent senior managers	are readily available	5.94 Survey [0..10]	25
Primary and secondary education	meets the needs of a competitive economy	4.40 Survey [0..10]	49
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	20.47 %	46
University education	meets the needs of a competitive economy	6.34 Survey [0..10]	32
Management education	meets the needs of the business community	6.96 Survey [0..10]	23
▷ Language skills	are meeting the needs of enterprises	3.24 Survey [0..10]	61
▷ Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	0.26 number	53
Educational assessment - PISA	PISA survey of 15-year olds	435 Average	45

# CHINA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
Total public expenditure on education	Percentage of GDP	3.6 %	47
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	- %	-
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	1,631 US\$	48
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	16.59 ratio	40
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	13.31 ratio	42
Apprenticeships	are sufficiently implemented	5.28 Survey [0..10]	23
Employee training	is a high priority in companies	6.81 Survey [0..10]	13
Female labor force	Percentage of total labor force	- %	-
Health infrastructure	meets the needs of society	5.94 Survey [0..10]	32

### Appeal

		Value	2019 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	108.60 index	55
Attracting and retaining talents	is a priority in companies	7.34 Survey [0..10]	23
Worker motivation	in companies is high	6.88 Survey [0..10]	16
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.71 Survey [0..10]	32
Quality of life	is high	6.26 Survey [0..10]	37
Foreign highly-skilled personnel	are attracted to your country's business environment	5.79 Survey [0..10]	27
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	11,684 US\$	48
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	155,675 US\$	34
Effective personal income tax rate	Percentage of an income equal to GDP per capita	20.14 %	38
Justice	is fairly administered	5.88 Survey [0..10]	30
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	53.14 micrograms	59

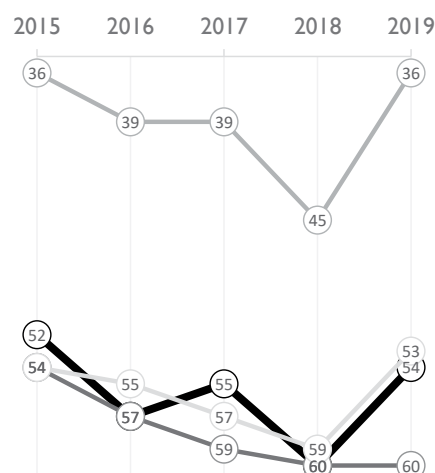
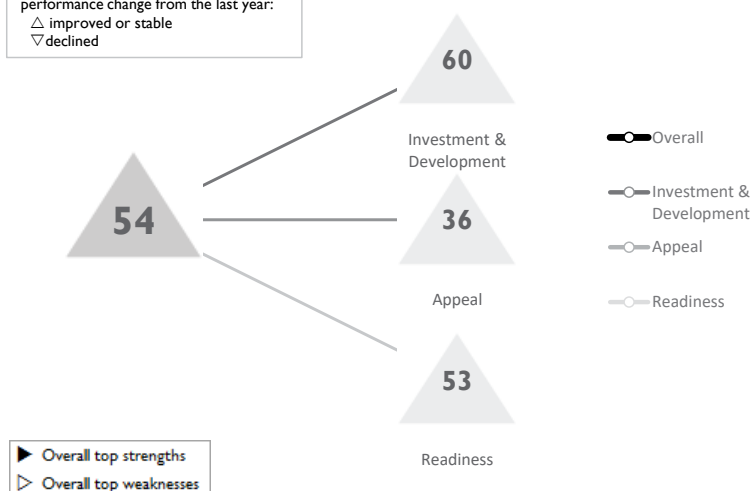
### Readiness

		Value	2019 Rank
Labor force growth	Percentage change	-0.04 %	56
Skilled labor	is readily available	5.91 Survey [0..10]	27
Finance skills	are readily available	6.52 Survey [0..10]	28
International experience	of senior managers is generally significant	5.07 Survey [0..10]	45
Competent senior managers	are readily available	5.93 Survey [0..10]	26
Primary and secondary education	meets the needs of a competitive economy	7.76 Survey [0..10]	11
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	- %	-
University education	meets the needs of a competitive economy	7.34 Survey [0..10]	19
Management education	meets the needs of the business community	6.83 Survey [0..10]	26
Language skills	are meeting the needs of enterprises	5.73 Survey [0..10]	42
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	0.11 number	57
Educational assessment - PISA	PISA survey of 15-year olds	525 Average	6

# COLOMBIA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
Total public expenditure on education	Percentage of GDP	3.9 %	41
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	15.8 %	47
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	1,052 US\$	52
▷ Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	23.60 ratio	55
▷ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	26.01 ratio	60
▶ Apprenticeships	are sufficiently implemented	5.34 Survey [0..10]	21
Employee training	is a high priority in companies	5.53 Survey [0..10]	41
Female labor force	Percentage of total labor force	42.61 %	48
Health infrastructure	meets the needs of society	3.10 Survey [0..10]	54

### Appeal

		Value	2019 Rank
▶ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	63.70 index	6
Attracting and retaining talents	is a priority in companies	5.78 Survey [0..10]	52
Worker motivation	in companies is high	5.21 Survey [0..10]	44
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.35 Survey [0..10]	39
Quality of life	is high	4.51 Survey [0..10]	55
Foreign highly-skilled personnel	are attracted to your country's business environment	5.19 Survey [0..10]	34
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	12,241 US\$	47
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	140,782 US\$	40
▶ Effective personal income tax rate	Percentage of an income equal to GDP per capita	8.29 %	12
▷ Justice	is fairly administered	2.16 Survey [0..10]	60
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	17.00 micrograms	37

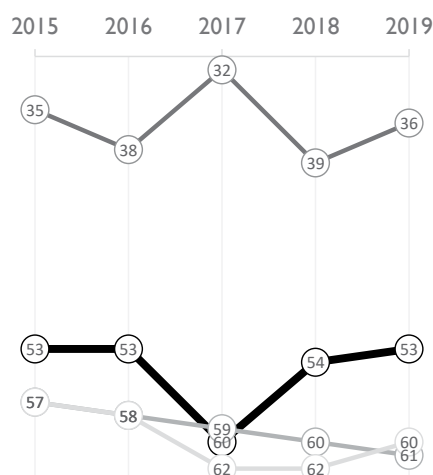
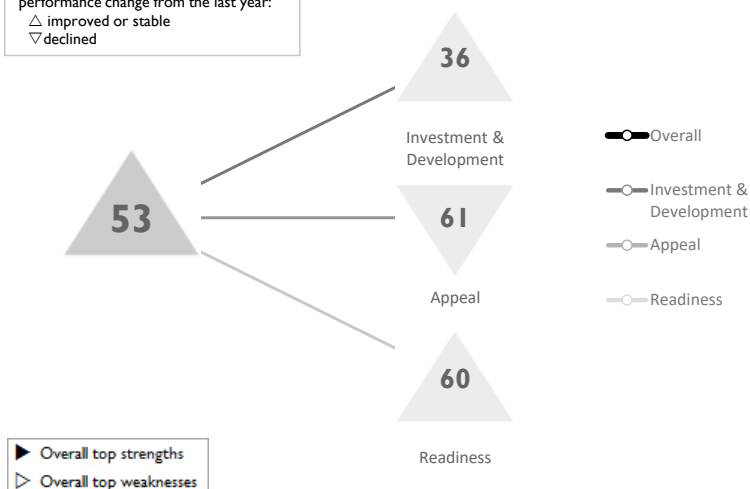
### Readiness

		Value	2019 Rank
▶ Labor force growth	Percentage change	2.57 %	5
Skilled labor	is readily available	5.26 Survey [0..10]	39
Finance skills	are readily available	5.83 Survey [0..10]	45
International experience	of senior managers is generally significant	5.13 Survey [0..10]	41
Competent senior managers	are readily available	4.66 Survey [0..10]	49
Primary and secondary education	meets the needs of a competitive economy	4.05 Survey [0..10]	50
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	23.66 %	31
University education	meets the needs of a competitive economy	5.08 Survey [0..10]	48
Management education	meets the needs of the business community	5.05 Survey [0..10]	50
▷ Language skills	are meeting the needs of enterprises	3.57 Survey [0..10]	58
▷ Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	0.09 number	59
Educational assessment - PISA	PISA survey of 15-year olds	403 Average	52

# CROATIA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
Total public expenditure on education	Percentage of GDP	4.7 %	30
▶ Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	22.6 %	21
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	3,066 US\$	41
▶ Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	10.50 ratio	4
▶ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	8.80 ratio	6
Apprenticeships	are sufficiently implemented	2.93 Survey [0..10]	62
▷ Employee training	is a high priority in companies	3.83 Survey [0..10]	63
Female labor force	Percentage of total labor force	46.40 %	27
Health infrastructure	meets the needs of society	4.09 Survey [0..10]	44

### Appeal

		Value	2019 Rank
▶ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	69.70 index	15
▷ Attracting and retaining talents	is a priority in companies	4.41 Survey [0..10]	63
Worker motivation	in companies is high	3.88 Survey [0..10]	62
▷ Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	1.74 Survey [0..10]	62
Quality of life	is high	5.33 Survey [0..10]	44
Foreign highly-skilled personnel	are attracted to your country's business environment	2.12 Survey [0..10]	62
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	14,350 US\$	40
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	91,668 US\$	51
Effective personal income tax rate	Percentage of an income equal to GDP per capita	19.45 %	35
Justice	is fairly administered	2.76 Survey [0..10]	54
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	17.66 micrograms	40

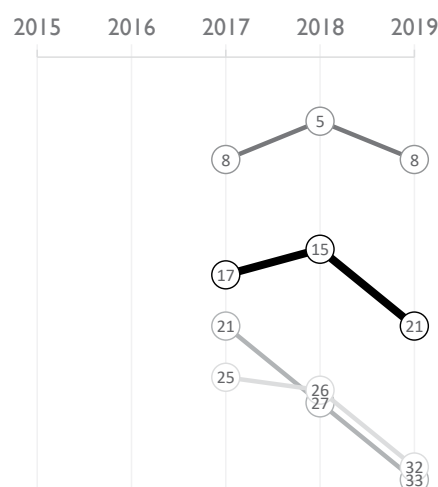
### Readiness

		Value	2019 Rank
Labor force growth	Percentage change	-1.20 %	61
Skilled labor	is readily available	3.16 Survey [0..10]	60
▷ Finance skills	are readily available	3.83 Survey [0..10]	62
▷ International experience	of senior managers is generally significant	3.50 Survey [0..10]	62
Competent senior managers	are readily available	3.04 Survey [0..10]	61
Primary and secondary education	meets the needs of a competitive economy	3.71 Survey [0..10]	57
▶ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	25.29 %	23
University education	meets the needs of a competitive economy	4.32 Survey [0..10]	56
Management education	meets the needs of the business community	4.00 Survey [0..10]	60
Language skills	are meeting the needs of enterprises	6.29 Survey [0..10]	35
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	0.17 number	55
Educational assessment - PISA	PISA survey of 15-year olds	470 Average	36

# CYPRUS

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
Total public expenditure on education	Percentage of GDP	5.7 %	13
▶ Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	39.4 %	1
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	6,624 US\$	25
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	11.92 ratio	15
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	10.35 ratio	18
Apprenticeships	are sufficiently implemented	4.25 Survey [0..10]	45
▷ Employee training	is a high priority in companies	4.65 Survey [0..10]	57
Female labor force	Percentage of total labor force	47.82 %	10
Health infrastructure	meets the needs of society	3.95 Survey [0..10]	47

### Appeal

		Value	2019 Rank
▶ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	66.40 index	10
▷ Attracting and retaining talents	is a priority in companies	5.80 Survey [0..10]	51
▷ Worker motivation	in companies is high	4.70 Survey [0..10]	53
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.35 Survey [0..10]	40
Quality of life	is high	7.60 Survey [0..10]	25
Foreign highly-skilled personnel	are attracted to your country's business environment	4.65 Survey [0..10]	42
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	27,374 US\$	26
▷ Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	88,802 US\$	52
▶ Effective personal income tax rate	Percentage of an income equal to GDP per capita	7.31 %	10
Justice	is fairly administered	4.41 Survey [0..10]	43
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	17.55 micrograms	39

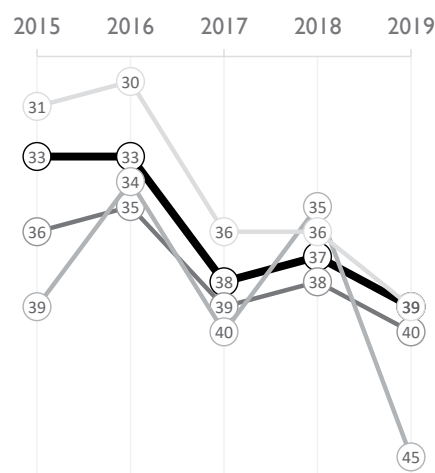
### Readiness

		Value	2019 Rank
▶ Labor force growth	Percentage change	2.34 %	7
Skilled labor	is readily available	4.80 Survey [0..10]	48
Finance skills	are readily available	6.95 Survey [0..10]	19
International experience	of senior managers is generally significant	5.00 Survey [0..10]	47
Competent senior managers	are readily available	4.65 Survey [0..10]	50
Primary and secondary education	meets the needs of a competitive economy	5.95 Survey [0..10]	36
▷ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	15.89 %	59
University education	meets the needs of a competitive economy	6.75 Survey [0..10]	26
Management education	meets the needs of the business community	5.85 Survey [0..10]	44
Language skills	are meeting the needs of enterprises	7.95 Survey [0..10]	13
▶ Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	7.68 number	5
Educational assessment - PISA	PISA survey of 15-year olds	435 Average	44

# CZECH REPUBLIC

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
Total public expenditure on education	Percentage of GDP	4.6 %	32
▶ Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	22.3 %	24
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	4,707 US\$	34
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	19.14 ratio	48
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	11.59 ratio	28
▷ Apprenticeships	are sufficiently implemented	3.80 Survey [0..10]	57
Employee training	is a high priority in companies	5.57 Survey [0..10]	40
Female labor force	Percentage of total labor force	44.69 %	39
Health infrastructure	meets the needs of society	6.42 Survey [0..10]	29

### Appeal

		Value	2019 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	78.10 index	28
Attracting and retaining talents	is a priority in companies	6.84 Survey [0..10]	33
Worker motivation	in companies is high	5.45 Survey [0..10]	39
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.58 Survey [0..10]	34
▶ Quality of life	is high	7.45 Survey [0..10]	27
Foreign highly-skilled personnel	are attracted to your country's business environment	4.61 Survey [0..10]	43
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	15,563 US\$	37
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	110,667 US\$	44
Effective personal income tax rate	Percentage of an income equal to GDP per capita	22.04 %	42
Justice	is fairly administered	5.39 Survey [0..10]	38
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	16.22 micrograms	33

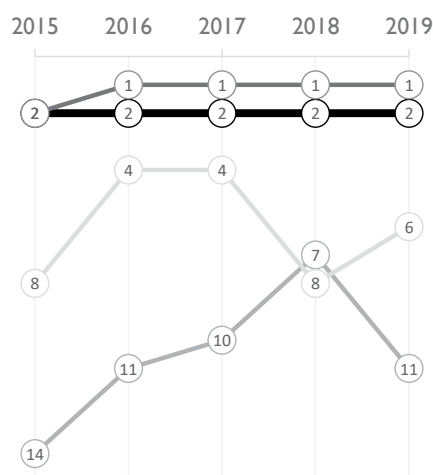
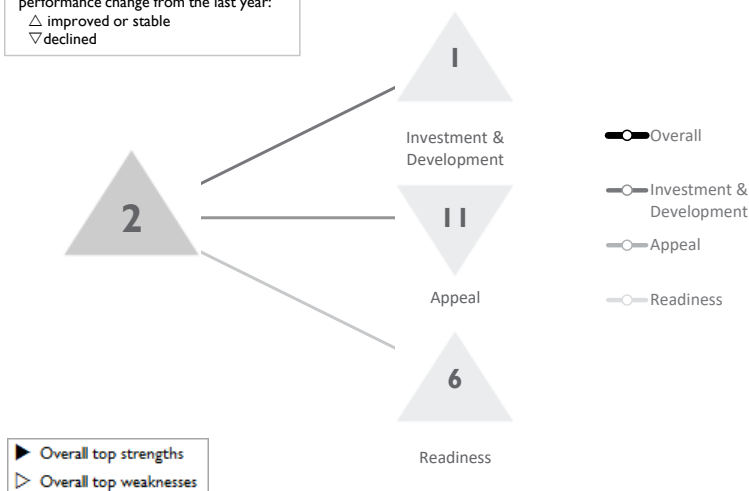
### Readiness

		Value	2019 Rank
Labor force growth	Percentage change	0.72 %	39
▷ Skilled labor	is readily available	3.58 Survey [0..10]	56
▷ Finance skills	are readily available	5.29 Survey [0..10]	51
▷ International experience	of senior managers is generally significant	4.81 Survey [0..10]	51
▷ Competent senior managers	are readily available	4.42 Survey [0..10]	53
Primary and secondary education	meets the needs of a competitive economy	5.45 Survey [0..10]	41
▶ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	25.66 %	20
University education	meets the needs of a competitive economy	6.06 Survey [0..10]	40
Management education	meets the needs of the business community	5.90 Survey [0..10]	43
Language skills	are meeting the needs of enterprises	6.10 Survey [0..10]	37
▶ Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	4.18 number	16
▶ Educational assessment - PISA	PISA survey of 15-year olds	493 Average	26

# DENMARK

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
Total public expenditure on education	Percentage of GDP	6.5 %	6
▶ Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	31.1 %	2
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	13,399 US\$	7
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	11.75 ratio	13
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	12.10 ratio	32
Apprenticeships	are sufficiently implemented	6.84 Survey [0..10]	6
▶ Employee training	is a high priority in companies	7.63 Survey [0..10]	2
Female labor force	Percentage of total labor force	47.77 %	12
Health infrastructure	meets the needs of society	8.23 Survey [0..10]	9

### Appeal

		Value	2019 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	97.30 index	53
Attracting and retaining talents	is a priority in companies	8.14 Survey [0..10]	3
▶ Worker motivation	in companies is high	7.86 Survey [0..10]	1
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	7.37 Survey [0..10]	5
Quality of life	is high	9.51 Survey [0..10]	4
Foreign highly-skilled personnel	are attracted to your country's business environment	6.12 Survey [0..10]	20
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	58,896 US\$	5
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	227,770 US\$	16
▷ Effective personal income tax rate	Percentage of an income equal to GDP per capita	29.43 %	61
▶ Justice	is fairly administered	9.17 Survey [0..10]	1
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	10.35 micrograms	14

### Readiness

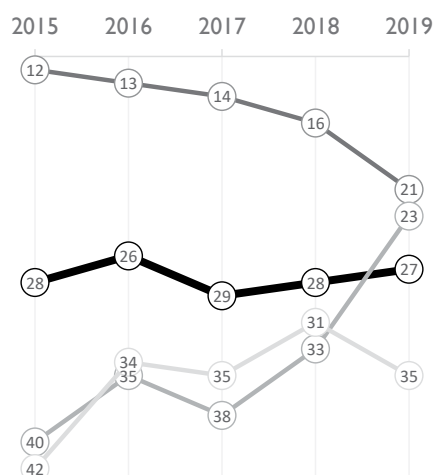
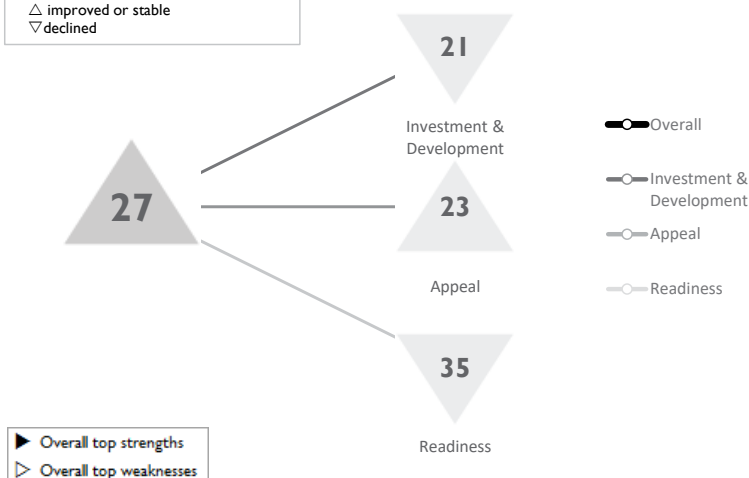
		Value	2019 Rank
Labor force growth	Percentage change	1.00 %	30
Skilled labor	is readily available	6.85 Survey [0..10]	7
Finance skills	are readily available	7.86 Survey [0..10]	4
International experience	of senior managers is generally significant	6.40 Survey [0..10]	14
Competent senior managers	are readily available	6.80 Survey [0..10]	5
Primary and secondary education	meets the needs of a competitive economy	8.61 Survey [0..10]	5
▷ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	20.98 %	43
University education	meets the needs of a competitive economy	8.71 Survey [0..10]	3
Management education	meets the needs of the business community	8.16 Survey [0..10]	3
▶ Language skills	are meeting the needs of enterprises	8.96 Survey [0..10]	2
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	5.84 number	9
Educational assessment - PISA	PISA survey of 15-year olds	507 Average	14



# ESTONIA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
▶ Total public expenditure on education	Percentage of GDP	5.8 %	11
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	19.1 %	37
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	5,337 US\$	29
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	13.19 ratio	22
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	12.70 ratio	37
Apprenticeships	are sufficiently implemented	4.47 Survey [0..10]	40
▶ Employee training	is a high priority in companies	6.90 Survey [0..10]	11
▶ Female labor force	Percentage of total labor force	48.49 %	7
Health infrastructure	meets the needs of society	5.30 Survey [0..10]	39

### Appeal

		Value	2019 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	69.40 index	14
Attracting and retaining talents	is a priority in companies	7.63 Survey [0..10]	13
Worker motivation	in companies is high	5.86 Survey [0..10]	31
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.33 Survey [0..10]	41
Quality of life	is high	6.70 Survey [0..10]	34
Foreign highly-skilled personnel	are attracted to your country's business environment	5.03 Survey [0..10]	37
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	15,532 US\$	38
▷ Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	101,497 US\$	47
Effective personal income tax rate	Percentage of an income equal to GDP per capita	12.95 %	22
Justice	is fairly administered	6.77 Survey [0..10]	24
▶ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	6.89 micrograms	6

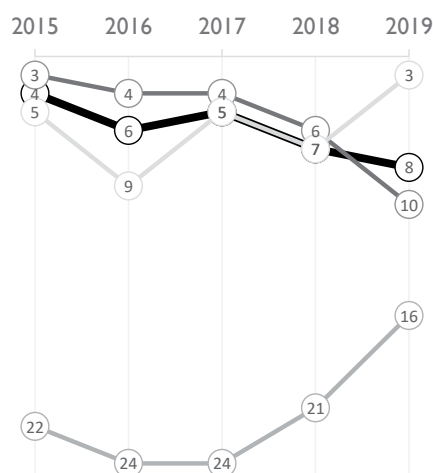
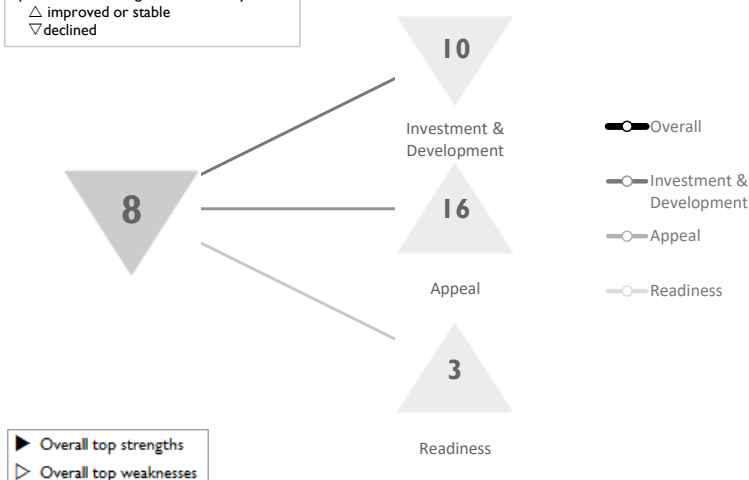
### Readiness

		Value	2019 Rank
▷ Labor force growth	Percentage change	0.46 %	48
▷ Skilled labor	is readily available	2.50 Survey [0..10]	63
▷ Finance skills	are readily available	4.51 Survey [0..10]	58
International experience	of senior managers is generally significant	5.07 Survey [0..10]	46
▷ Competent senior managers	are readily available	3.43 Survey [0..10]	57
Primary and secondary education	meets the needs of a competitive economy	6.97 Survey [0..10]	23
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	27.46 %	16
University education	meets the needs of a competitive economy	6.43 Survey [0..10]	30
Management education	meets the needs of the business community	6.37 Survey [0..10]	36
Language skills	are meeting the needs of enterprises	6.80 Survey [0..10]	27
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	2.98 number	27
▶ Educational assessment - PISA	PISA survey of 15-year olds	527 Average	5

# FINLAND

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
Total public expenditure on education	Percentage of GDP	5.7 %	14
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	24.8 %	11
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	9,638 US\$	14
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	13.67 ratio	25
▷ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	13.58 ratio	45
▷ Apprenticeships	are sufficiently implemented	4.78 Survey [0..10]	34
Employee training	is a high priority in companies	6.94 Survey [0..10]	9
Female labor force	Percentage of total labor force	48.11 %	9
Health infrastructure	meets the needs of society	8.00 Survey [0..10]	12

### Appeal

		Value	2019 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	83.50 index	38
Attracting and retaining talents	is a priority in companies	7.41 Survey [0..10]	21
Worker motivation	in companies is high	7.31 Survey [0..10]	7
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	5.88 Survey [0..10]	21
▶ Quality of life	is high	9.54 Survey [0..10]	3
▷ Foreign highly-skilled personnel	are attracted to your country's business environment	4.93 Survey [0..10]	38
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	40,528 US\$	16
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	186,477 US\$	24
▷ Effective personal income tax rate	Percentage of an income equal to GDP per capita	27.74 %	60
▶ Justice	is fairly administered	8.89 Survey [0..10]	3
▶ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	5.94 micrograms	1

