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YOUTH PROGRESS INDEX IN BOLIVIA

Methodological construction at departmental level, 2020–2024

By:

Marco Leandro Nina Vargas

Review:

Jaromír Harmáček

October 2026

This report presents the methodology of the Youth Progress Index in Bolivia at departmental level for 2020–2024. Its preparation was coordinated by the Institute for Socio-Economic Research (IISEC) and the Institute for Research in Behavioural Sciences (IICC) of the Bolivian Catholic University "San Pablo", with support from Save the Children.

The index calculation methodology and construction process were certified by Social Progress Imperative on 28 June 2026, following an independent review by its global research team in accordance with its methodological standards and good practices.

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Institute for Socio-Economic Research (IISEC)

Av. 14 de Septiembre No. 4836, Obrajes · La Paz, Bolivia
Telephone: +591 2 2782222 ext. 2738 · www.iisec.ucb.edu.bo

SOCIAL PROGRESS IMPERATIVE

INDEX CALCULATION METHODOLOGY CERTIFICATE

Youth Progress Index Bolivia (2020–2024)

This is to certify that Social Progress Imperative (SPI) has conducted an independent review of the *Youth Progress Index Bolivia construction process and methodology report*, as prepared by Marco Leandro Nina Vargas, led by the Socio-Economic Research Institute (IISEC) and the Behavioral Science Research Institute (IICC) at Bolivian Catholic University (UCB), with the support of Save the Children.

The review was performed by SPI's Global Research team according to SPI's established methodological standards and best practices.



SPI hereby certifies that the methodology and index construction process used to calculate the Youth Progress Index Bolivia (2020–2024) are, in SPI's professional judgment, consistent with the principles of the Youth Progress Index / Social Progress Index framework and with rigorous standards for data treatment, normalization, aggregation, and validation of multidimensional social and environmental outcomes.

This certification applies to the methodology and index construction process described in the reviewed methodology report, including subsequent adjustments made in response to the review recommendations.



Michael Green
Chief Executive Officer
Social Progress Imperative

Date of Certification:

28 June 2026

Reviewer:

Jaromír Harmáček

Reviewer's Institution:

Social Progress Imperative,
Global Research,
Washington D.C., USA

Acronyms and abbreviations

AAPS: Authority for the Oversight and Social Control of Drinking Water and Basic Sanitation
ACAG: Atmospheric Composition Analysis Group
AIDS: Acquired immunodeficiency syndrome
ARCU-SUR: Regional Accreditation System for University Programmes
CEUB: Executive Committee of the Bolivian University
CNACU: National Commission for the Accreditation of University Programmes
CPV: Population and Housing Census
CV: Coefficient of variation
ECLAC: Economic Commission for Latin America and the Caribbean
EDSA: Demographic and Health Survey
EH: Household Survey
ELCSA: Latin American and Caribbean Food Security Scale (Spanish acronym)
GFW: Global Forest Watch
GTB: GuidosToolbox
HDI: Human Development Index
HIV: Human immunodeficiency virus
IICC: Institute for Research in Behavioural Sciences
IISEC: Institute for Socio-Economic Research
INE: National Institute of Statistics
KMO: Kaiser-Meyer-Olkin
MAD: Median absolute deviation
ME: Ministry of Education
OBSCD: Bolivian Observatory for Public Safety and the Fight against Drugs
OPD: Democratic Parity Observatory
PCA: Principal component analysis
SIMONE: Information System for Monitoring and Evaluation of the STI, HIV and AIDS Response
SNIS: National Health Information System
SPI: Social Progress Index
STI: Sexually transmitted infections
TSE: Supreme Electoral Tribunal
UCB: Bolivian Catholic University “San Pablo”
UDAPE: Social and Economic Policy Analysis Unit
UNESCO: United Nations Educational, Scientific and Cultural Organization
UNICEF: United Nations Children's Fund
UNITAS: National Union of Institutions for Social Action Work
WHO: World Health Organization
YPI: Youth Progress Index

Introduction

The Youth Progress Index (YPI) is a measure based on the Social Progress Index (SPI) methodology, originally developed by Social Progress Imperative and the European Youth Forum. It aims to measure the factors that influence young people's lives. To this end, it uses social and environmental indicators that together seek to provide an overall assessment of the fulfilment of their basic needs, the foundations that support their wellbeing and the opportunities available to them in society.

In Bolivia, this application, led by Save the Children and the Bolivian Catholic University "San Pablo" (UCB) through its Institute for Socio-Economic Research (IISEC), is one of the first adaptations of the YPI in the region and the first subnational application in the country. Covering five years (2020–2024), it includes 45 indicators to analyse youth progress across the country's nine departments.

This report provides the technical basis for the assessment of results presented in Youth and Progress in Bolivia: A First Departmental Look through the Youth Progress Index. It is intended primarily for academics, public policy analysts and technical teams interested in understanding, auditing or extending the methodology applied. It presents the conceptual, normative and statistical criteria used to construct the indicators, together with the methodological basis and the results of the main consistency tests. Finally, it examines the challenges and limitations identified during the construction of the YPI, with a view to guiding improvements in indicator conceptualisation and extending geographical and temporal coverage.

What do we mean by social progress?

When developing a measure focused on social progress, the entire process must be grounded in a clear definition of the concept. The conceptual framework of the SPI defines it as follows (Social Progress Imperative, n.d.):

'Social progress is the capacity of a society to meet the basic needs of its citizens, establish the foundations that allow citizens and communities to improve and maintain their quality of life, and create the conditions for all individuals to reach their full potential.'

How do we define youth?

