Measuring Progress Towards the UN Sustainable Development Goal 8: Decent Work and Economic Growth

An Exploratory Data Analysis Across Six Continents

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1. Introduction

This report examines global progress toward Sustainable Development Goal (SDG) 8, which seeks to promote sustained, inclusive and sustainable economic growth and decent work for all. Two components of SDG Target 8.1 guide the first part of the analysis: Goal 8.1a, which requires countries to achieve per-capita GDP growth in line with “national circumstances”, and Goal 8.1b, which specifically calls for Least Developed Countries (LDCs) to sustain annual GDP growth of at least 7% (UN, 2024). Development status was assigned according to OWID income classifications (OWID, 2024). The second part of the report addresses Goal 8.2, which focuses on significantly reducing the proportion of youth not in employment, education or training (NEET), recognising that economic performance must translate into inclusive labour market outcomes (ILO, 2020a).

Using UN, OWID, and ILO NEET statistics, alongside complementary documentation, we evaluate progress across six continents (UN, 2024; OWID, 2024; ILOSTAT, 2023). Our own supplemental CSV - *devstatus_population_gdp.csv* - was incorporated to enrich the analysis by providing aligned population and development-status information that facilitated accurate population weighting and ensured consistency when comparing growth outcomes across income groups and continents. The report employs population-weighted measures, time-series analysis, distributional comparisons, heat maps and an LDC spatiotemporal animation. Together, these methods allow us to assess how continents perform relative to their income compositions, structural constraints and demographic profiles. By jointly analysing economic growth and youth labour-market metrics, the report provides an integrated assessment of whether countries are advancing toward the dual economic and employment aims of SDG 8.

2. Methodology

Goal 8.1: Per Capita Economic Growth and the 7% Benchmark for LDCs

To evaluate progress towards SDG Target 8.1, we analyse annual real GDP data using UN Indicator 8.1 for 1990–2021. Countries were classified by continent (Africa, Asia, Europe, North America, South America, Oceania) and by income group following the Our World in Data scheme (low, lower-middle, upper-middle, high income). SDG 8.1a sets differentiated growth expectations - approximately 7%, 5%, 4% and 2% for low-, lower-middle-, upper-middle- and high-income economies respectively (UN, 2024) - allowing performance to be assessed relative to national circumstances. Population-weighted means and full growth distributions were calculated within each income group. Figure 1 presents time-series growth by income tier; Figure 2 reports the share of the global population meeting their income-specific target; and Figures 3–4 use boxplots and ridgeline densities to illustrate cross-country variation, skewness and volatility. Appendix A maps country-level performance against income-group targets. As these visuals are organised by income group rather than geography, continental outcomes were inferred by relating each continent’s income composition to these patterns.

This framework aligns directly with the assessment of Least Developed Countries (LDCs) under SDG 8.1b, which requires LDCs to sustain annual per-capita GDP growth of at least 7% (UN, 2024). We compiled GDP per-capita growth data for all LDCs from 1990–2021, analysing only the years during which each country held LDC status. Figures 6–8 replicate the structure of Figures 1–4 but apply the same techniques exclusively to LDCs using pure

GDP growth rather than per capita GDP growth - to be consistent with the SDG 8.1's wording. Appendix B also replicates the structure of Appendix A for LDCs. This consistent visual sequence allows direct comparison between broader income-group trends and the specific trajectories of LDCs.

Outliers were retained to reflect genuine economic volatility, and missing observations were excluded only for affected years. Regions were automatically removed from LDC visualisations once all countries had graduated. Taken together, this integrated methodology provides a coherent basis for assessing per-capita economic growth across income groups and continents, while offering a focused examination of whether LDCs are approaching the 7% benchmark central to SDG 8.1.

Goal 8.2: Significantly Reduce Proportion of Youth NEET

To begin the analysis, we grouped the data into continent and year as the target focus is on the progress of each continent as a whole. Then we explored some summary statistics including the mean, weighted mean, standard deviation and IQR (Figure 10) to gain an overarching picture on how data is distributed.