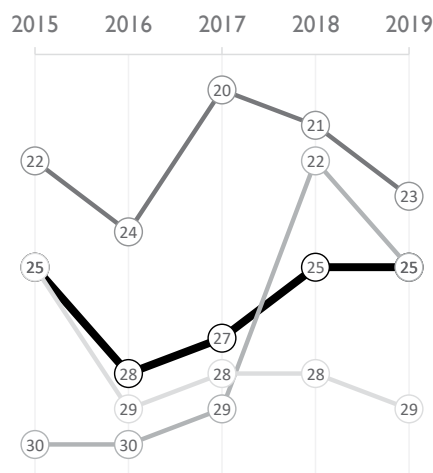
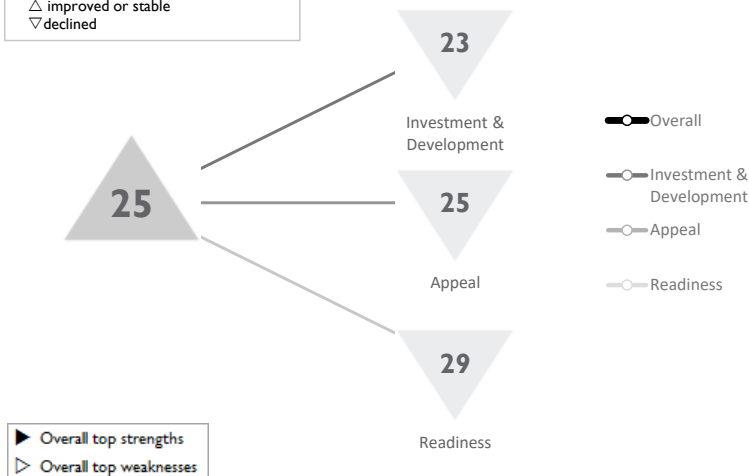
### Readiness

		Value	2019 Rank
Labor force growth	Percentage change	1.27 %	24
Skilled labor	is readily available	6.18 Survey [0..10]	20
Finance skills	are readily available	7.16 Survey [0..10]	14
International experience	of senior managers is generally significant	5.92 Survey [0..10]	23
Competent senior managers	are readily available	6.30 Survey [0..10]	17
▶ Primary and secondary education	meets the needs of a competitive economy	9.07 Survey [0..10]	1
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	29.53 %	10
▶ University education	meets the needs of a competitive economy	8.71 Survey [0..10]	4
Management education	meets the needs of the business community	7.92 Survey [0..10]	5
Language skills	are meeting the needs of enterprises	8.48 Survey [0..10]	10
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	4.39 number	15
Educational assessment - PISA	PISA survey of 15-year olds	521 Average	8

# FRANCE

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
Total public expenditure on education	Percentage of GDP	5.4 %	20
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	23.0 %	19
▶ Total public exp. on education per student	Spending per enrolled pupil/student, all levels	9,025 US\$	16
▷ Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	19.62 ratio	50
▷ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	12.60 ratio	35
▷ Apprenticeships	are sufficiently implemented	3.95 Survey [0..10]	55
Employee training	is a high priority in companies	5.70 Survey [0..10]	35
▶ Female labor force	Percentage of total labor force	48.29 %	8
▶ Health infrastructure	meets the needs of society	8.42 Survey [0..10]	5

### Appeal

		Value	2019 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	88.50 index	44
Attracting and retaining talents	is a priority in companies	6.96 Survey [0..10]	32
Worker motivation	in companies is high	5.08 Survey [0..10]	46
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	5.01 Survey [0..10]	29
Quality of life	is high	8.12 Survey [0..10]	21
Foreign highly-skilled personnel	are attracted to your country's business environment	5.51 Survey [0..10]	30
▶ Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	37,845 US\$	19
▶ Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	269,384 US\$	8
▷ Effective personal income tax rate	Percentage of an income equal to GDP per capita	23.27 %	48
Justice	is fairly administered	7.19 Survey [0..10]	22
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	11.98 micrograms	19

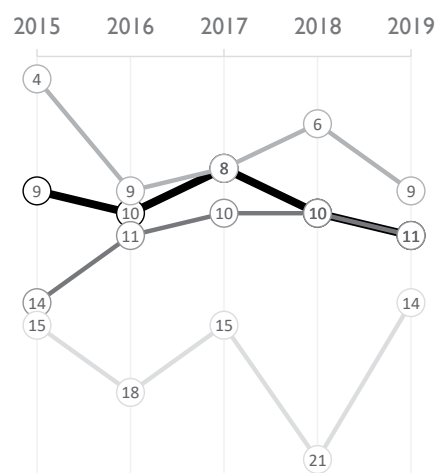
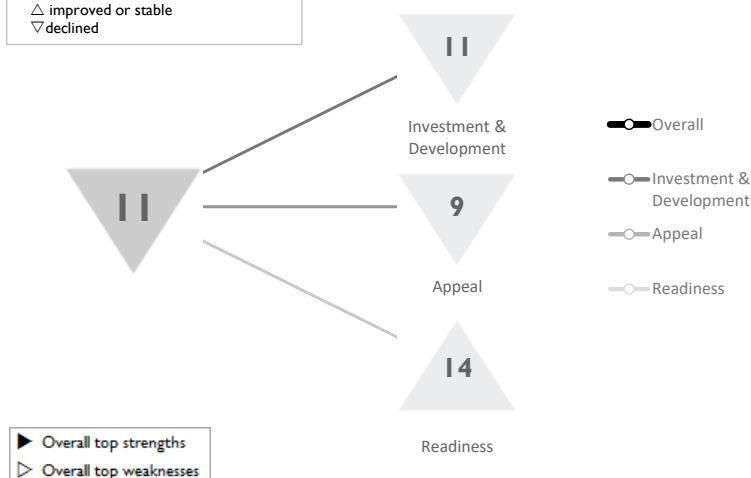
### Readiness

		Value	2019 Rank
Labor force growth	Percentage change	0.51 %	44
Skilled labor	is readily available	5.38 Survey [0..10]	37
Finance skills	are readily available	6.72 Survey [0..10]	26
▷ International experience	of senior managers is generally significant	4.94 Survey [0..10]	48
Competent senior managers	are readily available	5.48 Survey [0..10]	35
Primary and secondary education	meets the needs of a competitive economy	7.09 Survey [0..10]	21
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	25.57 %	21
University education	meets the needs of a competitive economy	6.96 Survey [0..10]	25
Management education	meets the needs of the business community	7.23 Survey [0..10]	19
▷ Language skills	are meeting the needs of enterprises	4.47 Survey [0..10]	53
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	3.86 number	21
Educational assessment - PISA	PISA survey of 15-year olds	494 Average	24

# GERMANY

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
▶ Total public expenditure on education	Percentage of GDP	4.1 %	39
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	23.0 %	18
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	8,918 US\$	17
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	15.40 ratio	33
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	13.02 ratio	40
▶ Apprenticeships	are sufficiently implemented	8.47 Survey [0..10]	2
▶ Employee training	is a high priority in companies	7.61 Survey [0..10]	3
Female labor force	Percentage of total labor force	46.34 %	28
Health infrastructure	meets the needs of society	8.20 Survey [0..10]	10

### Appeal

		Value	2019 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	82.70 index	36
Attracting and retaining talents	is a priority in companies	7.43 Survey [0..10]	20
Worker motivation	in companies is high	7.07 Survey [0..10]	10
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	6.06 Survey [0..10]	17
Quality of life	is high	9.25 Survey [0..10]	6
Foreign highly-skilled personnel	are attracted to your country's business environment	6.45 Survey [0..10]	18
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	46,639 US\$	9
▶ Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	318,053 US\$	3
▷ Effective personal income tax rate	Percentage of an income equal to GDP per capita	25.85 %	55
▶ Justice	is fairly administered	8.70 Survey [0..10]	5
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	12.09 micrograms	21

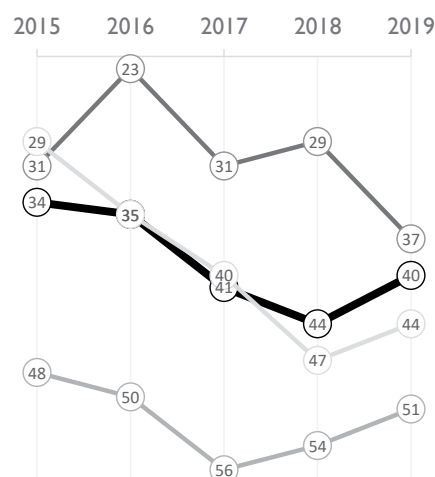
### Readiness

		Value	2019 Rank
▷ Labor force growth	Percentage change	0.23 %	51
▷ Skilled labor	is readily available	4.47 Survey [0..10]	49
Finance skills	are readily available	6.97 Survey [0..10]	18
International experience	of senior managers is generally significant	6.03 Survey [0..10]	21
▷ Competent senior managers	are readily available	4.91 Survey [0..10]	47
Primary and secondary education	meets the needs of a competitive economy	7.82 Survey [0..10]	10
▶ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	36.11 %	1
University education	meets the needs of a competitive economy	8.03 Survey [0..10]	7
Management education	meets the needs of the business community	7.22 Survey [0..10]	20
Language skills	are meeting the needs of enterprises	7.14 Survey [0..10]	22
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	3.13 number	25
Educational assessment - PISA	PISA survey of 15-year olds	508 Average	13

# GREECE

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
Total public expenditure on education	Percentage of GDP	3.9 %	42
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	22.4 %	22
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	3,352 US\$	39
▶ Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	9.38 ratio	2
▶ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	8.56 ratio	5
Apprenticeships	are sufficiently implemented	3.94 Survey [0..10]	56
▷ Employee training	is a high priority in companies	4.47 Survey [0..10]	60
Female labor force	Percentage of total labor force	44.04 %	43
Health infrastructure	meets the needs of society	3.91 Survey [0..10]	48

### Appeal

		Value	2019 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	72.80 index	22
▷ Attracting and retaining talents	is a priority in companies	5.56 Survey [0..10]	58
Worker motivation	in companies is high	4.60 Survey [0..10]	55
▷ Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	2.22 Survey [0..10]	60
Quality of life	is high	5.75 Survey [0..10]	42
▷ Foreign highly-skilled personnel	are attracted to your country's business environment	2.25 Survey [0..10]	61
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	20,159 US\$	33
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	187,398 US\$	23
Effective personal income tax rate	Percentage of an income equal to GDP per capita	22.15 %	44
Justice	is fairly administered	4.03 Survey [0..10]	46
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	16.36 micrograms	35

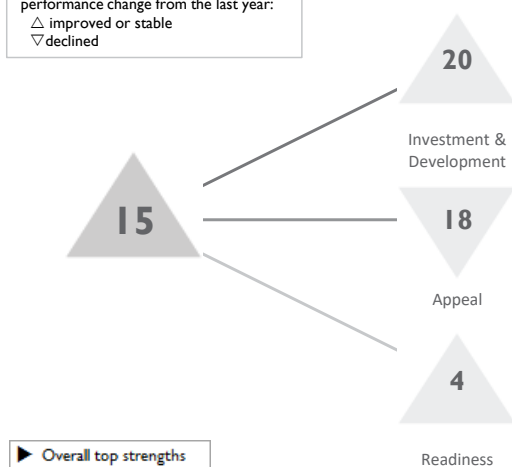
### Readiness

		Value	2019 Rank
▷ Labor force growth	Percentage change	-0.61 %	59
▶ Skilled labor	is readily available	6.38 Survey [0..10]	14
Finance skills	are readily available	6.16 Survey [0..10]	37
International experience	of senior managers is generally significant	5.19 Survey [0..10]	37
Competent senior managers	are readily available	5.41 Survey [0..10]	37
Primary and secondary education	meets the needs of a competitive economy	4.50 Survey [0..10]	48
▶ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	28.16 %	14
University education	meets the needs of a competitive economy	4.78 Survey [0..10]	52
Management education	meets the needs of the business community	5.03 Survey [0..10]	52
▶ Language skills	are meeting the needs of enterprises	7.75 Survey [0..10]	17
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	2.33 number	31
Educational assessment - PISA	PISA survey of 15-year olds	454 Average	40

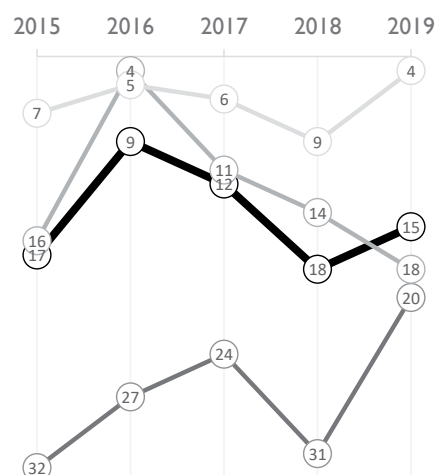
# HONG KONG SAR

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



- Overall top strengths
- Overall top weaknesses



### Investment & Development

		Value	2019 Rank
► Total public expenditure on education	Percentage of GDP	3.3 %	53
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	21.3 %	30
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	9,295 US\$	15
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	13.77 ratio	26
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	11.52 ratio	27
Apprenticeships	are sufficiently implemented	5.56 Survey [0..10]	17
Employee training	is a high priority in companies	6.61 Survey [0..10]	20
► Female labor force	Percentage of total labor force	49.57 %	3
Health infrastructure	meets the needs of society	6.52 Survey [0..10]	27

### Appeal

		Value	2019 Rank
► Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	125.20 index	60
Attracting and retaining talents	is a priority in companies	7.64 Survey [0..10]	12
Worker motivation	in companies is high	6.97 Survey [0..10]	14
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	6.22 Survey [0..10]	15
► Quality of life	is high	6.18 Survey [0..10]	38
Foreign highly-skilled personnel	are attracted to your country's business environment	7.16 Survey [0..10]	11
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	32,983 US\$	22
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	283,328 US\$	6
Effective personal income tax rate	Percentage of an income equal to GDP per capita	4.71 %	7
Justice	is fairly administered	8.33 Survey [0..10]	8
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	- micrograms	-

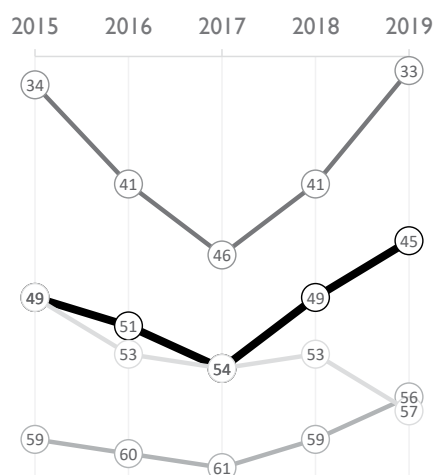
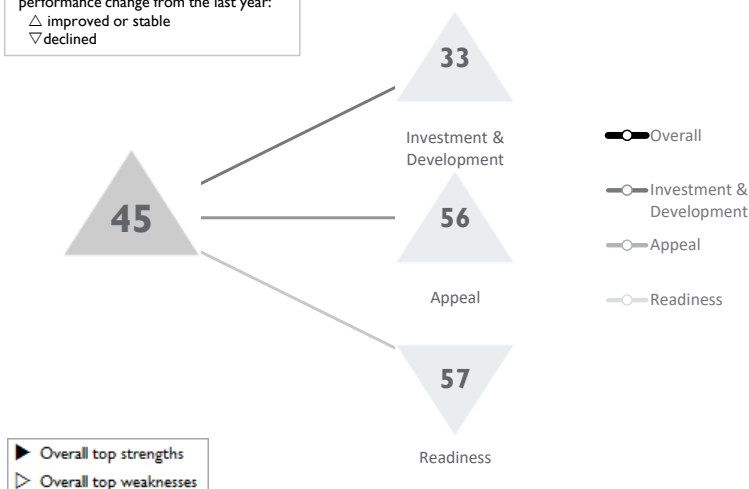
### Readiness

		Value	2019 Rank
► Labor force growth	Percentage change	0.82 %	35
Skilled labor	is readily available	6.03 Survey [0..10]	24
► Finance skills	are readily available	7.72 Survey [0..10]	5
International experience	of senior managers is generally significant	7.45 Survey [0..10]	7
► Competent senior managers	are readily available	6.92 Survey [0..10]	4
Primary and secondary education	meets the needs of a competitive economy	6.76 Survey [0..10]	24
► Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	32.62 %	5
University education	meets the needs of a competitive economy	7.10 Survey [0..10]	22
Management education	meets the needs of the business community	7.26 Survey [0..10]	18
Language skills	are meeting the needs of enterprises	6.89 Survey [0..10]	26
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	4.65 number	14
► Educational assessment - PISA	PISA survey of 15-year olds	536 Average	3

# HUNGARY

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
▶ Total public expenditure on education	Percentage of GDP	5.1 %	22
▶ Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	23.1 %	17
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	3,744 US\$	36
▶ Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	10.80 ratio	7
▶ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	10.94 ratio	23
▷ Apprenticeships	are sufficiently implemented	3.47 Survey [0..10]	58
Employee training	is a high priority in companies	5.16 Survey [0..10]	48
Female labor force	Percentage of total labor force	45.40 %	35
Health infrastructure	meets the needs of society	3.38 Survey [0..10]	51

### Appeal

		Value	2019 Rank
▶ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	67.00 index	11
Attracting and retaining talents	is a priority in companies	6.31 Survey [0..10]	40
Worker motivation	in companies is high	4.47 Survey [0..10]	56
▷ Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	2.36 Survey [0..10]	59
Quality of life	is high	4.62 Survey [0..10]	54
Foreign highly-skilled personnel	are attracted to your country's business environment	3.75 Survey [0..10]	52
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	12,322 US\$	46
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	85,503 US\$	53
▷ Effective personal income tax rate	Percentage of an income equal to GDP per capita	27.56 %	59
Justice	is fairly administered	5.00 Survey [0..10]	41
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	16.07 micrograms	30

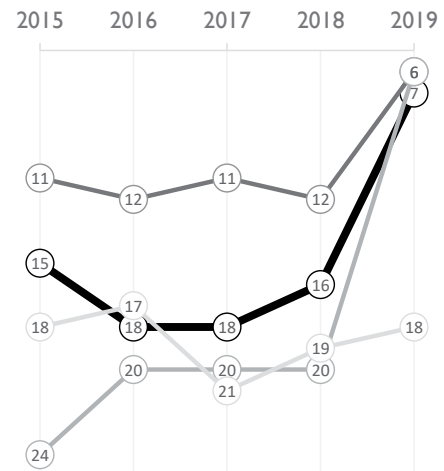
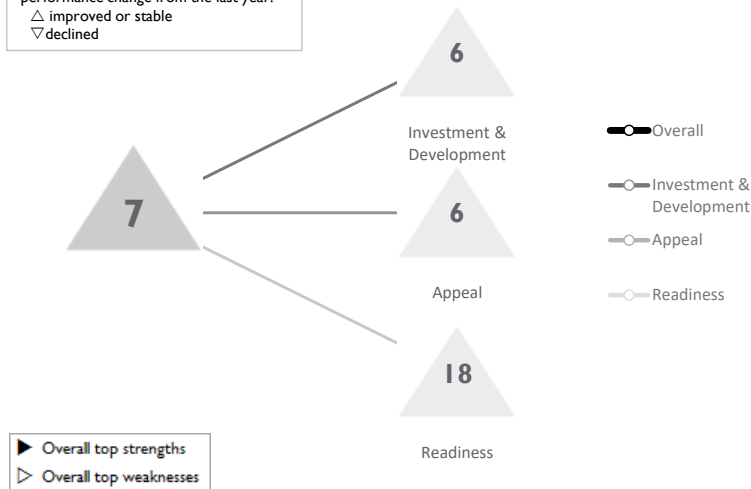
### Readiness

		Value	2019 Rank
Labor force growth	Percentage change	0.61 %	42
▷ Skilled labor	is readily available	2.58 Survey [0..10]	61
Finance skills	are readily available	5.21 Survey [0..10]	54
International experience	of senior managers is generally significant	5.38 Survey [0..10]	33
▷ Competent senior managers	are readily available	3.13 Survey [0..10]	58
Primary and secondary education	meets the needs of a competitive economy	3.95 Survey [0..10]	53
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	22.81 %	36
University education	meets the needs of a competitive economy	5.02 Survey [0..10]	50
Management education	meets the needs of the business community	5.26 Survey [0..10]	49
Language skills	are meeting the needs of enterprises	3.75 Survey [0..10]	57
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	2.92 number	28
Educational assessment - PISA	PISA survey of 15-year olds	477 Average	35

# ICELAND

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
▶ Total public expenditure on education	Percentage of GDP	7.5 %	2
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	19.4 %	36
▶ Total public exp. on education per student	Spending per enrolled pupil/student, all levels	17,422 US\$	3
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	11.07 ratio	8
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	10.10 ratio	16
Apprenticeships	are sufficiently implemented	4.81 Survey [0..10]	33
Employee training	is a high priority in companies	5.84 Survey [0..10]	34
Female labor force	Percentage of total labor force	46.08 %	30
Health infrastructure	meets the needs of society	7.26 Survey [0..10]	20

### Appeal

		Value	2019 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	- index	-
Attracting and retaining talents	is a priority in companies	7.68 Survey [0..10]	11
Worker motivation	in companies is high	7.06 Survey [0..10]	11
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	6.68 Survey [0..10]	10
Quality of life	is high	9.23 Survey [0..10]	7
▷ Foreign highly-skilled personnel	are attracted to your country's business environment	4.49 Survey [0..10]	44
▶ Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	71,961 US\$	2
▷ Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	97,700 US\$	49
▷ Effective personal income tax rate	Percentage of an income equal to GDP per capita	21.32 %	41
Justice	is fairly administered	7.90 Survey [0..10]	15
▶ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	6.81 micrograms	5

### Readiness

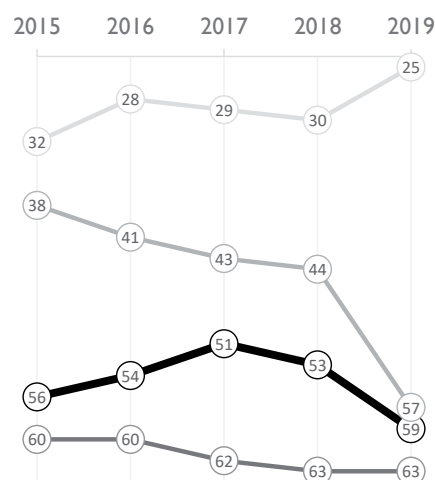
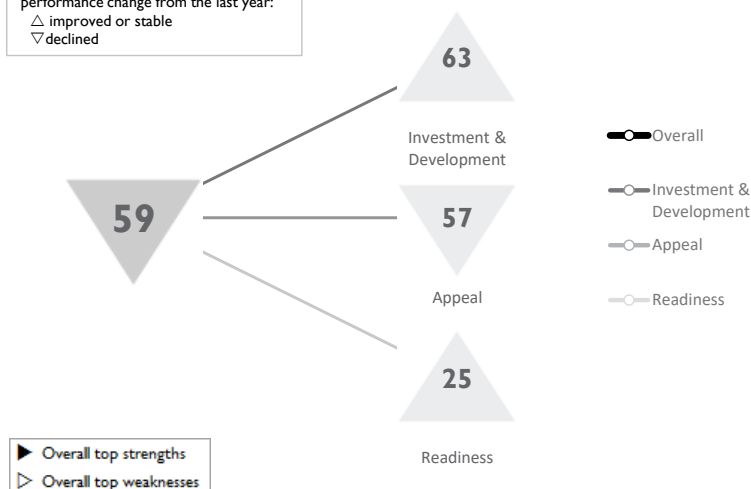
		Value	2019 Rank
Labor force growth	Percentage change	2.24 %	9
Skilled labor	is readily available	6.87 Survey [0..10]	6
Finance skills	are readily available	7.52 Survey [0..10]	6
▷ International experience	of senior managers is generally significant	4.87 Survey [0..10]	50
Competent senior managers	are readily available	6.26 Survey [0..10]	18
Primary and secondary education	meets the needs of a competitive economy	7.84 Survey [0..10]	9
▷ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	19.48 %	49
University education	meets the needs of a competitive economy	7.87 Survey [0..10]	10
Management education	meets the needs of the business community	7.68 Survey [0..10]	6
▶ Language skills	are meeting the needs of enterprises	8.74 Survey [0..10]	3
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	3.58 number	22
Educational assessment - PISA	PISA survey of 15-year olds	481 Average	33



# INDIA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
Total public expenditure on education	Percentage of GDP	4.4 %	37
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	16.8 %	45
▷ Total public exp. on education per student	Spending per enrolled pupil/student, all levels	310 US\$	62
▷ Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	32.75 ratio	62
▷ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	27.44 ratio	62
Apprenticeships	are sufficiently implemented	5.21 Survey [0..10]	24
Employee training	is a high priority in companies	5.59 Survey [0..10]	39
Female labor force	Percentage of total labor force	23.19 %	58
Health infrastructure	meets the needs of society	4.55 Survey [0..10]	42

### Appeal

		Value	2019 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	82.90 index	37
Attracting and retaining talents	is a priority in companies	6.27 Survey [0..10]	41
Worker motivation	in companies is high	5.57 Survey [0..10]	35
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.75 Survey [0..10]	31
Quality of life	is high	4.95 Survey [0..10]	51
Foreign highly-skilled personnel	are attracted to your country's business environment	4.88 Survey [0..10]	40
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	6,508 US\$	56
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	104,387 US\$	45
► Effective personal income tax rate	Percentage of an income equal to GDP per capita	11.14 %	16
Justice	is fairly administered	5.82 Survey [0..10]	31
▷ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	89.88 micrograms	61

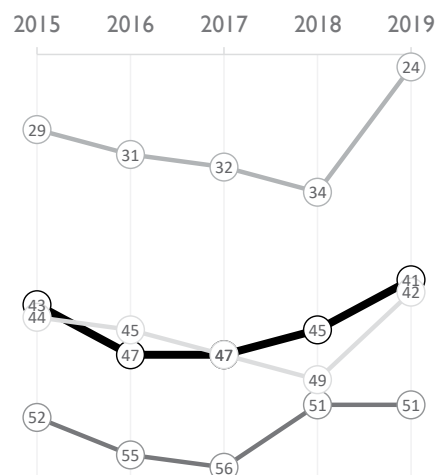
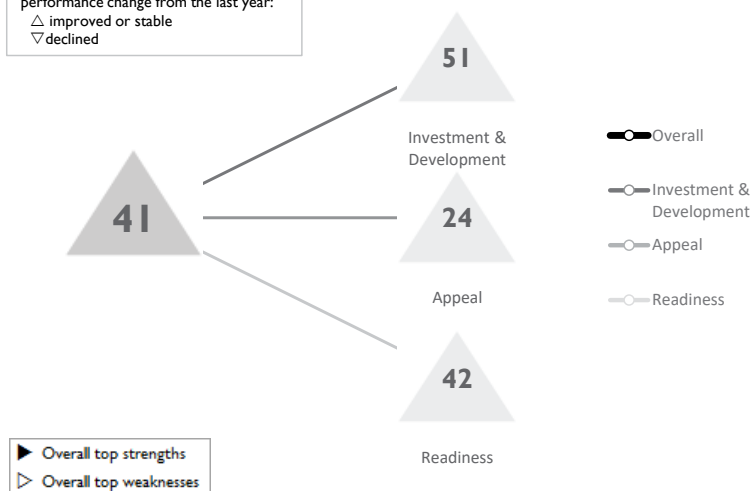
### Readiness

