### **Data Sources**

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September 3, 2024

## Data Sources

- Survey data
- Administrative data
- Firm-level data
- Country-level data
- Government Open data
- Geographical data
- Journal data archives
- Other data source

# Survey Data: Cross-sectional Data

- General information for Taiwan survey data
  - Survey Research Data Archive (Academia Sinica): https://srda.sinica.edu.tw/
- General information for US survey data
  - IPUMS (University of Minnesota): https://www.ipums.org/

- Taiwan (cross-sectional data)
  - Population and Housing Census (戶口及住宅普查):
     https://srda.sinica.edu.tw/datasearch\_detail.php?id=
     205
  - Firm Census (工業及服務業普查):
    https://srda.sinica.edu.tw/browsingbydatatype\_result.
    php?category=surveymethod&type=4&typeb=007&csid=53
  - Agricultural, Forestry, Fishery and Husbandry Census (農林漁 牧業普查):
     https://srda.sinica.edu.tw/browsingbydatatype\_result.
     php?category=surveymethod&type=4&typeb=007&csid=51

- Taiwan (cross-sectional data)
  - Manpower Utilization Survey: https://srda.sinica.edu.tw/ datasearch\_detail.php?id=2826
  - Survey of Family Income and Expenditure: https://srda. sinica.edu.tw/datasearch\_detail.php?id=2850
  - Taiwan Social Change Survey: https://srda.sinica.edu. tw/datasearch\_detail.php?id=2822

戶口及住宅普查

Website:

https://srda.sinica.edu.tw/datasearch\_detail.php?id= 205

- Observation unit: individual
- **Frequency**: 1960-2010, every 10 year
- Key variables: age, occupation, living township, marital status, disability status, housing size
- It does not have English version.
- Only faculty member at Academia Sinica can download it. Let me know if you want to use it

### Firm Census

#### 工業及服務業普查

#### Website:

https://srda.sinica.edu.tw/browsingbydatatype\_result.php?category=surveymethod&type=4&typeb=007&csid=53

- Observation unit: firm / village
- Frequency: 1981-2016, every 5 year
- Key variables: Number of employees, Payroll expenses, Land area, and Total production value
- It does not have English version.
- Only faculty member at Academia Sinica can download it. Let me know if you want to use it

### Agricultural, Forestry, Fishery and Husbandry Census 農林漁牧業普查

#### • Website:

https://srda.sinica.edu.tw/browsingbydatatype\_result.php?category=surveymethod&type=4&typeb=007&csid=51

- Observation unit: individual / village
- **Frequency**: 1970-2020, every 5 year
- Key variables: gender of agricultural and livestock household managers, their age, educational level, the number of days engaged in personal farming and livestock activities,
- It does not have English version.
- Only faculty member at Academia Sinica can download it. Let me know if you want to use it

# Manpower Utilization Survey

Website:

https://srda.sinica.edu.tw/datasearch\_detail.php?id= 2826

- Observation unit: individual (above age 15)
- **Frequency**: 1976-now, every year (May)
- Key variables: age, occupation, industry, monthly wage, working hour, part-time job, firm size, number of children by children's age, employment status, unemployment reason
- Labor force survey
- It has English version.

# Survey of Family Income and Expenditure

- Website: https://srda.sinica.edu.tw/datasearch\_detail. php?id=2850
- Observation unit: household
- Frequency: 1976-now, every year
- Key variables: household income, household income by family members, household expenditure
- It has English version.

# Taiwan Social Change Survey

- Website: https://srda.sinica.edu.tw/datasearch\_detail. php?id=2822
- Observation unit: individual
- Frequency: 1980-now, every year
- Key variables: marital status, occupation, industry, monthly wage, birth year, birth month, many questions about an respondent's opinion on politics, social issue, religion
- It has English version.