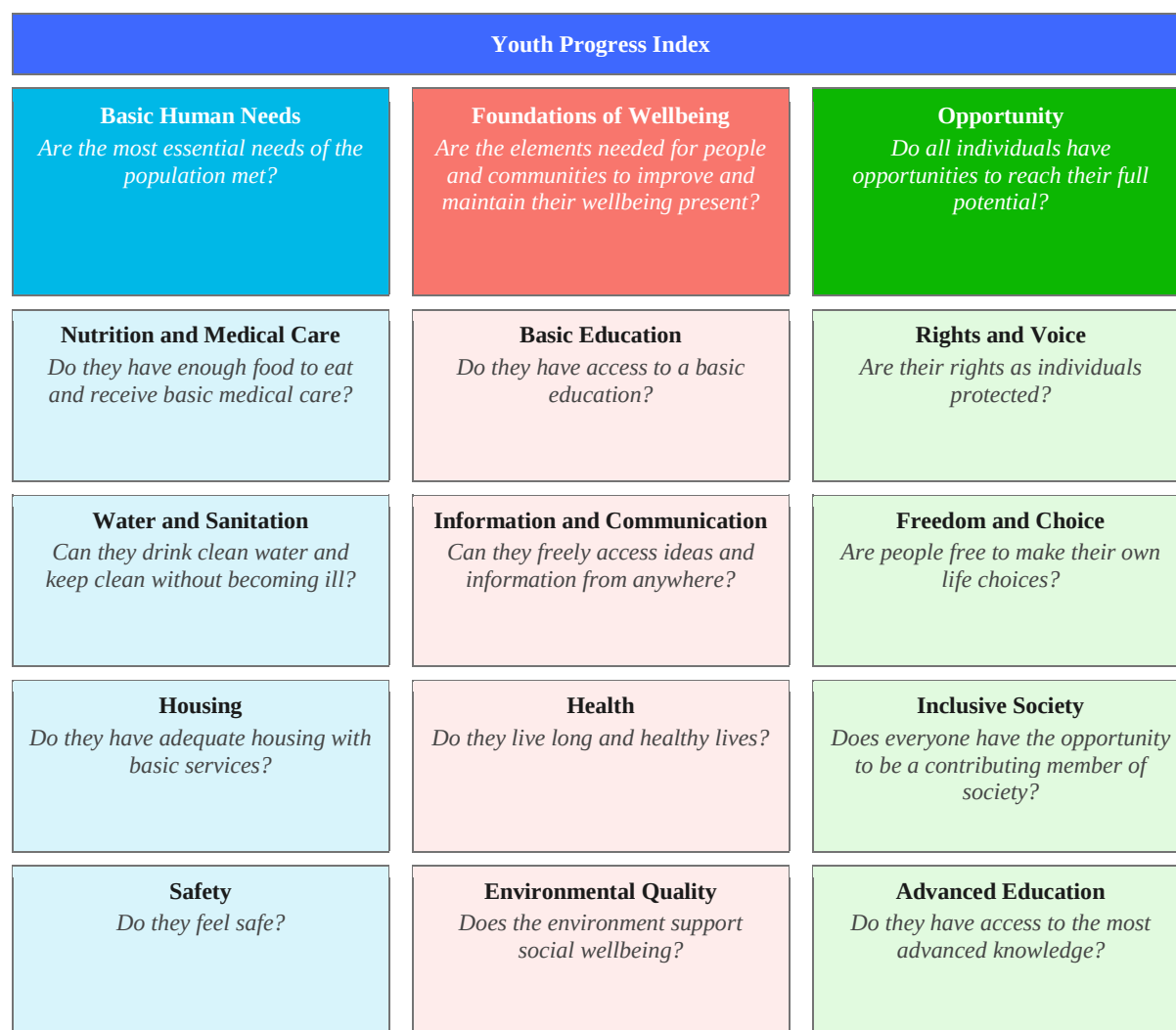
In view of the legal and operational definition of the youth age range in Bolivia, a criterion of regulatory harmonisation was applied, drawing on two complementary laws:

- From age 18: Based on the Code for Girls, Boys and Adolescents (Law No. 548, 2014). Under Article 5, adolescence formally ends at the age of eighteen (18), the legal age at which the comprehensive protection regime for minors ceases and civil and political citizenship is acquired.
- Up to age 28: Based on the Youth Law (Law No. 342, 2013). Under Articles 4 and 7, the conceptual definition of the population addressed by public policy extends youth status to the age of twenty-eight (28).

Construction of the index

Based on this definition, the Youth Progress Index adapts the social progress framework to youth through three dimensions, each comprising four components. The components' guiding questions inform indicator selection and organise the structure of the index, presented below:

Diagram 1. Conceptual framework of the Youth Progress Index



Source: Compiled by the author based on Harmacek et al. (2025).

By analysing the guiding question for each component, the final selection of indicators should help answer questions about the state of the social progress dimension under study. In this process, each indicator considered for Bolivia's final structure had to meet the following criteria as far as possible:

- Measure a social or environmental concept rather than an economic one.
- Focus on quantifying outcomes rather than the resources used.
- Come from a known, publicly accessible data source.

- Have relatively recent data, with the latest observation no more than five years old.
- Cover between 95% and 100% of departments.
- Be constructed for the age group defined as youth or capture a relevant phenomenon whose impact on young people is justified.
- If derived from the Household Survey, have estimates with sufficient statistical precision for at least 90% of the department–year observations assessed.

In some cases, the available information does not allow indicators to be restricted to people aged 18–28. In response to this limitation, the closest age group to that defined for the departmental YPI for which accessible data were available was selected. Such indicators are identified in their respective technical fact sheets and in the Scope column of the presentation tables.

Once indicator selection for each component is complete, the final index structure by dimension is as follows:

Table 1. Selected indicators for Basic Human Needs

Basic Human Needs			
Indicator	Definition	Source	Scope
Nutrition and Medical Care			
Young people living in food-secure households	Percentage (%) of young people aged 18–28 living in food-secure households according to the Latin American and Caribbean Food Security Scale (ELCSA).	EH (2021-2024)	Youth-specific
Self-medication among young people	Percentage (%) of young people aged 18–28 who report having used medication without a prescription at least once in the past 12 months.	EH (2020-2024)	Youth-specific
Prevalence of overweight	Number of people per 100,000 inhabitants whose body weight exceeds the healthy level for their height at a given point in the year.	UDAPE (2020-2024)	Generally relevant
Prevalence of hypertension	Number of people per 100,000 inhabitants with hypertension at a given point in the year.	UDAPE (2020-2024)	Generally relevant
Water and Sanitation			
Young people with access to improved water sources	Percentage (%) of young people aged 18–28 living in households with a drinking-water source classified as improved under the UNICEF Joint Monitoring Programme guidelines.	EH (2020-2024)	Youth-specific
Compliance of drinking-water analyses	Percentage (%) of compliance with drinking-water quality standards (NB-512). Calculated from water and sewerage companies' results and weighted by the population served.	AAPS (2020-2024)	Generally relevant

Basic Human Needs			
Indicator	Definition	Source	Scope
Water supply continuity under rationing	Average daily hours of supply, excluding interruptions caused by limitations in water sources. Calculated from water and sewerage companies' results and weighted by the population served.	AAPS (2020-2024)	Generally relevant
Drinking-water service coverage	Percentage (%) of the population within each company's authorised service area that actually receives drinking-water service. Calculated from water and sewerage companies' results and weighted by the population served.	AAPS (2020-2024)	Generally relevant
Sewerage service coverage	Percentage (%) of the population within each company's authorised service area that actually receives sanitary sewerage service. Calculated from water and sewerage companies' results and weighted by the population served.	AAPS (2020-2024)	Generally relevant
Housing			
Young people living in households using clean cooking fuels and technologies	Percentage (%) of young people aged 18–28 living in households where food is cooked using fuels and technologies classified as clean under World Health Organization guidelines.	EH (2021-2024)	Youth-specific
Young people living in households with access to electricity	Percentage (%) of young people aged 18–28 living in households with electricity available in the dwelling.	EH (2020-2024)	Youth-specific
Young people living in adequate housing	Percentage (%) of young people aged 18–28 living in households whose dwellings have floor, wall and roof materials classified as adequate. Classification adapted from the Adequate Housing Index.	EH (2021-2024)	Youth-specific
Young people in households using formal waste management services	Percentage (%) of young people aged 18–28 living in households that dispose of their waste through public bins and/or collection services.	EH (2021-2024)	Youth-specific
Young people living in overcrowded households	Percentage (%) of young people aged 18–28 living in households with more than two people per room used for sleeping.	EH (2021-2024)	Youth-specific
Safety			
Reported theft and robbery against young people	Number of reported thefts and robberies against young people aged 18–28 per 10,000 inhabitants in the same age group. This category includes theft, robbery, aggravated robbery and livestock theft.	OBSCD (2020-2024)	Youth-specific
Reports of physical violence against young women	Number of reports of physical violence against women aged 18–28 per 10,000 women in the same age group.	OBSCD (2020-2024)	Youth-specific

Basic Human Needs			
Indicator	Definition	Source	Scope
Reports of sexual violence against young women	Number of reports of sexual violence against women aged 18–28 per 10,000 women in the same age group.	OBSCD (2020-2024)	Youth-specific

Source: Compiled by the author from the sources listed in the table.