		Value	2019 Rank
► Labor force growth	Percentage change	1.82 %	16
► Skilled labor	is readily available	6.25 Survey [0..10]	17
Finance skills	are readily available	6.50 Survey [0..10]	29
International experience	of senior managers is generally significant	5.29 Survey [0..10]	34
Competent senior managers	are readily available	5.91 Survey [0..10]	27
Primary and secondary education	meets the needs of a competitive economy	5.45 Survey [0..10]	42
► Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	32.64 %	4
University education	meets the needs of a competitive economy	5.68 Survey [0..10]	42
Management education	meets the needs of the business community	6.41 Survey [0..10]	35
► Language skills	are meeting the needs of enterprises	7.11 Survey [0..10]	23
▷ Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	0.04 number	60
Educational assessment - PISA	PISA survey of 15-year olds	- Average	-

# INDONESIA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
▶ Total public expenditure on education	Percentage of GDP	3.1 %	57
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	10.5 %	55
▶ Total public exp. on education per student	Spending per enrolled pupil/student, all levels	411 US\$	60
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	16.06 ratio	35
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	15.33 ratio	50
▶ Apprenticeships	are sufficiently implemented	6.25 Survey [0..10]	9
Employee training	is a high priority in companies	6.67 Survey [0..10]	17
▶ Female labor force	Percentage of total labor force	37.58 %	56
Health infrastructure	meets the needs of society	5.85 Survey [0..10]	36

### Appeal

		Value	2019 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	71.90 index	19
Attracting and retaining talents	is a priority in companies	7.06 Survey [0..10]	29
Worker motivation	in companies is high	6.96 Survey [0..10]	15
▶ Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	6.38 Survey [0..10]	13
Quality of life	is high	6.10 Survey [0..10]	39
Foreign highly-skilled personnel	are attracted to your country's business environment	6.30 Survey [0..10]	19
▶ Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	5,788 US\$	58
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	82,139 US\$	54
▶ Effective personal income tax rate	Percentage of an income equal to GDP per capita	1.85 %	4
Justice	is fairly administered	5.53 Survey [0..10]	35
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	16.63 micrograms	36

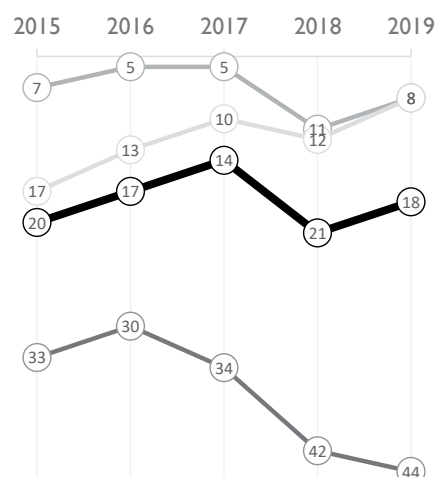
### Readiness

		Value	2019 Rank
▶ Labor force growth	Percentage change	2.30 %	8
Skilled labor	is readily available	6.30 Survey [0..10]	15
Finance skills	are readily available	6.37 Survey [0..10]	31
International experience	of senior managers is generally significant	6.08 Survey [0..10]	19
▶ Competent senior managers	are readily available	6.54 Survey [0..10]	14
Primary and secondary education	meets the needs of a competitive economy	6.12 Survey [0..10]	33
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	19.36 %	50
University education	meets the needs of a competitive economy	6.40 Survey [0..10]	31
Management education	meets the needs of the business community	6.54 Survey [0..10]	31
Language skills	are meeting the needs of enterprises	6.32 Survey [0..10]	33
▶ Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	0.03 number	61
Educational assessment - PISA	PISA survey of 15-year olds	395 Average	53

# IRELAND

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
▷ Total public expenditure on education	Percentage of GDP	3.2 %	54
▷ Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	15.7 %	48
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	7,896 US\$	21
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	15.65 ratio	34
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	13.41 ratio	43
▷ Apprenticeships	are sufficiently implemented	4.21 Survey [0..10]	47
Employee training	is a high priority in companies	6.61 Survey [0..10]	19
Female labor force	Percentage of total labor force	46.03 %	31
▷ Health infrastructure	meets the needs of society	3.88 Survey [0..10]	49

### Appeal

		Value	2019 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	88.90 index	46
▷ Attracting and retaining talents	is a priority in companies	8.25 Survey [0..10]	1
▷ Worker motivation	in companies is high	7.55 Survey [0..10]	3
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	7.04 Survey [0..10]	6
Quality of life	is high	8.69 Survey [0..10]	11
▷ Foreign highly-skilled personnel	are attracted to your country's business environment	8.08 Survey [0..10]	3
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	46,792 US\$	8
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	217,460 US\$	18
▷ Effective personal income tax rate	Percentage of an income equal to GDP per capita	23.61 %	49
Justice	is fairly administered	7.88 Survey [0..10]	16
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	8.28 micrograms	10

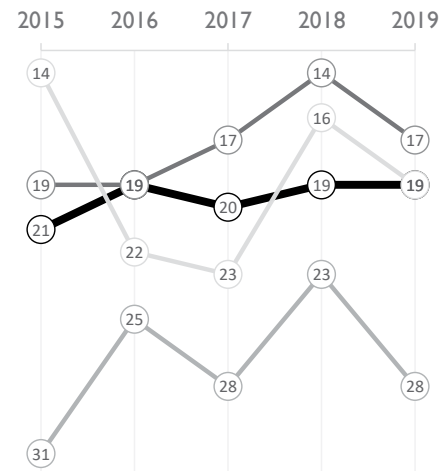
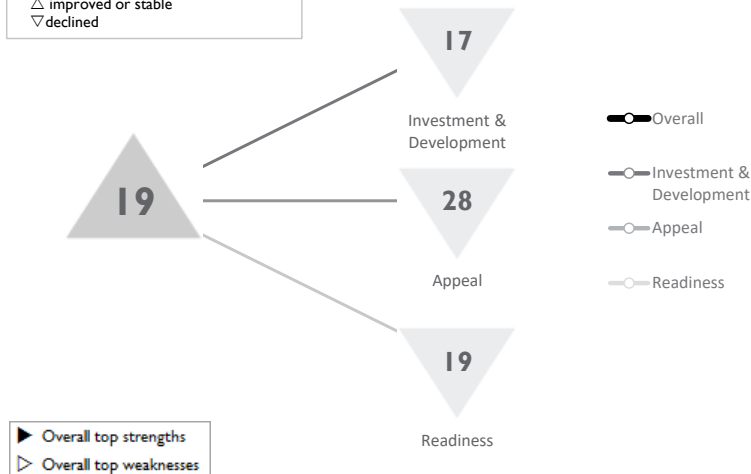
### Readiness

		Value	2019 Rank
Labor force growth	Percentage change	1.47 %	21
Skilled labor	is readily available	6.41 Survey [0..10]	12
Finance skills	are readily available	7.51 Survey [0..10]	7
▷ International experience	of senior managers is generally significant	7.47 Survey [0..10]	6
▷ Competent senior managers	are readily available	7.02 Survey [0..10]	3
Primary and secondary education	meets the needs of a competitive economy	7.96 Survey [0..10]	8
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	25.23 %	24
University education	meets the needs of a competitive economy	7.33 Survey [0..10]	20
Management education	meets the needs of the business community	7.55 Survey [0..10]	9
Language skills	are meeting the needs of enterprises	5.92 Survey [0..10]	38
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	4.17 number	17
Educational assessment - PISA	PISA survey of 15-year olds	503 Average	17

# ISRAEL

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
▶ Total public expenditure on education	Percentage of GDP	7.0 %	4
▷ Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	18.7 %	40
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	8,352 US\$	19
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	15.17 ratio	30
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	10.28 ratio	17
Apprenticeships	are sufficiently implemented	5.02 Survey [0..10]	29
▶ Employee training	is a high priority in companies	5.27 Survey [0..10]	46
Female labor force	Percentage of total labor force	47.77 %	11
Health infrastructure	meets the needs of society	5.91 Survey [0..10]	35

### Appeal

		Value	2019 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	96.50 index	52
▶ Attracting and retaining talents	is a priority in companies	7.73 Survey [0..10]	9
Worker motivation	in companies is high	6.98 Survey [0..10]	13
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	6.22 Survey [0..10]	14
Quality of life	is high	7.91 Survey [0..10]	22
Foreign highly-skilled personnel	are attracted to your country's business environment	5.14 Survey [0..10]	35
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	35,783 US\$	21
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	178,295 US\$	28
Effective personal income tax rate	Percentage of an income equal to GDP per capita	16.13 %	30
Justice	is fairly administered	6.53 Survey [0..10]	26
▷ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	20.63 micrograms	46

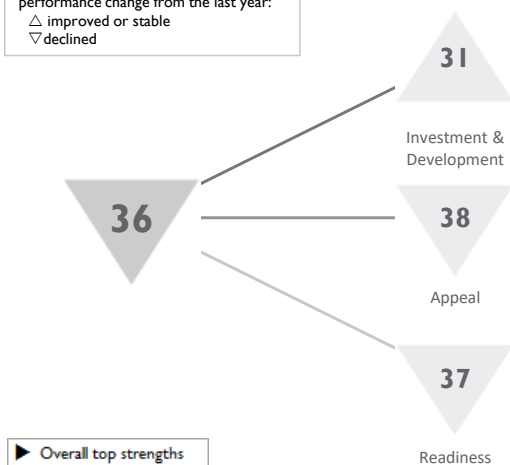
### Readiness

		Value	2019 Rank
Labor force growth	Percentage change	1.87 %	14
▶ Skilled labor	is readily available	6.71 Survey [0..10]	8
▶ Finance skills	are readily available	7.47 Survey [0..10]	8
International experience	of senior managers is generally significant	6.22 Survey [0..10]	17
Competent senior managers	are readily available	6.44 Survey [0..10]	15
Primary and secondary education	meets the needs of a competitive economy	7.42 Survey [0..10]	15
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	- %	-
▶ University education	meets the needs of a competitive economy	7.91 Survey [0..10]	8
Management education	meets the needs of the business community	7.42 Survey [0..10]	13
Language skills	are meeting the needs of enterprises	7.56 Survey [0..10]	19
▷ Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	1.28 number	47
Educational assessment - PISA	PISA survey of 15-year olds	468 Average	37

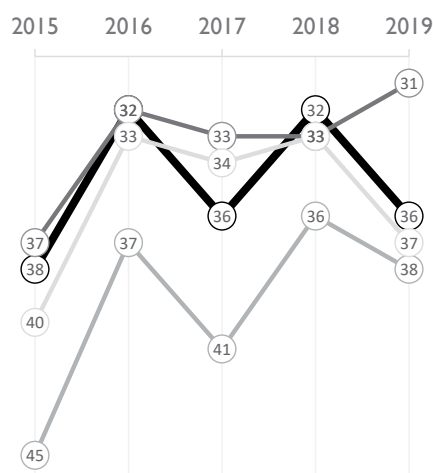
# ITALY

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



- Overall top strengths
- ▷ Overall top weaknesses



### Investment & Development

		Value	2019 Rank
Total public expenditure on education	Percentage of GDP	3.8 %	44
► Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	22.9 %	20
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	6,845 US\$	24
► Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	11.65 ratio	11
► Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	10.58 ratio	21
Apprenticeships	are sufficiently implemented	4.81 Survey [0..10]	32
▷ Employee training	is a high priority in companies	5.08 Survey [0..10]	50
Female labor force	Percentage of total labor force	42.63 %	47
Health infrastructure	meets the needs of society	6.85 Survey [0..10]	24

### Appeal

		Value	2019 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	88.70 index	45
▷ Attracting and retaining talents	is a priority in companies	5.82 Survey [0..10]	50
Worker motivation	in companies is high	5.67 Survey [0..10]	34
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.40 Survey [0..10]	38
Quality of life	is high	7.41 Survey [0..10]	28
▷ Foreign highly-skilled personnel	are attracted to your country's business environment	3.60 Survey [0..10]	55
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	32,932 US\$	23
► Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	268,993 US\$	9
▷ Effective personal income tax rate	Percentage of an income equal to GDP per capita	23.85 %	50
Justice	is fairly administered	4.25 Survey [0..10]	44
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	16.34 micrograms	34

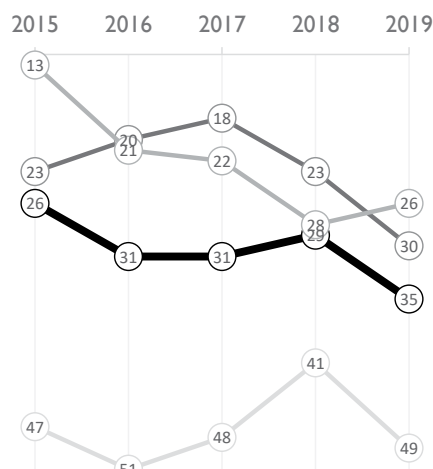
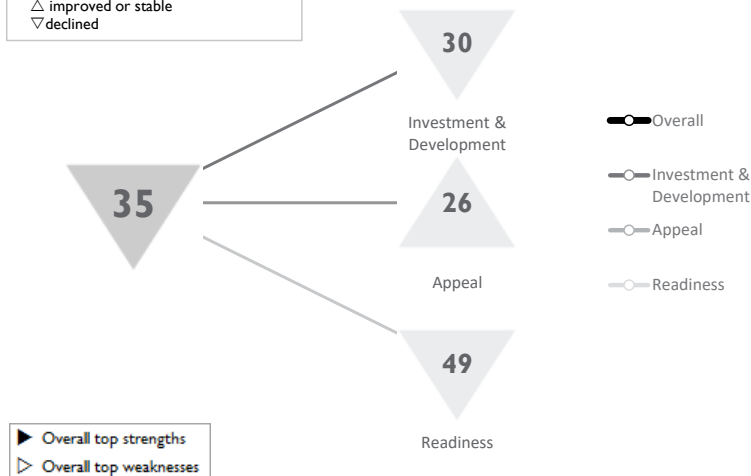
### Readiness

		Value	2019 Rank
▷ Labor force growth	Percentage change	0.16 %	53
► Skilled labor	is readily available	6.13 Survey [0..10]	22
Finance skills	are readily available	5.73 Survey [0..10]	47
International experience	of senior managers is generally significant	5.12 Survey [0..10]	43
Competent senior managers	are readily available	5.59 Survey [0..10]	32
Primary and secondary education	meets the needs of a competitive economy	6.52 Survey [0..10]	28
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	23.28 %	32
University education	meets the needs of a competitive economy	7.05 Survey [0..10]	24
Management education	meets the needs of the business community	6.49 Survey [0..10]	33
Language skills	are meeting the needs of enterprises	4.85 Survey [0..10]	47
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	1.61 number	40
Educational assessment - PISA	PISA survey of 15-year olds	485 Average	30

# JAPAN

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
▶ Total public expenditure on education	Percentage of GDP	3.2 %	55
▶ Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	23.9 %	13
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	7,538 US\$	23
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	16.43 ratio	39
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	12.45 ratio	34
▶ Apprenticeships	are sufficiently implemented	6.15 Survey [0..10]	11
Employee training	is a high priority in companies	6.78 Survey [0..10]	15
Female labor force	Percentage of total labor force	44.13 %	42
Health infrastructure	meets the needs of society	7.24 Survey [0..10]	21

### Appeal

		Value	2019 Rank
▶ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	114.70 index	59
▶ Attracting and retaining talents	is a priority in companies	8.03 Survey [0..10]	4
Worker motivation	in companies is high	6.03 Survey [0..10]	27
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.13 Survey [0..10]	44
Quality of life	is high	7.70 Survey [0..10]	24
Foreign highly-skilled personnel	are attracted to your country's business environment	3.77 Survey [0..10]	51
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	45,806 US\$	14
▶ Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	265,052 US\$	11
Effective personal income tax rate	Percentage of an income equal to GDP per capita	14.33 %	26
Justice	is fairly administered	7.34 Survey [0..10]	20
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	11.79 micrograms	17

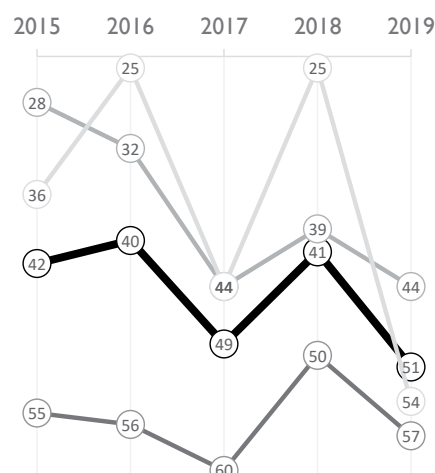
### Readiness

		Value	2019 Rank
Labor force growth	Percentage change	1.64 %	18
Skilled labor	is readily available	4.99 Survey [0..10]	44
Finance skills	are readily available	5.98 Survey [0..10]	39
▶ International experience	of senior managers is generally significant	2.49 Survey [0..10]	63
▶ Competent senior managers	are readily available	3.11 Survey [0..10]	60
Primary and secondary education	meets the needs of a competitive economy	6.31 Survey [0..10]	32
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	21.01 %	42
University education	meets the needs of a competitive economy	4.88 Survey [0..10]	51
Management education	meets the needs of the business community	4.73 Survey [0..10]	53
▶ Language skills	are meeting the needs of enterprises	3.12 Survey [0..10]	62
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	1.30 number	46
▶ Educational assessment - PISA	PISA survey of 15-year olds	535 Average	4

# JORDAN

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
Total public expenditure on education	Percentage of GDP	3.5 %	51
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	- %	-
▶ Total public exp. on education per student	Spending per enrolled pupil/student, all levels	630 US\$	59
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	21.04 ratio	53
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	11.43 ratio	25
Apprenticeships	are sufficiently implemented	5.43 Survey [0..10]	20
Employee training	is a high priority in companies	6.13 Survey [0..10]	31
▶ Female labor force	Percentage of total labor force	20.91 %	59
Health infrastructure	meets the needs of society	5.93 Survey [0..10]	33

### Appeal

		Value	2019 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	75.80 index	24
Attracting and retaining talents	is a priority in companies	6.18 Survey [0..10]	43
Worker motivation	in companies is high	5.47 Survey [0..10]	37
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	5.09 Survey [0..10]	28
Quality of life	is high	5.16 Survey [0..10]	46
Foreign highly-skilled personnel	are attracted to your country's business environment	5.04 Survey [0..10]	36
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	- US\$	-
▶ Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	52,311 US\$	57
▶ Effective personal income tax rate	Percentage of an income equal to GDP per capita	7.39 %	11
Justice	is fairly administered	5.24 Survey [0..10]	39
▶ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	32.61 micrograms	56

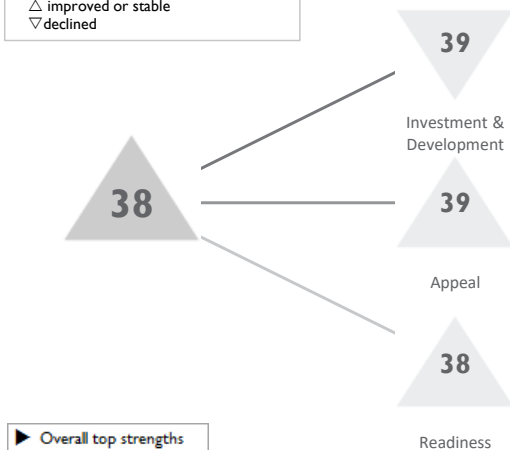
### Readiness

		Value	2019 Rank
▶ Labor force growth	Percentage change	-3.40 %	63
▶ Skilled labor	is readily available	6.24 Survey [0..10]	18
Finance skills	are readily available	6.33 Survey [0..10]	32
▶ International experience	of senior managers is generally significant	6.31 Survey [0..10]	16
▶ Competent senior managers	are readily available	6.38 Survey [0..10]	16
Primary and secondary education	meets the needs of a competitive economy	5.38 Survey [0..10]	44
▶ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	26.36 %	18
University education	meets the needs of a competitive economy	5.60 Survey [0..10]	43
Management education	meets the needs of the business community	5.91 Survey [0..10]	41
Language skills	are meeting the needs of enterprises	6.48 Survey [0..10]	32
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	3.99 number	19
Educational assessment - PISA	PISA survey of 15-year olds	394 Average	54

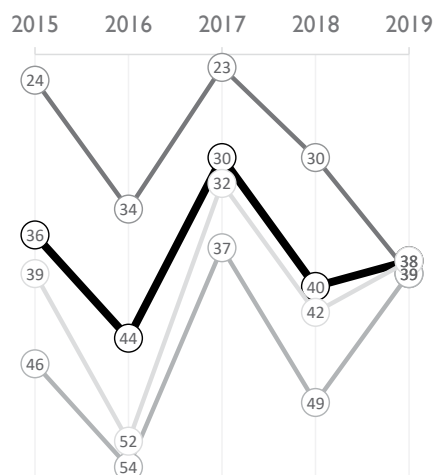
# KAZAKHSTAN

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



- Overall top strengths
- ▷ Overall top weaknesses



### Investment & Development

		Value	2019 Rank
► Total public expenditure on education	Percentage of GDP	2.8 %	60
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	21.2 %	31
▷ Total public exp. on education per student	Spending per enrolled pupil/student, all levels	925 US\$	56
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	20.76 ratio	52
► Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	6.59 ratio	1
► Apprenticeships	are sufficiently implemented	6.07 Survey [0..10]	12
► Employee training	is a high priority in companies	7.13 Survey [0..10]	7
► Female labor force	Percentage of total labor force	48.98 %	5
Health infrastructure	meets the needs of society	4.88 Survey [0..10]	40

### Appeal

		Value	2019 Rank
► Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	57.40 index	1
Attracting and retaining talents	is a priority in companies	6.78 Survey [0..10]	34
Worker motivation	in companies is high	5.87 Survey [0..10]	30
▷ Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	3.17 Survey [0..10]	53
Quality of life	is high	5.02 Survey [0..10]	48
Foreign highly-skilled personnel	are attracted to your country's business environment	5.96 Survey [0..10]	23
▷ Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	6,030 US\$	57
▷ Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	17,332 US\$	62
Effective personal income tax rate	Percentage of an income equal to GDP per capita	15.96 %	29
Justice	is fairly administered	5.76 Survey [0..10]	32
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	13.97 micrograms	25

### Readiness

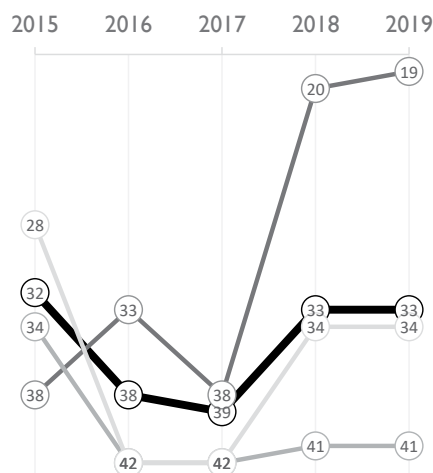
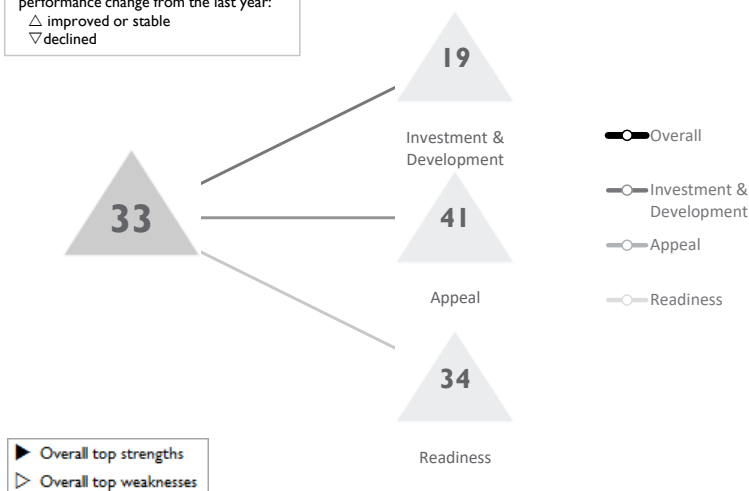
		Value	2019 Rank
Labor force growth	Percentage change	1.38 %	23
Skilled labor	is readily available	5.90 Survey [0..10]	28
Finance skills	are readily available	6.70 Survey [0..10]	27
International experience	of senior managers is generally significant	5.68 Survey [0..10]	26
Competent senior managers	are readily available	6.10 Survey [0..10]	23
Primary and secondary education	meets the needs of a competitive economy	5.64 Survey [0..10]	39
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	23.18 %	33
University education	meets the needs of a competitive economy	5.30 Survey [0..10]	47
Management education	meets the needs of the business community	5.60 Survey [0..10]	47
Language skills	are meeting the needs of enterprises	5.29 Survey [0..10]	45
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	0.77 number	50
Educational assessment - PISA	PISA survey of 15-year olds	458 Average	39



# KOREA REP.

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
Total public expenditure on education	Percentage of GDP	5.0 %	24
▶ Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	28.2 %	3
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	6,070 US\$	27
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	16.42 ratio	38
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	13.54 ratio	44
Apprenticeships	are sufficiently implemented	5.52 Survey [0..10]	18
Employee training	is a high priority in companies	5.98 Survey [0..10]	33
Female labor force	Percentage of total labor force	42.64 %	46
Health infrastructure	meets the needs of society	7.39 Survey [0..10]	18

### Appeal

		Value	2019 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	109.40 index	56
Attracting and retaining talents	is a priority in companies	7.61 Survey [0..10]	14
Worker motivation	in companies is high	5.32 Survey [0..10]	41
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.81 Survey [0..10]	30
Quality of life	is high	5.41 Survey [0..10]	43
Foreign highly-skilled personnel	are attracted to your country's business environment	4.05 Survey [0..10]	49
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	24,963 US\$	28
▶ Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	249,573 US\$	14
▶ Effective personal income tax rate	Percentage of an income equal to GDP per capita	8.43 %	13
Justice	is fairly administered	3.71 Survey [0..10]	49
▷ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	25.00 micrograms	53

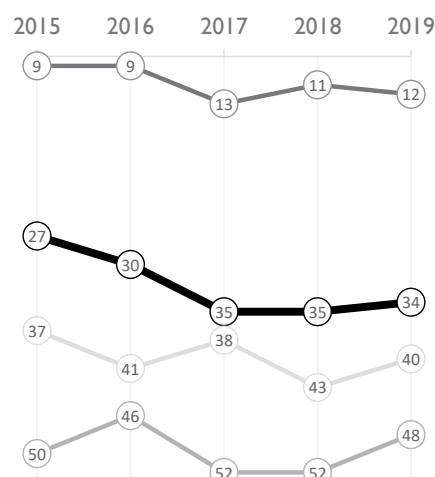
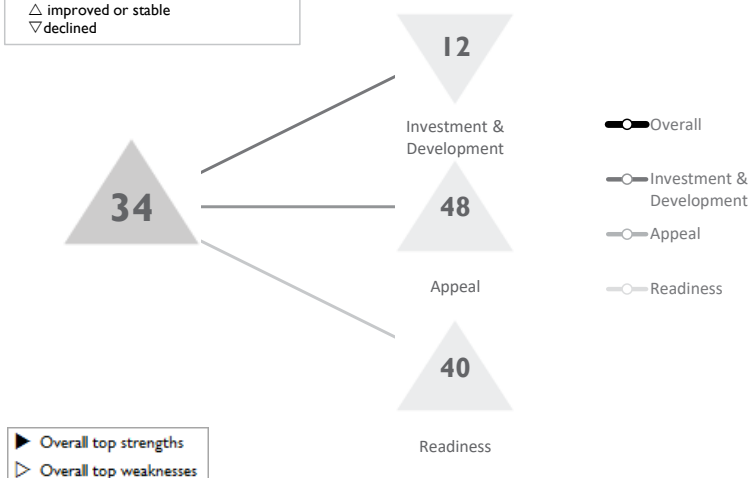
### Readiness