- United States (cross-sectional data)
  - US Census Data: https://usa.ipums.org/usa
  - Current Population Survey (CPS): https://cps.ipums.org/ cps
  - American Time Use Survey (ATUS): https://www.atusdata.org/atus
     https://www.ahtusdata.org/ahtus
  - National Health Interview Survey (NHIS): https://ihis.ipums. org/ihis
  - IPUMS Higher Education Survey: https://highered.ipums. org/highered

# Current Population Survey (CPS)

• Website: https://cps.ipums.org/cps

- Observation unit: individual and household
- Frequency: 1962-now, every year
- Key variables: age, occupation, marital status, migration, wage, disability, tax, health insurance, education

# American Time Use Survey (ATUS)

Website:

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https://www.atusdata.org/atus
https://www.ahtusdata.org/ahtus
```

- Observation unit: activity, individual and household
- Frequency: 2003-now, every year
- Key variables: time use on each activity
- Select one family member in CPS household and ask them about their time use (24 hour) on specific date
- This survey can link with CPS to get more information

# National Health Interview Survey (NHIS)

Website:

https://ihis.ipums.org/ihis

- Observation unit: individual and household
- Frequency: 1960-now, every year
- Key variables: health condition, mortality, health behavior, healthcare use

# **IPUMS Higher Education Survey**

Website:

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https://ihis.ipums.org/ihis
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• Observation unit: individual and household

• Frequency: 1993-now, every year

• Key variables: education, employment, income, work history

#### **Developed Countries**

- Other countries (cross-sectional data)
  - Census data from other countries: https://international.ipums.org/international/
  - North Atlantic Population Project: https://www.nappdata. org/napp/
    - Census microdata from Canada, Denmark, Great Britain, Germany, Iceland, Norway, Sweden, and the United States from 1703 to 1911
  - Multinational Time Use Study: https://www.mtusdata.org/ mtus/

#### **Developed Countries**

- Other countries (cross-sectional data)
  - Luxembourg Income Study Database (LIS)
     http://www.lisdatacenter.org/our-data/lis-database/
    - The largest available income database of harmonised microdata collected from about 50 countries spanning five decades.
  - Codebook:
     http://www.lisdatacenter.org/wp-content/uploads/files/data-lis-variables.pdf
  - Labour income, capital income, pensions, public social benefits (excl. pensions) and private transfers, as well as taxes and contributions, demography, employment, and expenditures

#### **Developed Countries**

- Other countries (cross-sectional data)
  - Luxembourg Wealth Study Database (LWS)
     http://www.lisdatacenter.org/our-data/lws-database/
    - The first cross-national wealth database in existence. Harmonized into a common framework
  - Codebook:

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http://www.lisdatacenter.org/wp-content/uploads/files/data-lws-variables.pdf
```

 Assets and debt, market and government income, household characteristics, labour market outcomes and, in some datasets, expenditures and behavioural indicators

#### **Developed Countries**

- Other countries (cross-sectional data)
  - The International Social Survey Programme (ISSP) https://issp.org/
    - The ISSP is a cross-national collaboration programme conducting annual surveys on diverse topics relevant to social sciences
  - Codebook: https://issp.org/data-download/by-topic/
  - People's opinions about Family and Changing Gender Roles, Social Inequality, Environment, National Identity, and Social Networks

#### **Developing Countries**

- Other countries (cross-sectional data)
  - World Bank Survey database: http://microdata.worldbank.org/index.php/home
  - Demographic and Health Survey (DHS): https://dhsprogram.com/data/
    - DHS collect and disseminate accurate, nationally representative data on health and population in developing countries.

