

AS Level Mathematics B (MEI) H630/02 Pure Mathematics and Statistics

A Level Mathematics B (MEI) H640/02 Pure Mathematics and Statistics

Large Data Set 1

1. Introduction

The Large Data Set (LDS) consists of data about countries from the CIA World Factbook. Links are provided below to the data in their original form.

2. CIA World Factbook

The CIA World Factbook is a collection of data for US policymakers. The latest version can be found at: <https://www.cia.gov/library/publications/the-world-factbook/>

The data in this Large Data Set may have been updated online since created. Individual data entries in the CIA World Factbook give the date on which the data value was either estimated or measured.

The data in the Large Data Set is a subset of the data available in the CIA World Factbook. The table below shows the fields available in the Large Data Set and gives further information about each field. Further detail is available online in the World Factbook. All countries for which the CIA World Factbook has population data have been included; Europe has not been included as it is not a single country but some of the countries in the Large Data Set with small populations are not independent countries.

If a particular data value is not available, the code #N/A has been included in the Large Data Set – this is to prevent some software reading a blank as a zero.

Field	Further Information
Country	The country name is the official name used in the US. Not all countries included in the database are independent states.
Sub region	This entry gives the location of the country in a region of the world using the regions from the CIA World Factbook.
population	This entry gives an estimate from the US Bureau of the Census based on statistics from population censuses, vital statistics registration systems, or sample surveys pertaining to the recent past and on assumptions about future trends. The total population presents one overall measure of the potential impact of the country on the world and within its region
birth rate per 1000	This entry gives the average annual number of births during a year per 1,000 persons in the population at midyear; also known as crude birth rate. The birth rate is usually the dominant factor in determining the rate of population growth. It depends on both the level of fertility and the age structure of the population.

Field	Further Information
death rate per 1000	This entry gives the average annual number of deaths during a year per 1,000 population at midyear; also known as crude death rate. The death rate, while only a rough indicator of the mortality situation in a country, accurately indicates the current mortality impact on population growth. This indicator is significantly affected by age distribution, and most countries will eventually show a rise in the overall death rate, in spite of continued decline in mortality at all ages, as declining fertility results in an ageing population.
median age	This entry is the age that divides a population into two numerically equal groups; that is, half the people are younger than this age and half are older. It is a single index that summarizes the age distribution of a population.
life expectancy at birth	This entry contains the average number of years to be lived by a group of people born in the same year, if mortality at each age remains constant in the future. Life expectancy at birth is also a measure of overall quality of life in a country and summarizes the mortality at all ages. It can also be thought of as indicating the potential return on investment in human capital and is necessary for the calculation of various actuarial measures.
labor force	This is the total labor force in a country; it is often estimated.
unemployment (%)	This is the percentage of the labor force who do not have jobs; this is often estimated.
GDP per capita (US\$)	This entry shows GDP on a purchasing power parity basis divided by population as of 1 July for the same year. GDP is a measure of all the goods and services produced within a nation in a year. Purchasing power parity measures the GDP in dollars based on comparing prices between the country and the US rather than using the official exchange rate between currencies.
physician density (physicians/1000 population)	This entry gives the number of medical doctors (physicians), including generalist and specialist medical practitioners, per 1,000 of the population. Medical doctors are defined as doctors that study, diagnose, treat, and prevent illness, disease, injury, and other physical and mental impairments in humans through the application of modern medicine. They also plan, supervise, and evaluate care and treatment plans by other health care providers. The World Health Organization estimates that fewer than 2.3 health workers (physicians, nurses, and midwives only) per 1,000 would be insufficient to achieve coverage of primary healthcare needs.
Health expenditure (% of GDP)	This entry provides the total expenditure on health as a percentage of GDP. Health expenditures are broadly defined as activities performed either by institutions or individuals through the application of medical, paramedical, and/or nursing knowledge and technology, the primary purpose of which is to promote, restore, or maintain health.
Total area	<i>Total area</i> is the sum of all land and water areas (in square kilometres) delimited by international boundaries and/or coastlines.
Land area	<i>Land area</i> is the aggregate of all surfaces delimited by international boundaries and/or coastlines (in square kilometres), excluding inland water bodies (lakes, reservoirs, rivers).
Water area	<i>Water area</i> is the sum of the surfaces of all inland water bodies, such as lakes, reservoirs, or rivers, as delimited by international boundaries and/or coastlines (in square kilometres).
Land borders	This entry provides information on whether or not the country has land borders with other countries. Only borders with other countries in the list are included. For example, Cuba has a land border with the US Naval Base at Guantanamo Bay but that is not included because Guantanamo Bay is not a country.
Dependency status	This entry describes the formal relationship between a particular nonindependent entity and an independent state