Population data sources for SDG indicator calculations

7th Meeting of the Technical Cooperation Group on the Indicators for SDG 4

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Outline

1. Population data sources currently used for SDG indicator calculations

2. Comparison of population data sources

Population data currently used for SDG indicators

1) Official source of population data: Official estimates from the **United Nations Population Division (UNPD**)

2) Alternative source of population data (currently used for a selection of countries**): DEM population data** (joint data collection between UIS, OECD and Eurostat)

→ At several OECD INES Working Party Meetings, most countries expressed their preference for this data source, which better reflects their national estimates

→ 2018: UIS accepted to use DEM data for countries with:

    i. Particularly large discrepancies between UNPD and DEM data

    ii. Available DEM data for the years 2000 onwards

→ As of now, these include, Brazil, France, Ireland, Latvia, Lithuania and the United States

Ongoing analyses regarding population data sources

- 2019: Creation of a CCSA[1] Task Force to determine the most appropriate data source for SDG indicator calculations

    → Results expected to be available for the 2021 SDG data release

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1. Committee for the Coordination of Statistical Activities

1. Population data sources currently used for SDG indicator calculations

2. Comparison of population data sources

2.1. Sources of the differences between DEM, UNPD and UNSD data

2.2. Extent of the differences across data sources

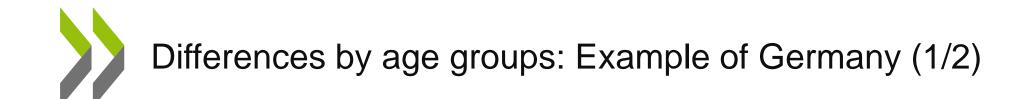# Main sources of differences across DEM, UNSD and UNPD data

	DEM	UNSD	UNPD
Reference dates	December 31st	June 30th	June 30th
Methods	Population data reported yearly by National Statistical Offices	Population data reported yearly by National Statistical Offices	Population estimates based on five-year age groups (taking into account fertility, mortality and migration)

Differences in the overall population

Difference between DEM and UNPD or UNSD:

	Lower bound	Upper bound	
	same values		
→	0.00%	0.25%	
	0.25%	0.50%	~ ¼ of countries
	0.50%	1.00%	~ ¼ of countries
→	1.00%	2.00%	
→	2.00%	100.00%	

2017	DEM	UNPD
Australia	24,598,933	24,584,619
Austria	8,772,865	8,819,902
Belgium	11,351,727	11,419,752
Brazil	206,882,729	207,833,825
Canada	36,447,341	36,732,091
Chile	18,419,192	18,470,435
Colombia	49,291,609	48,909,844
Costa Rica	4,947,490	4,949,955
Denmark	5,748,769	5,732,277
Estonia	1,315,635	1,319,389
Finland	5,503,297	5,511,372
France	66,804,121	64,842,513
Germany	82,521,653	82,658,409
Greece	10,768,193	10,569,449
Hungary	9,797,561	9,729,822
Israel	8,628,589	8,243,849
Italy	60,589,445	60,673,694
Japan	126,932,772	127,502,728
Korea	51,446,201	51,096,408
Latvia	1,950,116	1,951,097
Lithuania	2,847,904	2,845,419
Luxembourg	590,667	591,914
Mexico	122,273,473	124,777,326
Netherlands	17,081,507	17,021,343
New Zealand	5,258,317	5,296,324
Norway	4,793,920	4,702,029
Poland	37,972,964	37,953,176
Portugal	10,309,573	10,288,527
Slovak Republic	5,435,343	5,447,903
Slovenia	2,065,895	2,076,395
Spain	46,528,024	46,647,425
Sweden	9,995,153	9,904,895
Switzerland	8,419,550	8,455,797
Turkey	79,814,871	81,116,451
United Kingdom	65,844,142	66,727,463
United States	324,076,293	325,084,758

Differences by age groups: Example of Germany (1/2)

Comparison of DEM, UNPD and UNSD data for Germany (2017)

- DEM and UNSD data are similar for all individual ages, and follow the same patterns as enrolment data
- In contrast, UNPD data differs significantly from DEM for certain ages (which may reflect the smoothing by age)

Differences by age groups: Example of Germany (2/2)

Difference between DEM and UNPD:

Lower bound	Upper bound
same values	
0.00%	0.25%
0.25%	0.50%
0.50%	1.00%
1.00%	2.00%
2.00%	100.00%

Comparison of DEM and UNPD data for Germany (2017)

Age	Population	
	DEM	UNPD
5	709,649	718,251
6	725,990	715,946
7	714,614	716,201
8	733,904	718,717
9	729,770	724,282
10	715,498	733,142
11	725,080	744,636
12	741,434	757,423
13	741,827	771,251
14	754,356	786,676
15	774,861	803,669
16	817,175	821,527

Possible implications for SDG indicators: Example of Germany

Difference between DEM and UNPD:

Lower bound	Upper bound
same values	
0.00%	0.25%
0.25%	0.50%
0.50%	1.00%
1.00%	2.00%
2.00%	100.00%

Implications of differences in population data on SDG indicators calculation for Germany (2017)

Germany	Age	Population	
		DEM	UNPD
4.1.4	6-9	2,904,278	2,875,146
4.1.3	9	729,770	724,282

4.1.4. Out-of-school rate in primary education
4.1.3. Gross intake ratio to the last grade of primary education

Next steps

Next steps

- The UN Task force will continue working on identifying the most appropriate population data source for SDG indicators calculation.

- In the meantime, the UIS and OECD will continue using DEM data for Brazil, France, Ireland, Latvia, Lithuania and the United States.