Table 2. Selected indicators for Foundations of Wellbeing

Foundations of Wellbeing			
Indicator	Definition	Source	Scope
Basic Education			
Secondary school completion rate	Percentage (%) of young people aged 20–28 who completed the final grade of secondary education.	EH (2020-2024)	Approximate
Urban–rural gap in secondary school completion	Relative gap (expressed as a percentage) between urban and rural areas in the completion rates for the final grade of secondary education among young people aged 20–28.	EH (2020-2024)	Approximate
Young women who have completed primary school	Percentage (%) of young women aged 18–28 who have completed primary education.	EH (2020-2024)	Youth-specific
Youth literacy rate	Percentage (%) of young people aged 18–28 who report being able to read and write.	EH (2020-2024)	Youth-specific
Information and Communication			
Young people who use the internet	Percentage (%) of young people aged 18–28 who report having used the internet at least once in the past three months.	EH (2020-2024)	Youth-specific
Young people who own a mobile phone	Percentage (%) of young people aged 18–28 who have a mobile phone for personal use.	EH (2020-2024)	Youth-specific
Young people who use digital devices	Percentage (%) of young people aged 18–28 who report having used a desktop computer, laptop or tablet somewhere at least once in the past three months.	EH (2020-2024)	Youth-specific
Health			
Incidence of HIV diagnoses among young people	Number of new HIV cases diagnosed among young people aged 20–29 per 10,000 inhabitants in the same age group.	SIMONE (2020-2024)	Approximate
Prevalence of diabetes	Total number of people per 100,000 inhabitants with blood glucose levels above those considered healthy at a given point in time.	UDAPE (2020-2024)	Generally relevant

Foundations of Wellbeing			
Indicator	Definition	Source	Scope
Prevalence of cardiovascular diseases	Total number of people per 100,000 inhabitants with a diagnosed disorder or condition of the heart or blood vessels at a given point in time.	UDAPE (2020-2024)	Generally relevant
Incidence of depression and anxiety	Number of new cases of depression and anxiety reported among people aged 20–39 per 1,000 inhabitants in the same age group.	SNIS (2020-2024)	Approximate
Environmental Quality			
Particulate matter pollution	Maximum concentration of fine particulate matter PM2.5 recorded during the year, expressed in micrograms per cubic metre ($\mu\text{g}/\text{m}^3$).	ACAG (2020-2022)	Generally relevant
Burned area (%)	Percentage of the department's area burned during the year, calculated using data with a spatial resolution of 500 metres.	EarthMap (2020-2024)	Generally relevant
CO ₂ emissions per capita	Ratio of the gross volume of greenhouse gases released into the atmosphere to the territory's total population. This volume corresponds to emissions from the degradation, burning and conversion of forest ecosystems and is calculated by converting above- and below-ground biomass loss into metric tonnes of carbon dioxide equivalent.	GFW (2020-2024)	Generally relevant
Forest area loss	Percentage (%) of forest area (in hectares) lost relative to total area.	MapBiomass (2020-2024)	Generally relevant

Source: Compiled by the author from the sources listed in the table.

Table 3. Selected indicators for Opportunity

Opportunity			
Indicator	Definition	Source	Scope
Rights and Voice			
Violations of democratic institutions	Annual rate of violations of democratic institutions recorded by Red UNITAS per 100,000 inhabitants.	UNITAS (2020-2024)	Generally relevant
Violations of civil liberties	Annual rate of violations of civil liberties recorded by Red UNITAS per 100,000 inhabitants. These include freedom of association, expression, press, assembly and protest.	UNITAS (2020-2024)	Generally relevant
Youth gender parity in municipal councils	Gender parity index for the representation of municipal councillors aged 30 or under.	TSE (2021)	Approximate

Opportunity			
Indicator	Definition	Source	Scope
Freedom and Choice			
Youth vulnerable employment	Percentage (%) of young people aged 18–28 who work as own-account workers or unpaid family workers.	EH (2020-2024)	Youth-specific
Use of natural contraceptive methods	Percentage (%) of new and continuing female users aged 20–34 registered at health centres who used natural contraceptive methods.	SNIS (2020-2024)	Approximate
Young women whose own income is below the poverty line	Percentage (%) of young women aged 24–28 whose combined own income from labour and non-labour sources is below the poverty line.	EH (2020-2024)	Approximate
Inclusive Society			
People affected by discrimination	Percentage (%) of people who report having experienced discrimination at some point in the past twelve months.	EH (2021-2024)	Generally relevant
Youth adequate employment rate	Percentage (%) of economically active young people aged 18–28 who are employed, work at least 40 hours per week and receive labour income equal to or above the national minimum wage.	EH (2020-2024)	Youth-specific
Average age distance from youth representation in the lower house	Absolute difference between the upper age limit defined for youth (28 years) and the average age of primary and alternate deputies.	TSE (2020)	Youth-specific
Average age distance from youth representation in the upper house	Absolute difference between the upper age limit defined for youth (28 years) and the average age of primary and alternate senators.	TSE (2020)	Youth-specific
Advanced Education			
Young people with higher education	Percentage (%) of young people aged 18–28 who are attending or have completed higher education. This includes teacher training, university, technical and military/police education.	EH (2020-2024)	Youth-specific
Area per higher education facility in municipalities without a main university campus	Total area of municipalities that do not host a university's main campus per higher education facility (including main campuses, branch campuses and decentralised units of public and private universities), calculated as the quotient of those municipalities' total area and the number of higher education facilities located within them.	CEUB-ME (2020-2024)	Generally relevant

Opportunity			
Indicator	Definition	Source	Scope
University programmes accredited by ARCU-SUR	Percentage (%) of programmes accredited by the ARCU-SUR system relative to the combined offerings of public and private universities. Only programmes in Agronomy, Architecture, Nursing, Engineering, Veterinary Medicine, Medicine, Dentistry, Pharmacy, Geology and Economics are included, as these fields are eligible under the system.	CNACU–ARCU-SUR System (2020-2024)	Generally relevant

Source: Compiled by the author from the sources listed in the table.

Once all components have a complete structure, missing data are identified and the statistical precision of estimates from the Household Survey is assessed before imputation. The following table summarises the observations originally missing from the Bolivia Youth Progress Index dataset:

Table 4. Observations with missing data before imputation

Component	Indicator	Department	Year
Nutrition and Medical Care	Young people living in food-secure households	All	2020
Water and Sanitation	Water supply continuity under rationing Sewerage service coverage	Pando Pando	2020 All
Housing	Young people living in households using clean cooking fuels and technologies Young people living in adequate housing Young people in households using formal waste management services Young people living in overcrowded households	All	2020
Environmental Quality	Particulate matter pollution	All	2023, 2024
Inclusive Society	People affected by discrimination	All	2020

Source: Compiled by the author based on a review of indicator data sources.

