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The Centre for Data Development and Economic Research

Development of Databases for Analysis

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Outline

- This presentation provides an overview of the databases available through the Centre.
- It outlines the documentation available for each database.
- It briefly describes each database.



Data creation is a work in progress

- The development of a database is an ongoing process.
- Most databases are unedited or non-imputed, and are often produced for a specific purpose.
 - As a result, the databases are not always “fit-for-use”. But we are prepared and looking forward to working with you to create files that will meet your needs!



Available documentation of CDER databases

- A brief (two-page) summary of the databases, including a description of the target population and the data acquisition methods.
- Record layout
- Data dictionary
- Control cards and control totals (in progress)
- User's guide (in progress)



Longitudinal Employment Analysis Program (LEAP)

- The Longitudinal Employment Analysis Program (LEAP) is the primary source for studies on employment creation and destruction in Canada.
- It provides longitudinal firm-level information on employment, payroll, firm size and industry for each employer business in Canada.
- Data are extracted from administrative files and Statistics Canada's Business Register.
- It contains a derived measure of employment which can be used to support research on employment dynamics.



T2-LEAP

- T2-LEAP was originally created to allow analysts to examine the amount of entry and exit over time for incorporated firms, while taking into account firm performance.
- It is a link between the Corporate Tax Statistical Universal File (T2SUF) and the LEAP.
- Currently covers the period 1984 to 2010.
- Contains information on sales, gross profits, equity, assets (T2) and employment levels (LEAP).
- T2-LEAP has also been used to examine the impact of trade policy on firm survival, the determinants of small firm growth and productivity decompositions.



T2-LEAP-Export/Import Registries

- The Exporter and Importer Register Databases were designed to meet a demand for information about exporting and importing activities.
- Import data, and export data to countries other than the United States, are captured by the Canadian Border Services Agency.
- Canadian exports to the United States are compiled using United States import statistics.
- The linkage of the trade registries to the T2-LEAP provides researchers with the ability to study trade at the detail commodity level while utilizing additional firm financial and employment characteristics in the analysis, and study differences between trading and non-trading firms.



Annual Survey of Manufacturers (ASM) Databases

- A set of longitudinal files built from the Annual Survey of Manufacturers, which facilitate the study of changes in plant performance over time.
- Micro data exists from 1961 onwards and various longitudinal databases have been constructed based on establishment identifiers and industry classifications used in the various periods.
- Supports analytical work on structural changes in the manufacturing sector.
- Contains information on shipments, value-added, employment, age of plants, exports, and industry affiliation. The file can be linked to commodities produced and commodities used at the plant level.



ASM-Export/Import Registries

- Information on exports and imports are typically only available at the commodity-level, not at the industry-level.
- In order to analyze the importing and exporting behaviour of manufacturing firms, the ASM databases were linked to the Import and Export registries.
- Import data are available from 2002 to 2006 while export data are available from 1996 to 2006.
- The file has been used to study offshoring and global value chains.



National Accounts Longitudinal File

- While the Input-Output Accounts provide estimates of GDP at the industry- or national-level, they are not available at a more disaggregated level, such as the sub-provincial level and the size of the firm.
- To estimate this, the National Accounts Longitudinal File (NALF) combined a number of data sources, including administrative tax records, data from the Business Register and from the Survey of Employment, Payrolls and Hours.
- It currently covers the period 2001 to 2008.
- Current longitudinal databases (i.e. LEAP) do not include detailed information on structural changes in the firm. The new database will include year-on-year details on structural changes.
- The data base can be used to track the GDP, employment, and financial statistics of firms and the locations where they operate. It can also be used to examine the size of firms in terms of GDP and employment, as well as their productivity.



Capital and Investment Program (CIP)

- The measurement of capital stock and investment at the *firm level* is important to understand firms' productivity as capital is a primary input in production processes.
- The Capital and Investment Program (CIP) is a cross-sectional file that contains information on the stock of and investment in tangible and intangible capital assets for each incorporated employer business in Canada, for each year starting in 2000.
- For each business, annual estimates of total capital stock and investment are compiled from various schedules of T2 corporate income tax returns.
- The CIP file can be used to support research on firm-level economic and productivity analysis.



Longitudinal Worker File

- The Longitudinal Worker File (LWF) is an administrative database designed to provide information on employment dynamics in Canada.
- The LWF contains information on the demographic characteristics, including age, sex and marital status, of Canadian workers, on the jobs they hold, the firms in which they work and the earnings they receive.
- The LWF is constructed by integrating data from four sources: the T1 and T4 files of the Canada Revenue Agency, the Record of Employment (ROE) files of Human Resources and Social Development Canada, and the Longitudinal Employment Analysis Program of Statistics Canada.



Occasional Special Surveys

- A number of special surveys are available, including:
 - Survey of Innovation and Business Strategy, 2009
 - Survey on Financing and Growth of Small and Medium Enterprises, 2000, 2001, 2004, 2007
 - “Legacy files” including the 1992 Survey of Growth Companies, the 1993 Survey of Innovation and Technology, the 1995 Survey of the Characteristics of Bankrupt Firms, the 1996 Survey of Operating and Financing Practices (of New Firms), the 1996 Survey of Innovation, and the 1998 Survey of Technology.



Other databases available through CDER

- National Accounts
 - Productivity statistics
 - Input-Output Tables at a detailed industry and commodity level
 - Matched Canada-U.S. price data
- Trucking Commodity Origin and Destination Survey
- ASM-Workplace and Employee Survey (WES)



Other business micro databases at Statistics Canada

- The Economic Analysis Division created an inventory of business micro databases at Statistics Canada.
- The inventory currently includes 230 files. Most of them are listed and described on the Statistics Canada website.
- These files include:
 - Census of Agriculture
 - Farm Financial Survey
 - Research and Development in Canadian Industry
 - Retail surveys
 - Head Office Survey
 - Quarterly Survey of Financial Statements