**UNICEF Data & Analytics Technical Assessment**

This repository contains the analysis for the UNICEF technical evaluation. The goal is to calculate the population-weighted coverage of two key maternal health services (ANC4 and SBA) for countries classified as "on-track" or "off-track" in achieving under-five mortality targets.

Positions Applied For: **Administrative Data Analyst**

**Repository Structure**

The project is organized into the following directories to ensure a reproducible workflow:

-01\_rawdata: Contains the original, unmodified data files provided for the assessment.

-fusion\_GLOBAL\_DATAFLOW\_UNICEF\_1.0\_all.csv: UNICEF data for ANC4 and SBA coverage.

-WPP2022\_GEN\_F01\_DEMOGRAPHIC\_INDICATORS\_COMPACT\_REV1.xlsx: UN World Population Prospects data used for population weights.

-On-track and off-track countries.xlsx: Classification of countries based on under-five mortality status.

-02\_scripts: Contains all the R scripts used for the analysis.

-run\_project.R: The main script that executes the entire workflow from loading data to saving the final output.

-user\_profile.R: A configuration script that loads the here library to ensure the code can run on any machine by using relative file paths.

-03\_output: Contains the final outputs generated by the script.

-Weighted\_Population\_Coverage.jpeg: The final visualization comparing health service coverage.

**How to Reproduce the Analysis**

To run this analysis on your own machine, follow these steps:

-Clone the Repository:

Clone this repository to your local machine using the following command.

“**git clone** https://github.com/Tekas2311/Unicef-Assessment.git”

-Install Required Packages:

Open R or RStudio and run the following command one time to install the necessary packages:

R

install.packages(c("here", "readxl", "dplyr", "countrycode", "ggplot2", "janitor", "tidyr"))

-Run Setup Script:   
  
Open R or RStudio and run the user\_profile.R script. This script sets up the necessary environment for the analysis, ensuring portable file paths.  
  
After that use “source("02\_scripts/run\_project.R")”

Execute the **run\_prjoect.R** script located in the **02\_scripts** folder from start to finish. And you’ll have summary table pop up and a plot--- Bar graph showing the results