The first plots we explored were the box plots for the distribution of NEET rates by continent for the 2014 and 2015 average and compared it to another boxplot for the 2020 NEET rates (Appendix C). Using the average over a two years period pre the introduction of the SDGs results in a more stable baseline, ensuring that any changes can be more reliably accredited to progress made after the SDGs were implemented. Box plots are also a useful tool to visualise the distribution in each continent as they display the median, IQR and any outliers.

The second plots created (Figure 9) are line graphs that display the average NEET rates over time. However, the average on its own does not reflect the continent's true rate as all countries are given equal weightage despite each country having different population sizes. Therefore, taking into account the population size (15 to 24) creates a more representative average.

Finally, we created a heat map of the percentage point difference in NEET (Appendix D). Taking the 2010 to 2015 average as the comparison point allows for a better benchmark masking any anomalous data. Moreover, percentage point difference was preferable to percentage change as the NEET rate is already a percentage thereby calculating percentage change exacerbates the values and makes it harder to interpret.

3. Results

Goal 8.1a: Per Capita Growth with National Circumstances

Figure 1

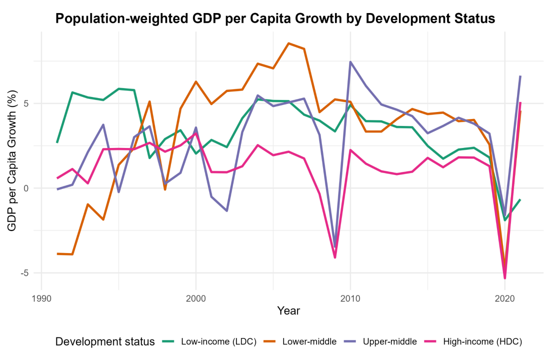
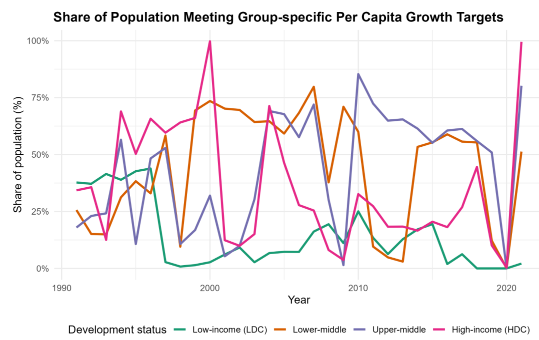


Figure 2



Continents differ substantially because their populations fall into different income groups. Africa and much of South Asia consist largely of low- and lower-middle-income countries; Latin America and parts of East Asia are mainly upper-middle-income; Europe, North America and advanced Oceania are overwhelmingly high-income.

Figure 1 shows that low- and lower-middle-income groups experience the highest volatility and consistently fall short of their 7% and 5% targets. This translates into Africa - and parts of Asia - regularly underperforming relative to SDG expectations. Upper-middle-income countries, common in Latin America and East Asia, rarely reach their 4% benchmark, with growth trending downward after 2010. High-income countries, predominant in Europe, North America, and Australia/New Zealand, show stable growth near 1–2%, close to but frequently below their 2% target.

Figure 2 reinforces how unusual target attainment is. Only a small share of people in low-income countries - mainly in Africa and South Asia - live in economies meeting 7% growth in any year. For upper-middle-income groups, success is equally limited, despite including some fast-growing East Asian economies. High-income attainment peaks modestly, indicating that even rich regions rarely match the 2% benchmark consistently.

