Update of the

Statistical Performance Indicators:

What is New?

January 2024

In January 2024, a new edition of the Statistical Performance Indicator (SPI) data was released. This new edition covers SPI scores for 2020, 2021 and 2022. There were no changes to the framework, methodology, or data sources for the SPI compared to previous releases. This document provides an overview of the major changes to the scores compared to the earlier data release in March 2021, which contained data up to 2019.
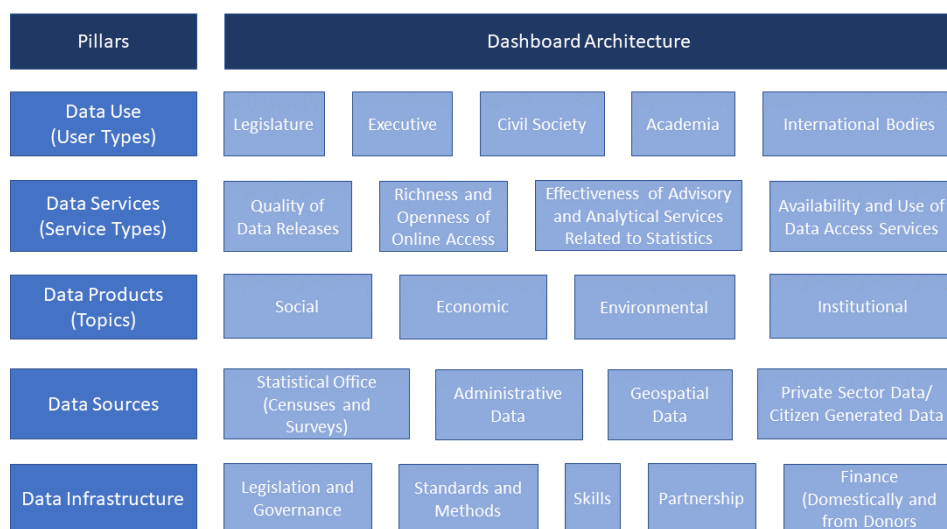
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1 INTRODUCTION

The World Bank released the Statistical Performance Indicators (SPI) alongside the 2021 World Development Report: Data for Better Lives in March 2021. There are 51 indicators in the SPI and these indicators are used to construct an SPI overall score.

The SPI framework assesses the maturity and performance of national data and statistical systems in five key areas, called pillars. As shown in Figure 1, each of these pillars is supported by four or five dimensions. In sum, there are 22 dimensions mapped to the five pillars (Figure 1).

Figure 1. Overview of the SPI Framework

Pillars	Dashboard Architecture				
Data Use (User Types)	Legislature	Executive	Civil Society	Academia	International Bodies
Data Services (Service Types)	Quality of Data Releases	Richness and Openness of Online Access	Effectiveness of Advisory and Analytical Services Related to Statistics		Availability and Use of Data Access Services
Data Products (Topics)	Social	Economic	Environmental		Institutional
Data Sources	Statistical Office (Censuses and Surveys)	Administrative Data	Geospatial Data		Private Sector Data/ Citizen Generated Data
Data Infrastructure	Legislation and Governance	Standards and Methods	Skills	Partnership	Finance (Domestically and from Donors)

Data is available for 14 out of the 22 dimensions of the SPI framework. The eight remaining dimensions currently lack a methodology for creating globally comparable indicators. While a research agenda is underway to construct globally comparable indicators in these areas, the SPI framework provides opportunities for a structured conversation that covers all areas of statistics.

More details on the SPI can be found in an *article* published in the journal Scientific Data and the *SPI technical note*. All methods and indicators are available as open data and open code. CSV files and R scripts are available in the *SPI github repository*.

2 REVISIONS

2.1 REVISIONS TO METHODOLOGY AND DATA SOURCES

There have been no changes to the methodology of scoring the indicators or producing the overall scores. Each of the 51 indicators are scored in the same way as the previous release in 2019. Thus, all newly released data is comparable with that of the prior release.

Furthermore, there have been no changes to the sources used for the SPI. The SPI relies primarily on data collected by international organizations such as the World Bank, IMF, Open Data Watch, PARIS21, ILO, WHO, UNESCO, IHSN, UN, and FAO.[1] Some indicators are also collected from the website of the national statistical offices. The underlying information has been updated from these sources for the years 2020, 2021 and 2022.

