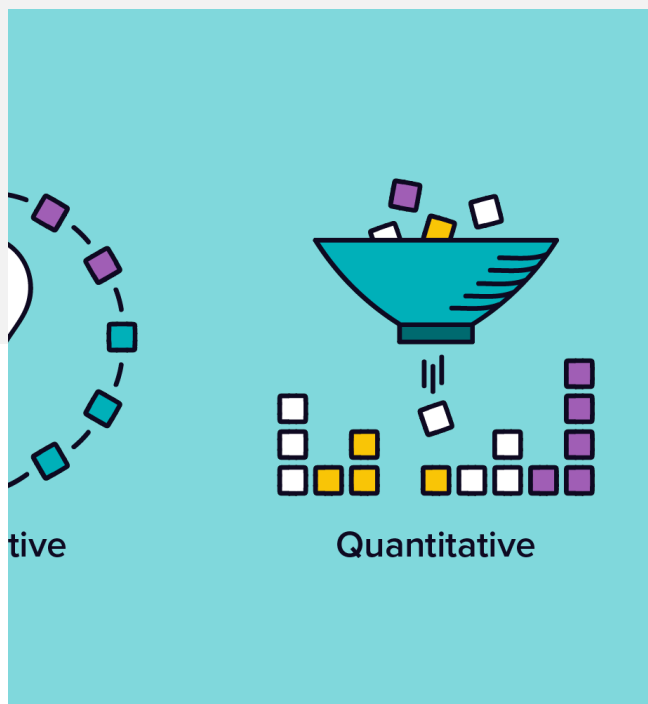
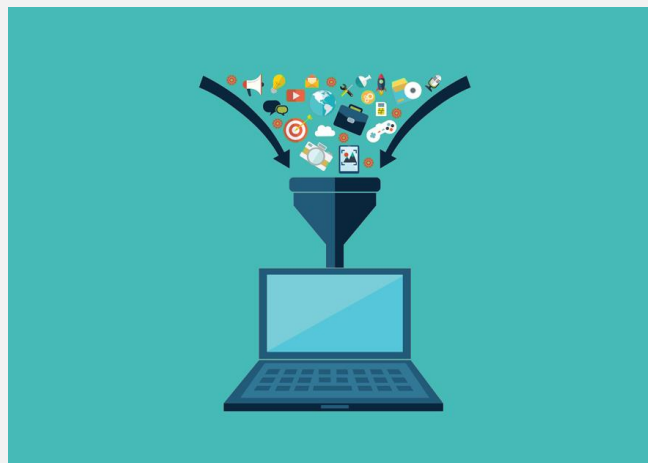


ΠΑΝΕΠΙΣΤΗΜΙΟ ΠΕΙΡΑΙΩΣ
UNIVERSITY OF PIRAEUS

Μέθοδοι Λήψεως Αποφάσεων

Πανεπιστήμιο Πειραιώς
Τμήμα Διεθνών και Ευρωπαϊκών Σπουδών

Νικολέττα Κοντούλη
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Νοέμβριος 2021

*It is a very sad thing that nowadays
there is so little useless information*

Oscar Wilde (1854-1900)

Τύποι Δεδομένων

Τα **πρωτογενή δεδομένα** προέρχονται από έναν ερευνητή για τους σκοπούς μιας συγκεκριμένης ερευνητικής εργασίας

Απαιτείται μεγάλο χρονικό διάστημα για τη συλλογή τους

Είναι συχνά πιο ακριβά στην παραγωγή

Τα **δευτερεύοντα δεδομένα** είναι συνήθως ποσοτικής φύσης

Συλλέγονται για σκοπούς άλλους από αυτούς του ερευνητή που έχει πρόσβαση σε αυτά

Χρησιμοποιούνται συχνά από πολλούς ερευνητές

Δευτερογενή Δεδομένα (Secondary Data)

Η δευτερογενής έρευνα είναι μια ερευνητική μέθοδος που περιλαμβάνει τη χρήση ήδη υπαρχόντων δεδομένων

Τα υπάρχοντα δεδομένα συνοψίζονται και ταξινομούνται για να αυξήσουν τη συνολική αποτελεσματικότητα της έρευνας

Περιλαμβάνει ερευνητικό υλικό που δημοσιεύεται σε ερευνητικές εκθέσεις και παρόμοια έγγραφα

Αυτά τα έγγραφα μπορούν να διατίθενται από δημόσιες βιβλιοθήκες, ιστότοπους, δεδομένα που λαμβάνονται από ήδη συμπληρωμένες έρευνες κ.λπ.