To assess the statistical precision of indicators constructed from the Household Survey, the coefficient of variation (CV) of each estimate is calculated as the ratio of its standard error to the estimated value, expressed as a percentage:

$$CV = \frac{EE(\hat{x})}{\hat{x}} \cdot 100$$

where $EE(\hat{x})$ is the standard error of the estimate and $\hat{x}$ is the estimated value of the indicator, both calculated taking the Household Survey's sample design into account.

According to INE (2025), estimates with a CV above 20% are considered to have insufficient statistical precision and are treated as missing before imputation. This criterion affects self-medication among young people (Oruro and Pando, 2020), the urban–rural gap in secondary school completion (Beni, 2021 and 2022; Pando, 2021), people affected by

discrimination (Beni, 2021 and 2023; Pando, 2024), use of digital devices and access to higher education (the latter two in Pando, 2024).

Estimates exceeding this threshold are reclassified as missing for the departments and years indicated. Along with the originally missing values, they are imputed using the procedure appropriate to their position in the time series. For example, fractional response regression is used for self-medication among young people in Oruro and Pando. For people affected by discrimination, linear interpolation was used in Beni for 2021 and 2023, and regression in Pando for 2024.

Once the original missing data and those reclassified because of insufficient statistical precision have been identified, the imputation technique depends on the position of the missing value in the time series. Linear interpolation is used when the missing observation lies within the observed historical range.

When missing values occur at the beginning or end of the series, linear extrapolation is avoided. This assumes a constant deterministic trend and can produce unrealistic estimates outside the range of observed data (Chatfield, 2000). Regression imputation was therefore preferred, using ordinary least squares or fractional response regression depending on the bounds of the indicator. As Little and Rubin (2019) explain, regression is a model-based imputation approach that uses available covariates to predict missing values. The procedure draws on relationships among the other indicators in the component and grounds estimates in the observed dynamics, rather than projecting solely from the passage of time.

A specific exception is sewerage service coverage. For this indicator, fractional response regression alone was used to impute missing values for all years in Pando, taking account of the indicator's distribution and bounds.

For the four Housing indicators with missing data in 2020, as well as for Young people living in food-secure households and People affected by discrimination, estimates from the 2019 Household Survey were incorporated as an anchor for interpolating missing 2020 values. The indicator Young people living in households with access to electricity has observed data for 2020 and was not imputed.

Before standardisation, the 45 indicators are screened and treated for outliers. This stage follows the criteria discussed by Krylova et al. (2026), using three sequential tests to determine whether an indicator requires adjustment.

The first test assesses the asymmetry of each indicator's distribution using the absolute value of its skewness coefficient. If this value exceeds 2, a square-root transformation is applied. This was the case for five indicators: Reports of physical violence against young women, Reports of sexual violence against young women, Prevalence of cardiovascular diseases, Burned area (%) and CO₂ emissions per capita. Violations of democratic institutions did not require outlier adjustments.

The second test assesses indicators for which this value is greater than 1.5 and less than or equal to 2. Although they do not reach the threshold for a square-root transformation, they show moderate skewness requiring correction. Adjustment was performed using the modified z-score. This group comprises six indicators: Compliance of drinking-water analyses, Drinking-water service coverage, Young women who have completed primary school, Particulate matter pollution, Violations of civil liberties and Forest area loss.

The dataset includes 45 department–year observations per indicator. In a sample of this size, the 1st and 99th percentiles are close to the extremes of the distribution, limiting the usefulness of truncation. For this reason, the modified z-score (Iglewicz and Hoaglin, 1993) was used for this group of indicators. The method is based on the median and the median absolute deviation (MAD), measures that are less sensitive to extreme values than the mean and standard deviation.

The modified z-score of an observation x_i is calculated as follows:

$$M_i = 0.6745 \cdot \frac{(x_i - \tilde{x})}{MAD}$$

where $\tilde{x}$ is the median of the distribution and MAD is the median absolute deviation, defined as:

$$MAD = \text{median}(|x_i - \tilde{x}|)$$

Under the convention proposed by the authors, observations whose modified z-score has an absolute value greater than 3.5 are classified as outliers. Each identified value is replaced by the nearest observed value that has not been classified as an outlier. This procedure was applied to the six indicators identified above.

The third test, proposed by Krylova et al. (2026), examines whether one or a few extreme values occur in a distribution that is not markedly skewed overall. It compares the distance between the minimum and the 1st percentile and between the maximum and the 99th percentile, expressed in standard deviations. If either distance exceeds two standard deviations, the modified z-score is used for adjustment. The test was applied to all indicators; none exceeded the threshold, so no adjustments were required under this criterion.¹

Once the dataset contains no missing data or estimates of insufficient statistical precision, the best- and worst-case scenarios are identified for each indicator. Annex A presents the extremes of the imputed dataset before outlier treatment and transformations. For CO₂ emissions per capita (eco2pc) and forest area loss (pb), Oruro and Potosí are excluded from the calculation of extremes because those departments lack forest ecosystems. The synthetic minimum and maximum scenarios are calculated using observed values in the other departments and added as additional observations for normalisation; they do not represent departmental observations for Oruro or Potosí. The scenarios are excluded from consistency tests, weight estimation and correlation analyses.

To establish a direction consistent with social progress and a common scale, the last two steps before principal component analysis (PCA) are direction reversal and z-score standardisation. The first reverses the sign of indicators whose increase represents a decline in youth progress; this applies to 25 indicators (see Annex A). The second standardises each indicator's values using its mean (μ) and standard deviation (σ), according to the following formula:

$$z_i = \frac{x_i - \mu}{\sigma}$$

¹ If any indicator had exceeded this threshold, the modified z-score procedure described in the second test would have been applied to ensure consistent treatment of extreme values in the dataset.

The methodology then estimates the weights that determine each indicator's contribution to its component. PCA obtains these weights from a linear combination that maximises the variance explained by the first principal component. This criterion reduces the influence of subjective judgements about the relative importance of each indicator. The weights are normalised to sum to one within each YPI component.

Once the weights have been obtained, the value of each component (c) for each department (j) is calculated using the following formula:

$$\text{Component value}_{c,j} = \sum_i (\omega_i \cdot \text{indicator}_{i,j})$$

In this expression, ω_i is the weight assigned to indicator i .

