

General Notes on Data

The data for the challenge have been assembled by downloading and combining publicly available data sets from various global agencies. In almost all cases, the data are broken out by country, and by time period. The latter are almost always annual, though in some cases they are less frequent. The following summaries provide more information about each indicator, including the following:

Name of the indicator – *typically a functional title*

Source – *the body that created the data set*

Time period – *the span of the data, as well as its frequency*

Unit – *typically either dollars (in the case of amounts) or percentages (in the case of change)*

Geographic Unit – *typically country, though in some cases region*

Limitations – *gaps in the data to bear in mind*

Each indicator also includes a brief description of what the numbers within it represent.

Indicators

Economic Indicators

GDP per capita

Source: World Bank, International Comparison Program

Time period: 1990-2010, Annual

Unit: Dollars

Geographic Unit: By country

Limitations: Some gaps by country and by year

GDP per capita captures a country's total economic output for a given year, divided by the population. The figures are standardized by "[purchasing power parity](#)" (PPP), a technique that allows for direct comparison of prices across countries with different currencies.

Official Development Assistance (ODA)

Source: OECD

Time period: 1990-2009, Annual

Unit: Total dollar amount

Geographic Unit: Country (region also available)

Limitations: Some gaps at country and year levels

Official development assistance is an indicator of the flow of international aid into a given country. The term "ODA" is used by the Development Assistance Committee of the OECD (DAC), and is among the most widely used formal measures of aid flows. ODA includes both grants and loans.

Trade Networks

Source: World Trade Organization

Time period: 1998 – 2009, Annual

Unit: Billions of dollars

Geographic Unit: Regional

Primary Indicator Descriptions

November 4, 2011

Limitations: None

The Trade Network data includes information on trade between regions, by product categories, and across time. To read the tables, look down the left-most column (repeated at the far right of the table) to find the product and region of origin, then read across horizontally to find the region of destination. For example, the figures circled in red/a dashed line below indicate that agricultural exports from North America to Europe were \$16.6 billion in 1998, \$14.2 billion in 1999 and \$14.7 billion in 2000.

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G29		208.513597139027														
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	Network of world trade by product and region, 1998-2000															
2	(Billion dollars)															
3	To	World			North America			Latin America			Western Europe					
5	From	1998	1999	2000	1998	1999	2000	1998	1999	2000	1998	1999	2000			
7	World															
8	Agricultural products	562.27	545.64	558.28	72.79	76.83	83.56	33.60	28.76	30.97	263.46	252.31	243.82			
9	Mining products	499.68	572.80	813.20	89.52	108.08	163.63	23.59	27.35	39.33	188.25	201.83	271.13			
10	Manufactures	4055.73	4217.26	4629.96	894.40	991.95	1124.65	243.31	228.86	266.07	1768.81	1796.68	1838.75			
11	Total exports	5297.00	5510.00	6186.00	1083.47	1206.05	1405.90	310.13	294.44	345.85	2297.11	2326.55	2437.90			
13	North America															
14	Agricultural products	101.48	99.78	105.81	29.93	32.07	33.28	14.50	13.09	13.91	16.64	14.17	14.78			
15	Mining products	52.11	53.39	76.05	29.82	30.59	50.66	5.50	5.56	8.62	7.95	8.77	7.33			
16	Manufactures	699.50	741.48	824.94	259.94	290.76	313.77	119.32	120.92	143.77	141.00	148.39	161.21			
17	Total exports	896.77	940.89	1058.10	337.02	372.92	420.56	146.26	146.83	174.06	176.07	182.29	195.32			
19	Latin America															
20	Agricultural products	65.95	61.03	66.00	17.44	17.86	21.68	12.96	10.38	11.58	19.93	18.60	18.29			
21	Mining products	47.69	57.49	73.41	21.55	28.18	34.71	10.29	12.89	17.98	8.90	8.87	11.12			
22	Manufactures	164.93	178.46	217.19	113.71	133.10	163.71	33.69	26.80	31.92	10.66	12.05	13.76			
23	Total exports	280.20	298.70	358.70	152.71	179.14	220.10	57.06	50.17	61.59	40.95	41.03	45.01			

Data is broken out by Agricultural products, mining products and manufacturing products. You can also look at the net trade flows (no products) by looking at only the "Total exports" line for a given region. For example, the figure circled in blue/the solid line indicates that North America exported a total of \$195.3 billion in products to Western Europe in 2000.

Trade Networks Country Codes

This sheet accompanies the prior sheets for Trade Networks, and includes a list of underlying countries (along with their three-letter codes) within each of the major regions. It is included here to help those who want to link the trade data with other indicators that offer information by country.

Foreign Direct Investment (FDI)

Source: International Monetary Fund

Time period: 1990-2010

Frequency: Annual

Geographic Unit: Country

Limitations: Gaps at country and year levels

Foreign direct investment, of FDI, is foreign investment used to acquire significant interests in companies and other enterprises in a given country. The figure is shown net, which means that outgoing investments *by* investors in that country are subtracted from incoming investments *into* the country.