Πλεονεκτήματα δευτερογενών δεδομένων

Χαμηλό κόστος

Άμεσα διαθέσιμα

Δωρεάν ή με χαμηλό χρηματικό κόστος

Πηγή ιδεών

Διατύπωση του ερευνητικού ερωτήματος

Εμβάθυνση στο θέμα

Μέθοδοι διερεύνησης, μέτρησης, συλλογής και ανάλυσης δεδομένων

Σημείο αναφοράς για συγκρίσεις

Εξέλιξη ή μεταβολή ενός χαρακτηριστικού

«Επαλήθευση» πρωτογενών δεδομένων

Εγκυρότητα δευτερογενών δεδομένων

Πρωτογενής πηγή

Ποιος είναι ο φορέας συλλογής των δεδομένων;

Τι «συμφέροντα» έχει;

Πόσο «ικανή» είναι στη συλλογή και ανάλυση;

Σκοπός δημοσίευσης

Ποιος ήταν ο στόχος της συλλογής των δεδομένων;

Ποιο ερευνητικό ερώτημα εξυπηρετούν;

Είδη δευτερογενών δεδομένων

Εσωτερικά

Στοιχεία που έχουν συλλεγεί από τον ίδιο οργανισμό για διαφορετικό σκοπό στο παρελθόν

Εξωτερικά

Μη εμπορικές δημοσιεύσεις

Εκθέσεις-Μελέτες διεθνών οργανισμών

Πανεπιστημιακές-κυβερνητικές μελέτες

Εμπορικές δημοσιεύσεις

Περιοδικές

Ακαδημαϊκές δημοσιεύσεις-ανακοινώσεις

Source	Contents	Link
British Petroleum (BP)	The BP Statistical Review of World Energy contains data on: primary energy; oil; natural gas; coal; nuclear energy; hydroelectricity; renewable energy; electricity and CO ₂ emissions.	https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy.html
Central Intelligence Agency (CIA)	The CIA World Factbook contains data on: geography; people and society; government; economy; communications; transportation; military and security; terrorism and transnational issues. Especially on energy issues, it contains data on: electricity; crude oil; refined petroleum; natural gas; and CO ₂ emissions from energy consumption. Country information much qualitative information in each category, so this source would be a good complement to case studies.	https://www.cia.gov/library/publications/the-world-factbook/
International Energy Agency (IEA) 2022-02-07	The IEA Atlas of Energy contains data on: CO ₂ emissions from fuel combustion; electricity; oil; coal; natural gas and renewables. In addition, it contains energy indicators and energy balance data.	http://energyatlas.iea.org/#!/topic/DEFAULT

Source	Contents	Link
Organisation for Economic Co-operation and Development (OECD)	The OECD database contains data on: agriculture; development; economy; education; energy; environment; finance; government; health; innovation and technology; jobs and society. Energy data include: CO ₂ emissions; natural gas; oil; coal; renewables; electricity; energy prices and taxes; and world energy statistics.	http://www.oecd.org/statistics/listofocddatabases.htm https://data.oecd.org/searchresults/?r=%2Bf%2Ftype%2Findicators&r=%2Bf%2Ftopics_en%2Fenergy
United Nations Development Program (UNDP)	The Human Development Reports contains data on: health; education; income/composition of resources; inequality; gender; poverty; work; employment and vulnerability; human security; trade and financial flows; mobility and communication; environmental sustainability and demography. The Human Development Report Office releases five indices each year: the Human Development Index (HDI), the Inequality-Adjusted Human Development Index (IHDI), the Gender Development Index (GDI), the Gender Inequality Index (GII), and the Multidimensional Poverty Index (MPI).	http://hdr.undp.org/en/countries
United Nations (UN) Data 2022-02-07	Contains data on most countries of the world, including: general information; economic indicators; major trading partners; social indicators; environment and infrastructure indicators; and some energy data.	http://data.un.org/en/index.html https://unstats.un.org/unsd/energy/default.htm

Source	Contents	Link
World Bank Open Data	Contains many development data sets on: agriculture and rural development; aid effectiveness; climate change; economy and growth; education; environment; energy and mining; external debt; financial sector; gender; health; infrastructure; poverty; private sector; public sector; science and technology; social development; social protection and labor; and trade and urban development.	https://data.worldbank.org https://data.worldbank.org/indicator?tab=all https://data.worldbank.org/country
World Data Atlas	These data contain data on: agriculture; climate statistics; demographics; economy; education; environment; food security; foreign trade; health; land use; national defense; poverty; research and development; telecommunication; tourism; transportation; water and world rankings. Data include indicators on total energy, electricity, renewables, oil; gas and coal.	https://knoema.com/atlas https://knoema.com/atlas/topics/Energy