To express the raw value of each component (X_j) on a scale from 0 to 100, a min–max transformation is applied, using the component's minimum and maximum values as reference points:

$$\text{Component score}_{c,j} = \frac{(X_j - \text{Minimum})}{(\text{Maximum} - \text{Minimum})} \cdot 100$$

With the components expressed on the same scale, the score for each dimension (d) is calculated as the simple arithmetic mean of its four components:

$$\text{Dimension score}_{d,j} = \frac{1}{4} \sum_c \text{Component score}_{c,j}$$

Following the same logic, the final Youth Progress Index score at departmental level is calculated as the simple arithmetic mean of the three dimensions:

$$\text{YPI score}_j = \frac{1}{3} \sum_d \text{Dimension score}_{d,j}$$

National calculation

For each year, N_j is the estimated population aged 18–28 in department j , obtained from the Household Survey taking its expansion factors into account. Each department's share of the national youth population is calculated as:

$$\alpha_j = \frac{N_j}{\sum_{k=1}^9 N_k}$$

These shares are used to weight departmental scores for each component and obtain its national score:

$$\text{Component score}_{c,\text{Bolivia}} = \sum_j (\alpha_j \cdot \text{Component score}_{c,j})$$

Once the twelve national component scores have been obtained, each national dimension is calculated as the simple mean of its four components and the Bolivia YPI as the simple mean of the three dimensions:

$$\text{Dimension score}_{d,Bolivia} = \frac{1}{4} \sum_c \text{Component score}_{c,Bolivia}$$

$$\text{YPI score}_{Bolivia} = \frac{1}{3} \sum_d \text{Dimension score}_{d,Bolivia}$$

This aggregation preserves the components' 0–100 scale and reflects the estimated distribution of the youth population across the nine departments. Changes in the national score between years may reflect both changes in departmental scores and changes in their population shares.

Validation and technical results

During the process of calculating the Youth Progress Index in Bolivia, Cronbach's alpha was used to assess the internal consistency among the indicators belonging to each component, while the Kaiser–Meyer–Olkin (KMO) measure was used to assess whether those indicators were suitable for principal component analysis. In line with the reference values used in the application of the Social Progress Index in Mexico (México, ¿cómo vamos?, 2025), an alpha of at least 0.65 and a KMO of at least 0.5 are used as thresholds. The results for each component are presented in the following table:

Table 5. Internal consistency and sampling adequacy by component

Dimension	Component	Cronbach's alpha	KMO
Basic Human Needs	Nutrition and Medical Care	0.511	0.522
	Water and Sanitation	0.672	0.571
	Housing	0.884	0.728
	Safety	0.762	0.486
Foundations of Wellbeing	Basic Education	0.717	0.741
	Information and Communication	0.923	0.743
	Health	0.603	0.520
	Environmental Quality	0.800	0.747
Opportunity	Rights and Voice	0.441	0.577
	Freedom and Choice	0.705	0.583
	Inclusive Society	0.719	0.712
	Advanced Education	0.851	0.606

Source: Author's calculations based on Stata results.

Most components exceed the Cronbach's alpha reference threshold. The exceptions are Nutrition and Medical Care (0.511), Health (0.603), and Rights and Voice (0.441). In the KMO test, Safety has a value of 0.486, below the 0.5 threshold. These differences should be considered when interpreting the components' statistical consistency and suitability.

The main PCA results for each component are presented below:

Table 6. Principal component analysis results for Basic Human Needs

Basic Human Needs				
YPI component	PCA component	Eigenvalue	Percentage (%)	Cumulative (%)
Nutrition and Medical Care	Component 1	1.6975	42.44	42.44
	Component 2	1.0999	27.50	69.93
	Component 3	0.7448	18.62	88.55
	Component 4	0.4578	11.45	100.00
Water and Sanitation	Component 1	2.2336	44.67	44.67
	Component 2	1.5894	31.79	76.46
	Component 3	0.5716	11.43	87.89
	Component 4	0.3501	7.00	94.89
	Component 5	0.2554	5.11	100.00
Housing	Component 1	3.4799	69.60	69.60
	Component 2	0.8360	16.72	86.32
	Component 3	0.3527	7.05	93.37
	Component 4	0.2544	5.09	98.46
	Component 5	0.0769	1.54	100.00
Safety	Component 1	2.1149	70.50	70.50
	Component 2	0.8276	27.59	98.08
	Component 3	0.0575	1.92	100.00

Source: Author's calculations based on Stata results.

Note: Bold rows identify principal components recommended for retention under the Kaiser criterion (eigenvalue > 1).

Table 7. Principal component analysis results for Foundations of Wellbeing

Foundations of Wellbeing				
YPI component	PCA component	Eigenvalue	Percentage (%)	Cumulative (%)
Basic Education	Component 1	2.1679	54.20	54.20
	Component 2	0.7431	18.58	72.78
	Component 3	0.5548	13.87	86.65
	Component 4	0.5341	13.35	100.00
Information and Communication	Component 1	2.6012	86.71	86.71
	Component 2	0.2595	8.65	95.36
	Component 3	0.1393	4.64	100.00
Health	Component 1	1.9038	47.60	47.60
	Component 2	1.4486	36.21	83.81
	Component 3	0.3805	9.51	93.32
	Component 4	0.2671	6.68	100.00
Environmental Quality	Component 1	2.6122	65.30	65.30
	Component 2	0.8922	22.31	87.61
	Component 3	0.2733	6.83	94.44
	Component 4	0.2223	5.56	100.00

Source: Author's calculations based on Stata results.

Note: Bold rows identify principal components recommended for retention under the Kaiser criterion (eigenvalue > 1).

Table 8. Principal component analysis results for Opportunity

Opportunity				
YPI component	PCA component	Eigenvalue	Percentage (%)	Cumulative (%)
Rights and Voice	Component 1	1.4218	47.39	47.39
	Component 2	0.8555	28.52	75.91
	Component 3	0.7227	24.09	100.00
Freedom and Choice	Component 1	1.9242	64.14	64.14
	Component 2	0.7858	26.19	90.33
	Component 3	0.2900	9.67	100.00

Opportunity				
YPI component	PCA component	Eigenvalue	Percentage (%)	Cumulative (%)
Inclusive Society	Component 1	2.2011	55.03	55.03
	Component 2	0.8612	21.53	76.56
	Component 3	0.5021	12.55	89.11
	Component 4	0.4356	10.89	100.00
Advanced Education	Component 1	2.3275	77.58	77.58
	Component 2	0.5106	17.02	94.60
	Component 3	0.1620	5.40	100.00

Source: Author's calculations based on Stata results.

Note: Bold rows identify principal components recommended for retention under the Kaiser criterion (eigenvalue > 1).

Although the Kaiser criterion provides an initial indication of the number of components to retain, it can overestimate the number of underlying factors. A parallel analysis was therefore also conducted (Horn, 1965). This procedure compares the observed correlation matrix's eigenvalues with a distribution of eigenvalues generated from random data matrices of equal dimensions. Parallel analysis recommends retaining components whose observed eigenvalues exceed those expected by chance.

The parallel analysis results (see Annex B) largely agree with the Kaiser criterion and support the selection of a single principal component. For Nutrition and Medical Care, parallel analysis does not support retaining the two components suggested by the Kaiser criterion. For Water and Sanitation and Health, parallel analysis suggested retaining two principal components. The first was used to estimate weights, prioritising its substantive interpretation as an overall measure of performance, supported by positive loadings for all indicators after they had been oriented towards better outcomes. This choice maintains a consistent weighting criterion across YPI components.

