

# Brazil

## Detailed Human Capital projections to 2060

| Demographic indicators, CEPAM Medium Scenario (SSP2) |           |           |           |           |           |           |
|--|-----------|-----------|-----------|-----------|-----------|-----------|
|  | 2015      | 2020      | 2030      | 2040      | 2050      | 2060      |
| Population (in millions)                             | 205.94    | 214.26    | 225.68    | 230.76    | 230.18    | 224.51    |
| Proportion age 65+                                   | 8.0%      | 9.5%      | 13.6%     | 17.9%     | 23.3%     | 28.3%     |
| Proportion below age 20                              | 31.0%     | 28.5%     | 24.7%     | 21.3%     | 18.8%     | 17.1%     |
|  | 2015-2020 | 2020-2025 | 2030-2035 | 2040-2045 | 2050-2055 | 2055-2060 |
| Total Fertility Rate                                 | 1.76      | 1.67      | 1.56      | 1.51      | 1.47      | 1.50      |
| Life expectancy at birth (in years)                  |           |           |           |           |           |           |
| Male   | 72.2      | 73.3      | 75.5      | 77.7      | 79.9      | 81.0      |
| Female   | 79.4      | 80.4      | 82.4      | 84.4      | 86.4      | 88.4      |
| Five-year net-migration flow (in thousands)          | 2.5       | 5.4       | 13.3      | 23.2      | 34.2      | 45.3      |

| Human Capital indicators, CEPAM Medium Scenario (SSP2)   |       |       |       |       |       |       |
|--|-------|-------|-------|-------|-------|-------|
|  | 2015  | 2020  | 2030  | 2040  | 2050  | 2060  |
| <b>Population age 25+: highest educational attainment (columns sum to 100%)</b>                                |       |       |       |       |       |       |
| E1 - no education  | 9.0%  | 7.6%  | 5.3%  | 3.7%  | 2.6%  | 1.7%  |
| E2 - incomplete primary  | 15.0% | 13.2% | 10.1% | 7.5%  | 5.3%  | 3.6%  |
| E3 - primary   | 20.5% | 19.6% | 17.6% | 15.3% | 12.8% | 10.4% |
| E4 - lower secondary   | 15.6% | 16.1% | 16.6% | 16.6% | 16.0% | 15.1% |
| E5 - upper secondary   | 27.6% | 30.1% | 35.0% | 39.4% | 43.5% | 47.0% |
| E6 - post-secondary  | 12.3% | 13.4% | 15.3% | 17.4% | 19.7% | 22.2% |
| Mean years of schooling (in years)   | 6.7   | 7.2   | 8.1   | 8.9   | 9.5   | 10.1  |
| <b>Gender gap (population age 25+): highest educational attainment (proportion males - proportion females)</b> |       |       |       |       |       |       |
| E1 - no education  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| E2 - incomplete primary  | 1.0   | 1.0   | 1.0   | 0.0   | 0.0   | 0.0   |
| E3 - primary   | 1.0   | 1.0   | 1.0   | 1.0   | 1.0   | 1.0   |
| E4 - lower secondary   | 1.0   | 1.0   | 2.0   | 2.0   | 2.0   | 3.0   |
| E5 - upper secondary   | -1.0  | -1.0  | 0.0   | 1.0   | 2.0   | 3.0   |
| E6 - post-secondary  | -3.0  | -3.0  | -4.0  | -5.0  | -6.0  | -7.0  |
| Mean years of schooling (male minus female)  | -0.2  | -0.3  | -0.3  | -0.3  | -0.3  | -0.4  |
| <b>Women age 20-39: highest educational attainment (columns sum to 100%)</b>                                   |       |       |       |       |       |       |
| E1 - no education  | 2.9%  | 2.2%  | 1.1%  | 0.6%  | 0.3%  | 0.1%  |
| E2 - incomplete primary  | 5.7%  | 4.1%  | 2.8%  | 1.6%  | 0.7%  | 0.3%  |
| E3 - primary   | 15.8% | 14.0% | 10.5% | 6.7%  | 4.1%  | 2.2%  |
| E4 - lower secondary   | 18.1% | 17.2% | 15.3% | 12.9% | 10.2% | 7.6%  |
| E5 - upper secondary   | 42.2% | 44.9% | 48.6% | 52.1% | 54.0% | 54.2% |
| E6 - post-secondary  | 15.3% | 17.6% | 21.8% | 26.1% | 30.8% | 35.6% |
| Mean years of schooling (in years)   | 9.0   | 9.7   | 10.3  | 10.9  | 11.4  | 11.8  |