For more details on the scoring methodology and data sources, please consult the *SPI technical note*.

2.2 REVISIONS TO PREVIOUSLY PUBLISHED ESTIMATES

The time series for the dates prior to 2020 are identical to the original SPI launch in March 2021. In the future, revisions will only take place in consultation with the SPI Working Group (SPIWG). The SPIWG would be composed of staff of the World Bank as well as external advisors. This point is discussed further in SPI document "Protocol for Updating the Statistical Performance Indicators (SPI)".

3 NOTABLE CHANGES

In 2022, the SPI Overall Score is available for 186 economies, representing 99.3 percent of the world population.[2] There has been an increase in the number of economies with an SPI overall

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[1] In the case of the indicator on the availability of comparable poverty estimates and the indicator for the availability of household surveys on income/consumption/expenditure/budget/Integrated Surveys (sourced from the Poverty and Inequality Platform (PIP) system), a decision was made to exclude poverty surveys that are neither part of the national data or statistical systems nor collected for public purposes. This decision affected the score of one country, India, which was relying on a private survey for poverty reporting. Because private surveys were not included in PIP prior to the original March 2021 SPI launch, this did not result in any country scores changing in previous vintages. This decision would affect the 2021 and 2022 SPI scores of one country, India, for which PIP is relying on a private survey for poverty reporting.

[2] The economies without an SPI Overall Score are American Samoa; Andorra; Aruba; Bermuda; British Virgin Islands; Cayman Islands; Channel Islands; Comoros; Cuba; Curacao; Eritrea; Faroe Islands; French Polynesia; Gibraltar; Greenland; Guam; Hong Kong SAR, China; Isle of Man; Korea, Dem. People's Rep.; Kosovo; Liechtenstein; Macao SAR, China; Monaco; New Caledonia; Northern Mariana Islands; Puerto Rico; San Marino; Sint Maarten (Dutch part); St. Martin (French part); Taiwan, China; Turks and Caicos Islands; and Virgin Islands (U.S.).

score since 2016, with a rise from 167 economies to 186 (Figure 2).[3] This is largely driven by an increase in the number of economies with a data openness score from Open Data Watch.

Figure 2. Number of Economies with SPI Overall Score.
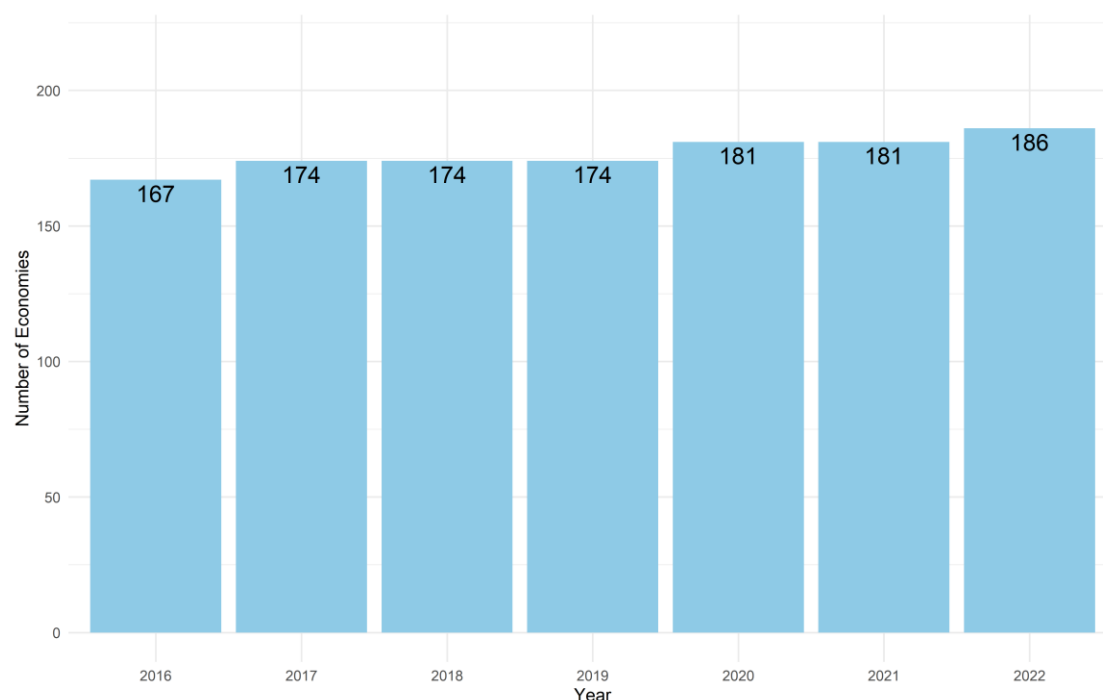
3.1 HOW HAVE COUNTRY SCORES CHANGED BETWEEN 2016 AND 2022