The weights obtained through PCA are also relevant to the methodology. The following table presents each indicator's contribution to its component:

Table 9. Indicator weights for Basic Human Needs

Dimension	Component	Indicator	Weight
Basic Human Needs	Nutrition and Medical Care	Young people living in food-secure households	0.333
		Self-medication among young people	0.285
		Prevalence of overweight	0.121
		Prevalence of hypertension	0.260
	Water and Sanitation	Young people with access to improved water sources	0.185
		Compliance of drinking-water analyses	0.261
		Water supply continuity under rationing	0.214
		Drinking-water service coverage	0.212
		Sewerage service coverage	0.127
	Housing	Young people living in households using clean cooking fuels and technologies	0.211
		Young people living in households with access to electricity	0.196
		Young people living in adequate housing	0.230
		Young people in households using formal waste management services	0.221
		Young people living in overcrowded households	0.142
	Safety	Reported theft and robbery against young people	0.223
		Reports of physical violence against young women	0.382
		Reports of sexual violence against young women	0.396

Source: Author's calculations based on Stata results.

Table 10. Indicator weights for Foundations of Wellbeing

Dimension	Component	Indicator	Weight
Foundations of Wellbeing	Basic Education	Secondary school completion rate	0.263
		Urban–rural gap in secondary school completion	0.233
		Young women who have completed primary school	0.267
		Youth literacy rate	0.237
	Information and Communication	Young people who use the internet	0.334
		Young people who own a mobile phone	0.340
		Young people who use digital devices	0.326
	Health	Incidence of HIV diagnoses among young people	0.101
		Prevalence of diabetes	0.249
		Prevalence of cardiovascular diseases	0.336
		Incidence of depression and anxiety	0.314
	Environmental Quality	Particulate matter pollution	0.281
		Burned area (%)	0.288
		CO ₂ emissions per capita	0.290
		Forest area loss	0.141

Source: Author's calculations based on Stata results.

Table 11. Indicator weights for Opportunity

Dimension	Component	Indicator	Weight
Opportunity	Rights and Voice	Violations of democratic institutions	0.363
		Violations of civil liberties	0.335
		Youth gender parity in municipal councils	0.302
	Freedom and Choice	Youth vulnerable employment	0.369
		Use of natural contraceptive methods	0.255
		Young women whose own income is below the poverty line	0.376
	Inclusive Society	People affected by discrimination	0.280
		Youth adequate employment rate	0.199
		Average age distance from youth representation in the lower house	0.282
		Average age distance from youth representation in the upper house	0.239
	Advanced Education	Young people with higher education	0.360
		Area per higher education facility in municipalities without a main university campus	0.322
		University programmes accredited by ARCU-SUR	0.319

Source: Author's calculations based on Stata results.

PCA weights summarise the relative contribution of each indicator to its component and do not directly correspond to their bivariate correlations. The closeness of weights and the pattern of correlations vary across components: in Information and Communication, internal correlations are high and weights are very similar; in other components, associations and weights are more heterogeneous. As Harmacek et al. (2025) note, PCA provides a statistical criterion for estimating indicators' relative contributions even when their correlations are not high.

Limitations and challenges

This first application of the YPI in Bolivia was subject to several constraints that should be documented, both to contextualise the results appropriately and to guide future updates of the index.

A cross-cutting limitation concerns the availability of information disaggregated for the 18–28 age group. For several indicators, administrative record systems do not produce statistics specific to this range, making it necessary to use broader or approximate age groups. This introduces a degree of imprecision that cannot be eliminated with currently available data and should be addressed as sectoral information systems expand their capacity for disaggregation.

Constructing a continuous annual series for 2020–2024 also constrained the pool of indicators considered. Sources of high conceptual value, such as the Population and Housing Census and the Demographic and Health Survey, were excluded because they are conducted at discrete points in time and do not provide annual estimates covering the analysis period with sufficient temporal consistency.

Indicators of reported violence, HIV diagnoses and violations of liberties come from administrative records and are subject to biases related to institutional detection capacity and people's willingness to use health services or report incidents. To bring them closer to outcome indicators, absolute figures were expressed as rates relative to the reference population, focusing measurement on people's risk or exposure in the territory. In the absence of annual surveys representative at departmental level, they were included with this adjustment to reduce source-related biases as far as possible. Conversion to rates does not eliminate underreporting or territorial differences in detection and reporting.

For the YPI, adequate youth employment is approximated using working-hour and income criteria. It does not include workweeks shorter than 40 hours that could be adequate if voluntary and if they meet the income threshold.

Area per higher education facility in municipalities without a main university campus and the share of accredited programmes reflect supply conditions and inputs of the education system rather than direct outcomes for young people. Their inclusion follows a territorial equity approach: measuring spatial coverage in those municipalities and academic accreditation helps approximate higher education availability and standards of provision in those territories. Given the limited information on higher education in Bolivia, these indicators and their formulations were selected to represent access opportunities and conditions of academic provision.

The weights assigned to Prevalence of overweight and Incidence of HIV diagnoses among young people also warrant consideration. The lower weights obtained through PCA may reflect a weaker statistical correlation with the other variables in their components. Nevertheless, both indicators are retained because of their theoretical relevance to a comprehensive assessment of nutritional status and health.

Retaining a single principal component in Water and Sanitation and Health simplifies a structure for which parallel analysis suggests two components. The weights do not explicitly incorporate the additional information captured by the second, which may limit representation of some patterns of variation among indicators.

Within Environmental Quality, CO₂ emissions per capita and forest area loss have no observed data for Oruro and Potosí because forest ecosystems are scarce in those territories. To avoid distortions in normalisation, assigning zero values was rejected; instead, the values were treated as missing and imputed from the other component variables. Both indicators were imputed by regression for the entire 2020–2024 series. Although this completes the dataset and enables departmental comparisons, it has the limitation of estimating values for territories with different environmental dynamics.

The index's geographical coverage is limited to the departmental level, an additional structural constraint. Results should be read as averages that can conceal greater vulnerability in particular territories, especially rural municipalities or those far from departmental capitals.

National weights are estimated using Household Survey expansion factors, whose sampling frame remains associated with the 2012 Population and Housing Census and does not

yet incorporate an adjustment based on the 2024 census. Moreover, because departmental shares of the youth population vary between years, changes in the national score do not exclusively reflect changes in departmental scores.

Future expansions or applications should improve the age specificity of indicators that currently use approximate groups and incorporate sources complementary to administrative records. Although the index can be continued in later years, reconstructing it for periods before 2020 is more difficult because historical information is unavailable for some indicators. The best- and worst-case scenarios used were defined from observed values in the series. Future working groups or consultations with specialists could establish normative, desirable or undesirable scenarios independent of those data to assess the index against expected standards.