Social Indicators

Poverty at \$1.25

Source: World Bank Development Research Group

Primary Indicator Descriptions

November 4, 2011

Time period: 1990-2009, Annual

Unit: Percentage

Geographic Unit: Country

Limitations: Significant gaps at country and year levels

This series measures the proportion of a country's population that lives on less than \$1.25 a day (at 2005 international prices). Like GDP, the figures are adjusted by purchasing power parity to remove cross-country currency effects.

Inequality measure: Share of national income going to top 10%, middle 20% and lowest 10%

Source: World Bank Development Resource Group

Time period: 1990-2010, Annual

Unit: Percentage

Geographic Unit: By country

Limitations: Gaps at country and year levels; no country has data for all years

This data set includes a list of three indicators that jointly demonstrate the level of income inequality in the country, with all three indicators stacked in the same sheet. The first set of figures show the share of national income each year that went to the top 10% of the income earners in the country. The next show the share of national income earned by the very middle of the income distribution (those in the middle 20%, or third quintile), and the final set of numbers show the share of income earned by those at the bottom of the distribution, or the lowest 10%.

As an example, in Algeria in 1995, the top 10% of the population took 26.89% of the income, while the bottom 10% of the population earned 2.87% of the income.

Water Access

Source: World Health Organization and UN Children's Fund

Time period: 1990-2008, Every 5 years

Unit: Percentage

Geographic Unit: Country and by Region

Limitations: Some gaps at country level.

This series measures the proportion of each country's population with reasonable access to an adequate amount of water. Reasonable access is defined as the availability of at least 20 liters a person a day from a source within one kilometer of the dwelling.

Undernourishment

Source: Food and Agriculture Organization Food Security Index

Time period: 1992-2007, Every 5 years

Unit: Percentage-based index (see below)

Geographic Unit: Country (regional data also available)

Limitations: There are some countries for which no information is available.

This series shows the prevalence of undernourishment as a percent of the population. Prevalence of undernourishment is measured as the percentage of the population whose food intake is insufficient to meet dietary energy requirements continuously.

Primary Indicator Descriptions

November 4, 2011

Health Expenditure

Source: World Health Organization National Health Account Database

Time period: 1995-2009, Annual

Unit: Percentage

Geographic Unit: Country (regional data also available)

Limitations: There are some countries for which no information is available.

This series shows health expenditures by year as a percent of each country's GDP for that year. The figures include both public and private health expenditure, and cover the provision of health services (preventive and curative), family planning activities, nutrition activities, and emergency aid designated for health. They do not include the provision of water and sanitation.

Literacy (by gender)

Source: United Nations Educational, Scientific, and Cultural Organization (UNESCO) Institute for Statistics

Time period: 1990- 2010, Annual

Unit: Percentage

Geographic Unit: Country

Limitations: Sporadic by country and by year

This series lists the percentage of the adult population (counted as those over 15 years old) that is literate for each country, by year. Like the primary school completion data, the sheet includes three subsets of data. The first subset in this case is literacy statistics for adult females, the second subset is for adult males, and the third covers the entire adult population.

Primary school completion (by gender)

Source: : United Nations Educational, Scientific, and Cultural Organization (UNESCO) Institute for Statistics

Time period: 1990- 2010, Annual

Unit: Percentage

Geographic Unit: Country

Limitations: Until 1998, data is fairly sporadic. For some countries, no data is available.

This series lists the percentage of the relevant age group which has completed primary school (the equivalent of 7th grade in the US) by country. It is calculated by taking the total number of students in the last grade of primary school, minus the number of repeaters in that grade, divided by the total number of children of official graduation age. The figures can be greater than 100% in cases where students begin grades at different ages.

Like literacy, the sheet listed is the percentage of the relevant female population, second is the percentage of the relevant male population, and third is the percentage of the relevant total population.

Unemployment (by gender)

Source: International Labour Organization

Time period: 1990-2010, Annual

Unit: Percentage

Geographic Unit: Country

Limitations: Gaps at country and year levels

Primary Indicator Descriptions

November 4, 2011

This series shows the level of unemployment as a percent of the female and male labor forces, respectively, within each country over time. Unemployment, as defined by the ILO, is the percentage of the population seeking work, but not currently employed.

Telephone Lines

Source: World Bank, drawing on various other bodies

Time period: 1990- 2010, Annual

Unit: Ratio per 100 people

Geographic Unit: Country

Limitations: Scattered countries with no data and gaps in some countries

This series measures the number of telephone lines per 100 people. Telephone lines are fixed telephone lines that connect a subscriber's terminal equipment to the public switched telephone network and that have a port on a telephone exchange. Integrated services, digital network channels and fixed wireless subscribers are included.

This series can be treated as a percentage since it is the ratio per 100 people, though in cases of widespread telephone use (meaning, in countries where individuals may have more than one phone) the number will be greater than 100%.

Mobile Cellular Subscriptions

Source: World Bank, drawing on various other bodies

Time period: 1990- 2010, Annual

Unit: Ratio per 100 people

Geographic Unit: Country

Limitations: Scattered countries with no data and gaps in some countries.