On average across countries, between 2016 and 2022 the SPI overall scores rose by 12.1 points on a scale from 0-100. Figure 3 plots countries' scores in 2022 against their score in 2016. The standing of countries according to the SPI overall score has been quite stable over time with a Spearman rank correlation of 0.93.

There has been some catch-up in statistical performance. Between 2016 and 2022 the largest improvements in the SPI overall score have come from countries that were in the bottom two deciles as of 2016 (Figure 4). The figure also shows that every decile improved between 2016 and 2022. Countries that were in the bottom 10 percent (first decile) in 2016 grew on average around 15.6 points from 2016-2022. Countries in the second decile improved roughly 16 points. Countries in the top 10 percent (top decile) grew the least in that time. This pattern is not unexpected, since many of the countries in the top decile score around the maximum number of points in several areas.

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[3] The World Bank's World Development Indicators includes 217 economies. If an economy does not have data for one of the indicators used to generate the SPI overall score, no score is produced for it, as the SPI does not rely on modelling or imputation to produce the scores.

Figure 3. Scatterplot of 2022 SPI overall score & 2016 SPI overall score

Note: Solid grey line represents the 45 degree line. Blue line represents line of best fit (regression line) with a 95 percent confidence interval shown in a shaded line. N=186 economies.

Figure 4. Bottom Two Deciles Have Improved Most from 2016-2022
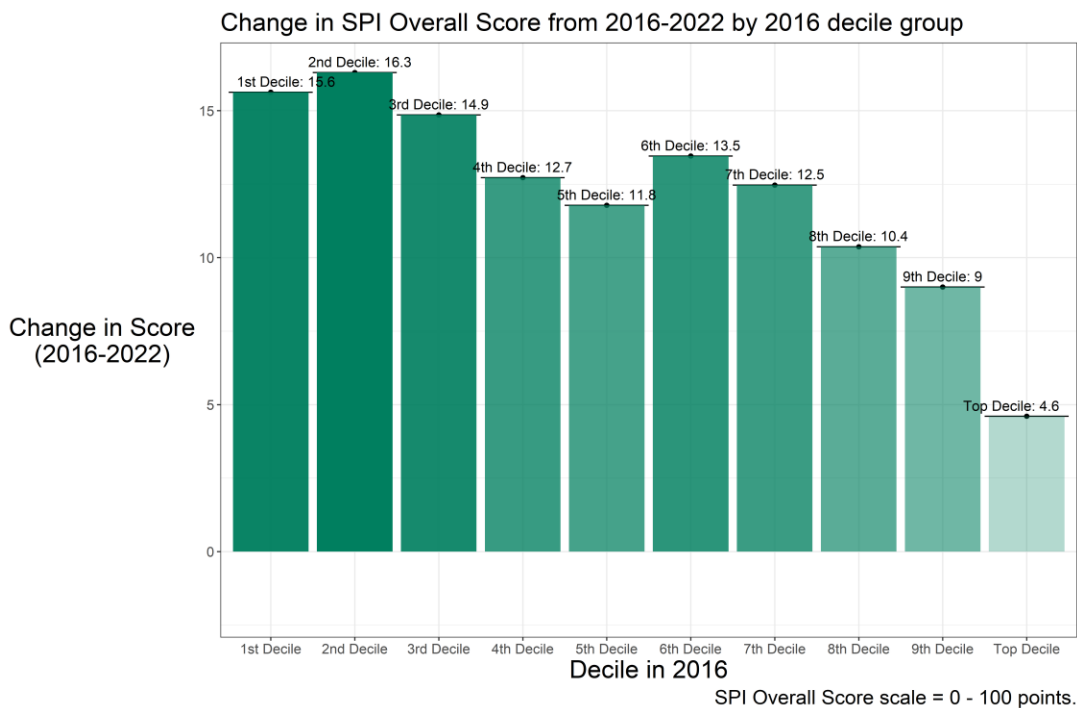
Note: N=167 economies.