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Annexes

Annex A. Indicator direction and extremes

Table 12. Direction and maximum and minimum values

Component	Indicator	Sign	Minimum value	Maximum value
Nutrition and Medical Care	Young people living in food-secure households (jsa)	(+)	28.590	73.750
	Self-medication among young people (rja)	(-)	23.550	86.810
	Prevalence of overweight (speso)	(-)	57.643	4573.058
	Prevalence of hypertension (htenso)	(-)	4235.742	28298.393
Water and Sanitation	Young people with access to improved water sources (aam)	(+)	70.900	99.450
	Compliance of drinking-water analyses (caa)	(+)	61.790	100.000
	Water supply continuity under rationing (cr)	(+)	5.450	23.980
	Drinking-water service coverage (cap)	(+)	52.730	99.350
	Sewerage service coverage (cas)	(+)	5.080	97.490
Housing	Young people living in households using clean cooking fuels and technologies (ctc)	(+)	74.650	99.050
	Young people living in households with access to electricity (ae)	(+)	85.130	100.000
	Young people living in adequate housing (va)	(+)	34.600	87.900
	Young people in households using formal waste management services (grh)	(+)	58.410	86.740
	Young people living in overcrowded households (hch)	(-)	26.360	62.530
Safety	Reported theft and robbery against young people (dr)	(-)	4.793	98.360
	Reports of physical violence against young women (tvf)	(-)	2.472	1157.022
	Reports of sexual violence against young women (tvs)	(-)	0.407	260.283

Component	Indicator	Sign	Minimum value	Maximum value
Basic Education	Secondary school completion rate (tfs)	(+)	62.550	90.280
	Urban–rural gap in secondary school completion (gpfs)	(-)	3.210	56.120
	Young women who have completed primary school (mpc)	(+)	84.020	99.390
	Youth literacy rate (tal)	(+)	97.620	100.000
Information and Communication	Young people who use the internet (ui)	(+)	61.470	95.820
	Young people who own a mobile phone (ucp)	(+)	74.240	98.120
	Young people who use digital devices (uclt)	(+)	17.000	56.090
Health	Incidence of HIV diagnoses among young people (ivih)	(-)	2.406	12.544
	Prevalence of diabetes (dbts)	(-)	1079.954	8883.327
	Prevalence of cardiovascular diseases (cardio)	(-)	83.963	3318.016
	Incidence of depression and anxiety (da)	(-)	0.588	17.096
Environmental Quality	Particulate matter pollution (pm)	(-)	28.671	164.572
	Burned area (%) (aq)	(-)	0.004	17.710
	CO ₂ emissions per capita (eco2pc)	(-)	2.010	217.625
	Forest area loss (pb)	(-)	0.060	1.265

Component	Indicator	Sign	Minimum value	Maximum value
Rights and Voice	Violations of democratic institutions (vid)	(-)	0.000	7.610
	Violations of civil liberties (vlc)	(-)	0.000	10.380
	Youth gender parity in municipal councils (ipgc)	(+)	0.250	0.917
Freedom and Choice	Youth vulnerable employment (ev)	(-)	34.110	71.560
	Use of natural contraceptive methods (umn)	(-)	0.644	17.762
	Young women whose own income is below the poverty line (mimz)	(-)	41.600	77.670
Inclusive Society	People affected by discrimination (ad)	(-)	5.190	23.600
	Youth adequate employment rate (tea)	(+)	14.800	45.210
	Average age distance from youth representation in the lower house (dj)	(-)	7.500	19.200
	Average age distance from youth representation in the upper house (sj)	(-)	13.750	21.125
Advanced Education	Young people with higher education (jes)	(+)	25.250	65.550
	Area per higher education facility in municipalities without a main university campus (snc)	(-)	2762.000	18460.814
	University programmes accredited by ARCU-SUR (caas)	(+)	0.000	42.310

Source: Author's calculations based on Stata results.

Note: Values from the 2020–2024 departmental dataset completed by imputation, expressed in their original units and before outlier treatment and transformations.

Annex B. Parallel analysis results

Under the criterion of retaining principal components with adjusted eigenvalues greater than zero, the results are as follows:

Table 13. Parallel analysis results for Nutrition and Medical Care

Component	Adjusted eigenvalue	Unadjusted eigenvalue	Estimated bias
1	0.3752	1.6975	1.3222
2	-0.0494	1.0999	1.1493
3	-0.1564	0.7448	0.9013
4	-0.1694	0.4578	0.6272

Source: Author's calculations based on Stata results.

Table 14. Parallel analysis results for Water and Sanitation

Component	Adjusted eigenvalue	Unadjusted eigenvalue	Estimated bias
1	0.7975	2.2336	1.4361
2	0.3780	1.5894	1.2114
3	-0.5419	0.5716	1.1135
4	-0.4140	0.3500	0.7640
5	-0.2196	0.2554	0.4750

Source: Author's calculations based on Stata results.

Table 15. Parallel analysis results for Housing

Component	Adjusted eigenvalue	Unadjusted eigenvalue	Estimated bias
1	2.0071	3.4799	1.4729
2	-0.2111	0.8360	1.0471
3	-0.6401	0.3527	0.9928
4	-0.5912	0.2544	0.8456
5	-0.5647	0.0769	0.6416

Source: Author's calculations based on Stata results.

Table 16. Parallel analysis results for Safety

Component	Adjusted eigenvalue	Unadjusted eigenvalue	Estimated bias
1	0.9677	2.1149	1.1472
2	-0.1465	0.8276	0.9741
3	-0.8212	0.0575	0.8786

Source: Author's calculations based on Stata results.

Table 17. Parallel analysis results for Basic Education

Component	Adjusted eigenvalue	Unadjusted eigenvalue	Estimated bias
1	0.6854	2.1679	1.4825
2	-0.4057	0.7431	1.1488
3	-0.1501	0.5548	0.7050
4	-0.1296	0.5341	0.6637

Source: Author's calculations based on Stata results.

Table 18. Parallel analysis results for Information and Communication

Component	Adjusted eigenvalue	Unadjusted eigenvalue	Estimated bias
1	1.5235	2.6012	1.0777
2	-0.7611	0.2595	1.0206
3	-0.7623	0.1393	0.9017

Source: Author's calculations based on Stata results.

Table 19. Parallel analysis results for Health

Component	Adjusted eigenvalue	Unadjusted eigenvalue	Estimated bias
1	0.7273	1.9038	1.1766
2	0.3698	1.4486	1.0787
3	-0.5134	0.3805	0.8939
4	-0.5837	0.2671	0.8509

Source: Author's calculations based on Stata results.

Table 20. Parallel analysis results for Environmental Quality

Component	Adjusted eigenvalue	Unadjusted eigenvalue	Estimated bias
1	1.1899	2.6122	1.4223
2	-0.1802	0.8922	1.0725
3	-0.6672	0.2733	0.9405
4	-0.3425	0.2223	0.5648

Source: Author's calculations based on Stata results.

Table 21. Parallel analysis results for Rights and Voice

Component	Adjusted eigenvalue	Unadjusted eigenvalue	Estimated bias
1	0.2705	1.4218	1.1513
2	-0.1911	0.8555	1.0466
3	-0.0794	0.7227	0.8021

Source: Author's calculations based on Stata results.

Table 22. Parallel analysis results for Freedom and Choice

Component	Adjusted eigenvalue	Unadjusted eigenvalue	Estimated bias
1	0.6639	1.9242	1.2603
2	-0.1729	0.7858	0.9587
3	-0.4909	0.2900	0.7810

Source: Author's calculations based on Stata results.