Figure 3

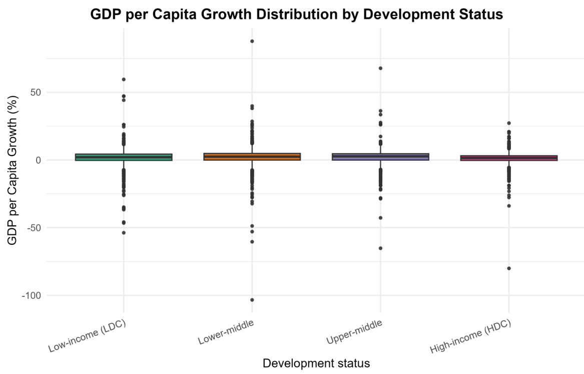
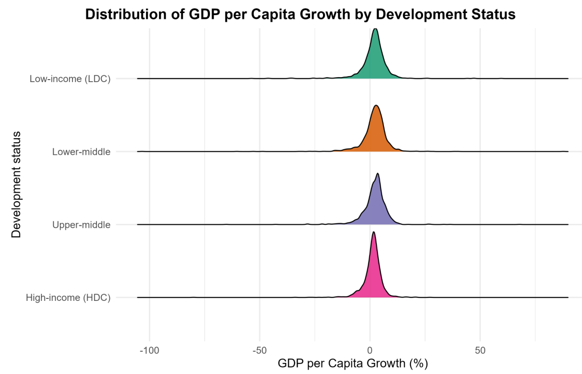


Figure 4



Distributional patterns in Figures 3–4 reveal substantial heterogeneity. Low- and lower-middle-income countries show wide interquartile ranges and long tails, reflecting frequent booms and recessions - features typical of Africa, South Asia, and Pacific islands. Upper-middle-income groups show narrower but still dispersed distributions, aligning with the repeated slowdowns seen in Latin America and parts of East Asia. High-income countries form tight, symmetric distributions concentrated around low but stable growth - mirroring conditions in Europe, North America, and advanced Oceania.

Appendix A illustrates within-continent variation: East Asian upper-middle-income countries outperform many peers, Latin American economies frequently stagnate, African low-income countries vary widely in outcomes, and high-income continents show predictable but subdued growth.

Goal 8.1b: At Least 7% GDP Growth in LDCs

Figure 5

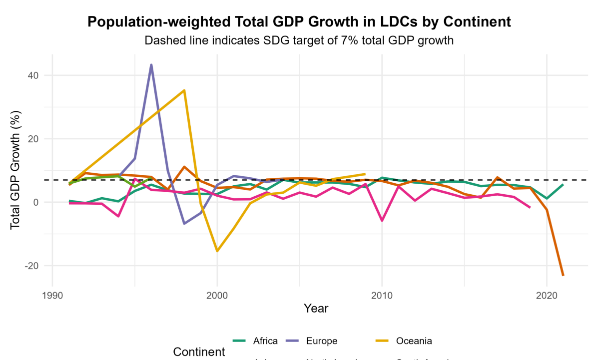


Figure 6

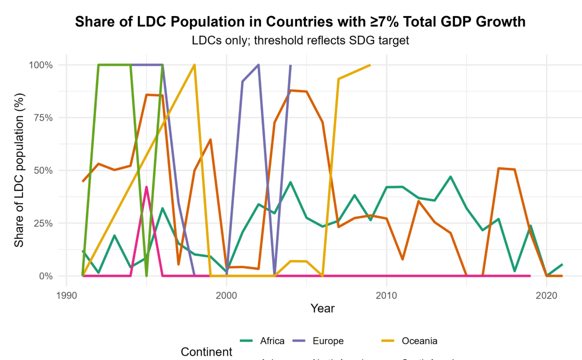


Figure 5 shows that LDCs rarely achieved the 7% growth target and never sustained it. Population-weighted growth rates remained well below the benchmark across all continents from 1990–2022. Typical growth ranged between 2 and 5%, with occasional spikes driven mainly by small-population LDCs whose volatility distorted regional averages. A major downturn occurred around 2020, particularly in Asia, reflecting the global COVID-19 shock.