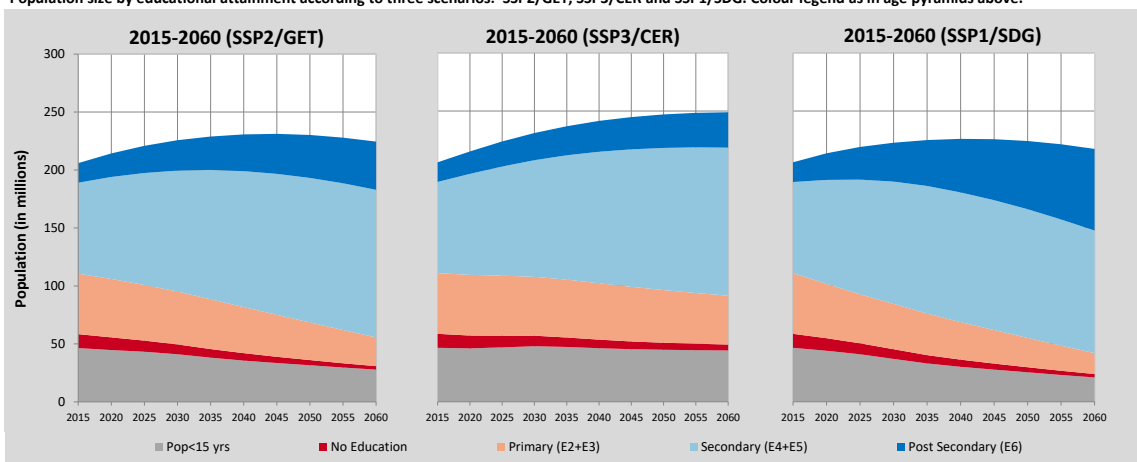
### Education scenarios

SSP2/GET: Global Education Trend Scenario (Medium assumption)

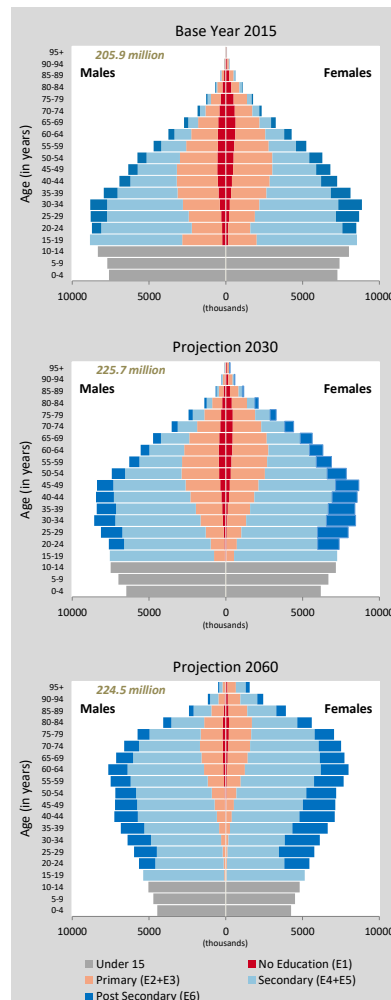
SSP3/CER: Constant Enrollment Rates Scenario (assumption of no future improvements)

SSP1/SDG: Sustainable Development Goal Scenario (universal primary and secondary education by 2030)

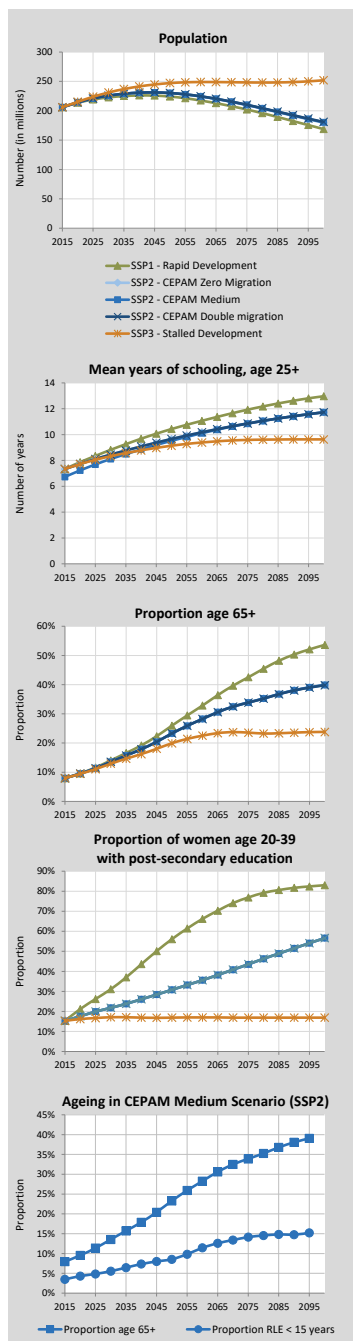
Population size by educational attainment according to three scenarios: SSP2/GET, SSP3/CER and SSP1/SDG. Colour legend as in age pyramids above.