		Value	2019 Rank
Labor force growth	Percentage change	0.53 %	43
Skilled labor	is readily available	5.52 Survey [0..10]	34
Finance skills	are readily available	6.24 Survey [0..10]	34
▷ International experience	of senior managers is generally significant	4.76 Survey [0..10]	52
Competent senior managers	are readily available	4.67 Survey [0..10]	48
Primary and secondary education	meets the needs of a competitive economy	4.74 Survey [0..10]	47
▶ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	29.91 %	9
▷ University education	meets the needs of a competitive economy	4.38 Survey [0..10]	55
▷ Management education	meets the needs of the business community	5.04 Survey [0..10]	51
Language skills	are meeting the needs of enterprises	5.65 Survey [0..10]	44
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	1.38 number	43
▶ Educational assessment - PISA	PISA survey of 15-year olds	520 Average	9

# LATVIA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
▶ Total public expenditure on education	Percentage of GDP	5.8 %	12
▶ Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	26.0 %	7
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	4,163 US\$	35
▶ Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	12.08 ratio	16
▶ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	9.33 ratio	9
Apprenticeships	are sufficiently implemented	5.04 Survey [0..10]	26
Employee training	is a high priority in companies	5.50 Survey [0..10]	42
▶ Female labor force	Percentage of total labor force	50.13 %	2
Health infrastructure	meets the needs of society	3.96 Survey [0..10]	46

### Appeal

		Value	2019 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	76.20 index	26
Attracting and retaining talents	is a priority in companies	5.96 Survey [0..10]	45
Worker motivation	in companies is high	5.54 Survey [0..10]	36
▶ Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	3.63 Survey [0..10]	50
Quality of life	is high	6.08 Survey [0..10]	40
Foreign highly-skilled personnel	are attracted to your country's business environment	4.83 Survey [0..10]	41
▶ Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	11,431 US\$	51
▶ Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	102,970 US\$	46
▶ Effective personal income tax rate	Percentage of an income equal to GDP per capita	22.84 %	47
Justice	is fairly administered	5.08 Survey [0..10]	40
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	14.24 micrograms	26

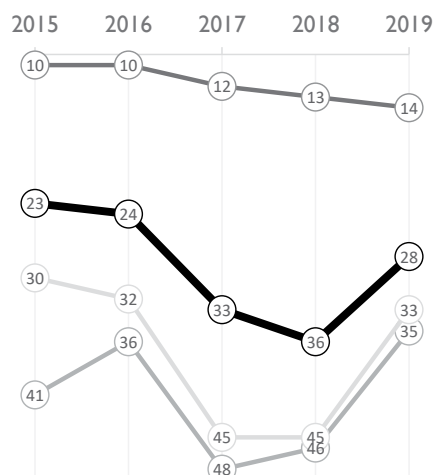
### Readiness

		Value	2019 Rank
▶ Labor force growth	Percentage change	0.19 %	52
Skilled labor	is readily available	5.13 Survey [0..10]	41
Finance skills	are readily available	5.83 Survey [0..10]	44
International experience	of senior managers is generally significant	5.42 Survey [0..10]	32
Competent senior managers	are readily available	5.25 Survey [0..10]	40
Primary and secondary education	meets the needs of a competitive economy	6.00 Survey [0..10]	35
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	20.52 %	44
University education	meets the needs of a competitive economy	5.83 Survey [0..10]	41
Management education	meets the needs of the business community	6.33 Survey [0..10]	37
Language skills	are meeting the needs of enterprises	7.50 Survey [0..10]	20
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	3.14 number	24
Educational assessment - PISA	PISA survey of 15-year olds	486 Average	29

# LITHUANIA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
Total public expenditure on education	Percentage of GDP	4.9 %	27
▷ Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	17.7 %	44
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	3,691 US\$	37
▶ Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	10.62 ratio	5
▶ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	7.52 ratio	3
▶ Apprenticeships	are sufficiently implemented	6.20 Survey [0..10]	10
Employee training	is a high priority in companies	6.54 Survey [0..10]	21
▶ Female labor force	Percentage of total labor force	50.20 %	1
Health infrastructure	meets the needs of society	5.91 Survey [0..10]	34

### Appeal

		Value	2019 Rank
▶ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	68.20 index	12
Attracting and retaining talents	is a priority in companies	7.09 Survey [0..10]	28
Worker motivation	in companies is high	6.03 Survey [0..10]	28
▷ Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	3.63 Survey [0..10]	49
Quality of life	is high	6.91 Survey [0..10]	31
Foreign highly-skilled personnel	are attracted to your country's business environment	4.89 Survey [0..10]	39
▷ Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	11,666 US\$	49
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	116,514 US\$	43
Effective personal income tax rate	Percentage of an income equal to GDP per capita	20.72 %	40
Justice	is fairly administered	5.97 Survey [0..10]	29
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	11.94 micrograms	18

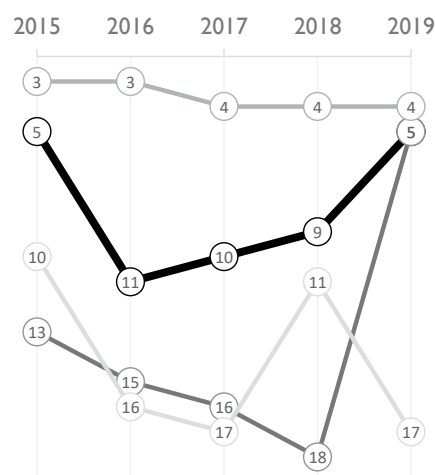
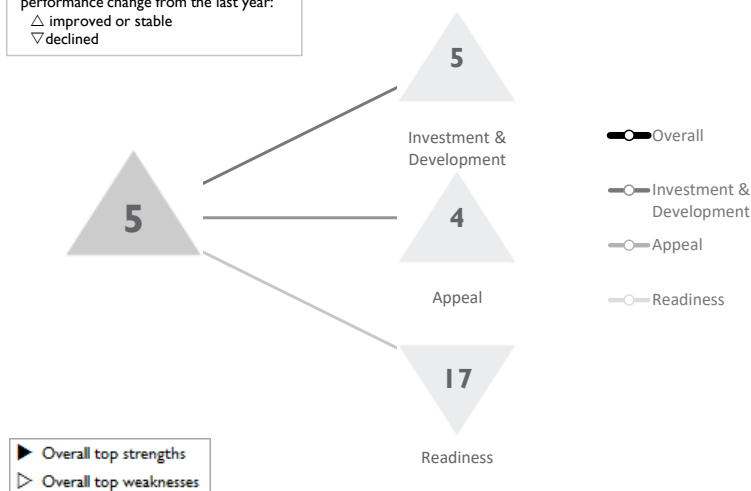
### Readiness

		Value	2019 Rank
▷ Labor force growth	Percentage change	0.47 %	47
Skilled labor	is readily available	5.49 Survey [0..10]	36
▷ Finance skills	are readily available	5.54 Survey [0..10]	50
International experience	of senior managers is generally significant	6.34 Survey [0..10]	15
Competent senior managers	are readily available	5.86 Survey [0..10]	29
Primary and secondary education	meets the needs of a competitive economy	6.11 Survey [0..10]	34
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	23.81 %	29
University education	meets the needs of a competitive economy	6.34 Survey [0..10]	32
Management education	meets the needs of the business community	6.43 Survey [0..10]	34
Language skills	are meeting the needs of enterprises	8.09 Survey [0..10]	12
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	2.06 number	33
Educational assessment - PISA	PISA survey of 15-year olds	477 Average	34

# LUXEMBOURG

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
Total public expenditure on education	Percentage of GDP	4.7 %	31
▷ Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	19.4 %	35
▶ Total public exp. on education per student	Spending per enrolled pupil/student, all levels	26,402 US\$	1
▶ Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	9.01 ratio	1
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	9.69 ratio	13
Apprenticeships	are sufficiently implemented	5.75 Survey [0..10]	16
Employee training	is a high priority in companies	6.82 Survey [0..10]	12
▷ Female labor force	Percentage of total labor force	40.71 %	51
Health infrastructure	meets the needs of society	7.97 Survey [0..10]	14

### Appeal

		Value	2019 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	80.30 index	31
Attracting and retaining talents	is a priority in companies	7.83 Survey [0..10]	8
Worker motivation	in companies is high	6.36 Survey [0..10]	22
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	6.58 Survey [0..10]	11
Quality of life	is high	8.99 Survey [0..10]	10
Foreign highly-skilled personnel	are attracted to your country's business environment	8.05 Survey [0..10]	6
▶ Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	64,767 US\$	3
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	274,484 US\$	7
▷ Effective personal income tax rate	Percentage of an income equal to GDP per capita	24.50 %	52
Justice	is fairly administered	7.75 Survey [0..10]	17
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	10.16 micrograms	13

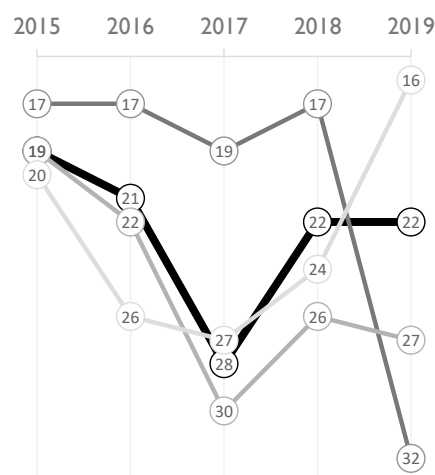
### Readiness

		Value	2019 Rank
▶ Labor force growth	Percentage change	3.19 %	2
▷ Skilled labor	is readily available	4.39 Survey [0..10]	50
Finance skills	are readily available	6.85 Survey [0..10]	23
International experience	of senior managers is generally significant	7.32 Survey [0..10]	8
Competent senior managers	are readily available	5.53 Survey [0..10]	34
Primary and secondary education	meets the needs of a competitive economy	7.28 Survey [0..10]	18
▷ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	17.90 %	55
University education	meets the needs of a competitive economy	6.69 Survey [0..10]	28
Management education	meets the needs of the business community	6.99 Survey [0..10]	22
▶ Language skills	are meeting the needs of enterprises	8.71 Survey [0..10]	4
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	5.58 number	12
Educational assessment - PISA	PISA survey of 15-year olds	484 Average	31

# MALAYSIA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
Total public expenditure on education	Percentage of GDP	4.5 %	34
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	21.5 %	29
▶ Total public exp. on education per student	Spending per enrolled pupil/student, all levels	1,745 US\$	46
▶ Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	11.60 ratio	10
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	12.00 ratio	31
Apprenticeships	are sufficiently implemented	5.95 Survey [0..10]	13
Employee training	is a high priority in companies	6.64 Survey [0..10]	18
▶ Female labor force	Percentage of total labor force	38.94 %	52
Health infrastructure	meets the needs of society	7.42 Survey [0..10]	17

### Appeal

		Value	2019 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	68.50 index	13
Attracting and retaining talents	is a priority in companies	6.61 Survey [0..10]	37
Worker motivation	in companies is high	6.29 Survey [0..10]	24
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	5.56 Survey [0..10]	24
Quality of life	is high	6.85 Survey [0..10]	33
Foreign highly-skilled personnel	are attracted to your country's business environment	6.56 Survey [0..10]	16
▶ Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	13,564 US\$	41
▶ Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	119,219 US\$	42
Effective personal income tax rate	Percentage of an income equal to GDP per capita	10.53 %	15
Justice	is fairly administered	6.63 Survey [0..10]	25
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	15.96 micrograms	29

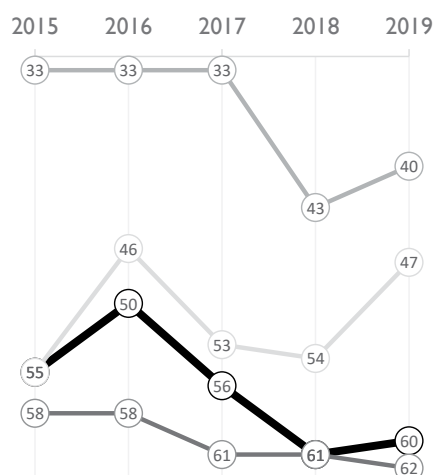
### Readiness

		Value	2019 Rank
▶ Labor force growth	Percentage change	2.00 %	11
▶ Skilled labor	is readily available	6.88 Survey [0..10]	5
Finance skills	are readily available	6.86 Survey [0..10]	21
International experience	of senior managers is generally significant	6.51 Survey [0..10]	12
▶ Competent senior managers	are readily available	6.67 Survey [0..10]	9
Primary and secondary education	meets the needs of a competitive economy	6.61 Survey [0..10]	25
▶ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	32.10 %	6
University education	meets the needs of a competitive economy	6.56 Survey [0..10]	29
Management education	meets the needs of the business community	6.61 Survey [0..10]	28
Language skills	are meeting the needs of enterprises	6.93 Survey [0..10]	25
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	3.15 number	23
▶ Educational assessment - PISA	PISA survey of 15-year olds	445 Average	41

# MEXICO

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
▶ Total public expenditure on education	Percentage of GDP	3.1 %	56
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	14.9 %	50
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	959 US\$	54
▶ Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	26.55 ratio	58
▶ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	28.65 ratio	63
Apprenticeships	are sufficiently implemented	4.42 Survey [0..10]	42
Employee training	is a high priority in companies	5.15 Survey [0..10]	49
Female labor force	Percentage of total labor force	38.65 %	54
Health infrastructure	meets the needs of society	3.33 Survey [0..10]	52

### Appeal

		Value	2019 Rank
▶ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	65.30 index	8
Attracting and retaining talents	is a priority in companies	5.72 Survey [0..10]	54
Worker motivation	in companies is high	5.31 Survey [0..10]	42
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.24 Survey [0..10]	43
Quality of life	is high	5.25 Survey [0..10]	45
Foreign highly-skilled personnel	are attracted to your country's business environment	5.32 Survey [0..10]	31
▶ Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	7,429 US\$	55
▶ Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	198,605 US\$	21
Effective personal income tax rate	Percentage of an income equal to GDP per capita	14.10 %	25
Justice	is fairly administered	2.71 Survey [0..10]	55
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	21.26 micrograms	49

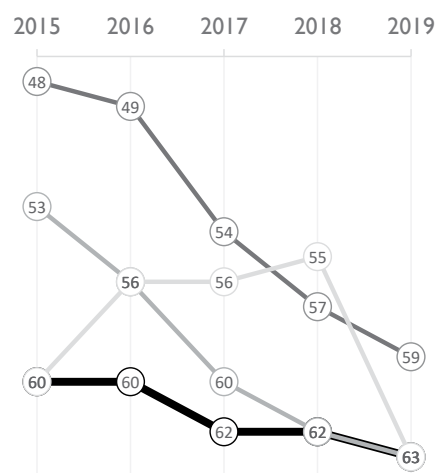
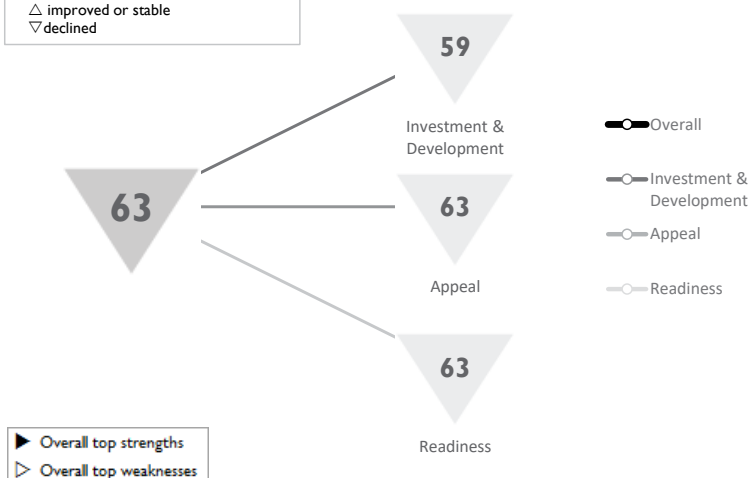
### Readiness

		Value	2019 Rank
▶ Labor force growth	Percentage change	2.43 %	6
Skilled labor	is readily available	5.38 Survey [0..10]	38
Finance skills	are readily available	5.21 Survey [0..10]	53
▶ International experience	of senior managers is generally significant	5.94 Survey [0..10]	22
Competent senior managers	are readily available	4.96 Survey [0..10]	44
▶ Primary and secondary education	meets the needs of a competitive economy	3.76 Survey [0..10]	56
▶ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	25.48 %	22
University education	meets the needs of a competitive economy	5.36 Survey [0..10]	45
Management education	meets the needs of the business community	5.37 Survey [0..10]	48
Language skills	are meeting the needs of enterprises	4.51 Survey [0..10]	51
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	0.20 number	54
Educational assessment - PISA	PISA survey of 15-year olds	412 Average	50

# MONGOLIA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
Total public expenditure on education	Percentage of GDP	4.4 %	35
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	14.4 %	52
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	708 US\$	58
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	30.38 ratio	61
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	19.60 ratio	55
Apprenticeships	are sufficiently implemented	4.09 Survey [0..10]	50
Employee training	is a high priority in companies	6.30 Survey [0..10]	24
Female labor force	Percentage of total labor force	45.54 %	33
Health infrastructure	meets the needs of society	2.15 Survey [0..10]	60

### Appeal

		Value	2019 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	- index	-
Attracting and retaining talents	is a priority in companies	7.03 Survey [0..10]	31
Worker motivation	in companies is high	4.24 Survey [0..10]	61
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	3.70 Survey [0..10]	48
Quality of life	is high	2.54 Survey [0..10]	62
Foreign highly-skilled personnel	are attracted to your country's business environment	3.44 Survey [0..10]	56
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	- US\$	-
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	6,084 US\$	63
Effective personal income tax rate	Percentage of an income equal to GDP per capita	30.00 %	63
Justice	is fairly administered	2.41 Survey [0..10]	59
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	42.84 micrograms	58

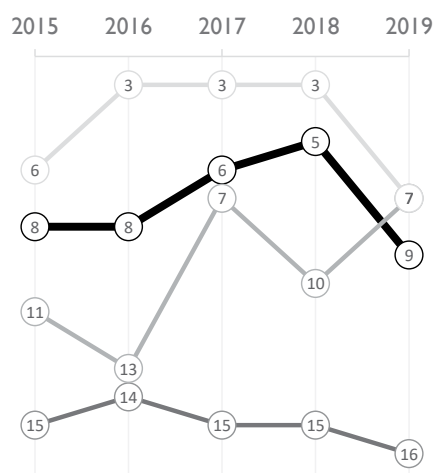
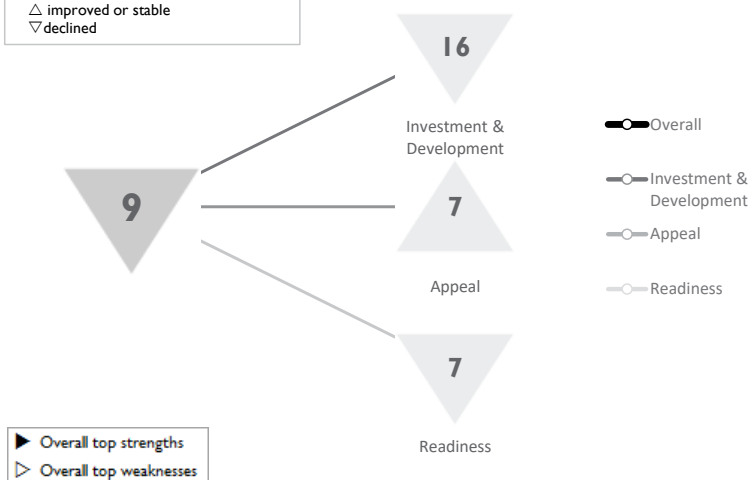
### Readiness

		Value	2019 Rank
Labor force growth	Percentage change	-1.61 %	62
Skilled labor	is readily available	2.57 Survey [0..10]	62
Finance skills	are readily available	3.47 Survey [0..10]	63
International experience	of senior managers is generally significant	4.06 Survey [0..10]	61
Competent senior managers	are readily available	2.82 Survey [0..10]	62
Primary and secondary education	meets the needs of a competitive economy	3.65 Survey [0..10]	58
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	19.60 %	48
University education	meets the needs of a competitive economy	2.97 Survey [0..10]	63
Management education	meets the needs of the business community	3.94 Survey [0..10]	62
Language skills	are meeting the needs of enterprises	4.56 Survey [0..10]	48
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	0.48 number	52
Educational assessment - PISA	PISA survey of 15-year olds	- Average	-

# NETHERLANDS

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
Total public expenditure on education	Percentage of GDP	5.1 %	21
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	23.1 %	16
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	10,110 US\$	13
▷ Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	16.65 ratio	41
▷ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	17.04 ratio	53
Apprenticeships	are sufficiently implemented	6.64 Survey [0..10]	7
Employee training	is a high priority in companies	7.02 Survey [0..10]	8
Female labor force	Percentage of total labor force	46.59 %	24
Health infrastructure	meets the needs of society	8.52 Survey [0..10]	3

### Appeal

		Value	2019 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	84.30 index	40
Attracting and retaining talents	is a priority in companies	7.97 Survey [0..10]	6
Worker motivation	in companies is high	7.44 Survey [0..10]	5
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	7.40 Survey [0..10]	4
Quality of life	is high	9.50 Survey [0..10]	5
Foreign highly-skilled personnel	are attracted to your country's business environment	8.06 Survey [0..10]	4
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	46,077 US\$	13
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	255,478 US\$	12
▷ Effective personal income tax rate	Percentage of an income equal to GDP per capita	26.42 %	57
▶ Justice	is fairly administered	8.90 Survey [0..10]	2
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	12.07 micrograms	20

### Readiness

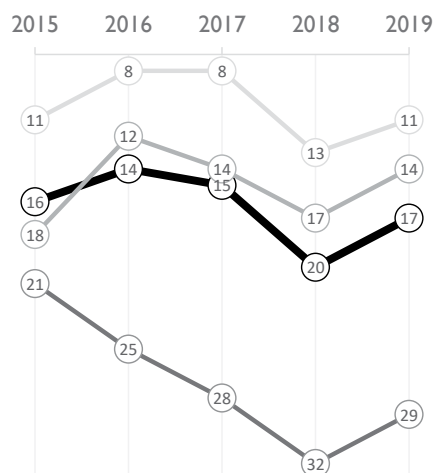
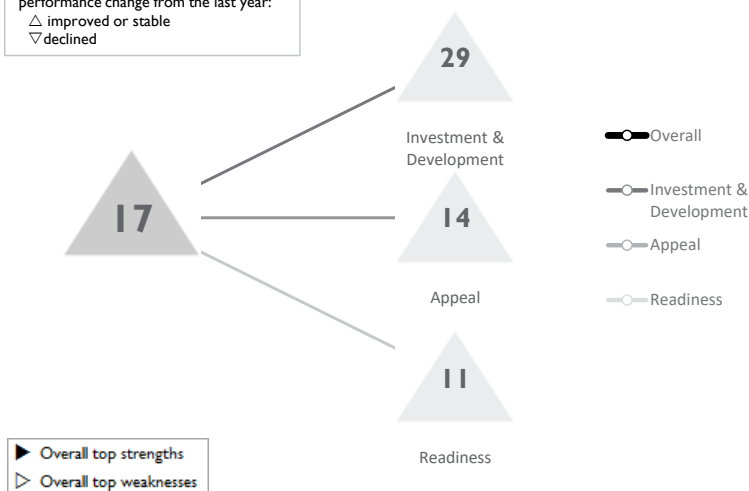
		Value	2019 Rank
Labor force growth	Percentage change	1.17 %	26
Skilled labor	is readily available	6.66 Survey [0..10]	9
Finance skills	are readily available	7.89 Survey [0..10]	3
International experience	of senior managers is generally significant	7.55 Survey [0..10]	3
▶ Competent senior managers	are readily available	7.20 Survey [0..10]	2
Primary and secondary education	meets the needs of a competitive economy	8.69 Survey [0..10]	4
▷ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	14.70 %	60
▶ University education	meets the needs of a competitive economy	8.82 Survey [0..10]	2
▶ Management education	meets the needs of the business community	8.23 Survey [0..10]	2
▶ Language skills	are meeting the needs of enterprises	9.22 Survey [0..10]	1
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	5.62 number	11
Educational assessment - PISA	PISA survey of 15-year olds	510 Average	12



# NEW ZEALAND

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
Total public expenditure on education	Percentage of GDP	5.6 %	17
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	21.1 %	33
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	8,122 US\$	20
▷ Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	16.90 ratio	43
▷ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	14.70 ratio	49
Apprenticeships	are sufficiently implemented	5.03 Survey [0..10]	27
Employee training	is a high priority in companies	5.64 Survey [0..10]	36
Female labor force	Percentage of total labor force	47.45 %	16
Health infrastructure	meets the needs of society	6.55 Survey [0..10]	26

### Appeal

		Value	2019 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	78.30 index	29
Attracting and retaining talents	is a priority in companies	7.20 Survey [0..10]	25
Worker motivation	in companies is high	6.55 Survey [0..10]	19
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	5.14 Survey [0..10]	27
Quality of life	is high	8.24 Survey [0..10]	20
Foreign highly-skilled personnel	are attracted to your country's business environment	6.62 Survey [0..10]	15
▶ Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	40,586 US\$	15
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	166,713 US\$	29
▷ Effective personal income tax rate	Percentage of an income equal to GDP per capita	22.76 %	46
▶ Justice	is fairly administered	8.02 Survey [0..10]	12
▶ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	6.03 micrograms	2