Most of the improvements in the SPI overall scores are driven by improvements in the Data Services, Data Products, and Data Infrastructure pillars. The Data Services pillar covers whether data is openly available online, the country's data dissemination standard, and whether metadata is available to describe data sources. The Data Products pillar covers how well countries are reporting on data related to the Sustainable Development Goals (SDGs). Figure 5 takes the total change reported in Figure 4 and decomposes it into changes in each of the five pillars. For countries in the bottom 10 percent, better data services accounted for 47 percent of their improvement (7.4 out of the total of 15.6 points) from while 24 percent of the improvement came from better data products with better SDG reporting and 17 percent came from better data infrastructure, such as adoption of better standards and methodologies for producing data. In some cases, the scores for decile groups dropped for certain pillars, such as data use, which can happen if data that is available becomes outdated for that country (falls outside the window dictated by the indicator scoring).

Figure 5. Data Services, Data Products, and Data Infrastructure Saw Improvements from 2016-2022.

Change in SPI Overall Score from 2016-2022 by 2016 decile group
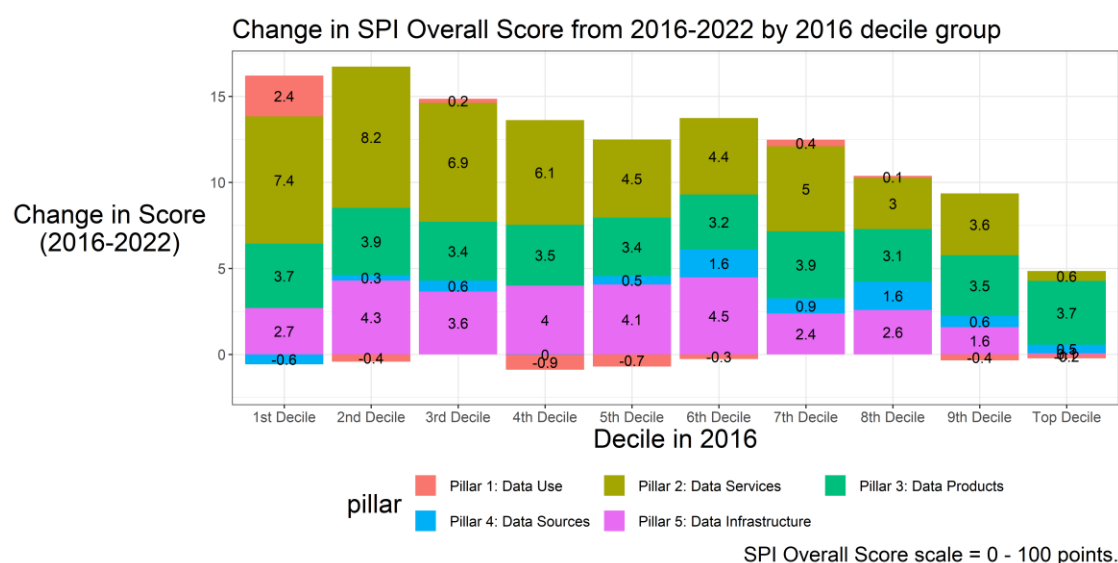
Note: N=167 economies.

On average across countries, scores have improved for 41 out of the 51 indicators in the SPI. In Figure 6, the average indicator score across countries is shown for a selection of 10 indicators from the three pillars with the largest improvements (pillar 2, pillar 3, and pillar 5). The global average for each year is based on the 167 economies with an SPI score starting in 2016 to avoid changes to the composition of countries. The scores range from a minimum of 0 (lowest score) to a maximum of 1 point (highest score). The value in each tile represents the average score across all countries for that indicator and year.