Energy Data

British Petroleum (BP)



Year in review

Growth in energy markets slowed in 2019 in line with weaker economic growth and a partial unwinding of some of the one-off factors that boosted energy demand in 2018

Statistical Review of World Energy

PDF / 7.2 MB



Statistical Review of World Energy – all data, 1965-2019

XLSX / 2.9 MB



All other downloads



On this page

Primary energy and carbon emissions



Natural gas consumption and production



Coal consumption and production



Hydroelectricity and nuclear



Oil



Natural gas trade



Coal trade



Electricity



Refining and trade



Natural gas prices



Renewables



Key minerals



<https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy.html>

Energy Data

The World Factbook (CIA Factbook)



The World Factbook provides basic intelligence on:

History; People; Government; Economy; Energy; Geography;
Environment; Communications; Transportation; Military; Terrorism

Transnational issues for 266 world entities

Country information much qualitative information in each category, so this source would be a good complement to case studies

<https://www.cia.gov/the-world-factbook/>

Energy Data International Energy Agency (IEA)



The IEA *Atlas of Energy* contains data on:

CO₂ emissions from fuel combustion; electricity; oil; coal; natural gas and renewables.

It contains energy indicators and energy balance data

<https://www.iea.org>

<https://www.iea.org/data-and-statistics>

<http://energyatlas.iea.org/-!/topic/DEFAULT>

Energy Data

International Renewable Energy Agency



Mission: Supporting countries in their transition to a sustainable energy future

Annual reviews of renewable energy employment;

<https://www.irena.org/publications/2016/May/Renewable-Energy-and-Jobs--Annual-Review-2016>

Renewable energy capacity statistics;

<https://www.irena.org/publications/2016/Mar/Renewable-Capacity-Statistics-2016>

Renewable energy cost studies;

<https://www.irena.org/costs>

Renewable Readiness Assessments, conducted in partnership with governments and regional organisations, to help boost renewable energy development on a country by country basis;

<https://www.irena.org/publicationsearch?initiative=7c1c6e32deb6440cb76c0287a1d5605f>

The Global Atlas, which maps resource potential by source and by location;

<https://www.irena.org/globalatlas>

Remap, a roadmap to double renewable energy use worldwide by 2030;

<https://www.irena.org/REmap>

<https://www.irena.org/>

Organisation for Economic Co-operation and Development (OECD)



OECD iLibrary is the online library of the Organisation for Economic Cooperation and Development (OECD) featuring its **books**, **papers** and **statistics** and is the gateway to OECD's analysis and data.

OECD iLibrary also contains content published by the International Energy Agency (IEA), the Nuclear Energy Agency (NEA), the OECD Development Centre, PISA (Programme for International Student Assessment), and the International Transport Forum (ITF).

OECD database contains data on:

agriculture; development; economy; education; energy; environment; finance; government; health; innovation and technology; jobs and society. Energy data include: CO₂ emissions; natural gas; oil; coal; renewables; electricity; energy prices and taxes; and world energy statistics

https://www.oecd-ilibrary.org/energy/data/energy-projections-for-iea-countries_eneforec-data-en?_ga=2.242393666.1369588512.1621320943-382504914.1621320943

Energy Data

United Nations Development Programme



The *Human Development Reports* contains data on:

health; education; income/composition of resources; inequality; gender; poverty; work; employment and vulnerability; human security; trade and financial flows; mobility and communication; environmental sustainability and demography

The Human Development Report Office releases five indices each year:

Human Development Index (HDI), Inequality-Adjusted Human Development Index (IHDI), Gender Development Index (GDI), Gender Inequality Index (GII), and Multidimensional Poverty Index (MPI)

<http://www.hdr.undp.org/>

Energy Data

United Nations (UN) Data



Is a web-based data service for the global user community

Users can search and download a variety of statistical resources compiled by the United Nations (UN) statistical system and other international agencies

The numerous databases or tables collectively known as "datamarts" contain over 60 million data points and cover a wide range of statistical themes including: agriculture, crime, communication, development assistance, education, energy, environment, finance, gender, health, labour market, manufacturing, national accounts, population and migration, science and technology, tourism, transport and trade