The share of LDC populations living in high-growth economies further highlights this inconsistency (Figure 6). Africa showed the widest variation, with up to about 40% of its LDC population in high-growth countries during strong years but only 0–15% in many others. Asia experienced periods where most of its LDC population lived in high-growth economies, offset by years with no countries meeting the target. Haiti kept North America at zero throughout, and Oceania remained highly unstable due to its small LDC populations. Europe and South America appeared only in years before their LDCs graduated.

Figure 7

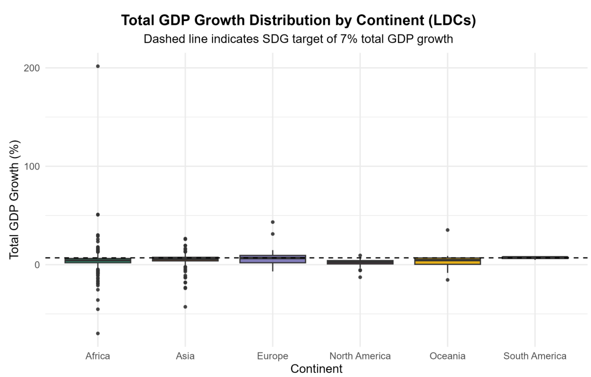
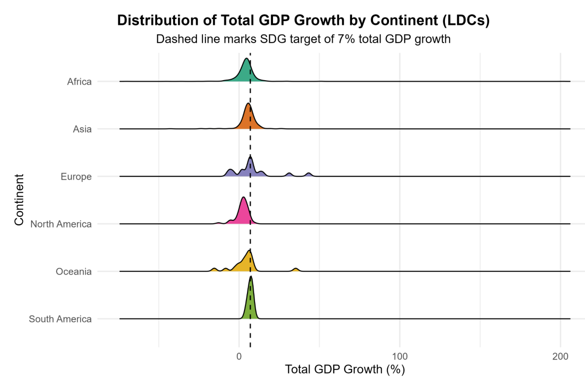


Figure 8



Growth distribution analysis confirmed that median growth for all regions fell short of the 7% threshold (Figure 7). Africa and Asia showed the greatest volatility, including multiple negative-growth years. Europe and South America came closest to the benchmark during their LDC years but still failed to sustain high growth. Figure 8 density plots reinforced that most growth outcomes cluster below 7%, with only a small share exceeding the target.

The spatiotemporal animation (Appendix B) illustrated these patterns over time: few LDCs met the target in the early 1990s; more frequent high-growth episodes emerged from the mid-1990s to mid-2000s - especially in Sub-Saharan Africa and South/Southeast Asia - but these were uneven and short-lived. From the late 2010s onward, high-growth episodes declined sharply, even before the pandemic downturn.