In the data services pillar, the score for the number of countries meeting the Special Data Dissemination Standard (SDDS) or enhanced Data Dissemination System (e-GDDS) according to the IMF has increased from an average of 0.43 in 2016 to 0.72 in 2022. Improved availability of poverty SDG indicators has increased scores in that indicator from 0.5 in 2016 to 0.8 in 2022.   The percent of countries adopting the Classification of Individual Consumption According to Purpose (COICOP) has improved from 0.69 of countries to 0.91.

Figure 6. Average scores across indicators over time for selected indicators.
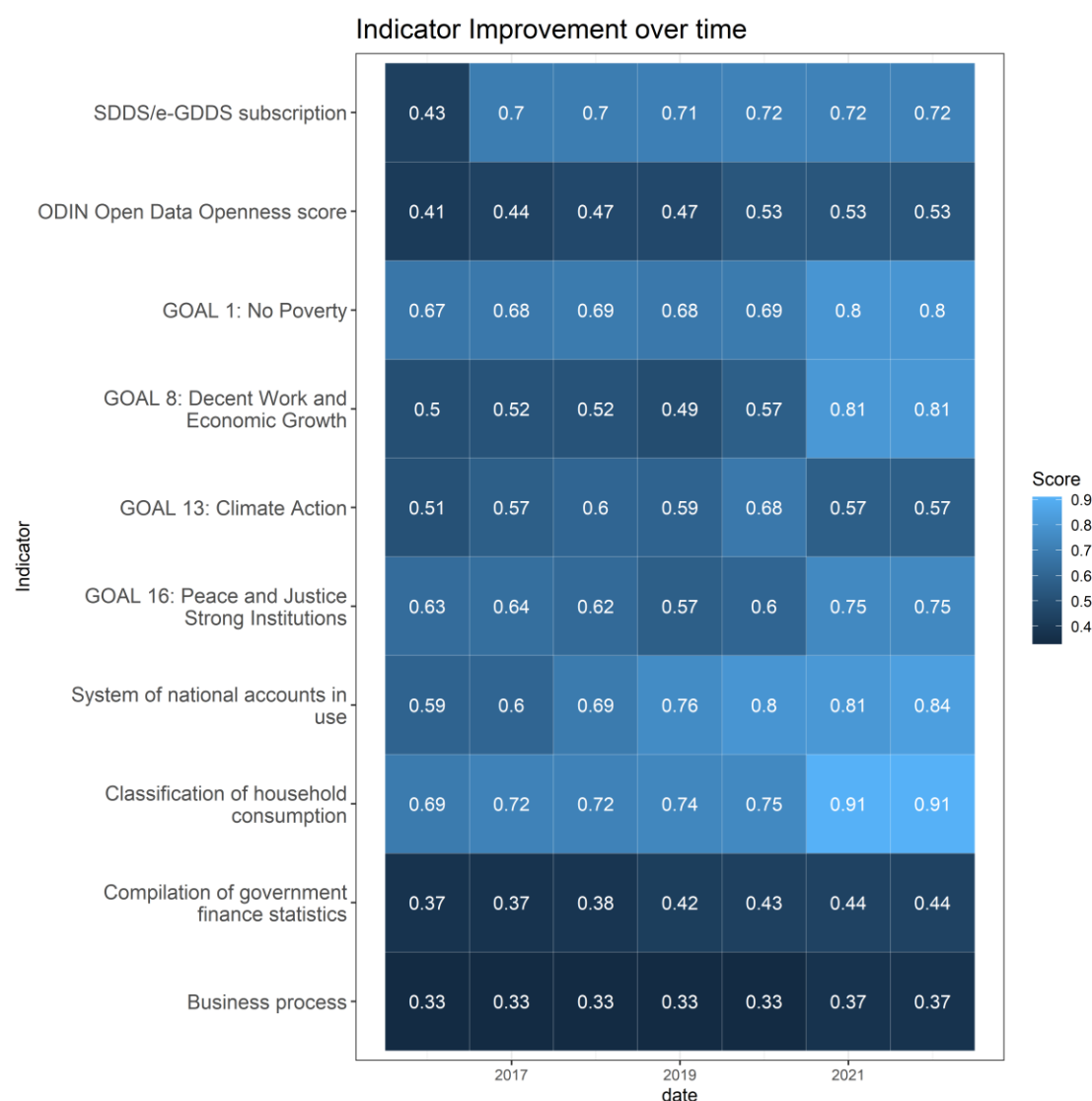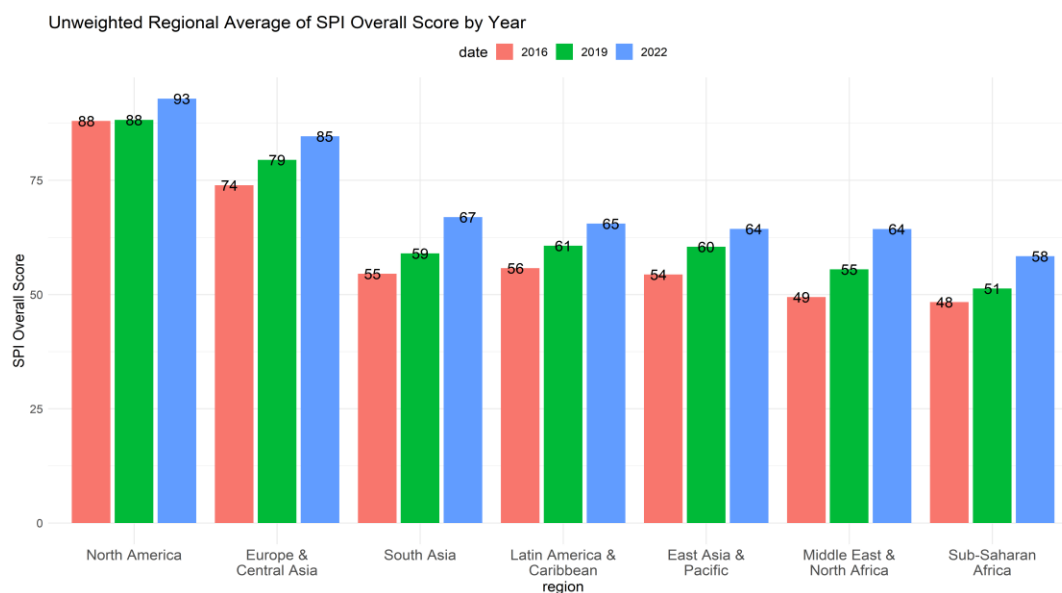