This series measures the mobile cellular telephone subscriptions per 100 people. Mobile cellular subscriptions are subscriptions to a public mobile telephone service using cellular technology, which provides access to the public switched telephone network. Post-paid and prepaid subscriptions are included.

This series can be treated as a percentage since it is the ratio per 100 people, though in cases of widespread telephone use (meaning, in countries where individuals may have more than one phone) the number will be greater than 100%.

Internet Users

Source: World Bank, drawing on various other bodies including International Telecommunication Union, World Telecommunication/ICT Development Report and database, and World Bank estimates

Time period: 1990- 2010, Annual

Unit: Ratio per 100 people

Geographic Unit: Country

Limitations: Scattered countries with no data and gaps in some countries. Data in early 1990s is sparse.

This series measures the number of Internet users per 100 people. This series can be treated as a percentage since it is the ratio per 100 people.

Primary Indicator Descriptions

November 4, 2011

Environmental Indicators

CO2 Emissions

Source: Carbon Dioxide Information Analysis Center, Oak Ridge National Laboratory

Time period: 1990– 2007, Annual

Unit: Metric tons per capita

Geographic Unit: Country (region also available)

Limitations: Some scattered countries missing data, otherwise largely complete through 2007 (2008 – 2010 not available)

Carbon dioxide (CO₂) emissions are a primary measure of environmental pollution, and are included here measured in metric tons per capita (or, a given country's total emissions divided by its population in the year in question). The emissions captured in this series result from the burning of fossil fuels and the manufacture of cement, and include carbon dioxide produced during consumption of solid, liquid, and gas fuels and gas flaring.

Forest Cover

Source: FAO Global Forest Resources Assessment 2010

Time period and units:

- Area (total hectares of forest cover) in 1990, 2000, 2005 and 2010
- Rates of change (%) for 1990 – 2000, 2000 – 2005 and 2005 – 2010

Geographic Unit: Country (region also available)

Limitations: Some scattered countries missing data, and some differences in number of countries relative to other data series

This series lists the total area of forest cover in each country (please note it is not adjusted by the size of the country) for each of four years, when available, as well as the percentage rate of change from one observation to the next. Rather than measuring deforestation directly, this series can be used to derive it by comparing the forested area of a country over time and/or by examining the rate of change in that area over time.

Fish Capture

Source: FAO Fisheries and Aquaculture Department

Time period: 1990-2009, Annual

Units: in Tonnes

Geographic Unit: Body of water, divided by region (see description below)

Limitations: Data coverage is comprehensive by year

Like deforestation, this series captures depletion indirectly by measuring overall catches annually. The original data set includes catches broken out by year, and by body of water. That level of data is collapsed here into a more concise set that includes all fish captured by year in each of the following areas:

- Inland water (e.g. the Japanese sea, the Great Lakes, etc.) by continent
- Indian Ocean, by East, West, Antarctic
- Atlantic Ocean by region
- Pacific Ocean by region
- Mediterranean and Black Seas

Primary Indicator Descriptions

November 4, 2011

Fish captured through aquaculture and mariculture (meaning, fish raised for harvest) are excluded. Please note also that some areas categorized as “Inland” may have some overlap with seas or oceans, including the Japanese sea.

Demographic Indicators

Population

Source: United Nations, Department of Economic and Social Affairs, Population Division: world
Population Prospects DEMOBASE extract, 2011

Time period: 1990-2010, Annual

Unit: Number of people, in thousands

Geographic Unit: Country

Limitations: Comprehensive

This is the total number of people by country in thousands.

Population of Children (0-14 years)

Source: United Nations, Department of Economic and Social Affairs, Population Division: world
Population Prospects DEMOBASE extract, 2011

Time period: 1990- 2010, Annual

Unit: Number of children, in thousands

Geographic Unit: Country

Limitations: Comprehensive

This series measures the number of each country’s population that is between the ages of 0 and 14 at as of July 1. (This may be more easily represented as a proportion of the population, by dividing a given year/country cell by its counterpart in the population data, since both are measured in thousands).

Population of Youth (15-24 years)

Source: United Nations, Department of Economic and Social Affairs, Population Division: world
Population Prospects DEMOBASE extract, 2011

Time period: 1990- 2010, Annual

Unit: Number of children, in thousands

Geographic Unit: Country

Limitations: Comprehensive

This series measures the number of each country’s population that is between the ages of 15 and 24, measured in thousands. (This may be more easily represented as a proportion of the population, by dividing a given year/country cell by its counterpart in the population data, since both are measured in thousands).

Urbanization

Source: World Bank, United Nations World Urbanization Prospects

Time period: 1990- 2010, Annual

Unit: Percentage

Geographic Unit: Country

Limitations: Rare country with no data, otherwise complete

Primary Indicator Descriptions

November 4, 2011

This series measures the percentage of each country's population that lives in urban areas, and is calculated using World Bank population estimates and urban ratios from the United Nations World Urbanization Prospects.

World Indicators

These indicators are a compilation of the all of the other indicators, using the world as the geographic unit.