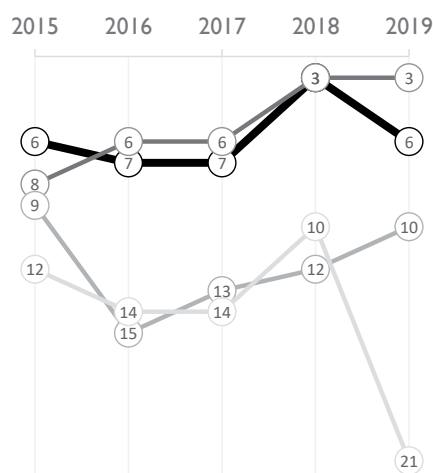
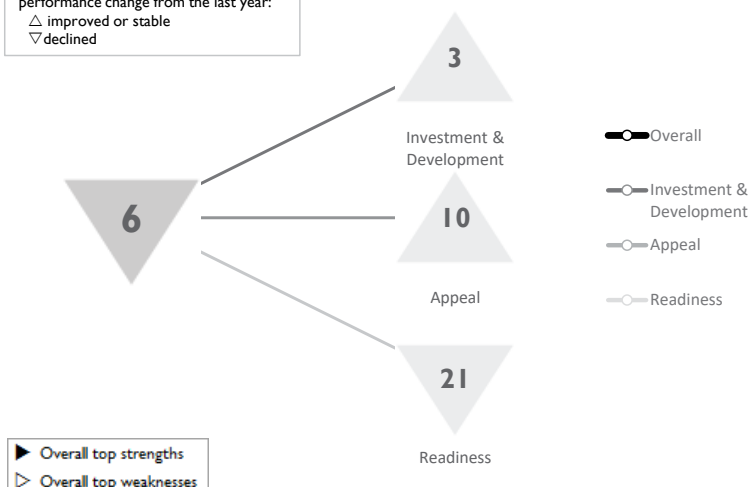
### Readiness

		Value	2019 Rank
▶ Labor force growth	Percentage change	2.20 %	10
▷ Skilled labor	is readily available	4.84 Survey [0..10]	47
Finance skills	are readily available	6.47 Survey [0..10]	30
International experience	of senior managers is generally significant	5.85 Survey [0..10]	24
Competent senior managers	are readily available	5.87 Survey [0..10]	28
Primary and secondary education	meets the needs of a competitive economy	6.97 Survey [0..10]	22
▷ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	21.18 %	40
University education	meets the needs of a competitive economy	7.05 Survey [0..10]	23
Management education	meets the needs of the business community	6.53 Survey [0..10]	32
Language skills	are meeting the needs of enterprises	6.51 Survey [0..10]	30
▶ Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	10.87 number	2
Educational assessment - PISA	PISA survey of 15-year olds	504 Average	16

# NORWAY

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
Total public expenditure on education	Percentage of GDP	5.6 %	16
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	26.8 %	6
▶ Total public exp. on education per student	Spending per enrolled pupil/student, all levels	15,255 US\$	5
▶ Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	10.16 ratio	3
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	9.79 ratio	15
▶ Apprenticeships	are sufficiently implemented	6.97 Survey [0..10]	5
Employee training	is a high priority in companies	7.16 Survey [0..10]	6
Female labor force	Percentage of total labor force	46.98 %	17
Health infrastructure	meets the needs of society	7.86 Survey [0..10]	15

### Appeal

		Value	2019 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	84.70 index	41
Attracting and retaining talents	is a priority in companies	7.51 Survey [0..10]	18
Worker motivation	in companies is high	7.27 Survey [0..10]	9
▶ Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	7.92 Survey [0..10]	2
Quality of life	is high	8.49 Survey [0..10]	14
Foreign highly-skilled personnel	are attracted to your country's business environment	7.16 Survey [0..10]	12
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	53,497 US\$	6
▷ Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	146,090 US\$	38
▷ Effective personal income tax rate	Percentage of an income equal to GDP per capita	25.26 %	53
Justice	is fairly administered	8.14 Survey [0..10]	11
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	7.06 micrograms	7

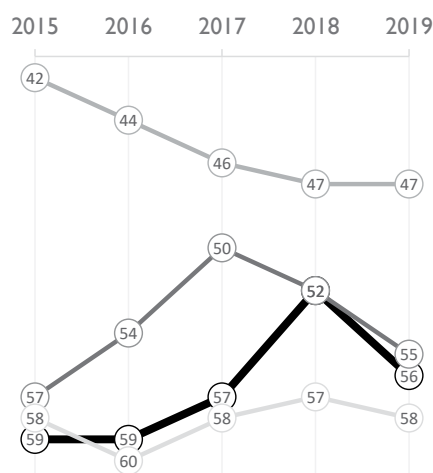
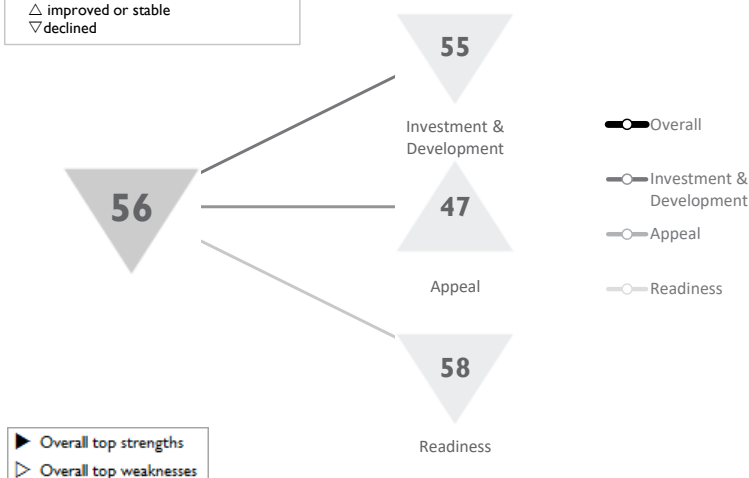
### Readiness

		Value	2019 Rank
Labor force growth	Percentage change	1.21 %	25
▶ Skilled labor	is readily available	7.08 Survey [0..10]	2
Finance skills	are readily available	7.43 Survey [0..10]	9
International experience	of senior managers is generally significant	6.14 Survey [0..10]	18
Competent senior managers	are readily available	6.76 Survey [0..10]	7
Primary and secondary education	meets the needs of a competitive economy	7.57 Survey [0..10]	14
▷ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	20.49 %	45
University education	meets the needs of a competitive economy	7.76 Survey [0..10]	14
Management education	meets the needs of the business community	7.41 Survey [0..10]	14
Language skills	are meeting the needs of enterprises	7.89 Survey [0..10]	15
▷ Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	1.69 number	38
Educational assessment - PISA	PISA survey of 15-year olds	500 Average	21

# PERU

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
Total public expenditure on education	Percentage of GDP	3.8 %	43
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	14.3 %	53
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	829 US\$	57
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	17.94 ratio	47
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	14.58 ratio	47
Apprenticeships	are sufficiently implemented	4.10 Survey [0..10]	49
Employee training	is a high priority in companies	4.37 Survey [0..10]	61
Female labor force	Percentage of total labor force	44.36 %	41
Health infrastructure	meets the needs of society	1.78 Survey [0..10]	62

### Appeal

		Value	2019 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	70.00 index	17
Attracting and retaining talents	is a priority in companies	5.04 Survey [0..10]	62
Worker motivation	in companies is high	4.70 Survey [0..10]	54
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.44 Survey [0..10]	37
Quality of life	is high	4.19 Survey [0..10]	56
Foreign highly-skilled personnel	are attracted to your country's business environment	5.83 Survey [0..10]	26
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	13,359 US\$	42
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	164,455 US\$	32
Effective personal income tax rate	Percentage of an income equal to GDP per capita	12.45 %	20
Justice	is fairly administered	1.81 Survey [0..10]	62
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	26.11 micrograms	54

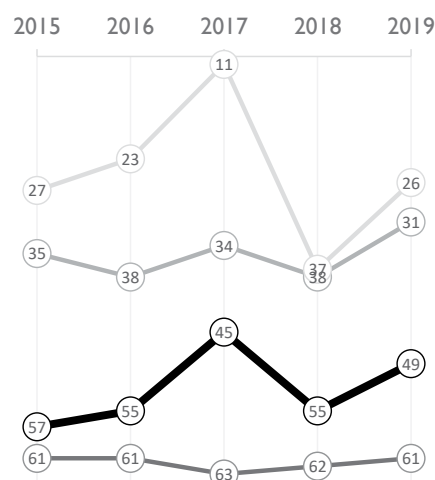
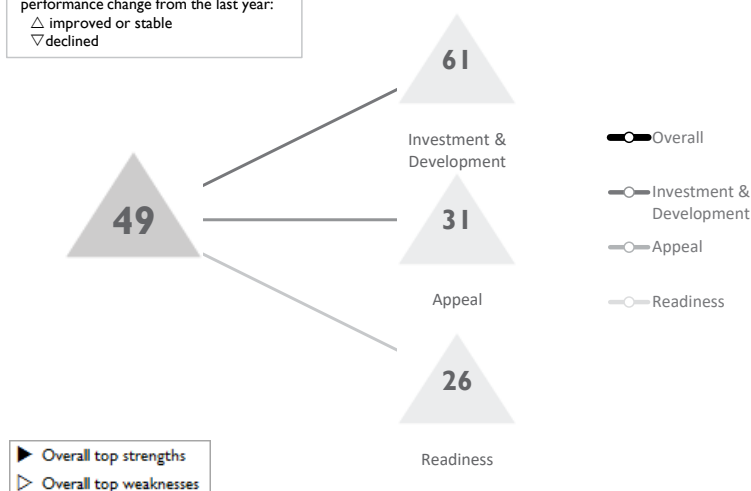
### Readiness

		Value	2019 Rank
Labor force growth	Percentage change	1.85 %	15
Skilled labor	is readily available	3.83 Survey [0..10]	54
Finance skills	are readily available	5.20 Survey [0..10]	55
International experience	of senior managers is generally significant	5.08 Survey [0..10]	44
Competent senior managers	are readily available	4.55 Survey [0..10]	52
Primary and secondary education	meets the needs of a competitive economy	2.67 Survey [0..10]	61
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	23.79 %	30
University education	meets the needs of a competitive economy	3.73 Survey [0..10]	58
Management education	meets the needs of the business community	4.67 Survey [0..10]	54
Language skills	are meeting the needs of enterprises	3.52 Survey [0..10]	59
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	- number	-
Educational assessment - PISA	PISA survey of 15-year olds	392 Average	55

# PHILIPPINES

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
Total public expenditure on education	Percentage of GDP	3.5 %	50
▷ Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	10.1 %	56
▷ Total public exp. on education per student	Spending per enrolled pupil/student, all levels	376 US\$	61
▷ Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	29.08 ratio	59
▷ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	23.88 ratio	57
Apprenticeships	are sufficiently implemented	4.63 Survey [0..10]	39
Employee training	is a high priority in companies	6.21 Survey [0..10]	27
Female labor force	Percentage of total labor force	37.91 %	55
Health infrastructure	meets the needs of society	4.02 Survey [0..10]	45

### Appeal

		Value	2019 Rank
▶ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	69.70 index	15
Attracting and retaining talents	is a priority in companies	7.05 Survey [0..10]	30
Worker motivation	in companies is high	5.93 Survey [0..10]	29
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	3.72 Survey [0..10]	47
Quality of life	is high	4.99 Survey [0..10]	49
Foreign highly-skilled personnel	are attracted to your country's business environment	5.21 Survey [0..10]	32
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	12,791 US\$	43
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	152,973 US\$	35
▶ Effective personal income tax rate	Percentage of an income equal to GDP per capita	5.35 %	8
Justice	is fairly administered	3.95 Survey [0..10]	48
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	18.19 micrograms	42

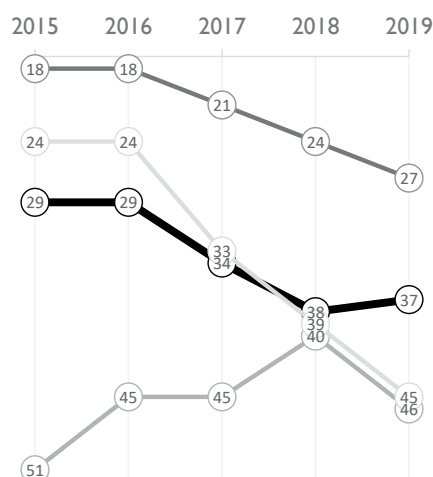
### Readiness

		Value	2019 Rank
Labor force growth	Percentage change	1.60 %	19
▶ Skilled labor	is readily available	7.01 Survey [0..10]	3
Finance skills	are readily available	6.33 Survey [0..10]	33
International experience	of senior managers is generally significant	5.49 Survey [0..10]	31
Competent senior managers	are readily available	6.12 Survey [0..10]	21
Primary and secondary education	meets the needs of a competitive economy	5.42 Survey [0..10]	43
▶ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	28.74 %	13
University education	meets the needs of a competitive economy	6.16 Survey [0..10]	35
Management education	meets the needs of the business community	6.58 Survey [0..10]	29
▶ Language skills	are meeting the needs of enterprises	7.79 Survey [0..10]	16
▷ Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	0.14 number	56
Educational assessment - PISA	PISA survey of 15-year olds	- Average	-

# POLAND

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
Total public expenditure on education	Percentage of GDP	4.9 %	26
▶ Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	22.4 %	23
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	3,305 US\$	40
▶ Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	10.74 ratio	6
▶ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	9.77 ratio	14
Apprenticeships	are sufficiently implemented	5.10 Survey [0..10]	25
Employee training	is a high priority in companies	6.39 Survey [0..10]	23
Female labor force	Percentage of total labor force	44.93 %	38
▷ Health infrastructure	meets the needs of society	2.97 Survey [0..10]	57

### Appeal

		Value	2019 Rank
▶ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	66.30 index	9
Attracting and retaining talents	is a priority in companies	6.06 Survey [0..10]	44
Worker motivation	in companies is high	5.76 Survey [0..10]	33
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.27 Survey [0..10]	42
Quality of life	is high	5.79 Survey [0..10]	41
Foreign highly-skilled personnel	are attracted to your country's business environment	4.42 Survey [0..10]	45
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	18,898 US\$	34
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	152,515 US\$	36
▷ Effective personal income tax rate	Percentage of an income equal to GDP per capita	25.75 %	54
Justice	is fairly administered	4.12 Survey [0..10]	45
▷ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	20.94 micrograms	48

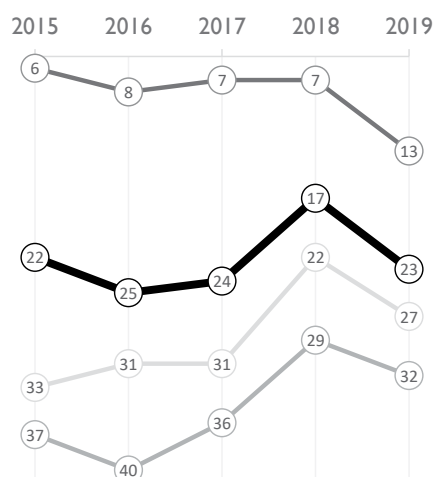
### Readiness

		Value	2019 Rank
▷ Labor force growth	Percentage change	-0.71 %	60
Skilled labor	is readily available	4.90 Survey [0..10]	46
▷ Finance skills	are readily available	5.73 Survey [0..10]	46
International experience	of senior managers is generally significant	5.82 Survey [0..10]	25
Competent senior managers	are readily available	5.25 Survey [0..10]	39
Primary and secondary education	meets the needs of a competitive economy	5.55 Survey [0..10]	40
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	22.86 %	35
University education	meets the needs of a competitive economy	6.09 Survey [0..10]	38
Management education	meets the needs of the business community	6.03 Survey [0..10]	39
Language skills	are meeting the needs of enterprises	6.54 Survey [0..10]	29
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	1.66 number	39
▶ Educational assessment - PISA	PISA survey of 15-year olds	503 Average	18

# PORTUGAL

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
Total public expenditure on education	Percentage of GDP	5.0 %	25
▶ Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	27.7 %	5
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	5,428 US\$	28
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	12.68 ratio	18
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	9.50 ratio	11
Apprenticeships	are sufficiently implemented	4.46 Survey [0..10]	41
▷ Employee training	is a high priority in companies	4.64 Survey [0..10]	58
▶ Female labor force	Percentage of total labor force	49.16 %	4
Health infrastructure	meets the needs of society	6.69 Survey [0..10]	25

### Appeal

		Value	2019 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	75.90 index	25
▷ Attracting and retaining talents	is a priority in companies	5.86 Survey [0..10]	48
Worker motivation	in companies is high	5.06 Survey [0..10]	47
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.56 Survey [0..10]	35
Quality of life	is high	7.53 Survey [0..10]	26
Foreign highly-skilled personnel	are attracted to your country's business environment	5.89 Survey [0..10]	25
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	21,500 US\$	32
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	165,119 US\$	31
Effective personal income tax rate	Percentage of an income equal to GDP per capita	18.51 %	33
▷ Justice	is fairly administered	3.56 Survey [0..10]	50
▶ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	8.08 micrograms	9

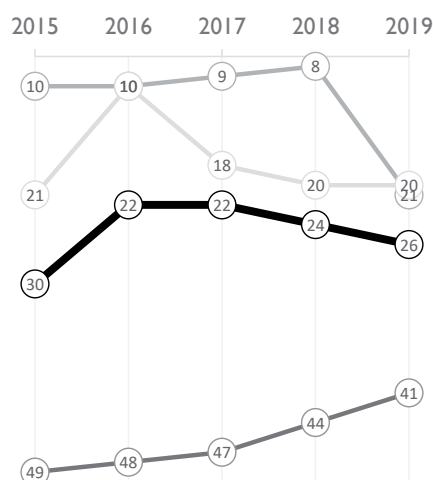
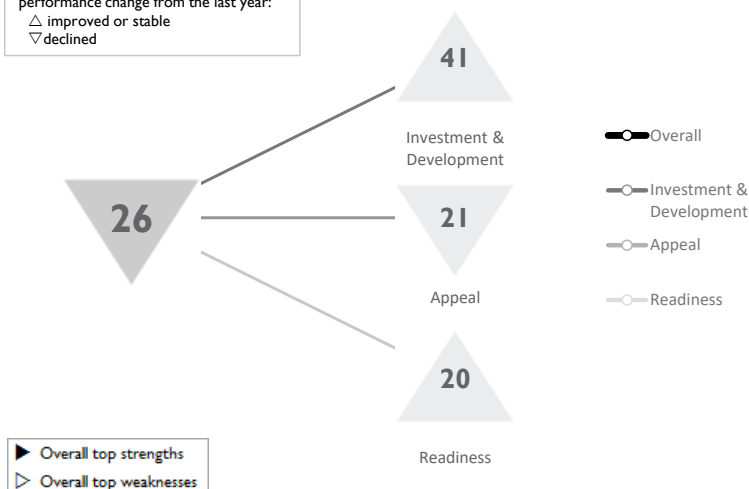
### Readiness

		Value	2019 Rank
▷ Labor force growth	Percentage change	0.25 %	50
Skilled labor	is readily available	6.39 Survey [0..10]	13
Finance skills	are readily available	5.97 Survey [0..10]	40
▷ International experience	of senior managers is generally significant	4.69 Survey [0..10]	54
Competent senior managers	are readily available	4.92 Survey [0..10]	45
Primary and secondary education	meets the needs of a competitive economy	6.56 Survey [0..10]	26
▶ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	29.03 %	11
University education	meets the needs of a competitive economy	7.50 Survey [0..10]	18
Management education	meets the needs of the business community	7.39 Survey [0..10]	15
▶ Language skills	are meeting the needs of enterprises	8.58 Survey [0..10]	7
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	2.16 number	32
Educational assessment - PISA	PISA survey of 15-year olds	496 Average	22

# QATAR

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
▶ Total public expenditure on education	Percentage of GDP	2.9 %	58
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	- %	-
▶ Total public exp. on education per student	Spending per enrolled pupil/student, all levels	14,172 US\$	6
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	11.77 ratio	14
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	10.42 ratio	19
Apprenticeships	are sufficiently implemented	6.27 Survey [0..10]	8
Employee training	is a high priority in companies	6.69 Survey [0..10]	16
▶ Female labor force	Percentage of total labor force	13.63 %	62
Health infrastructure	meets the needs of society	8.00 Survey [0..10]	12

### Appeal

		Value	2019 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	72.30 index	20
Attracting and retaining talents	is a priority in companies	7.15 Survey [0..10]	27
Worker motivation	in companies is high	6.74 Survey [0..10]	17
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	6.05 Survey [0..10]	18
Quality of life	is high	8.27 Survey [0..10]	18
Foreign highly-skilled personnel	are attracted to your country's business environment	7.53 Survey [0..10]	9
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	22,573 US\$	31
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	158,654 US\$	33
▶ Effective personal income tax rate	Percentage of an income equal to GDP per capita	0.00 %	1
Justice	is fairly administered	8.00 Survey [0..10]	13
▶ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	88.49 micrograms	60

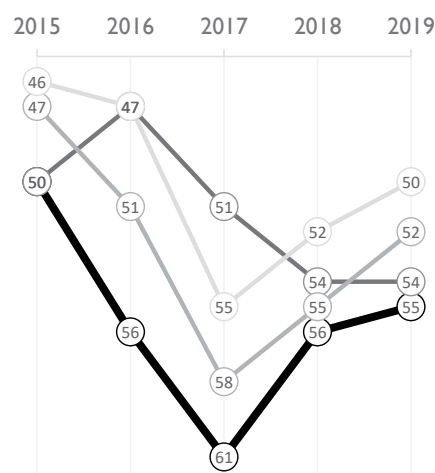
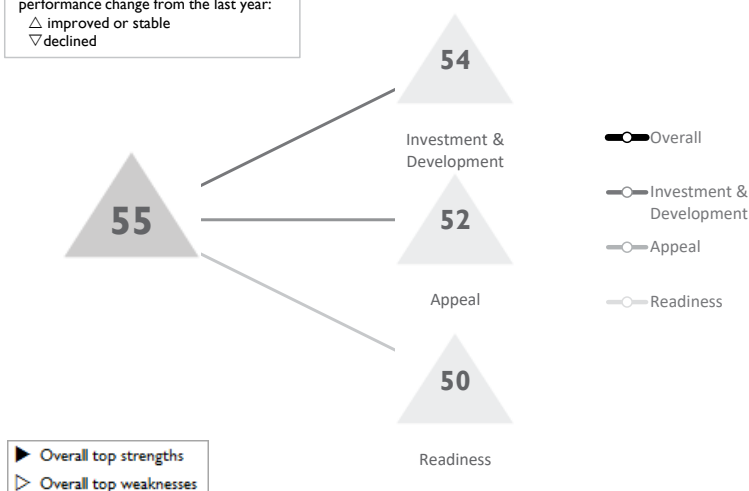
### Readiness

		Value	2019 Rank
Labor force growth	Percentage change	1.94 %	13
Skilled labor	is readily available	6.19 Survey [0..10]	19
Finance skills	are readily available	7.06 Survey [0..10]	16
▶ International experience	of senior managers is generally significant	7.53 Survey [0..10]	4
Competent senior managers	are readily available	6.65 Survey [0..10]	12
▶ Primary and secondary education	meets the needs of a competitive economy	8.00 Survey [0..10]	6
▶ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	22.93 %	34
University education	meets the needs of a competitive economy	7.82 Survey [0..10]	11
▶ Management education	meets the needs of the business community	7.67 Survey [0..10]	7
Language skills	are meeting the needs of enterprises	7.71 Survey [0..10]	18
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	4.05 number	18
▶ Educational assessment - PISA	PISA survey of 15-year olds	410 Average	51

# ROMANIA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
▶ Total public expenditure on education	Percentage of GDP	2.8 %	59
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	16.2 %	46
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	1,709 US\$	47
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	19.33 ratio	49
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	12.12 ratio	33
▶ Apprenticeships	are sufficiently implemented	2.96 Survey [0..10]	61
Employee training	is a high priority in companies	5.39 Survey [0..10]	43
Female labor force	Percentage of total labor force	42.73 %	45
Health infrastructure	meets the needs of society	3.10 Survey [0..10]	55

### Appeal

		Value	2019 Rank
▶ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	61.90 index	3
Attracting and retaining talents	is a priority in companies	5.94 Survey [0..10]	46
Worker motivation	in companies is high	4.93 Survey [0..10]	49
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	3.04 Survey [0..10]	54
▶ Quality of life	is high	4.14 Survey [0..10]	57
Foreign highly-skilled personnel	are attracted to your country's business environment	4.33 Survey [0..10]	46
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	11,654 US\$	50
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	95,295 US\$	50
▶ Effective personal income tax rate	Percentage of an income equal to GDP per capita	26.31 %	56
Justice	is fairly administered	4.00 Survey [0..10]	47
▶ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	14.64 micrograms	28

### Readiness

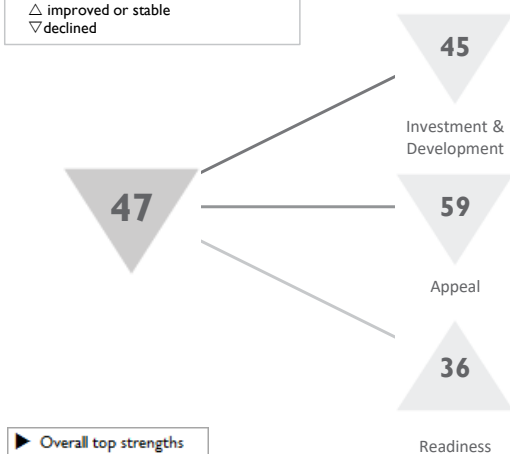
		Value	2019 Rank
▶ Labor force growth	Percentage change	1.03 %	28
Skilled labor	is readily available	4.23 Survey [0..10]	52
Finance skills	are readily available	4.78 Survey [0..10]	56
International experience	of senior managers is generally significant	5.12 Survey [0..10]	42
Competent senior managers	are readily available	4.12 Survey [0..10]	55
Primary and secondary education	meets the needs of a competitive economy	3.97 Survey [0..10]	52
▶ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	28.77 %	12
University education	meets the needs of a competitive economy	4.56 Survey [0..10]	53
▶ Management education	meets the needs of the business community	4.06 Survey [0..10]	59
▶ Language skills	are meeting the needs of enterprises	6.72 Survey [0..10]	28
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	1.31 number	45
Educational assessment - PISA	PISA survey of 15-year olds	439 Average	43



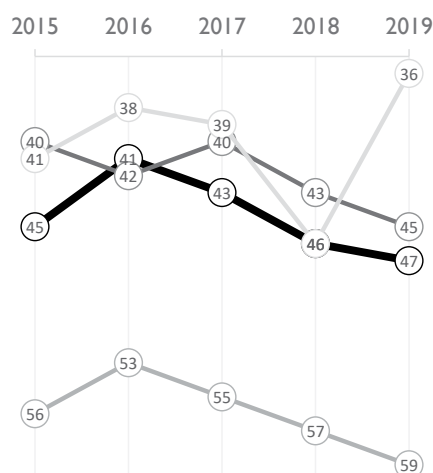
# RUSSIA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



- Overall top strengths
- ▷ Overall top weaknesses



### Investment & Development

		Value	2019 Rank
Total public expenditure on education	Percentage of GDP	3.5 %	49
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	- %	-
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	1,880 US\$	45
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	21.11 ratio	54
► Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	10.44 ratio	20
Apprenticeships	are sufficiently implemented	4.84 Survey [0..10]	31
Employee training	is a high priority in companies	5.38 Survey [0..10]	45
► Female labor force	Percentage of total labor force	48.58 %	6
Health infrastructure	meets the needs of society	3.57 Survey [0..10]	50