Note: N=167 economies.

3.2 HOW HAVE SCORES CHANGED BY REGION, INCOME, AND OTHER GROUPS?

The regional rankings have remained largely unchanged over this period. The two top performing regions are North America, and Europe and Central Asia, while Sub-Saharan Africa lags others. The remaining regions in the middle, in order of the average SPI overall score, are South Asia, Latin America & Caribbean, East Asia & Pacific, and the Middle East & North Africa. Although differences are small and need to be interpreted carefully, the population unweighted average score for South Asia is higher than the score of East Asia and Pacific and Latin America and the Caribbean. In the cases of the East Asia and Pacific and Latin America and the Caribbean regions, which both contain large numbers of smaller island economies, the regional average among countries with a population smaller than half a million individuals significantly differs from the average among larger countries

as shown in Figure 7b. After omitting countries with less than half a million individuals, the regional average shows North America with the highest average score, followed by Europe and Central Asia, East Asia & Pacific, Latin America & Caribbean, South Asia, the Middle East & North Africa, and Sub-Saharan Africa.
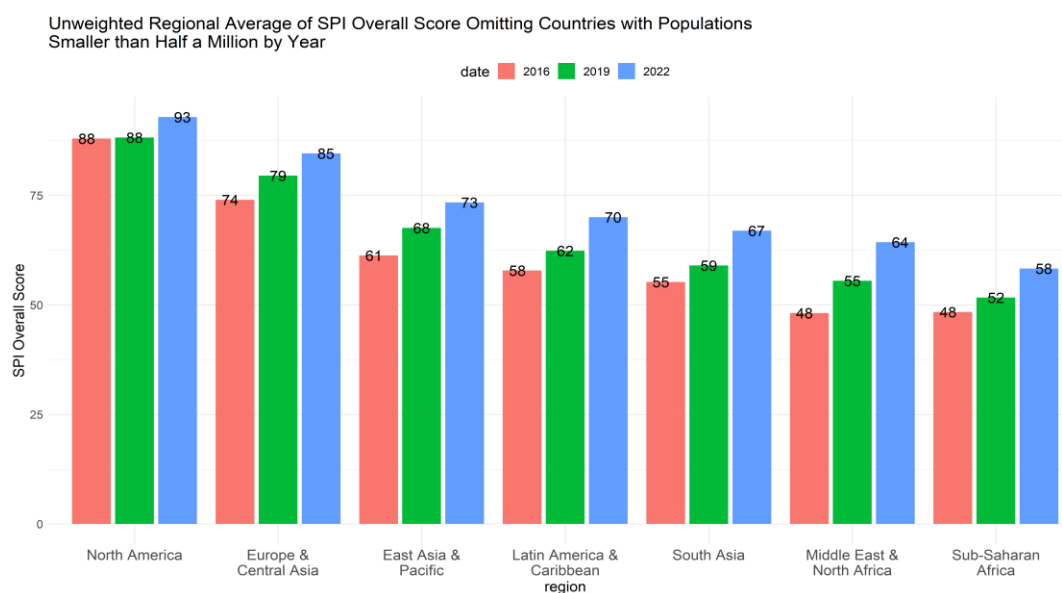
Figure 7. Comparison of SPI Overall Scores in 2016 and 2022 - Regional Averages

(a) Regional average Over time

Note: N=186 economies.

(b) Regional Average omitting countries of less than half a million persons

Note: N=164 economies.

Comparing average scores by income group (Table 1), average statistical performance improves with income. Additionally, scores have improved in each income group between 2016 and 2022. Lower middle income countries have seen the fastest growth since 2016, rising 11.1 points by 2022. Low income countries improved their SPI score on average by around 9 points, while upper middle income countries improved their score by 12 points on average. High income countries gained around 7 points.

Table 1. Comparison of SPI Overall Score Over Time by Income, Lending, and FCS Group

group	2016	2017	2018	2019	2020	2021	2022
Low income	44.9	45.4	47.5	47.0	49.2	54.6	54.4
Lower middle income	51.5	54.1	56.5	56.7	59.2	62.5	62.6
Upper middle income	56.1	58.6	61.3	61.8	65.8	69.6	68.5
High income	73.8	74.8	78.1	78.6	78.1	82.1	81.1
IDA	42.8	45.0	46.4	46.9	51.8	55.7	54.9
IBRD	62.1	63.6	67.3	67.9	70.5	74.0	73.0
Blend	44.2	48.0	52.5	53.0	56.2	61.1	62.1
Not classified	76.0	77.8	80.9	81.6	82.3	86.0	86.2
Conflict	46.2	44.8	47.8	47.6	50.3	56.0	55.5
Institutional and Social Fragility	33.2	37.2	39.8	38.6	43.2	45.9	46.1
Non-FCS country	62.4	64.7	67.4	67.8	69.2	73.4	72.9
Population <= 500k	43.2	45.7	48.0	44.8	50.9	55.1	52.9
Population > 500k	59.7	61.4	64.0	64.4	66.6	70.8	70.8

Note: N=186 economies.

Countries receiving lending support from the World Bank, IBRD countries -- composed of middle-income and creditworthy low-income countries -- average around 73 points on the SPI overall score, while IDA countries -- those receiving interest-free loans and grants -- score around 55 points on average in 2022. Countries not receiving lending support -- mostly high income countries -- score highest with an average score of around 86.

Fragile and Conflict Affected economies make up a disproportionate share of the countries scoring in the bottom half of the SPI overall score. Countries with institutional and social fragility score around 46 points on average (out of 100), while those in conflict score around 56 points on average. Finally, as mentioned previously, the countries with populations of less than half a million

individuals score significantly lower, around 18 points lower in 2022, than countries with more than half a million. The relatively low scores of smaller population economies could be driven by fixed costs and economies of scale that benefit larger statistical systems.