Goal 8.2: Significantly Reduce Proportion of Youth NEET

Figure 9

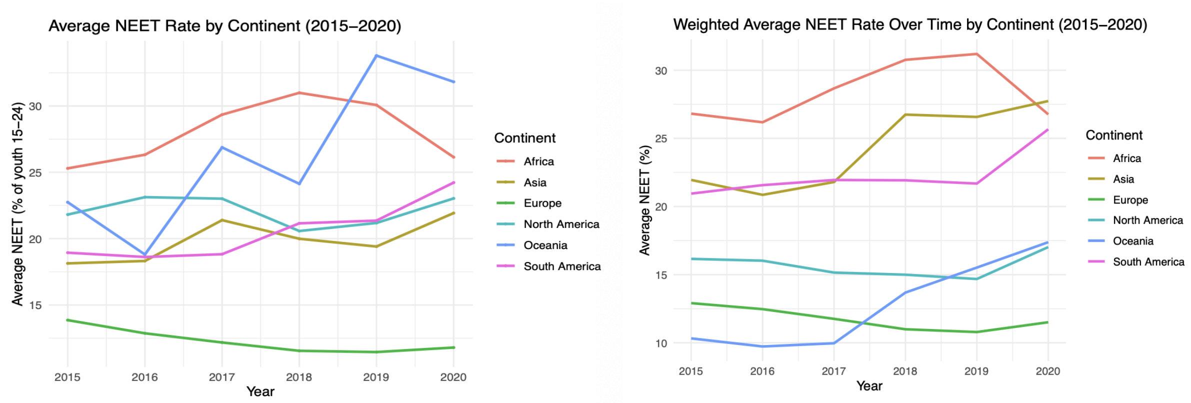


Figure 10

Continent	mean_neet	weighted_mean	median_neet	min_neet	max_neet	sd_neet
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Africa	25.8	26.1	26.9	3.79	68.7	9.04
Asia	21.4	27.3	21.4	2.97	62.8	11.0
Europe	13.1	12.6	11.5	0.38	41.8	6.73
North America	20.6	15.7	19.9	5.06	52.0	6.50
Oceania	21.5	12.1	14.0	7.04	52.0	12.7
South America	19.6	20.6	19.2	9.18	46.4	4.83

Significant variation exists between countries within the same continent, as reflected in the differences between unweighted and population-weighted NEET figures. In Asia, North America and Oceania, the weighted averages diverge substantially from the means (Figure 9), indicating that large-population countries exert strong influence on continental outcomes. E.g. Asia's weighted NEET rate is considerably higher than its mean (Figure 10) because populous countries such as India have comparatively elevated NEET rates, pulling the continental figure upward. Consistent with the methods outlined earlier, weighted measures were therefore used to represent more accurately the experience of the continent's youth population.

Across the full period examined, weighted average NEET levels ranked from highest to lowest as follows: Africa, Asia, South America, North America, Oceania and Europe (Figure 9). Between 2015 and 2019, distinct continental trends emerged. Africa's NEET rate rose from approximately 27% to 31%, and Figure 10 shows Africa also had the widest range between maximum and minimum values, highlighting substantial internal heterogeneity. Asia experienced an increase from roughly 22% to 27.5% by 2020, while Oceania remained stable at around 10% until 2017 before rising sharply to approximately 16% in 2018–2019. South America's NEET rate was largely flat at about 22%, North America saw a slight decline from 16% to 15%, and Europe experienced a more pronounced decrease from 13% to 11%.

The onset of COVID-19 in 2020 produced a marked reversal of these pre-existing trajectories. NEET rates increased across all continents except Africa, where the rate remained elevated but did not exhibit the same pandemic-induced spike observed elsewhere. These patterns highlight both the structural differences shaping youth labour market outcomes across continents and the sensitivity of NEET rates to global shocks.

4. Discussion

Goal 8.1a: Per Capita Growth with National Circumstances

A holistic view shows that all continents struggle with SDG 8.1, but for different structural reasons. Africa and parts of Asia must meet the highest benchmarks (7% and 5%) yet exhibit the greatest volatility, driven by commodity dependence, limited diversification and sensitivity to shocks (World Bank, 2024). Latin America's predominance of upper-middle-income economies places it against a 4% target, but chronic macroeconomic instability produces the consistently low medians seen in Figures 3–4 (UN, 2024). Europe and North America, by contrast, face only a 2% target, and their tight distributions reflect stable institutions and diversified economies; however, their slow growth means even high-income regions do not consistently exceed the benchmark (UN, 2024). Oceania is mixed: Australia and New Zealand resemble Europe/North America, while Pacific Island states mirror low-income volatility (UNCTAD, 2022).

Across all continents, no region is uniformly on track. Poorer regions fall short because targets are high and growth unstable; richer regions meet stability requirements but lack dynamism. Consistent with UN and World Bank assessments, global per-capita growth remains insufficient to meet SDG ambitions (UN, 2024). Achieving SDG 8.1 will require continent-specific strategies that raise long-run productivity, reduce vulnerability to shocks, and support sustained per-capita income gains (World Bank, 2024).

Goal 8.1b: At Least 7% GDP Growth in LDCs

The findings show that while LDCs have occasionally experienced economic expansion, their performance falls short of the SDG 8.1 target of sustained 7% annual GDP growth (UN, 2024). Growth across regions is highly volatile rather than consistently improving. Population-weighted results indicate that the average LDC resident has rarely benefited from sustained growth near the target level, with only a select few nations like Mozambique, Bangladesh, Ethiopia and Myanmar meeting the target for prolonged periods of time (UN, 2024).