### Appeal

		Value	2019 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	96.20 index	51
Attracting and retaining talents	is a priority in companies	5.70 Survey [0..10]	55
Worker motivation	in companies is high	5.26 Survey [0..10]	43
▷ Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	2.65 Survey [0..10]	57
▷ Quality of life	is high	3.59 Survey [0..10]	60
Foreign highly-skilled personnel	are attracted to your country's business environment	3.62 Survey [0..10]	54
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	8,987 US\$	53
▷ Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	68,728 US\$	55
► Effective personal income tax rate	Percentage of an income equal to GDP per capita	11.33 %	17
Justice	is fairly administered	2.97 Survey [0..10]	52
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	16.19 micrograms	32

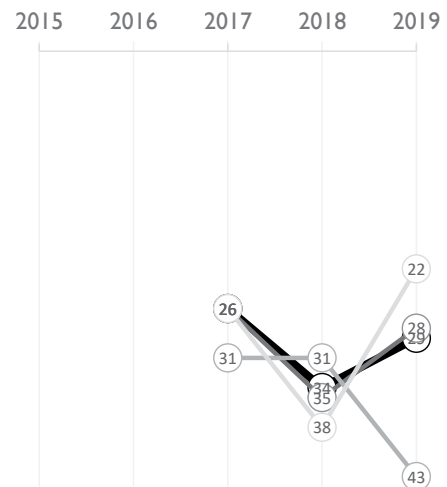
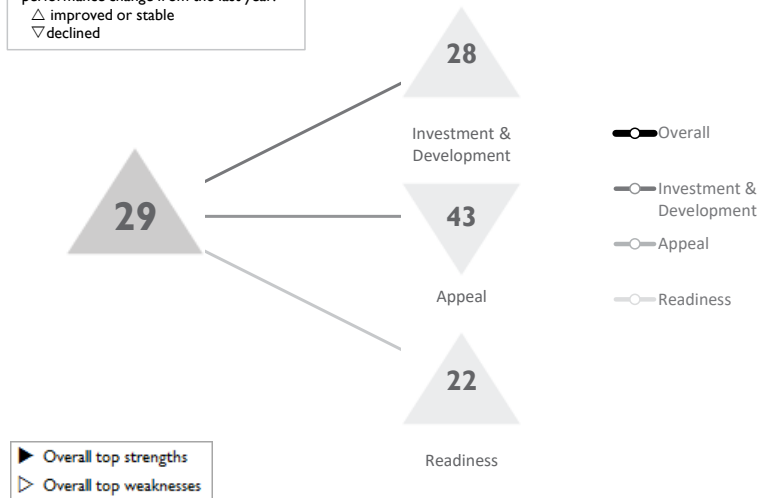
### Readiness

		Value	2019 Rank
Labor force growth	Percentage change	0.11 %	54
► Skilled labor	is readily available	6.16 Survey [0..10]	21
Finance skills	are readily available	6.76 Survey [0..10]	25
▷ International experience	of senior managers is generally significant	4.27 Survey [0..10]	59
Competent senior managers	are readily available	5.43 Survey [0..10]	36
Primary and secondary education	meets the needs of a competitive economy	5.84 Survey [0..10]	38
► Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	30.90 %	7
University education	meets the needs of a competitive economy	5.35 Survey [0..10]	46
▷ Management education	meets the needs of the business community	4.49 Survey [0..10]	57
Language skills	are meeting the needs of enterprises	4.54 Survey [0..10]	49
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	1.74 number	36
Educational assessment - PISA	PISA survey of 15-year olds	490 Average	27

# SAUDI ARABIA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
▶ Total public expenditure on education	Percentage of GDP	8.8 %	1
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	- %	-
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	6,230 US\$	26
▶ Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	11.68 ratio	12
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	10.80 ratio	22
Apprenticeships	are sufficiently implemented	5.29 Survey [0..10]	22
Employee training	is a high priority in companies	6.05 Survey [0..10]	32
▷ Female labor force	Percentage of total labor force	14.56 %	61
Health infrastructure	meets the needs of society	6.05 Survey [0..10]	31

### Appeal

		Value	2019 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	85.90 index	42
Attracting and retaining talents	is a priority in companies	6.69 Survey [0..10]	36
Worker motivation	in companies is high	5.82 Survey [0..10]	32
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	5.52 Survey [0..10]	25
Quality of life	is high	6.87 Survey [0..10]	32
▶ Foreign highly-skilled personnel	are attracted to your country's business environment	6.81 Survey [0..10]	14
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	28,388 US\$	25
▷ Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	144,059 US\$	39
Effective personal income tax rate	Percentage of an income equal to GDP per capita	12.12 %	18
Justice	is fairly administered	7.33 Survey [0..10]	21
▷ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	90.00 micrograms	62

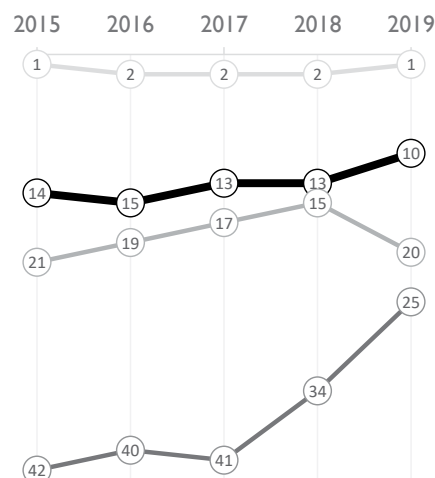
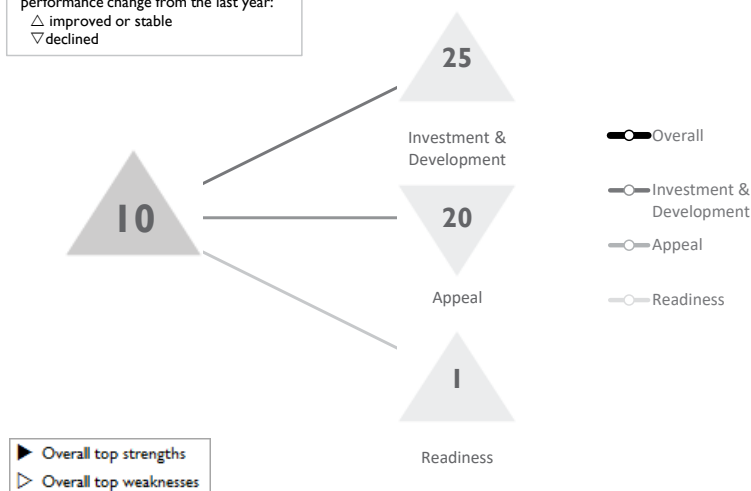
### Readiness

		Value	2019 Rank
▶ Labor force growth	Percentage change	4.33 %	1
▷ Skilled labor	is readily available	5.07 Survey [0..10]	43
Finance skills	are readily available	6.21 Survey [0..10]	35
▶ International experience	of senior managers is generally significant	6.68 Survey [0..10]	11
Competent senior managers	are readily available	6.11 Survey [0..10]	22
Primary and secondary education	meets the needs of a competitive economy	5.84 Survey [0..10]	37
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	21.91 %	38
University education	meets the needs of a competitive economy	6.09 Survey [0..10]	37
Management education	meets the needs of the business community	6.25 Survey [0..10]	38
Language skills	are meeting the needs of enterprises	6.11 Survey [0..10]	36
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	2.40 number	30
Educational assessment - PISA	PISA survey of 15-year olds	- Average	-

# SINGAPORE

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
▷ Total public expenditure on education	Percentage of GDP	2.7 %	61
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	- %	-
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	12,890 US\$	8
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	14.69 ratio	28
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	11.48 ratio	26
Apprenticeships	are sufficiently implemented	5.03 Survey [0..10]	28
Employee training	is a high priority in companies	6.19 Survey [0..10]	28
Female labor force	Percentage of total labor force	45.76 %	32
Health infrastructure	meets the needs of society	8.46 Survey [0..10]	4

### Appeal

		Value	2019 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	110.10 index	57
Attracting and retaining talents	is a priority in companies	7.46 Survey [0..10]	19
Worker motivation	in companies is high	6.49 Survey [0..10]	20
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	6.84 Survey [0..10]	9
Quality of life	is high	8.68 Survey [0..10]	12
▶ Foreign highly-skilled personnel	are attracted to your country's business environment	8.19 Survey [0..10]	2
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	- US\$	-
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	299,993 US\$	4
▷ Effective personal income tax rate	Percentage of an income equal to GDP per capita	18.79 %	34
Justice	is fairly administered	8.16 Survey [0..10]	10
▷ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	19.43 micrograms	43

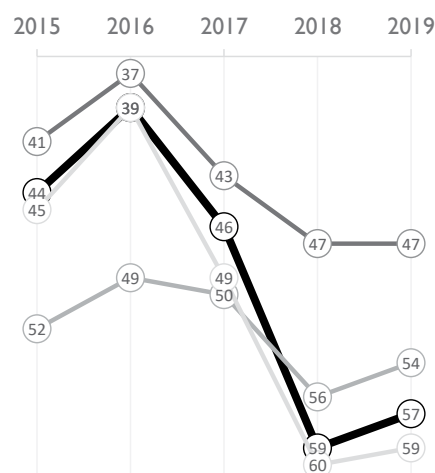
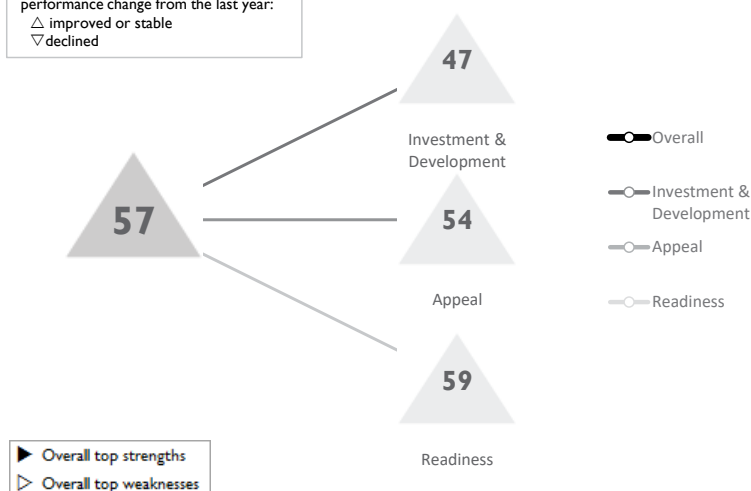
### Readiness

		Value	2019 Rank
▷ Labor force growth	Percentage change	0.51 %	45
Skilled labor	is readily available	6.27 Survey [0..10]	16
Finance skills	are readily available	7.22 Survey [0..10]	13
International experience	of senior managers is generally significant	7.29 Survey [0..10]	9
Competent senior managers	are readily available	6.76 Survey [0..10]	7
▶ Primary and secondary education	meets the needs of a competitive economy	8.71 Survey [0..10]	3
▶ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	34.50 %	2
University education	meets the needs of a competitive economy	8.49 Survey [0..10]	5
Management education	meets the needs of the business community	8.00 Survey [0..10]	4
Language skills	are meeting the needs of enterprises	8.51 Survey [0..10]	9
▶ Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	9.48 number	3
▶ Educational assessment - PISA	PISA survey of 15-year olds	560 Average	1

# SLOVAK REPUBLIC

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
Total public expenditure on education	Percentage of GDP	3.8 %	45
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	20.0 %	34
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	3,618 US\$	38
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	17.40 ratio	45
▶ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	12.88 ratio	38
▷ Apprenticeships	are sufficiently implemented	2.53 Survey [0..10]	63
Employee training	is a high priority in companies	5.03 Survey [0..10]	54
▶ Female labor force	Percentage of total labor force	44.99 %	37
Health infrastructure	meets the needs of society	3.15 Survey [0..10]	53

### Appeal

		Value	2019 Rank
▶ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	72.70 index	21
▷ Attracting and retaining talents	is a priority in companies	5.09 Survey [0..10]	61
Worker motivation	in companies is high	4.27 Survey [0..10]	60
▷ Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	2.18 Survey [0..10]	61
Quality of life	is high	5.07 Survey [0..10]	47
Foreign highly-skilled personnel	are attracted to your country's business environment	2.38 Survey [0..10]	60
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	14,558 US\$	39
▶ Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	182,621 US\$	27
Effective personal income tax rate	Percentage of an income equal to GDP per capita	16.95 %	31
▷ Justice	is fairly administered	1.91 Survey [0..10]	61
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	17.90 micrograms	41

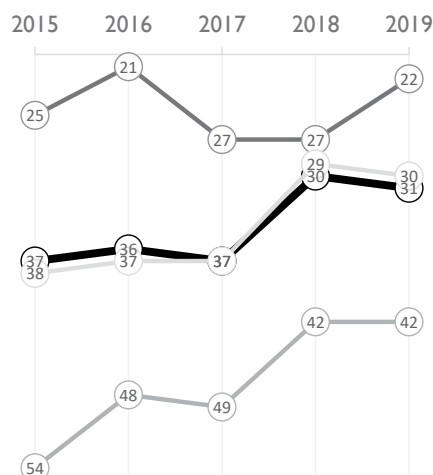
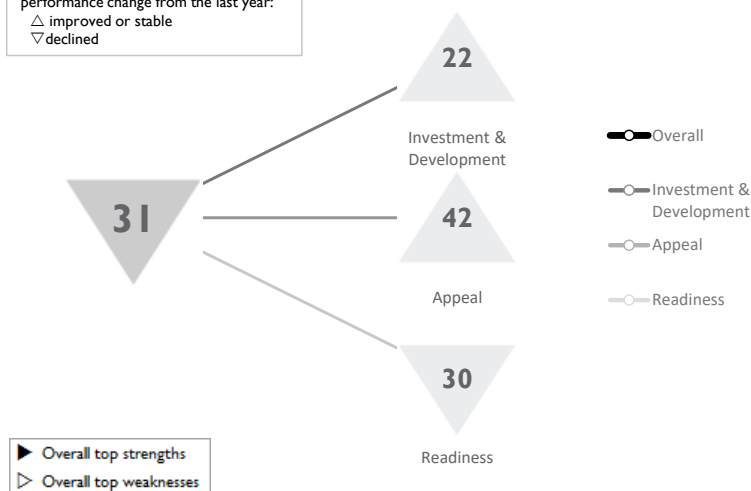
### Readiness

		Value	2019 Rank
Labor force growth	Percentage change	-0.15 %	57
Skilled labor	is readily available	3.47 Survey [0..10]	58
Finance skills	are readily available	4.51 Survey [0..10]	59
International experience	of senior managers is generally significant	4.42 Survey [0..10]	56
Competent senior managers	are readily available	3.12 Survey [0..10]	59
Primary and secondary education	meets the needs of a competitive economy	3.19 Survey [0..10]	60
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	21.15 %	41
▷ University education	meets the needs of a competitive economy	3.26 Survey [0..10]	62
Management education	meets the needs of the business community	4.39 Survey [0..10]	58
Language skills	are meeting the needs of enterprises	4.38 Survey [0..10]	54
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	1.98 number	35
Educational assessment - PISA	PISA survey of 15-year olds	468 Average	38

# SLOVENIA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
Total public expenditure on education	Percentage of GDP	4.8 %	29
▶ Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	25.5 %	10
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	5,293 US\$	30
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	14.45 ratio	27
▶ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	9.27 ratio	8
▷ Apprenticeships	are sufficiently implemented	3.36 Survey [0..10]	60
Employee training	is a high priority in companies	6.22 Survey [0..10]	26
Female labor force	Percentage of total labor force	46.24 %	29
Health infrastructure	meets the needs of society	5.56 Survey [0..10]	37

### Appeal

		Value	2019 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	70.00 index	17
Attracting and retaining talents	is a priority in companies	6.54 Survey [0..10]	39
Worker motivation	in companies is high	5.44 Survey [0..10]	40
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	3.97 Survey [0..10]	45
▶ Quality of life	is high	8.47 Survey [0..10]	15
▷ Foreign highly-skilled personnel	are attracted to your country's business environment	3.63 Survey [0..10]	53
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	23,443 US\$	30
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	132,980 US\$	41
▷ Effective personal income tax rate	Percentage of an income equal to GDP per capita	26.78 %	58
Justice	is fairly administered	4.93 Survey [0..10]	42
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	16.14 micrograms	31

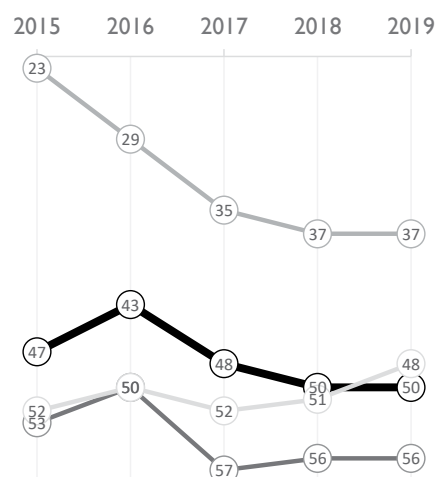
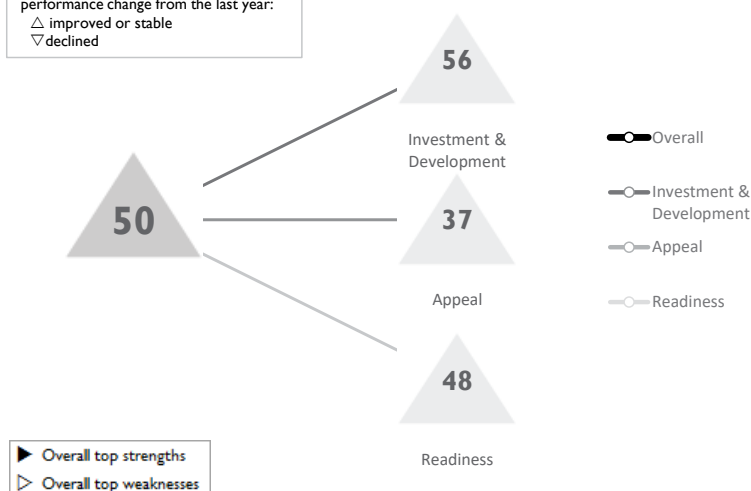
### Readiness

		Value	2019 Rank
Labor force growth	Percentage change	0.71 %	40
Skilled labor	is readily available	5.54 Survey [0..10]	33
Finance skills	are readily available	5.97 Survey [0..10]	41
▷ International experience	of senior managers is generally significant	4.92 Survey [0..10]	49
▷ Competent senior managers	are readily available	4.92 Survey [0..10]	46
Primary and secondary education	meets the needs of a competitive economy	7.10 Survey [0..10]	20
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	25.02 %	25
University education	meets the needs of a competitive economy	6.75 Survey [0..10]	27
Management education	meets the needs of the business community	6.92 Survey [0..10]	24
▶ Language skills	are meeting the needs of enterprises	8.20 Survey [0..10]	11
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	1.50 number	41
▶ Educational assessment - PISA	PISA survey of 15-year olds	511 Average	11

# SOUTH AFRICA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
▶ Total public expenditure on education	Percentage of GDP	7.0 %	3
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	19.1 %	38
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	1,473 US\$	49
▷ Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	30.33 ratio	60
▷ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	26.85 ratio	61
Apprenticeships	are sufficiently implemented	3.42 Survey [0..10]	59
▶ Employee training	is a high priority in companies	6.16 Survey [0..10]	30
Female labor force	Percentage of total labor force	45.33 %	36
Health infrastructure	meets the needs of society	3.06 Survey [0..10]	56

### Appeal

		Value	2019 Rank
▶ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	61.30 index	2
Attracting and retaining talents	is a priority in companies	6.19 Survey [0..10]	42
▷ Worker motivation	in companies is high	4.29 Survey [0..10]	59
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	3.42 Survey [0..10]	51
Quality of life	is high	4.97 Survey [0..10]	50
Foreign highly-skilled personnel	are attracted to your country's business environment	5.19 Survey [0..10]	33
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	17,757 US\$	35
▷ Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	46,477 US\$	59
▶ Effective personal income tax rate	Percentage of an income equal to GDP per capita	1.68 %	3
Justice	is fairly administered	5.48 Survey [0..10]	37
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	24.99 micrograms	52

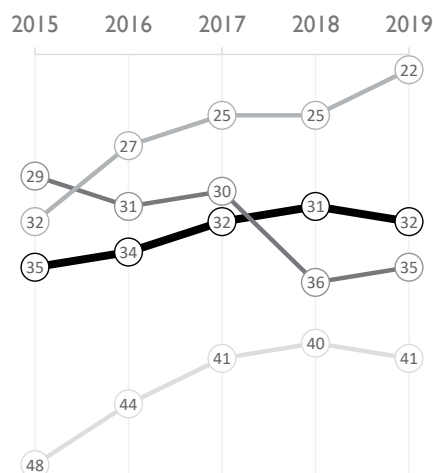
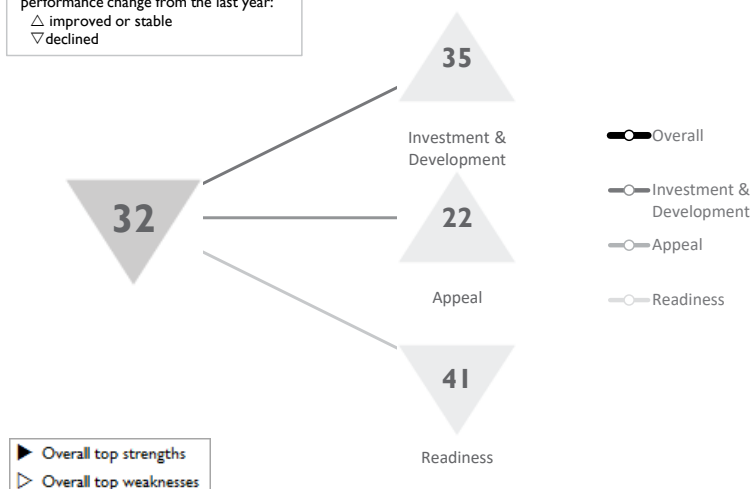
### Readiness

		Value	2019 Rank
▶ Labor force growth	Percentage change	2.80 %	4
Skilled labor	is readily available	3.77 Survey [0..10]	55
Finance skills	are readily available	5.29 Survey [0..10]	51
International experience	of senior managers is generally significant	4.71 Survey [0..10]	53
Competent senior managers	are readily available	5.00 Survey [0..10]	43
▷ Primary and secondary education	meets the needs of a competitive economy	3.42 Survey [0..10]	59
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	18.49 %	52
University education	meets the needs of a competitive economy	5.06 Survey [0..10]	49
Management education	meets the needs of the business community	5.68 Survey [0..10]	46
Language skills	are meeting the needs of enterprises	6.29 Survey [0..10]	34
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	0.80 number	49
Educational assessment - PISA	PISA survey of 15-year olds	- Average	-

# SPAIN

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
Total public expenditure on education	Percentage of GDP	4.0 %	40
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	18.9 %	39
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	5,145 US\$	31
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	13.65 ratio	24
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	11.19 ratio	24
Apprenticeships	are sufficiently implemented	4.74 Survey [0..10]	35
Employee training	is a high priority in companies	5.19 Survey [0..10]	47
Female labor force	Percentage of total labor force	46.48 %	26
Health infrastructure	meets the needs of society	8.16 Survey [0..10]	11

### Appeal

		Value	2019 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	81.30 index	34
Attracting and retaining talents	is a priority in companies	5.73 Survey [0..10]	53
Worker motivation	in companies is high	5.19 Survey [0..10]	45
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	4.48 Survey [0..10]	36
Quality of life	is high	8.44 Survey [0..10]	16
Foreign highly-skilled personnel	are attracted to your country's business environment	5.95 Survey [0..10]	24
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	36,803 US\$	20
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	212,718 US\$	19
Effective personal income tax rate	Percentage of an income equal to GDP per capita	14.63 %	28
Justice	is fairly administered	5.64 Survey [0..10]	34
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	9.90 micrograms	12

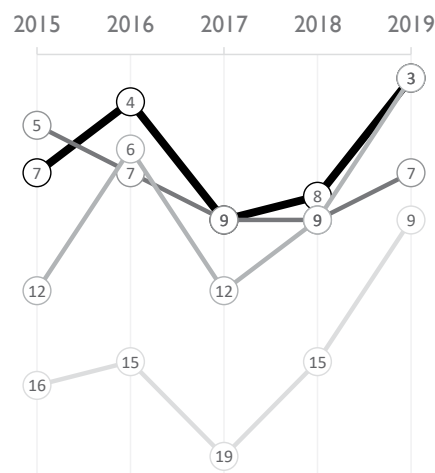
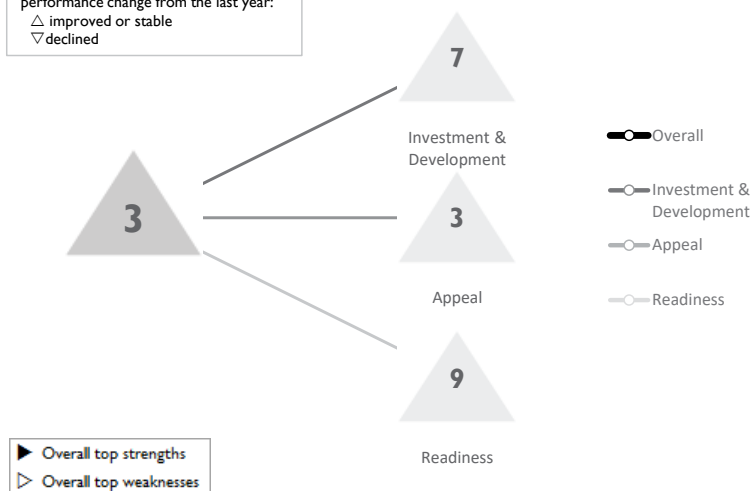
### Readiness

		Value	2019 Rank
Labor force growth	Percentage change	0.29 %	49
Skilled labor	is readily available	5.77 Survey [0..10]	31
Finance skills	are readily available	5.84 Survey [0..10]	43
International experience	of senior managers is generally significant	5.13 Survey [0..10]	39
Competent senior managers	are readily available	5.56 Survey [0..10]	33
Primary and secondary education	meets the needs of a competitive economy	6.32 Survey [0..10]	31
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	23.93 %	28
University education	meets the needs of a competitive economy	6.09 Survey [0..10]	39
Management education	meets the needs of the business community	6.84 Survey [0..10]	25
Language skills	are meeting the needs of enterprises	4.32 Survey [0..10]	56
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	1.39 number	42
Educational assessment - PISA	PISA survey of 15-year olds	489 Average	28

# SWEDEN

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
▶ Total public expenditure on education	Percentage of GDP	6.8 %	5
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	23.8 %	14
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	12,709 US\$	9
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	12.83 ratio	19
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	12.98 ratio	39
▷ Apprenticeships	are sufficiently implemented	5.00 Survey [0..10]	30
Employee training	is a high priority in companies	6.92 Survey [0..10]	10
Female labor force	Percentage of total labor force	47.56 %	14
Health infrastructure	meets the needs of society	6.92 Survey [0..10]	23