#### Standardized Test Data

- Other countries (cross-sectional data)
  - PISA test database: http://www.oecd.org/pisa/data/
  - TIMSS test database: https://timssandpirls.bc.edu/
    - PISA and TIMSS are databases for international comparative assessments of student achievement

# Survey Data: Panel Data

- Taiwan (panel data)
  - Panel Survey of Family Dynamics (PSFD): http://psfd.sinica.
     edu.tw/web/data\_en.htm
  - Taiwan Education Panel Study (TEPS): https://srda.sinica.edu.tw/datasearch\_detail.php?id=2755

# Panel Survey of Family Dynamics (PSFD)

Website:

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http://psfd.sinica.edu.tw/web/data_en.htm
```

- Observation unit: follow the same households over time and follow their offspring's households over time
- Frequency: 1999-now, every year
- Key variables: household income, education, working experience, marriage, family value and attitudes, household expenditure, child care
- It has English version.

# Taiwan Education Panel Study (TEPS)

- Website: https://srda.sinica.edu.tw/datasearch\_detail. php?id=2755
- Observation unit: follow the same students from their junior/senior high school and also have questions for their parents, teachers, and schools
- Frequency: 2001-2007 and 2010-2014
- Key variables: test score, friends, part-time work, learning attitude, extracurricular activities, wage
- It has English version.

- United States (panel data)
  - Panel of Income Dynamics (PSID): http://psidonline.isr. umich.edu
  - Health and Retirement Study (HRS): https://hrs.isr.umich.edu/data-products
  - National Longitudinal Surveys (NLS): https://www.nlsinfo. org/content/getting-started/accessing-data
  - Survey of Income and Program Participation (SIPP): http://www.nber.org/data/survey-of-income-and-program-participhtml
  - Medical Expenditure Panel Survey (MEPS): https://www.meps. ahrq.gov/mepsweb/

- Other countries (panel data)
  - Cross-National Equivalent File (CNEF): https://www.cnefdata. org/about/about-cnef
    - The Cross-National Equivalent File is a user package of equivalently defined variables for 9 general population household panel surveys.
  - Codebook: https://www.cnefdata.org/documentation/codebooks

- House transaction data (Taiwan): http://lvr.land.moi.gov. tw/homePage.action
  - I have bought this dataset. Let me know if you want to use this data for your term paper
- Data on mortgages (US): https://www.fhfa.gov/DataTools/ Downloads/Pages/Public-Use-Databases.aspx

- National Health Insurance Research Database (Taiwan): http://nhird.nhri.org.tw/en/index.html
  - It is a confidential dataset. Let me know if you want to use this data for your term paper
- Tax Return Data (Taiwan): http://www.econ.sinica.edu. tw/FIA-Data
  - It is a confidential dataset. I do not recommend you to use this data for your term paper because you need to spend a lot of time applying for it.

- Sports Reference (US): https://www.sports-reference.com/
  - This website contains many statistics about sports

- Yelp Open Dataset (US): https://www.yelp.com/dataset
  - Yelp is a company, which publishes crowd-sourced reviews about businesses
  - A subset of data on Yelp's businesses, reviews, and users

- Google Mobility Data: https://www.google.com/covid19/ mobility/
  - The data shows how visits to places, such as grocery stores and parks, are changing in each geographic region during COVID-19 pandemic

- Apple Mobility Data: https://covid19.apple.com/mobility
  - Similar to Google Mobility Data

### Firm-Level Data

#### Firm-Level Data

- Taiwan Economic Journal (TEJ): http://www.finasia.biz/ensite/
  - TEJ is a database of financial and market information on listed company at stock exchange market in Taiwan, Hong Kong or China
  - Business school should have bought this database
- Compustat (US): https://marketintelligence.spglobal. com/client-solutions/
  - Compustat is a database of financial and market information on active and inactive global companies throughout the world
  - Business school should have bought this database