Regional patterns highlight structural and institutional constraints. Africa and Asia show major fluctuations driven by commodity dependence, political instability and limited diversification (World Bank, 2024), while Haiti's persistent stagnation explains North America's poor performance (UN OHRLLS, 2024). The disappearance of Europe and South America from later datasets reflects LDC graduation, not economic decline (UN OHRLLS, 2024).

Overall, high growth in LDCs is episodic and rarely sustained, with many countries regressing after brief expansions. The 2020 pandemic-related downturn further illustrates their vulnerability to external shocks (IMF, 2021). These results suggest that achieving the SDG target is unlikely without significant local structural transformation, including greater economic resilience, diversification and long-term productivity and institutional development (UNCTAD, 2022).

Goal 8.2: Significantly Reduce Proportion of Youth NEET

Across continents, several structural factors explain the observed NEET patterns. In Africa, a key driver of rising NEET rates is the mismatch between growing numbers of educated young people and limited job creation (ILOSTAT, 2023). Additional influences include gender inequality, health constraints and political instability. Although widespread informal employment may distort measured rates (ILO, 2020a), informality itself reflects limited opportunities in the formal economy (Elder and Kring, 2016), meaning the overall trend is unlikely to shift without structural change. In Asia, insufficient employment growth relative to expanding graduate labour, alongside automation and narrow vocational training systems, contributes to rising NEET levels (ILO, 2020a). In Oceania, higher rates in remote and low-socioeconomic areas elevate the regional average (Youth Futures Foundation, 2025), highlighting uneven development. South America's flat trend reflects weak economic growth but continued job creation, coupled with a gradual shift toward a more educated workforce (World Bank Blogs, 2025). Europe and North America show sharper declines in NEET, supported by persistent policy efforts such as US "Job Corps" and French preventive labour programmes (Hofman, Hutton and Nightingale, 2025).

Suggestions from the ILO include identifying priority groups, providing incentives for young people to return to education, and increasing young women's participation in the labour market (ILO, 2020b). However, policy responses must ultimately be tailored to each country's specific context and labour-market conditions.

Finally, it is important to acknowledge certain limitations. In some cases, the trends identified in our analysis differ from those reported by the ILO, largely due to variations in data coverage and measurement across sources. Consequently, comparisons with global benchmarks should be interpreted with caution. Future research would benefit from greater harmonisation of data collection methods to improve consistency and comparability.

5. Conclusion

The analyses presented in this report demonstrate that, despite pockets of progress, global advancement toward SDG 8 remains uneven and structurally constrained (UN, 2024). No continent fully meets the expectations of Target 8.1: lower-income regions struggle to attain the high growth rates implied by their national circumstances, while high-income regions achieve stability but lack the dynamism required for sustained, transformative growth (World Bank, 2024). The findings for LDCs are particularly stark: although some have achieved periods of rapid expansion, these episodes are highly volatile, short-lived and rarely experienced by the majority of their populations (UNCTAD, 2022). Thus, the 7% benchmark remains far beyond reach (UN, 2024).

Youth labour outcomes tell a similarly complex story. Rising NEET rates in Africa, Asia and Oceania reflect mismatches between education systems and labour markets, insufficient job creation, and persistent structural inequalities (ILO, 2020a; ILOSTAT, 2023). Meanwhile, modest improvements in Europe and North America highlight the importance of targeted interventions but also reveal that advances are neither uniform nor necessarily resilient to global shocks such as the COVID-19 pandemic (IMF, 2021).

Taken together, these patterns emphasise that economic growth alone is insufficient without structural transformation and inclusive labour-market development. Achieving SDG 8 will require sustained investment in productivity, governance, resilience and youth opportunity (UNCTAD, 2022; World Bank, 2024). Without such strategic and context-specific reforms, progress is likely to remain fragile and uneven, leaving the central promise of Decent Work and Economic Growth unfulfilled (UN, 2024).