### Appeal

		Value	2019 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	76.90 index	27
▶ Attracting and retaining talents	is a priority in companies	8.00 Survey [0..10]	5
Worker motivation	in companies is high	7.30 Survey [0..10]	8
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	6.89 Survey [0..10]	7
Quality of life	is high	9.14 Survey [0..10]	8
Foreign highly-skilled personnel	are attracted to your country's business environment	5.97 Survey [0..10]	21
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	51,960 US\$	7
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	224,486 US\$	17
▷ Effective personal income tax rate	Percentage of an income equal to GDP per capita	24.35 %	51
▶ Justice	is fairly administered	8.76 Survey [0..10]	4
▶ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	6.11 micrograms	3

### Readiness

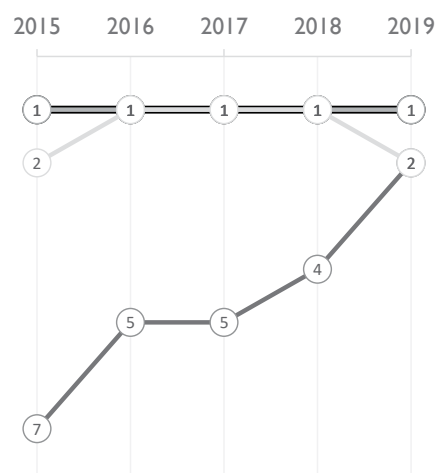
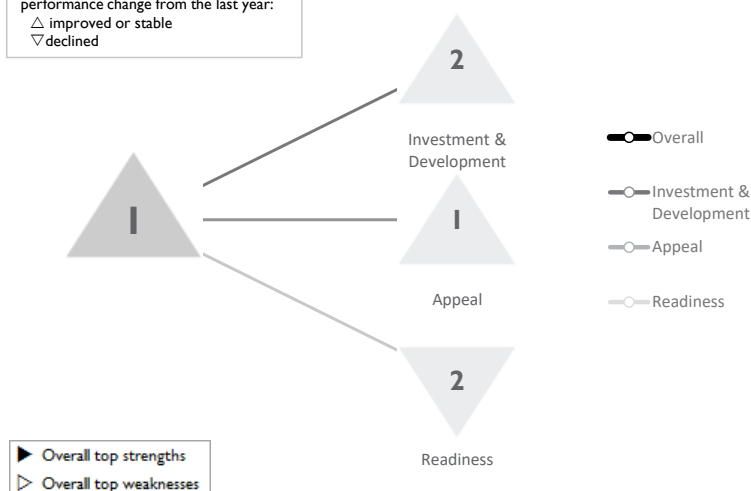
		Value	2019 Rank
Labor force growth	Percentage change	1.41 %	22
Skilled labor	is readily available	6.08 Survey [0..10]	23
Finance skills	are readily available	7.38 Survey [0..10]	11
▶ International experience	of senior managers is generally significant	7.47 Survey [0..10]	5
Competent senior managers	are readily available	6.65 Survey [0..10]	11
Primary and secondary education	meets the needs of a competitive economy	7.34 Survey [0..10]	17
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	26.62 %	17
University education	meets the needs of a competitive economy	8.11 Survey [0..10]	6
Management education	meets the needs of the business community	7.49 Survey [0..10]	11
Language skills	are meeting the needs of enterprises	8.57 Survey [0..10]	8
▷ Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	2.84 number	29
Educational assessment - PISA	PISA survey of 15-year olds	494 Average	25



# SWITZERLAND

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
Total public expenditure on education	Percentage of GDP	5.6 %	15
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	24.5 %	12
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	23,899 US\$	2
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	15.30 ratio	32
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	11.99 ratio	29
▶ Apprenticeships	are sufficiently implemented	8.81 Survey [0..10]	1
Employee training	is a high priority in companies	7.31 Survey [0..10]	5
Female labor force	Percentage of total labor force	46.68 %	22
Health infrastructure	meets the needs of society	8.91 Survey [0..10]	1

### Appeal

		Value	2019 Rank
▶ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	111.60 index	58
Attracting and retaining talents	is a priority in companies	7.52 Survey [0..10]	17
Worker motivation	in companies is high	7.47 Survey [0..10]	4
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	7.69 Survey [0..10]	3
Quality of life	is high	9.69 Survey [0..10]	1
▶ Foreign highly-skilled personnel	are attracted to your country's business environment	8.84 Survey [0..10]	1
▶ Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	81,614 US\$	1
▶ Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	460,999 US\$	1
Effective personal income tax rate	Percentage of an income equal to GDP per capita	12.71 %	21
Justice	is fairly administered	8.58 Survey [0..10]	6
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	10.45 micrograms	15

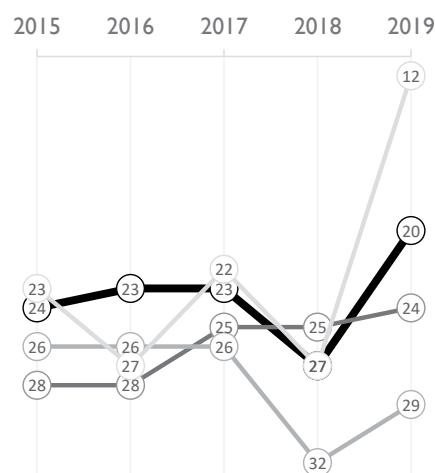
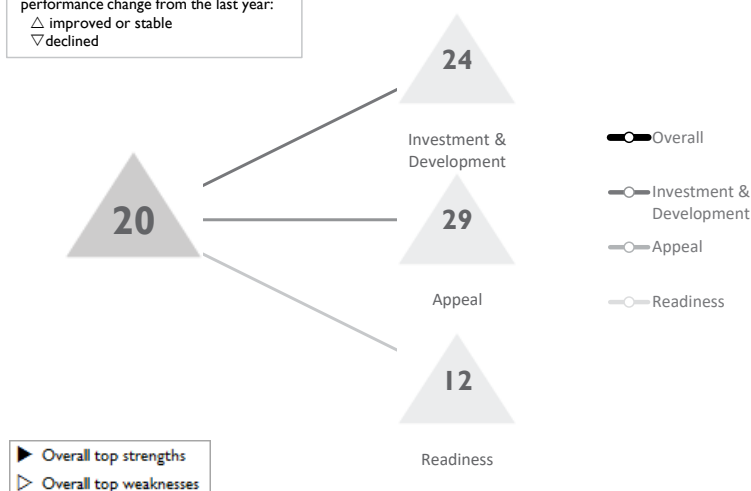
### Readiness

		Value	2019 Rank
▶ Labor force growth	Percentage change	0.74 %	38
Skilled labor	is readily available	6.53 Survey [0..10]	11
Finance skills	are readily available	7.91 Survey [0..10]	2
International experience	of senior managers is generally significant	7.73 Survey [0..10]	2
Competent senior managers	are readily available	6.80 Survey [0..10]	6
Primary and secondary education	meets the needs of a competitive economy	8.85 Survey [0..10]	2
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	24.70 %	26
University education	meets the needs of a competitive economy	9.02 Survey [0..10]	1
▶ Management education	meets the needs of the business community	8.58 Survey [0..10]	1
Language skills	are meeting the needs of enterprises	8.62 Survey [0..10]	5
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	6.34 number	8
Educational assessment - PISA	PISA survey of 15-year olds	513 Average	10

# TAIWAN, CHINA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



Investment & Development			Value	2019 Rank
▶ Total public expenditure on education	Percentage of GDP		3.8 %	46
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)		23.2 %	15
Total public exp. on education per student	Spending per enrolled pupil/student, all levels		4,942 US\$	33
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff		12.10 ratio	17
▶ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff		13.90 ratio	46
Apprenticeships	are sufficiently implemented		5.83 Survey [0..10]	14
Employee training	is a high priority in companies		6.79 Survey [0..10]	14
Female labor force	Percentage of total labor force		44.40 %	40
▶ Health infrastructure	meets the needs of society		8.42 Survey [0..10]	6

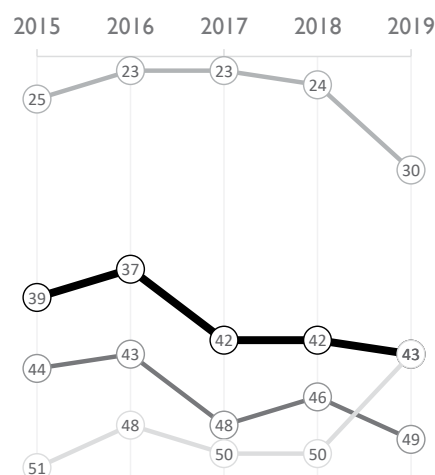
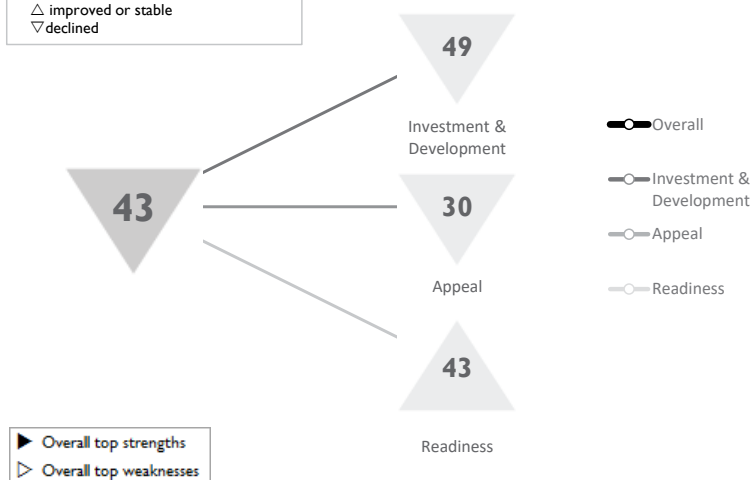
Appeal			Value	2019 Rank
▶ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)		89.70 index	48
Attracting and retaining talents	is a priority in companies		6.61 Survey [0..10]	38
▶ Worker motivation	in companies is high		7.01 Survey [0..10]	12
▶ Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy		3.74 Survey [0..10]	46
Quality of life	is high		7.15 Survey [0..10]	30
▶ Foreign highly-skilled personnel	are attracted to your country's business environment		4.14 Survey [0..10]	48
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$		26,500 US\$	27
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$		185,939 US\$	25
▶ Effective personal income tax rate	Percentage of an income equal to GDP per capita		5.77 %	9
Justice	is fairly administered		5.52 Survey [0..10]	36
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre		20.00 micrograms	44

Readiness			Value	2019 Rank
Labor force growth	Percentage change		0.67 %	41
Skilled labor	is readily available		5.92 Survey [0..10]	26
Finance skills	are readily available		6.85 Survey [0..10]	22
International experience	of senior managers is generally significant		5.22 Survey [0..10]	36
Competent senior managers	are readily available		5.64 Survey [0..10]	31
Primary and secondary education	meets the needs of a competitive economy		6.46 Survey [0..10]	30
▶ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences		33.15 %	3
University education	meets the needs of a competitive economy		6.23 Survey [0..10]	34
Management education	meets the needs of the business community		6.78 Survey [0..10]	27
Language skills	are meeting the needs of enterprises		5.77 Survey [0..10]	40
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants		5.15 number	13
▶ Educational assessment - PISA	PISA survey of 15-year olds		537 Average	2

# THAILAND

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
▶ Total public expenditure on education	Percentage of GDP	3.5 %	52
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	18.0 %	43
▶ Total public exp. on education per student	Spending per enrolled pupil/student, all levels	930 US\$	55
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	16.20 ratio	36
▶ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	24.16 ratio	58
▶ Apprenticeships	are sufficiently implemented	5.50 Survey [0..10]	19
Employee training	is a high priority in companies	6.26 Survey [0..10]	25
Female labor force	Percentage of total labor force	45.49 %	34
Health infrastructure	meets the needs of society	6.48 Survey [0..10]	28

### Appeal

		Value	2019 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	83.60 index	39
Attracting and retaining talents	is a priority in companies	6.69 Survey [0..10]	35
Worker motivation	in companies is high	6.06 Survey [0..10]	26
▶ Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	5.60 Survey [0..10]	23
Quality of life	is high	6.42 Survey [0..10]	36
Foreign highly-skilled personnel	are attracted to your country's business environment	5.66 Survey [0..10]	29
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	12,681 US\$	44
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	184,089 US\$	26
▶ Effective personal income tax rate	Percentage of an income equal to GDP per capita	4.09 %	5
Justice	is fairly administered	6.00 Survey [0..10]	28
▶ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	26.27 micrograms	55

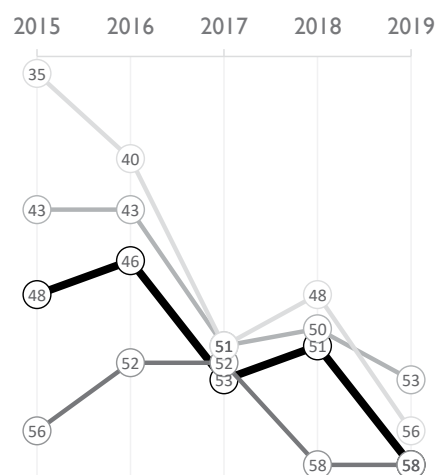
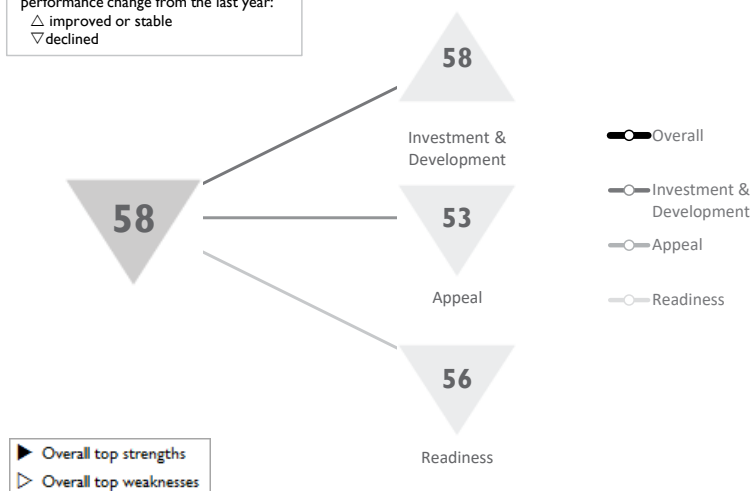
### Readiness

		Value	2019 Rank
Labor force growth	Percentage change	0.88 %	32
Skilled labor	is readily available	5.86 Survey [0..10]	29
Finance skills	are readily available	6.02 Survey [0..10]	38
▶ International experience	of senior managers is generally significant	6.04 Survey [0..10]	20
Competent senior managers	are readily available	6.06 Survey [0..10]	24
Primary and secondary education	meets the needs of a competitive economy	5.25 Survey [0..10]	45
▶ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	27.86 %	15
University education	meets the needs of a competitive economy	5.52 Survey [0..10]	44
Management education	meets the needs of the business community	5.94 Survey [0..10]	40
Language skills	are meeting the needs of enterprises	4.95 Survey [0..10]	46
▶ Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	0.48 number	51
Educational assessment - PISA	PISA survey of 15-year olds	418 Average	49

# TURKEY

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
Total public expenditure on education	Percentage of GDP	4.2 %	38
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	11.5 %	54
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	1,447 US\$	51
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	16.98 ratio	44
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	14.68 ratio	48
Apprenticeships	are sufficiently implemented	4.04 Survey [0..10]	52
Employee training	is a high priority in companies	4.48 Survey [0..10]	59
Female labor force	Percentage of total labor force	32.45 %	57
Health infrastructure	meets the needs of society	6.93 Survey [0..10]	22

### Appeal

		Value	2019 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	64.50 index	7
Attracting and retaining talents	is a priority in companies	5.93 Survey [0..10]	47
Worker motivation	in companies is high	4.85 Survey [0..10]	51
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	2.93 Survey [0..10]	55
Quality of life	is high	4.81 Survey [0..10]	53
Foreign highly-skilled personnel	are attracted to your country's business environment	3.19 Survey [0..10]	57
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	8,368 US\$	54
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	147,309 US\$	37
Effective personal income tax rate	Percentage of an income equal to GDP per capita	20.43 %	39
Justice	is fairly administered	2.53 Survey [0..10]	57
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	21.82 micrograms	50

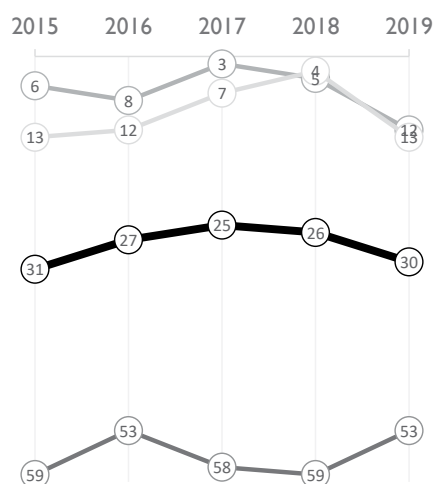
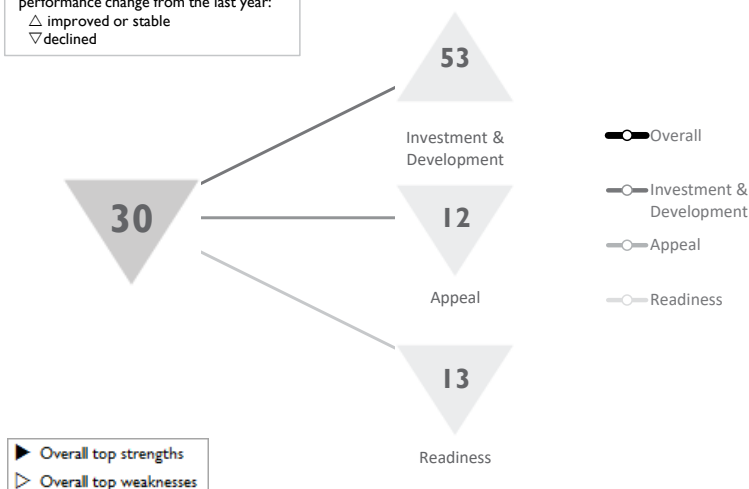
### Readiness

		Value	2019 Rank
Labor force growth	Percentage change	1.99 %	12
Skilled labor	is readily available	5.19 Survey [0..10]	40
Finance skills	are readily available	5.67 Survey [0..10]	48
International experience	of senior managers is generally significant	5.19 Survey [0..10]	38
Competent senior managers	are readily available	5.37 Survey [0..10]	38
Primary and secondary education	meets the needs of a competitive economy	3.93 Survey [0..10]	54
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	18.88 %	51
University education	meets the needs of a competitive economy	3.96 Survey [0..10]	57
Management education	meets the needs of the business community	4.52 Survey [0..10]	55
Language skills	are meeting the needs of enterprises	4.52 Survey [0..10]	50
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	1.34 number	44
Educational assessment - PISA	PISA survey of 15-year olds	423 Average	47

# UAE

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
▶ Total public expenditure on education	Percentage of GDP	1.7 %	62
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	- %	-
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	4,978 US\$	32
▶ Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	24.52 ratio	57
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	9.55 ratio	12
Apprenticeships	are sufficiently implemented	7.03 Survey [0..10]	4
Employee training	is a high priority in companies	7.49 Survey [0..10]	4
▶ Female labor force	Percentage of total labor force	19.49 %	60
Health infrastructure	meets the needs of society	8.30 Survey [0..10]	8

### Appeal

		Value	2019 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	90.30 index	49
Attracting and retaining talents	is a priority in companies	7.71 Survey [0..10]	10
Worker motivation	in companies is high	7.41 Survey [0..10]	6
▶ Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	8.15 Survey [0..10]	1
Quality of life	is high	8.53 Survey [0..10]	13
Foreign highly-skilled personnel	are attracted to your country's business environment	8.06 Survey [0..10]	5
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	32,449 US\$	24
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	241,787 US\$	15
Effective personal income tax rate	Percentage of an income equal to GDP per capita	4.64 %	6
Justice	is fairly administered	8.21 Survey [0..10]	9
▶ Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	40.26 micrograms	57

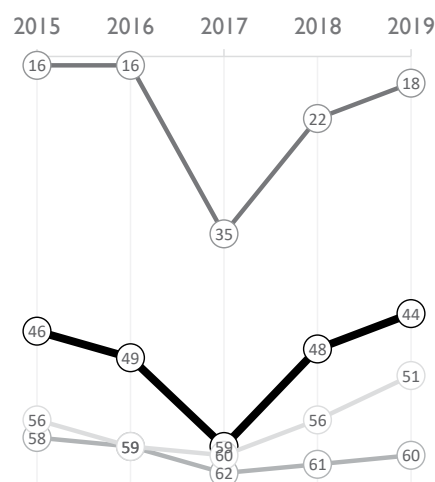
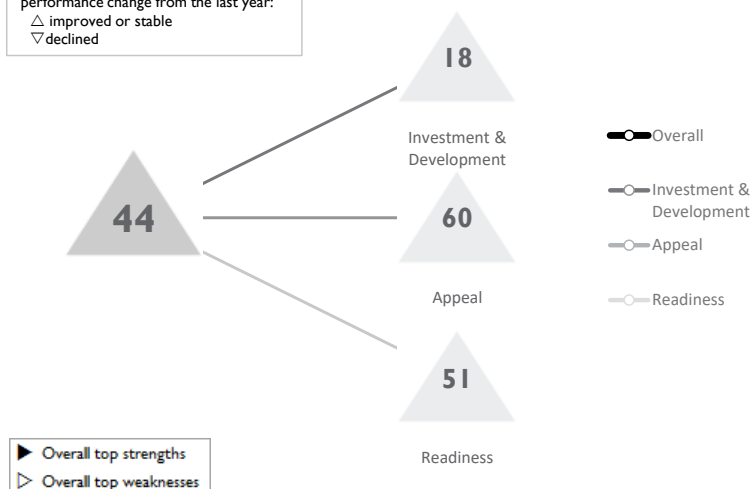
### Readiness

		Value	2019 Rank
▶ Labor force growth	Percentage change	-0.46 %	58
▶ Skilled labor	is readily available	7.92 Survey [0..10]	1
▶ Finance skills	are readily available	8.06 Survey [0..10]	1
▶ International experience	of senior managers is generally significant	7.91 Survey [0..10]	1
▶ Competent senior managers	are readily available	7.72 Survey [0..10]	1
Primary and secondary education	meets the needs of a competitive economy	8.00 Survey [0..10]	6
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	21.99 %	37
University education	meets the needs of a competitive economy	7.77 Survey [0..10]	13
Management education	meets the needs of the business community	7.55 Survey [0..10]	10
Language skills	are meeting the needs of enterprises	8.62 Survey [0..10]	6
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	6.93 number	6
Educational assessment - PISA	PISA survey of 15-year olds	432 Average	46

# UKRAINE

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
▶ Total public expenditure on education	Percentage of GDP	6.0 %	10
▶ Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	25.6 %	9
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	963 US\$	53
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	12.99 ratio	21
▶ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	7.21 ratio	2
Apprenticeships	are sufficiently implemented	4.70 Survey [0..10]	36
Employee training	is a high priority in companies	5.08 Survey [0..10]	51
▶ Female labor force	Percentage of total labor force	47.64 %	13
▷ Health infrastructure	meets the needs of society	2.73 Survey [0..10]	59

### Appeal

		Value	2019 Rank
▶ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	62.30 index	5
Attracting and retaining talents	is a priority in companies	5.52 Survey [0..10]	59
Worker motivation	in companies is high	4.30 Survey [0..10]	58
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	2.39 Survey [0..10]	58
▷ Quality of life	is high	3.12 Survey [0..10]	61
▷ Foreign highly-skilled personnel	are attracted to your country's business environment	2.55 Survey [0..10]	59
▷ Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	3,311 US\$	59
▷ Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	28,071 US\$	60
Effective personal income tax rate	Percentage of an income equal to GDP per capita	13.28 %	23
Justice	is fairly administered	2.58 Survey [0..10]	56
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	20.68 micrograms	47

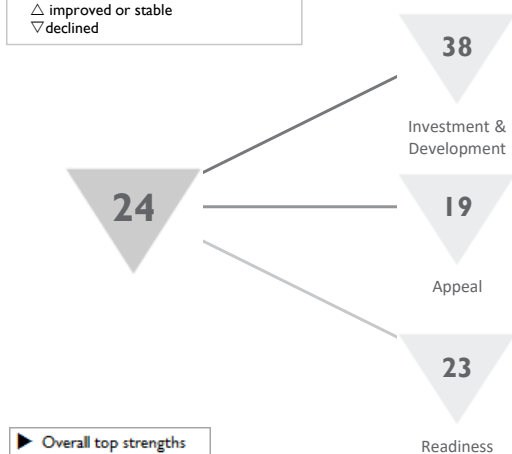
### Readiness

		Value	2019 Rank
Labor force growth	Percentage change	0.48 %	46
Skilled labor	is readily available	5.12 Survey [0..10]	42
Finance skills	are readily available	5.64 Survey [0..10]	49
International experience	of senior managers is generally significant	4.36 Survey [0..10]	57
Competent senior managers	are readily available	4.39 Survey [0..10]	54
Primary and secondary education	meets the needs of a competitive economy	4.76 Survey [0..10]	46
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	24.22 %	27
University education	meets the needs of a competitive economy	4.48 Survey [0..10]	54
Management education	meets the needs of the business community	5.91 Survey [0..10]	42
Language skills	are meeting the needs of enterprises	4.36 Survey [0..10]	55
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	1.25 number	48
Educational assessment - PISA	PISA survey of 15-year olds	- Average	-

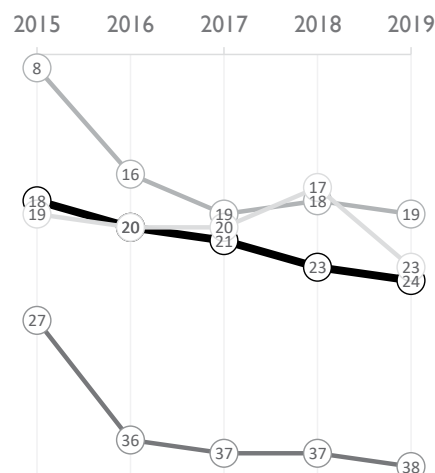
# UNITED KINGDOM

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



- Overall top strengths
- ▷ Overall top weaknesses



### Investment & Development

		Value	2019 Rank
Total public expenditure on education	Percentage of GDP	4.6 %	33
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	21.2 %	32
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	7,672 US\$	22
▷ Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	16.90 ratio	42
▷ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	16.35 ratio	52
Apprenticeships	are sufficiently implemented	4.66 Survey [0..10]	37
Employee training	is a high priority in companies	5.61 Survey [0..10]	37
Female labor force	Percentage of total labor force	46.98 %	18
Health infrastructure	meets the needs of society	6.37 Survey [0..10]	30