<http://data.un.org/en/index.html>

<https://unstats.un.org/unsd/energy/default.htm>

Energy Data

World Bank Open Data



Databank is an analysis and visualisation tool that contains collections of time series data on a variety of topics

World Development Indicators (WDI) is the primary World Bank collection of development indicators, compiled from officially recognized international sources

Contains many development data sets on:

agriculture and rural development; aid effectiveness; climate change; economy and growth; education; environment; energy and mining; external debt; financial sector; gender; health; infrastructure; poverty; private sector; public sector; science and technology; social development; social protection and labor; and trade and urban development

<https://data.worldbank.org>

<https://data.worldbank.org/indicator?tab=all>

<https://data.worldbank.org/country>

Energy Data World Data Atlas

Knoema compresses the complex data discovery to analysis workflow from countless hours to minutes, saving clients time, energy and budget in utilizing data to reach their analysis and business goals, all in one comprehensive platform suitable for technical and non-technical professionals alike

These data contain data on:

agriculture; climate statistics; demographics; economy; education; environment; food security; foreign trade; health; land use; national defense; poverty; research and development; telecommunication; tourism; transportation; water and world rankings

Data include indicators on total energy, electricity, renewables, oil; gas and coal

<https://knoema.com/atlas>

<https://knoema.com/atlas/topics/Energy>

Eurostat Database

Eurostat is the statistical office of the European Union

Mission: Provide high quality statistics and data on Europe

Values

- Show respect for our staff, partners and users

- Strive for excellence in everything we do

- Drive innovation in official statistics

- Promote service orientation

- Uphold professional independence

Eurostat produces European statistics in partnership with National Statistical Institutes and other national authorities in the EU Member States

This partnership is known as the [European Statistical System \(ESS\)](#)

It includes the statistical authorities of the European Economic Area (EEA) countries and Switzerland



<https://ec.europa.eu/eurostat/data/database>

Our World in Data

Our World
in Data

Research and data to make progress against the world's largest problems

Demographic Change ▶	Biodiversity	Indoor Air Pollution
Health ▶	Access to Energy	Ozone Layer
Food and Agriculture ▶	Energy	Clean Water
Energy and Environment ▶	Renewable Energy	Sanitation
Innovation and Technological Change ▶	Fossil Fuels	Water Use and Stress
Poverty and Economic Development ▶	Plastic Pollution	Environmental impacts of food production
Living conditions, Community and Wellbeing ▶	Oil Spills	Forests and Deforestation
Human rights and Democracy ▶	CO ₂ and Greenhouse Gas Emissions	Land Use
Violence and War ▶	Air Pollution	Natural Disasters
Education and Knowledge ▶	Outdoor Air Pollution	