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Appendix

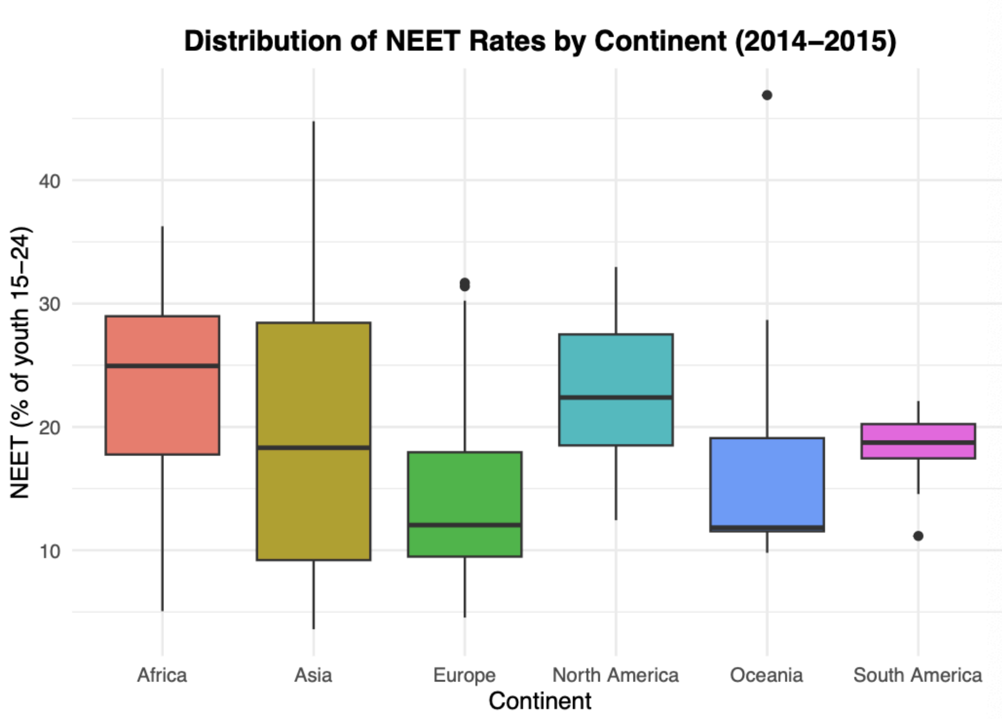
Appendix A

https://drive.google.com/file/d/1meMAmCfkmKceLE4raLF_hAkazX9Fmik0/view?usp=sharing