## Pyramids by education, CEPAM Medium Scenario



## Brazil (Continued)



### Alternative Scenarios to 2100

| Projection Results by Scenario (SSP1-3)                            |        |        |        |        |        |        |        |
|--|--------|--------|--------|--------|--------|--------|--------|
|  | 2015   | 2020   | 2030   | 2050   | 2060   | 2075   | 2100   |
| <b>Population (in millions)</b>                                    |        |        |        |        |        |        |        |
| SSP1 - Rapid Development   | 205.94 | 213.64 | 222.77 | 224.21 | 217.44 | 202.15 | 168.80 |
| SSP2 - CEPAM Zero Migration  | 205.94 | 214.25 | 225.66 | 230.08 | 224.34 | 209.64 | 179.63 |
| SSP2 - CEPAM Medium  | 205.94 | 214.26 | 225.68 | 230.18 | 224.51 | 209.99 | 180.38 |
| SSP2 - CEPAM Double Migration                                      | 205.94 | 214.26 | 225.69 | 230.26 | 224.65 | 210.27 | 181.00 |
| SSP3 - Stalled Development   | 205.94 | 215.28 | 231.12 | 247.13 | 248.96 | 248.29 | 251.99 |
| <b>Proportion age 65+</b>  |        |        |        |        |        |        |        |
| SSP1 - Rapid Development   | 8.0%   | 9.6%   | 14.1%  | 26.0%  | 32.8%  | 42.5%  | 53.6%  |
| SSP2 - CEPAM Zero Migration  | 8.0%   | 9.5%   | 13.6%  | 23.3%  | 28.3%  | 33.9%  | 40.0%  |
| SSP2 - CEPAM Medium  | 8.0%   | 9.5%   | 13.6%  | 23.3%  | 28.3%  | 33.9%  | 39.9%  |
| SSP2 - CEPAM Double Migration                                      | 8.0%   | 9.5%   | 13.6%  | 23.3%  | 28.2%  | 33.9%  | 39.8%  |
| SSP3 - Stalled Development   | 8.0%   | 9.4%   | 12.9%  | 19.9%  | 22.5%  | 23.6%  | 23.8%  |
| <b>Proportion below age 20</b>                                     |        |        |        |        |        |        |        |
| SSP1 - Rapid Development   | 31.0%  | 28.2%  | 23.2%  | 15.7%  | 13.5%  | 11.6%  | 10.3%  |
| SSP2 - CEPAM Zero Migration  | 31.0%  | 28.5%  | 24.7%  | 18.8%  | 17.1%  | 15.8%  | 15.3%  |
| SSP2 - CEPAM Medium  | 31.0%  | 28.5%  | 24.7%  | 18.8%  | 17.1%  | 15.8%  | 15.3%  |
| SSP2 - CEPAM Double Migration                                      | 31.0%  | 28.5%  | 24.7%  | 18.8%  | 17.1%  | 15.8%  | 15.3%  |
| SSP3 - Stalled Development   | 31.0%  | 28.9%  | 27.0%  | 24.3%  | 23.7%  | 23.8%  | 25.0%  |
| <b>Proportion of women age 20-39 with post-secondary education</b> |        |        |        |        |        |        |        |
| SSP1 - Rapid Development   | 15.3%  | 21.2%  | 31.1%  | 56.1%  | 66.2%  | 76.9%  | 83.0%  |
| SSP2 - CEPAM Zero Migration  | 15.3%  | 17.6%  | 21.8%  | 30.8%  | 35.6%  | 43.5%  | 56.6%  |
| SSP2 - CEPAM Medium  | 15.3%  | 17.6%  | 21.8%  | 30.8%  | 35.6%  | 43.5%  | 56.6%  |
| SSP2 - CEPAM Double Migration                                      | 15.3%  | 17.6%  | 21.8%  | 30.8%  | 35.6%  | 43.6%  | 56.6%  |
| SSP3 - Stalled Development   | 15.3%  | 16.2%  | 17.1%  | 16.9%  | 17.0%  | 16.9%  | 16.9%  |
| <b>Mean years of schooling, age 25+</b>                            |        |        |        |        |        |        |        |
| SSP1 - Rapid Development   | 7.3    | 7.9    | 8.8    | 10.4   | 11.1   | 11.9   | 13.0   |
| SSP2 - CEPAM Zero Migration  | 7.3    | 7.7    | 8.5    | 9.7    | 10.2   | 10.9   | 11.7   |
| SSP2 - CEPAM Medium  | 6.7    | 7.2    | 8.1    | 9.5    | 10.1   | 10.9   | 11.7   |
| SSP2 - CEPAM Double Migration                                      | 7.3    | 7.7    | 8.5    | 9.7    | 10.2   | 10.9   | 11.7   |
| SSP3 - Stalled Development   | 7.3    | 7.7    | 8.3    | 9.1    | 9.4    | 9.6    | 9.6    |