<https://ourworldindata.org>

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2	1	Cairo	Egypt	Africa	1	0	0	0	0		276	30,039	30,039	31,239	17.266	18.419	19.230	20.076,000	9,907																												
3	2	Kinshasa	Congo (Democratic Republic)	Africa	1	0	0	0	0		27	-4,328	4,328	15,314	9.788	11.116	12.100	13.171,000	9,486																												
4	3	Lagos	Nigeria	Africa	1	0	0	0	0		171	6,453	6,453	3,396	10.778	11.856	14.508	13.463,000	9,508																												
5	4	Bangkok	Thailand	Asia	0	1	0	0	0	174	2.130	13,722	13,722	100,525	8.484	9.164	9.648	10.156,000	9,226																												
6	5	Beijing	China	Asia	0	1	0	0	0	132	1.930	39,908	39,908	116,397	16.938	18.039	18.812	19.618,000	9,884																												
7	6	Bengaluru	India	Asia	0	1	0	0	0		396	12,972	12,972	77,594	8.636	9.742	10.557	11.440,000	9,345																												
8	7	Chennai	India	Asia	0	1	0	0	0		120	13,053	13,053	80,249	8.728	9.431	9.930	10.456,000	9,255																												
9	8	Chongqing	China	Asia	0	1	0	0	0	163	1.838	29,563	29,563	106,553	11.640	12.916	13.844	29.914,000	10,306																												
10	9	Dhaka	Bangladesh	Asia	0	1	0	0	0		436	23,710	23,710	90,407	15.264	16.982	18.234	19.578,000	9,882																												
11	10	Guangzhou	China	Asia	0	1	0	0	0	178	1.125	23,125	23,125	113,257	10.546	11.396	12.002	12.638,000	9,444																												
12	11	Istanbul	Turkey	Asia	0	1	0	0	0	123	3.856	41,014	41,014	28,950	13.058	13.902	14.332	14.751,000	9,599																												
13	12	Jakarta	Indonesia	Asia	0	1	0	0	0	414	1.323	-6,212	6,212	106,842	9.733	10.061	10.287	10.517,000	9,261																												
14	13	Karachi	Pakistan	Asia	0	1	0	0	0		113	24,906	24,906	67,082	12.931	13.937	14.651	15.400,000	9,642																												
15	14	Kolkata	India	Asia	0	1	0	0	0	21	668	22,533	22,533	88,356	14.086	14.338	14.508	14.681,000	9,594																												
16	15	Lahore	Pakistan	Asia	0	1	0	0	0		37	31,550	31,550	74,344	8.788	9.949	10.808	11.738,000	9,371																												
17	16	Manila	Philippines	Asia	0	1	0	0	0	16	349	14,604	14,604	120,982	12.076	12.659	13.064	13.482,000	9,509																												
18	17	Mumbai	India	Asia	0	1	0	0	0	148	3.492	19,074	19,074	72,881	18.464	19.099	19.535	19.980,000	9,902																												
19	18	New Delhi	India	Asia	0	1	0	0	0		109	28,667	28,667	77,217	22.714	25.039	26.720	28.514,000	10,258																												
20	19	Osaka	Japan	Asia	0	1	0	0	0	91	1.957	34,676	34,676	135,554	19.336	19.313	19.297	18.658,000	9,834																												
21	20	Seoul	South Korea	Asia	0	1	0	0	0	163	18.516	37,568	37,568	126,978	10.040	9.775	9.835	9.963,000	9,207																												
22	21	Shanghai	China	Asia	0	1	0	0	0	426	1.792	31,222	31,222	121,458	20.948	22.821	24.163	25.582,000	10,150																												
23	22	Shenzhen	China	Asia	0	1	0	0	0	353	1.716	22,541	22,541	114,063	10.484	11.072	11.483	11.908,000	9,385																												
24	23	Tehran	Iran	Asia	0	1	0	0	0			35,694	35,694	51,422	8.154	8.352	8.694	8.896,000	9,093																												
25	24	Tianjin	China	Asia	0	1	0	0	0	58	578	39,109	39,109	117,189	10.570	11.998	12.869	13.215,000	9,489																												
26	25	Tokyo	Japan	Asia	0	1	0	0	0	406	7.036	35,690	35,690	139,692	36.976	37.186	37.327	37.468,000	10,531																												
27	26	London	United Kingdom	Europe	0	0	1	0	0	335	3.860	51,509	51,509	-0,126	8.134	10.189	8.718	9.046,000	9,110																												
28	27	Moscow	Russian Federation	Europe	0	0	1	0	0	231	13.173	55,755	55,755	37,622	11.584	11.931	12.168	12.410,000	9,426																												
29	28	Paris	France	Europe	0	0	1	0	0		2.043	48,853	48,853	2,349	10.514	10.678	10.789	10.901,000	9,297																												
30	29	Los Angeles	United States	North America	0	0	0	1	0	112	2.195	34,032	34,032	-118,242	12.197	12.308	12.383	12.458,000	9,430																												
31	30	New York	United States	North America	0	0	0	1	0	1,572	727.410	40,717	40,717	-74,004	18.421	18.591	18.705	18.819,000	9,843																												
32	31	Bogota	Colombia	South America	0	0	0	0	1	17	1.308	4,610	4,610	-74,082	8.661	9.435	9.989	10.574,000	9,266																												
33	32	Buenos Aires	Argentina	South America	0	0	0	0	1	82	3.634	-34,605	34,605	-58,400	14.364	14.620	14.792	14.967,000	9,614																												
34	33	Lima	Peru	South America	0	0	0	0	1		1.029	-12,043	12,043	-77,028	9.092	9.627	10.002	10.391,000	9,249																												
35	34	Mexico City	Mexico	South America	0	0	0	0	1	120	1.748	19,427	19,427	-99,142	20.372	21.094	21.420	12.294,000	9,417																												
36	35	Rio de Janeiro	Brazil	South America	0	0	0	0	1	65	3.258	-22,903	22,903	-43,208	12.485	12.825	13.057	13.293,000	9,495																												
37	36	Sao Paulo	Brazil	South America	0	0	0	0	1		8.297	-23,548	23,548	-46,636	19.902	20.633	21.136	21.650,000	9,983																												
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Ευχαριστώ για την προσοχή σας 😊