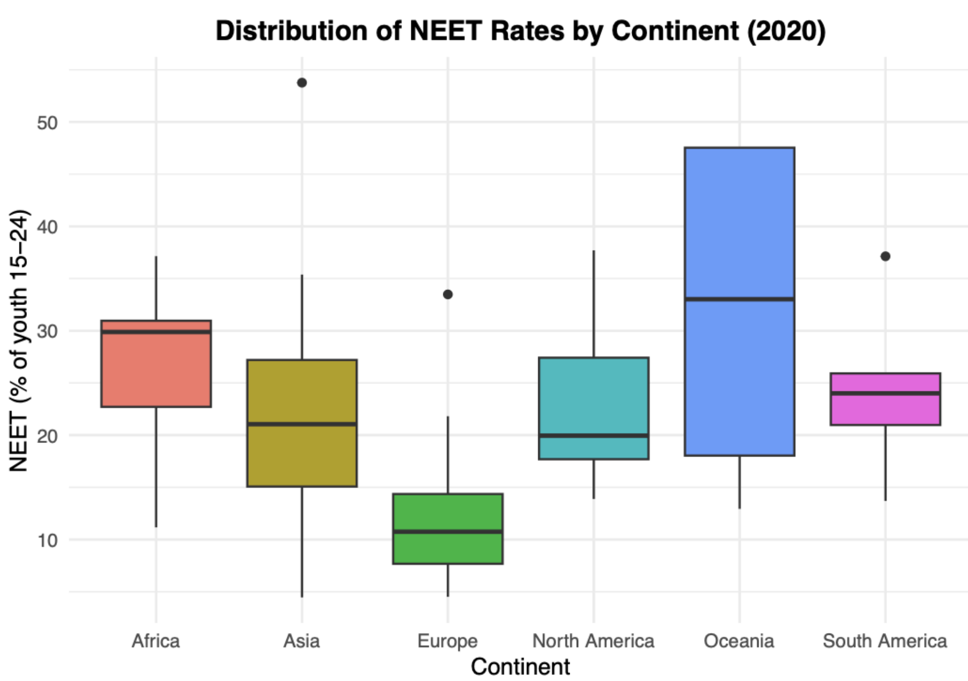
Appendix B

https://drive.google.com/file/d/1FTO3ylXYtPx7FbHeP9pMx3Bs_t59D6NO/view?usp=sharing

Appendix C

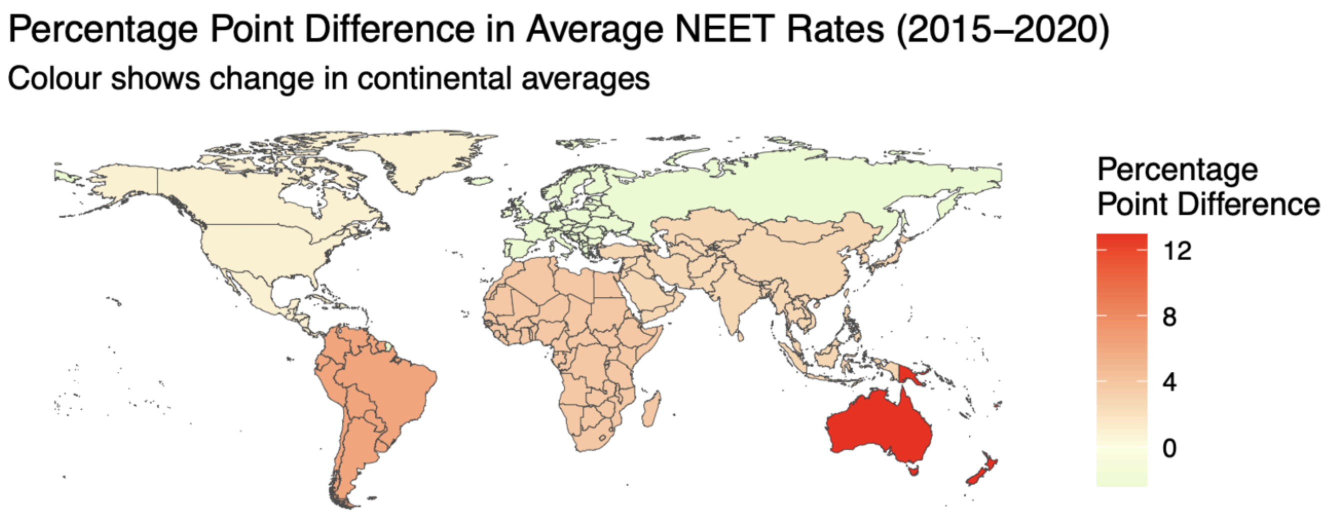


Distribution of NEET Rates by Continent (2014–2015)
NEET (% of youth 15–24)
40
30
20
10
Africa
Asia
Europe
North America
Oceania
South America
Continent



Distribution of NEET Rates by Continent (2020)
NEET (% of youth 15–24)
50
40
30
20
10
Africa
Asia
Europe
North America
Oceania
South America
Continent

Appendix D


Percentage Point Difference in Average NEET Rates (2015–2020)
Colour shows change in continental averages
Percentage
Point Difference
12
8
4
0