### Demographic assumptions underlying SSPs

|  | 2015-2020 | 2020-2025 | 2030-2035 | 2050-2055 | 2060-2065 | 2075-2080 | 2095-2100 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>Total fertility rate</b>                                |           |           |           |           |           |           |           |
| SSP1 - Rapid Development                                   | 1.66      | 1.48      | 1.31      | 1.23      | 1.26      | 1.37      | 1.40      |
| SSP2 - CEPAM Zero Migration                                | 1.76      | 1.67      | 1.56      | 1.47      | 1.50      | 1.61      | 1.64      |
| SSP2 - CEPAM Medium  | 1.76      | 1.67      | 1.56      | 1.47      | 1.50      | 1.61      | 1.64      |
| SSP2 - CEPAM Double Migration                              | 1.76      | 1.67      | 1.56      | 1.47      | 1.50      | 1.61      | 1.64      |
| SSP3 - Stalled Development                                 | 1.91      | 1.97      | 2.02      | 1.97      | 2.01      | 2.14      | 2.26      |
| <b>Life expectancy at birth for females (in years)</b>     |           |           |           |           |           |           |           |
| SSP1 - Rapid Development                                   | 79.9      | 81.5      | 84.5      | 90.5      | 93.5      | 98.0      | 104.2     |
| SSP2 - CEPAM Zero Migration                                | 79.4      | 80.4      | 82.4      | 86.4      | 88.4      | 91.4      | 95.4      |
| SSP2 - CEPAM Medium  | 79.4      | 80.4      | 82.4      | 86.4      | 88.4      | 91.4      | 95.4      |
| SSP2 - CEPAM Double Migration                              | 79.4      | 80.4      | 82.4      | 86.4      | 88.4      | 91.4      | 95.4      |
| SSP3 - Stalled Development                                 | 78.9      | 79.4      | 80.3      | 82.2      | 83.1      | 84.5      | 86.3      |
| <b>Migration – net flow over five years (in thousands)</b> |           |           |           |           |           |           |           |
| SSP1 - Rapid Development                                   | 2.5       | 4.8       | 9.4       | 20.0      | 24.8      | 29.7      | 31.5      |
| SSP2 - CEPAM Zero Migration                                | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       | 0.0       |
| SSP2 - CEPAM Medium  | 2.5       | 5.4       | 13.3      | 34.2      | 45.3      | 59.8      | 72.2      |
| SSP2 - CEPAM Double Migration                              | 4.8       | 9.8       | 23.8      | 62.1      | 82.8      | 110.4     | 134.1     |
| SSP3 - Stalled Development                                 | 1.6       | 1.9       | 0.0       | 0.1       | 0.1       | 0.1       | 0.1       |

### Ageing indicators, CEPAM Medium Scenario (SSP2)

|                           | 2015 | 2020 | 2030  | 2050  | 2060  | 2075  | 2095  |
|---------------------------|------|------|-------|-------|-------|-------|-------|
| Median age                | 31.3 | 33.4 | 37.7  | 45.6  | 48.7  | 52.7  | 55.9  |
| Proportion age 65+        | 8.0% | 9.5% | 13.6% | 23.3% | 28.3% | 33.9% | 39.1% |
| Proportion RLE < 15 years | 3.5% | 4.3% | 5.5%  | 8.5%  | 11.4% | 14.1% | 15.2% |