Table 23. Parallel analysis results for Inclusive Society

Component	Adjusted eigenvalue	Unadjusted eigenvalue	Estimated bias
1	0.8937	2.2011	1.3074
2	-0.2236	0.8612	1.0848
3	-0.3268	0.5021	0.8289
4	-0.3433	0.4356	0.7789

Source: Author's calculations based on Stata results.

Table 24. Parallel analysis results for Advanced Education

Component	Adjusted eigenvalue	Unadjusted eigenvalue	Estimated bias
1	1.0545	2.3274	1.2729
2	-0.5026	0.5106	1.0132
3	-0.5519	0.1620	0.7139

Source: Author's calculations based on Stata results.

Annex C. Correlation matrices

Before analysing correlations within each component, the direction of indicators conceptually associated with lower youth progress was reversed.

Table 25. Correlation matrices for Basic Human Needs

Nutrition and Medical Care

	jsa	speso	htenso	rja
jsa	—			
speso	0.194	—		
htenso	0.295*	0.181	—	
rja	0.464**	-0.096	0.215	—

Housing

	ctc	ae	va	grh	hch
ctc	—				
ae	0.703***	—			
va	0.726***	0.733***	—		
grh	0.709***	0.640***	0.901***	—	
hch	0.432**	0.186	0.526***	0.472***	—

Water and Sanitation

	aam	caa	cr	cap	cas
aam	—				
caa	0.328*	—			
cr	0.191	0.493***	—		
cap	0.571***	0.555***	0.114	—	
cas	-0.152	0.301*	0.597***	-0.104	—

Safety

	dr	tvf	tvS
dr	—		
tvf	0.254	—	
tvS	0.383**	0.933***	—

Source: Author's calculations based on Stata results.

Table 26. Correlation matrices for Foundations of Wellbeing**Basic Education**

	tfs	gpfs	mpc	tal
tfs	—			
gpfs	0.404**	—		
mpc	0.453**	0.392**	—	
tal	0.389**	0.260	0.427**	—

Health

	ivih	da	dbts	cardio
ivih	—			
da	-0.125	—		
dbts	0.537***	0.214	—	
cardio	-0.010	0.724***	0.310*	—

Information and Communication

	ui	ucp	uclt
ui	—		
ucp	0.854***	—	
uclt	0.750***	0.797***	—

Environmental Quality

	pm	aq	eco2pc	pb
pm	—			
aq	0.708***	—		
eco2pc	0.771***	0.743***	—	
pb	0.188	0.351*	0.255	—

Source: Author's calculations based on Stata results.

Table 27. Correlation matrices for Opportunity***Rights and Voice***

	vid	vlc	ipgc
vid	—		
vlc	0.270	—	
ipgc	0.210	0.150	—

Freedom and Choice

	ev	umn	mimz
ev	—		
umn	0.290	—	
mimz	0.710***	0.340*	—

Inclusive Society

	ad	tea	dj	sj
ad	—			
tea	0.330*	—		
dj	0.560***	0.390**	—	
sj	0.480***	0.150	0.440**	—

Advanced Education

	jes	snc	caas
jes	—		
snc	0.750***	—	
caas	0.740***	0.490***	—

Source: Author's calculations based on Stata results.

Note: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. Coefficients without an asterisk did not reach statistical significance ($p \geq 0.05$). Dashes (—) on the diagonal denote the correlation of each variable with itself ($r = 1.00$). The matrices use 45 department–year observations; the intensity of blue increases with the absolute magnitude of r . The abbreviated codes correspond to those shown in parentheses beside each indicator's name in Annex A.

Annex D. Complete indicator fact sheets

The individual fact sheets are presented below, organised by dimension and component.

Table 28. Indicator fact sheets for Basic Human Needs

Basic Human Needs			
No.	Component	Indicator	Fact sheet
1	Nutrition and Medical Care	Young people living in food-secure households	Open PDF
2	Nutrition and Medical Care	Self-medication among young people	Open PDF
3	Nutrition and Medical Care	Prevalence of overweight	Open PDF
4	Nutrition and Medical Care	Prevalence of hypertension	Open PDF
5	Water and Sanitation	Young people with access to improved water sources	Open PDF
6	Water and Sanitation	Compliance of drinking-water analyses	Open PDF
7	Water and Sanitation	Water supply continuity under rationing	Open PDF
8	Water and Sanitation	Drinking-water service coverage	Open PDF
9	Water and Sanitation	Sewerage service coverage	Open PDF
10	Housing	Young people living in households using clean cooking fuels and technologies	Open PDF
11	Housing	Young people living in households with access to electricity	Open PDF
12	Housing	Young people living in adequate housing	Open PDF
13	Housing	Young people in households using formal waste management services	Open PDF
14	Housing	Young people living in overcrowded households	Open PDF
15	Safety	Reported theft and robbery against young people	Open PDF
16	Safety	Reports of physical violence against young women	Open PDF
17	Safety	Reports of sexual violence against young women	Open PDF

Source: Compiled by the author.

Table 29. Indicator fact sheets for Foundations of Wellbeing

Foundations of Wellbeing			
No.	Component	Indicator	Fact sheet
18	Basic Education	Secondary school completion rate	Open PDF
19	Basic Education	Urban–rural gap in secondary school completion	Open PDF
20	Basic Education	Young women who have completed primary school	Open PDF
21	Basic Education	Youth literacy rate	Open PDF
22	Information and Communication	Young people who use the internet	Open PDF

Foundations of Wellbeing			
No.	Component	Indicator	Fact sheet
23	Information and Communication	Young people who own a mobile phone	Open PDF
24	Information and Communication	Young people who use digital devices	Open PDF
25	Health	Incidence of HIV diagnoses among young people	Open PDF
26	Health	Prevalence of diabetes	Open PDF
27	Health	Prevalence of cardiovascular diseases	Open PDF
28	Health	Incidence of depression and anxiety	Open PDF
29	Environmental Quality	Particulate matter pollution	Open PDF
30	Environmental Quality	Burned area (%)	Open PDF
31	Environmental Quality	CO ₂ emissions per capita	Open PDF
32	Environmental Quality	Forest area loss	Open PDF

Source: Compiled by the author.

Table 30. Indicator fact sheets for Opportunity

Opportunity			
No.	Component	Indicator	Fact sheet
33	Rights and Voice	Violations of democratic institutions	Open PDF
34	Rights and Voice	Violations of civil liberties	Open PDF
35	Rights and Voice	Youth gender parity in municipal councils	Open PDF
36	Freedom and Choice	Youth vulnerable employment	Open PDF
37	Freedom and Choice	Use of natural contraceptive methods	Open PDF
38	Freedom and Choice	Young women whose own income is below the poverty line	Open PDF
39	Inclusive Society	People affected by discrimination	Open PDF
40	Inclusive Society	Youth adequate employment rate	Open PDF
41	Inclusive Society	Average age distance from youth representation in the lower house	Open PDF
42	Inclusive Society	Average age distance from youth representation in the upper house	Open PDF
43	Advanced Education	Young people with higher education	Open PDF
44	Advanced Education	Area per higher education facility in municipalities without a main university campus	Open PDF
45	Advanced Education	University programmes accredited by ARCU-SUR	Open PDF

Source: Compiled by the author.