### Appeal

		Value	2019 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	94.20 index	50
► Attracting and retaining talents	is a priority in companies	7.60 Survey [0..10]	16
▷ Worker motivation	in companies is high	5.46 Survey [0..10]	38
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	5.89 Survey [0..10]	20
Quality of life	is high	7.38 Survey [0..10]	29
Foreign highly-skilled personnel	are attracted to your country's business environment	5.97 Survey [0..10]	22
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	39,774 US\$	17
► Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	250,908 US\$	13
Effective personal income tax rate	Percentage of an income equal to GDP per capita	20.07 %	37
Justice	is fairly administered	7.75 Survey [0..10]	18
► Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	10.49 micrograms	16

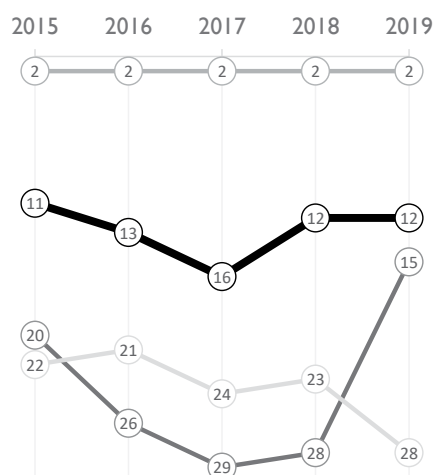
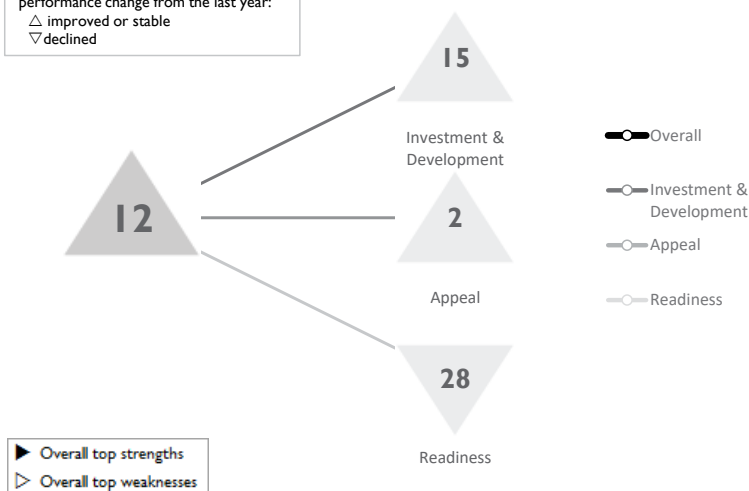
### Readiness

		Value	2019 Rank
Labor force growth	Percentage change	0.86 %	33
Skilled labor	is readily available	5.52 Survey [0..10]	35
► Finance skills	are readily available	7.14 Survey [0..10]	15
International experience	of senior managers is generally significant	5.61 Survey [0..10]	28
Competent senior managers	are readily available	5.83 Survey [0..10]	30
Primary and secondary education	meets the needs of a competitive economy	6.54 Survey [0..10]	27
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	26.32 %	19
University education	meets the needs of a competitive economy	7.13 Survey [0..10]	21
Management education	meets the needs of the business community	6.56 Survey [0..10]	30
▷ Language skills	are meeting the needs of enterprises	4.48 Survey [0..10]	52
► Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	6.60 number	7
Educational assessment - PISA	PISA survey of 15-year olds	501 Average	20

# USA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
Total public expenditure on education	Percentage of GDP	6.0 %	9
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	22.1 %	25
▶ Total public exp. on education per student	Spending per enrolled pupil/student, all levels	16,683 US\$	4
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	15.18 ratio	31
▷ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	15.35 ratio	51
▷ Apprenticeships	are sufficiently implemented	4.17 Survey [0..10]	48
Employee training	is a high priority in companies	5.59 Survey [0..10]	38
Female labor force	Percentage of total labor force	46.88 %	20
Health infrastructure	meets the needs of society	5.43 Survey [0..10]	38

### Appeal

		Value	2019 Rank
▷ Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	100.00 index	54
▶ Attracting and retaining talents	is a priority in companies	7.85 Survey [0..10]	7
Worker motivation	in companies is high	6.67 Survey [0..10]	18
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	6.86 Survey [0..10]	8
Quality of life	is high	7.87 Survey [0..10]	23
▶ Foreign highly-skilled personnel	are attracted to your country's business environment	7.94 Survey [0..10]	7
▶ Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	59,616 US\$	4
▶ Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	391,787 US\$	2
Effective personal income tax rate	Percentage of an income equal to GDP per capita	13.34 %	24
Justice	is fairly administered	6.88 Survey [0..10]	23
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	7.38 micrograms	8

### Readiness

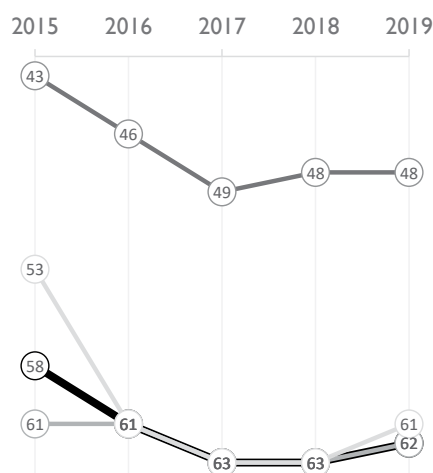
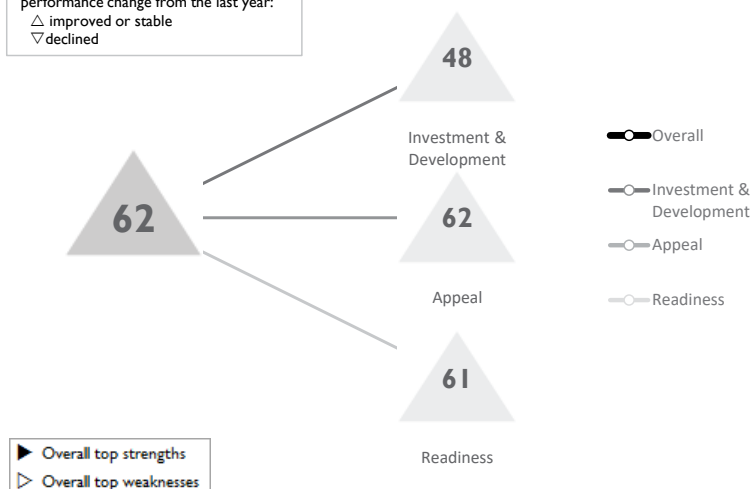
		Value	2019 Rank
Labor force growth	Percentage change	1.09 %	27
Skilled labor	is readily available	6.02 Survey [0..10]	25
Finance skills	are readily available	7.39 Survey [0..10]	10
International experience	of senior managers is generally significant	5.57 Survey [0..10]	29
Competent senior managers	are readily available	6.67 Survey [0..10]	10
Primary and secondary education	meets the needs of a competitive economy	6.52 Survey [0..10]	29
▷ Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	17.92 %	54
University education	meets the needs of a competitive economy	7.68 Survey [0..10]	15
Management education	meets the needs of the business community	7.63 Survey [0..10]	8
▷ Language skills	are meeting the needs of enterprises	5.68 Survey [0..10]	43
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	3.03 number	26
Educational assessment - PISA	PISA survey of 15-year olds	483 Average	32



# VENEZUELA

## OVERALL PERFORMANCE (63 countries)

The direction of the triangle indicates the performance change from the last year:  
 △ improved or stable  
 ▽ declined



### Investment & Development

		Value	2019 Rank
Total public expenditure on education	Percentage of GDP	- %	-
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)	14.8 %	51
Total public exp. on education per student	Spending per enrolled pupil/student, all levels	- US\$	-
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff	- ratio	-
▶ Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff	7.90 ratio	4
Apprenticeships	are sufficiently implemented	4.41 Survey [0..10]	43
Employee training	is a high priority in companies	5.07 Survey [0..10]	52
Female labor force	Percentage of total labor force	38.85 %	53
▷ Health infrastructure	meets the needs of society	0.63 Survey [0..10]	63

### Appeal

		Value	2019 Rank
Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)	- index	-
▶ Attracting and retaining talents	is a priority in companies	7.15 Survey [0..10]	26
Worker motivation	in companies is high	3.59 Survey [0..10]	63
Brain drain	(well-educated and skilled people) does not hinder competitiveness in your economy	1.62 Survey [0..10]	63
▷ Quality of life	is high	0.67 Survey [0..10]	63
▷ Foreign highly-skilled personnel	are attracted to your country's business environment	0.93 Survey [0..10]	63
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$	- US\$	-
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$	23,610 US\$	61
▶ Effective personal income tax rate	Percentage of an income equal to GDP per capita	0.98 %	2
▷ Justice	is fairly administered	0.42 Survey [0..10]	63
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre	17.46 micrograms	38

### Readiness

		Value	2019 Rank
Labor force growth	Percentage change	0.00 %	55
Skilled labor	is readily available	3.22 Survey [0..10]	59
Finance skills	are readily available	4.15 Survey [0..10]	61
International experience	of senior managers is generally significant	4.23 Survey [0..10]	60
▷ Competent senior managers	are readily available	2.81 Survey [0..10]	63
Primary and secondary education	meets the needs of a competitive economy	2.11 Survey [0..10]	63
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences	- %	-
University education	meets the needs of a competitive economy	3.63 Survey [0..10]	60
Management education	meets the needs of the business community	4.52 Survey [0..10]	55
Language skills	are meeting the needs of enterprises	3.41 Survey [0..10]	60
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants	- number	-
Educational assessment - PISA	PISA survey of 15-year olds	- Average	-



# The IMD World Talent Ranking methodology

## I. The structure of the IMD World Talent Ranking

The ranking is structured according to three factors:

- 1) investment and development
- 2) appeal
- 3) readiness

The first factor takes into account the investment in and development of home-grown talent. It traces the size of public investment on education by incorporating an indicator of public expenditure. It also looks at the quality of education through indicators related to pupil-teacher ratios. The development of talent is covered by variables related to the implementation of apprenticeship and the priority of employee training for companies. It also looks at the development of the female labor force. In addition, this factor takes into account the quality of the health infrastructure in terms of meeting the health needs of society.

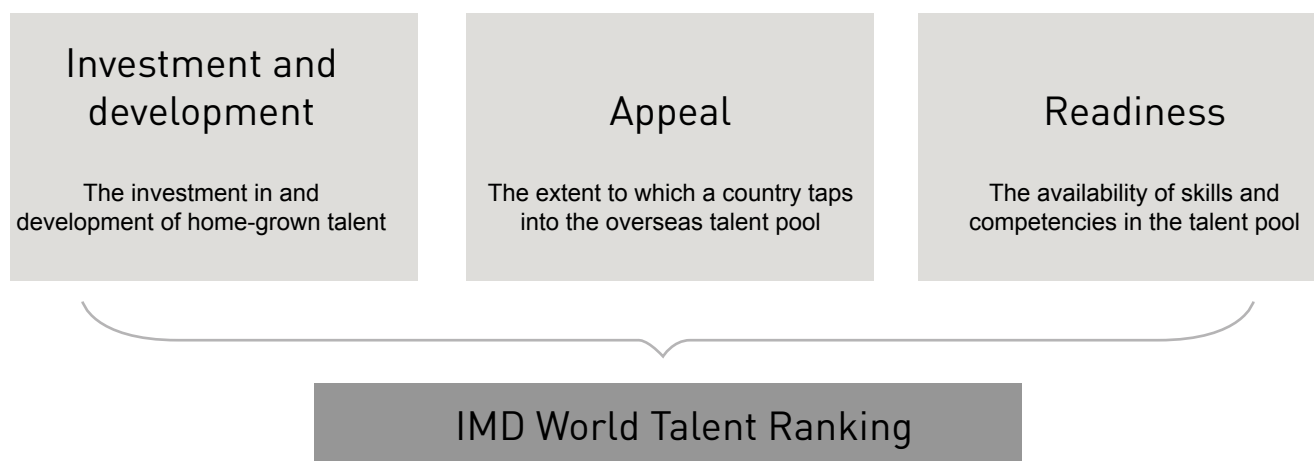
The appeal factor goes beyond the focus on the local labor force to incorporate the ability of a country to tap into the overseas talent pool. It does so by including indicators such as the cost of living and quality of life in a particular economy. Specifically, it examines the ability of a country to attract highly skilled foreign labor. In addition, it assesses the way enterprises prioritize the attraction and retention of talent. Another component of this factor evaluates the impact of brain drain on the competitiveness of countries. It also takes into account the level of worker motivation. Salary and taxation levels are important for an economy to be able to maintain an effective flow of talent. The appeal factor thus considers remuneration at the management and

services professions levels and personal income tax rates. This factor also incorporates measures of personal security and the protection of private property rights because they play a key role in increasing the attractiveness of a particular economy.

The success of the investment in and development of talent and the ability to attract and retain talent is reflected in the availability of skills and competencies to sustain an economy's talent pool. The readiness factor looks at the context of the talent pool. It considers the growth of the labor force and the quality of the skills available. It also takes into consideration the experience and competencies of the existing senior managers' pool. In addition, the readiness factor focuses, on the ability of the educational system to meet the talent needs of enterprises. It examines the way in which the educational system fulfils the talent demands of the economy, the ability of higher education to meet that demand and the languages skills available. Finally, it considers the mobility of students (inbound) and educational assessment (PISA).

Such a comprehensive set of criteria enables us to observe how countries perform in terms of sustaining their talent pool. In developing the talent ranking, we have omitted measures of the regulation of labor and productivity. The reason for this is because our objective is to assess the development and retention of talent, and the regulation of labor and its focus on conflict resolution could be perceived as peripheral to that objective. Similarly, productivity is an outcome of what we want to assess.

**Graph 1.** Relation between Competitiveness and the Scientific Infrastructure sub-factor



## II. Constructing the IMD World Talent Ranking

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In order to calculate the IMD World Talent Ranking, we:

- Normalize criteria data using the same STD methodology used in the IMD World Competitiveness Yearbook
- Average the criteria STDs to generate the three talent competitiveness factors
- Aggregate factors to build the overall talent ranking
- Normalize the factors and overall ranking to the 0 to 100 range to facilitate the interpretation of results.

We employ this methodology to rank the countries' evolution in talent aspects from 2013 onward. However, there are some caveats. For certain years, our sample varies according to the evolution of the IMD World Competitiveness

Yearbook. That is to say, some countries appear in the talent ranking only for the years since they became part of the Yearbook. For example, talent rankings for Mongolia are available from 2015 onward and Cyprus and Saudi Arabia are available only for 2017.

Additionally, hard data may not be available for specific countries in specific years. Whenever possible, we use the most recent data available.

**In Table 2** we present all the definitions of hard and survey criteria. Note that the value range for all survey-based criteria is of 0 to 10.

**Table 1:** Sample size (2015-2019)

Year:	2015	2016	2017	2018	2019
# Countries:	61	61	63	63	63

**Table 2:** Criteria definitions and survey questions**Investment & Development**

Total public expenditure on education	Percentage of GDP
Gov. expenditure on education per student	Percentage of GDP per capita (secondary education)
Total public expenditure on education per student	Spending per enrolled pupil/student, all levels
Pupil-teacher ratio (primary education)	Ratio of students to teaching staff
Pupil-teacher ratio (secondary education)	Ratio of students to teaching staff
Apprenticeships	Apprenticeships are sufficiently implemented
Employee training	Employee training is a high priority in companies
Female labor force	Percentage of total labor force
Health infrastructure	Health infrastructure meets the needs of society

**Appeal**

Cost-of-living index	Index of a basket of goods & services in the main city, including housing (New York City = 100)
Attracting and retaining talents	Attracting and retaining talents is a priority in companies
Worker motivation	Worker motivation in companies is high
Brain drain	Brain drain (well-educated and skilled people) does not hinder competitiveness in your economy
Quality of life	Quality of life is high
Foreign highly-skilled personnel	Foreign highly-skilled personnel are attracted to your country's business environment
Remuneration in services professions	Gross annual income including supplements such as bonuses, US\$
Remuneration of management	Total base salary plus bonuses and long-term incentives, US\$
Effective personal income tax rate	Percentage of an income equal to GDP per capita
Justice	Justice is fairly administered
Exposure to particle pollution	Mean population exposure to PM2.5, Micrograms per cubic metre

## Readiness

Labor force growth	Percentage change
Skilled labor	Skilled labor is readily available
Finance skills	Finance skills are readily available
International experience	International experience of senior managers is generally significant
Competent senior managers	Competent senior managers are readily available
Primary and secondary education	Primary and secondary education meets the needs of a competitive economy
Graduates in Sciences	% of graduates in ICT, Engineering, Math & Natural Sciences
University education	University education meets the needs of a competitive economy
Management education	Management education meets the needs of the business community
Language skills	Language skills are meeting the needs of enterprises
Student mobility inbound	Foreign tertiary-level students per 1000 inhabitants
Educational assessment - PISA	PISA survey of 15-year olds

# Notes and Sources by Criteria

## Factor 1: Investment & Development

### 1.1.00 [B] Exchange Rate

International Financial Statistics Online March 2019 (IMF)

National sources

Period average.

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### 1.01 Total public expenditure on education

UNESCO <http://stats.uis.unesco.org>

Eurostat April 2019

National sources

Chile and Jordan: Budgetary central government. Philippines: Includes expenditure for items other than basic and higher education such as vocational education, culture and sports.

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### 1.02 Gov. expenditure on education per student

UNESCO <http://stats.uis.unesco.org>

National sources

Initial government funding per secondary student as a percentage of GDP per capita. Total general (local, regional and central) government expenditure (current and capital) on a given level of education (secondary) minus international transfers to government for education, divided by the number of student enrolled at that level of education. Philippines: calculated by the partner institute. Slovenia: upper secondary education. Taiwan, China: including elementary and secondary schools.

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### 1.03 Total public expenditure on education per student

UNESCO <http://stats.uis.unesco.org>

Eurostat October 2019

National sources

Chile and Jordan: Budgetary central government. Philippines: Includes expenditure for items other than basic and higher education such as vocational education, culture and sports.

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### 1.04 Pupil-teacher ratio (primary education)

UNESCO <http://stats.uis.unesco.org>

OECD Education at a Glance 2019

National sources

For public and private institutions, based on full-time equivalent. Primary education (ISCED level 1): level of which the main function is to provide the basic elements of education at such establishments as elementary schools, primary schools. The ratio of students to teaching staff is calculated as the total number of full-time equivalent students divided by the total number of full-time equivalent educational personal. Teaching staff refers to professional personnel directly involved in teaching students. The classification includes classroom teachers; special education teacher; and other teachers who work with students as a whole class in a classroom, in small groups in a resource room, or in one-to-one teaching inside a regular classroom. Teaching staff also includes chairpersons of departments whose duties include some amount of teaching, but it does not include non-professional personnel who support teachers in providing instructions to students, such as teacher's aides and other paraprofessional personnel. Data are UNESCO or OECD estimates and from national statistics. Bulgaria, Cyprus, Greece, Hong Kong SAR, India, Indonesia, Jordan, Kazakhstan, Mongolia, Peru, Philippines, Qatar, Romania, Saudi Arabia, Singapore, Thailand, UAE and Ukraine: based on headcounts. Canada: Primary includes pre-primary education. France: Public and government-dependent private institutions only for all levels. Ireland and Switzerland: Public institutions only for all levels.

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### 1.05 Pupil-teacher ratio (secondary education)

UNESCO <http://stats.uis.unesco.org>

OECD Education at a Glance 2019

National sources

For public and private institutions, based on full-time equivalent. Secondary education (ISCED levels 2 and 3): level providing general and/or specialized instruction at middle schools, secondary schools, high schools, teacher training schools and schools of a vocational or technical nature. The ratio of students to teaching staff is calculated as the total number of full-time equivalent students divided by the total number of full-time equivalent educational personal. Teaching staff refers to professional personnel directly involved in teaching students. The classification includes classroom teachers; special education teacher; and other teachers who work with students as a whole class in a classroom, in small groups in a resource room, or in one-to-one teaching inside a regular classroom. Teaching staff also includes chairpersons of departments whose duties include some amount of teaching, but it does not include non-professional personnel who support teachers in providing instructions to students, such as teacher's aides and other paraprofessional personnel. Data are UNESCO or OECD estimates and from national statistics. Bulgaria, Cyprus, Greece, Hong Kong, Jordan, Kazakhstan, Peru, Philippines, Qatar, Romania, Singapore, Thailand, UAE, Ukraine and Venezuela: Based on headcounts. Australia: general programs only. Ireland, Israel and Switzerland: public institutions only. France: Public and government-dependent private institutions only. Iceland: lower secondary only.

## 1.08 Female labor force

OECD (2019), "Main Economic Indicators - complete database"

National sources

Estimate for 2018. Austria: break in series in 2008. Belgium: until Q3 for 2018. Denmark: break in series in 2009. Malaysia: break in series in 2010. Portugal: methodological change in 2011. Romania: for 2018 - third quarter. Spain: break in series in 2005. Philippines: 2018 data calculated from the July 2018 Labor Force Survey.

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## Factor 2: Appeal

### 2.01 Cost-of-living index

MERCER Cost of Living survey 2018

[www.mercer.com](http://www.mercer.com)

Break in series in 2015: In the main city as of 2015, average of main cities in large countries (made by IMD WCC) or in the capital in smaller ones up to 2014. The Mercer survey covers 214 cities across five continents and measures the comparative cost of over 200 items in each location, including housing, transport, food, clothing, household goods and entertainment. It is the world's most comprehensive cost of living survey and is used to help multinational companies and governments determine compensation allowance for their expatriate employees. New York is used as the base city (=100) for the index and all cities are compared against New York. Currency movements are measured against the US dollar. The cost of housing - often the biggest expense for expats - plays an important part in determining where cities are ranked.

Data is not always comparable over years (money fluctuations in 2010 and 2011).

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### 2.07 [7] Remuneration in services professions

UBS Prices and Earnings 2018

National sources

Figures are estimates remuneration paid in major cities. Gross annual income including possible supplementary benefits, such as bonuses, vacation pay, meal or housing allowances, or family assistance. Product Manager: manager in pharmaceutical, chemical or food industry, about five years of experience, tertiary educational degree, middle management, approximate age and status: 35, married. Primary school teacher: teaching for about 10 years in government-operated schools, approximate age and status: 35, married, two children. Secretary/Personal Assistant: secretary of a department manager in an industrial firm, at least five years of experience; knowledge of PCs and one foreign language, approximate age and status: 25, single. Call center agent: trained agent at an inbound call/service center in the telecommunications or technology sector, approximate age and status: 25, single. Nurse: Completed apprenticeship or studies, at least 10 years of experience, approx. age and status: 35, married, two children. Sales Assistant: Sales in ladies' apparel at a large department store, specialized training in sales, several years of experience, approx. age and status: 25, single.

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### 2.08 [4] Remuneration of management

HCM International Ltd, April 2019

National sources

Total remuneration: including annual base salary, annual short-term incentive bonus and long term incentive. Based on companies having a minimal turnover of US\$ 250 million. Chief Executive Officer: directs all company's operations, including sales, marketing, manufacturing and support function; coordinates and provides guidance for the development and implementation of business strategies; optimizes market potential; provides long-term vision and leadership; identifies growth opportunities; assures organizational efficiency of the operations; builds long-term partnership with key accounts. Estonia: break in series in 2011 (change of source, data for earlier years are not comparable).

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### 2.09 Effective personal income tax rate

PricewaterhouseCoopers, "Resource Tax Manager"

This criterion is based on the GDP per capita 2018 figures.

Amount of personal income tax (including social security paid by the employee) that an individual married + 1 child with this level of earnings would expect to pay in 2018.

The taxes for Canada, Switzerland and the US are an average for the respective provinces, cantons and states.

India: in case, where the number of employees in the establishment exceeds 20 and an employee's monthly salary is less than INR 6,500.--, he would have to contribute to Provident Fund 12% of basic salary. The employer also contributes to an equal amount to Provident Fund. As a consequence, if we assume that the number of employees is less than 20, no social security contributions would be due.

The differences against last year's data can generally be explained by differences in base GDP/capita, and the changes in legislation for some countries.

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### 2.11 Exposure to particle pollution

OECD (2019), "Air quality and health: Exposure to PM2.5 fine particles - countries and regions", OECD Environment Statistics (database)

Particle pollution, also called particulate matter or PM, is a mixture of solids and liquid droplets floating in the air. Some particles are released directly from a specific source, while others form in complicated chemical reactions in the atmosphere. Particles less than 10 micrometers in diameter pose the greatest problems, because they can get deep into lungs and even the bloodstream. Cyprus: includes PM2.5 and PM10.

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## Factor 3: Readiness

### 3.01 Labor force growth

OECD (2019), "Main Economic Indicators - complete database  
National sources

Estimates for 2018. Austria: break in series in 2008. Belgium: until Q3 for 2018. Brazil: break in series in 2014. China and Saudi Arabia: estimate calculated by the World Competitiveness Center based on employment and unemployment rate for 2018. Denmark: break in series in 2009. Lithuania: break in series 2011 - census revised labor force figure downwards by 10% (emigration to EU over past decade). Latvia: break in series in 2012. Malaysia: break in series in 2010. Portugal: methodological change in 2011. Romania: for 2018 - third quarter. Spain: break in series in 2005.

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### 3.07 Graduates in Sciences

OECD Education at a Glance  
UNESCO  
National sources

Share of graduates in Natural Sciences; Mathematics and Statistics; Information and Communication technologies; Engineering, manufacturing and construction. In tertiary education (ISCED2011 levels 5 to 8), both sexes (%). Philippines: Academic Year 2016-2017 data.

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### 3.11 Student mobility inbound

UNESCO <http://stats.uis.unesco.org>

International mobile students (men and women) from abroad studying in a given country (in tertiary education). Data can refer to the school or financial year prior or after the reference year.

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### 3.12 [2] Educational assessment - PISA

PISA 2015 (OECD)  
<http://www.oecd.org/pisa/>

The OECD's Programme for International Student Assessment (PISA) is a regular survey of 15-year olds which assesses aspects of their preparedness for adult life. Mathematical literacy: an individual's capacity to identify and understand the role that mathematics plays in the world, to make well-founded judgments and to use and engage with mathematics in ways that meet the needs of that individual's life as a constructive, concerned and reflective citizen. Scientific literacy: an individual's scientific knowledge and use of that knowledge to identify questions, to acquire new knowledge, to explain scientific phenomena, and to draw evidence based conclusions about science-related issues, understanding of the characteristic features of science as a form of human knowledge and enquiry, awareness of how science and technology shape our material, intellectual, and cultural environments, and willingness to engage in science-related issues, and with the ideas of science, as a reflective citizen. Cyprus: relates to the southern part of the Island. Argentina, Kazakhstan and Malaysia: Coverage is too small to ensure comparability.

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