# Country-level data

### Country-level data

- Penn World Table version 9.0: https://www.rug.nl/ggdc/productivity/pwt/
- World Wealth & Income Database http://wid.world/
- Work Bank Databank: https://databank.worldbank.org/data/home.aspx
- OECD data https://data.oecd.org/
- eurostat data
  https://ec.europa.eu/eurostat/data/database
- FRED Economic data https://fred.stlouisfed.org/tags/series

# Government open data

### Government open data

Japan open data:

https://www.data.go.jp/

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US open data:
https://www.data.gov/local
Taiwan open data:
https://data.gov.tw/
Taiwan Agri open data:
https://data.coa.gov.tw/index.aspx
UK open data:
http://www.data.gov.uk
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#### Government open data

- 社會經濟資料服務平台: https://segis.moi.gov.tw/STATCloud/Profile
  - Provides socio-economic variables for various administrative regions in Taiwan

GADM https://gadm.org/index.html

• It provides map (shapefile) for administrative areas of all countries, at all levels of sub-division

 Geographically based Economic data https://gecon.yale.edu/g-econ-project-yale-university-

• It develops a geophysically scaled economic data set

- Google Earth Engine https://earthengine.google.com/
  - It collects settlight image data from the following data sources
- Landsat (土地利用) http://landsat.usgs.gov/
  - Settlight image for land use, land cover, and land condition since 1972
- MODIS (大氣狀況) https://modis.gsfc.nasa.gov/
  - Settlight image for atmosphere or ocean since 1999

- DMSP-OLS (夜間光照) https://eogdata.mines.edu/products/dmsp/
  - Settlight image for nightlight from 1992-2013 (annual data)
- VIIRS (夜間光照) https://eogdata.mines.edu/products/vnl/
  - Settlight image for nightlight since 2012 (monthly data)

- Dynamic World V1 (土地利用)
  https://developers.google.com/earth-engine/datasets/
  catalog/GOOGLE\_DYNAMICWORLD\_V1
  - A 10m near-real-time Land Use/Land Cover dataset that includes class probabilities and label information for nine classes
- ERA5-Land Hourly ECMWF Climate Reanalysis (溫度)
  https://developers.google.com/earth-engine/datasets/
  catalog/ECMWF\_ERA5\_LAND\_HOURLY
  - Providing an accurate description of the climate of the past

- GPM: Global Precipitation Measurement (GPM) v6 (雨量) https://developers.google.com/earth-engine/datasets/ catalog/NASA\_GPM\_L3\_IMERG\_V06
  - Provide observations of rain and snow worldwide every three hours
- MERIT DEM: Multi-Error-Removed Improved-Terrain DEM (地 形坡度)
   https://developers.google.com/earth-engine/datasets/ catalog/MERIT\_DEM\_v1\_0\_3
  - A high accuracy map of global terrain elevations

- Sentinel-5P NRTI AER (空氣品質) https://developers.google.com/earth-engine/datasets/ tags/air-quality
  - Provide near real-time high-resolution imagery of air quality index

- Startup Cartography Project (創業地理分布資料) https://www.startupcartography.com/home
  - Utilizes population-level business registration records
  - create innovative measures of entrepreneurial quantity, quality, and performance at various geographic and temporal levels

Social and Economic Statistics (台灣社會經濟統計地理資訊網)

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https://moisagis.moi.gov.tw/moiap/gis2010/index.cfm
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• Provides various socio-economic variables for different regions in Taiwan (townships, smallest statistical areas)

- 臺灣氣候變遷推估資料 https://tccip.ncdr.nat.gov.tw/ds\_intro.aspx
  - Constructs long-term climate data for various regions in Taiwan using various observational data and estimation methods

### Journal Data Archives

#### Journal Data Archives

- American Economic Review: https://www.aeaweb.org/journals/aer/issues
- AEJ Economic Policy: https://www.aeaweb.org/journals/pol/issues
- AEJ Applied Economics: https://www.aeaweb.org/journals/app/issues

#### Other data source

Goodle Trend: https://trends.google.com/trends/

Kaggel: https://www.kaggle.com/datasets

 Jerry Smith dataset collection: https://datascientistinsights.com/2013/02/02/data-monet

Our World in Data: https://ourworldindata.org/