Business Dynamics Research Consortium

Your-economy Time Series (YTS) 2022 Database Description 1997 - 2022

YTS (Your-economy Time Series) is an establishment-level time-series database used by academic researchers, policy makers, and economic development analysts following companies at their unique locations across the U.S. YTS is assembled exclusively by BDRC and tracks all establishments (and their jobs and sales), including for-profit (both privately-owned and publicly-traded), non-profits, agriculture, and government establishments.

YTS data is the resource behind the popular and free website YourEconomy.org, and is available for aggregation and direct licensing; BDRC website - About the Data.

Dynamic "In-business" Establishments

YTS focuses on establishments that are "in-business" meaning they are, or intent on, conducting commercial activities. By contrast, businesses that are created for the purpose of housing financial, real estate, and tax reporting entities, or are suspected of never actually starting commercial activities are not included in YTS.

Jobs in YTS vs. FTE

Jobs in YTS are defined as all persons currently working at an establishment including full-time, part-time, and temporary workers. This includes proprietorships and sole-proprietorships (self-employed), and makes no distinction between employee or non-employee designations.

The government data (QCEW) will not count proprietorships (partners) and sole-proprietorships as jobs, and will only begin to count jobs when they hire a full-time employee (FTE). **Example**: two people file an LLC online to start a business. They begin commercial activity, and after 3 months they hire their first FTE. Total jobs in YTS, 2 when commercial activity began and 3 when the first FTE is hired. Total jobs from the government's definition, 0 when commercial activities began and 1 when the first FTE is hired.

YTS Time-series Assembly

From 1997 thru 2019, YTS was assembled from Data Axle Business Data annual historical files. **Starting in March of 2020:** BDRC receives data on a quarterly basis (March, June, September, and December) which is used to assemble YTS on an annual and quarterly basis starting in the first quarter (March) of 2020.

Each quarter, Data Axle delivers over 200 data variables per record to BDRC for all (approximately 80 million records) establishments in their database including verified, suspect, pre-verified, and closed.

All records are assembled into two master databases (YTS annual and quarterly) using the Data Axle unique ID; ABI (American Business Identifier) to link all historical and quarterly files (snapshots) together. Each year 168 time- series variables including BDRC uniquely assembled variables (eg. congressional districts) are assembled from the original Data Axle data variables. In most cases the variables are renamed to quickly identify and use. Last year or latest year field variables indicating an establishment's name and address and location information are among other variables also assembled and included.

After the snapshots have been assembled and added to YTS, all records with gaps between years of data (eg. active in 1997, missing data in 1998 and 1999, active again in 2000) are imputed. A process considering all completed data in YTS is used to "roll" existing values into the next or previous year, for as many years necessary to complete the record. **No averaging is used in this process** unless (in rare circumstances) there is no data within all years of YTS to compare. A separate BDRC jobs model was developed and used uniquely for the quarterly data, see below under "Data Axle Actual Reported Versus Modeled Values".

Records that are removed (deactivated) from the "In-Business" YTS data:

- All ATM machines, video kiosks, and other automated kiosks
- Financial and real estate vehicles (funds, bonds) and establishments setup strictly for tax purposes indicating 0 employment or where commercial intent is not verifiable

YTS remains transparent. In rare circumstances, major data outliers are identified, verified, and repaired (imputed) algorithmically. This typically accounts for less than 3% of all YTS data. Any data that is in question will be examined, and if necessary, verified

with both large internal establishment databases and external sources and corrected. If our outlier process is not able to verify data at an acceptable level, we will temporarily deactivate the individual establishment for further review.

With each new year (quarter) of data (Data Axle snapshots), YTS is updated verifying all years of data, and if necessary, changed to reflect the latest information. Consequently, each release of YTS will include all years of data.

Data Axle Actual Reported Versus Modeled Values

Jobs - approximately 49% of the Data Axle businesses have their location employment size verified through telephone interview. When an employment number cannot be verified through the telephone interview process, a model is built to estimate the employment size. About 51% of businesses have their location employment size modeled. The model uses a multi-step approach, with over 7 million telephone verified employment figures as the cornerstone, to create the most accurate estimated employment information possible.

Starting with the first quarter (March) in 2020: BDRC has developed a sophisticated jobs model that has verification of strong statistically significant relationships between job change, industry segment, establishment types (HQ, branch, independent and individual entities), and employment size. It uses only verified actual jobs data received from Data Axle (over 6 million establishments each quarter) examining each jobs value in every active establishment record in YTS.

Sales - BDRC has developed a separate sales model that replaces all sales values taken from Data Axle verifying strong statistically significant relationships between Data Axle modeled establishment and actual firm sales, 6-digit NAICS, and actual jobs data. To keep in step with GDP (Gross Domestic Product), each new sales value was multiplied by an annual inflation value developed using Gross Output (sales and revenue) factors from the BEA (Bureau of Economic Analysis). A list of large sales volume establishments is excluded from the model and verified from external sources.

YTS 2021 Field Variable List

YTS Field Name	YTS Only	Description
Last Year Variables (describes the latest or last year in the database)		
ABI		ALSO KNOWN AS IUSA NUMBER, ABI NUMBER, INFOGROUP NUMBER OR LOCATION NUMBER, THIS PROVIDES A UNIQUE IDENTIFIER FOR EACH BUSINESS IN THE INFOGROUP BUSINESS DATABASE
Company		NAME OF BUSINESS - WILL HAVE BLANKS
City		HISTORICAL ADDRESS CITY
State		HISTORICAL ADDRESS STATE
Zipcode		HISTORICAL ADDRESS ZIP CODE
Gender		GENDER OF THE CONTACT OR EXECUTIVE. F=FEMALE, M=MALE, U=UNDETERMINED - WILL HAVE BLANKS
Age	Yes	TOTAL NUMBER OF YEARS ALIVE IN THE DATABASE
YearStart		YEAR THE BUSINESS BEGAN OPERATING - WILL HAVE BLANKS
FirstYear	Yes	FIRST YEAR ESTABLISHMENT ENTERS DATABASE
LastYear	Yes	LAST YEAR ESTABLISHMENT IS IN DATABASE
Latitude		PARCEL LEVEL ASSIGNED VIA POINT GEO CODING. HALF OF A PAIR OF COORDINATES (THE OTHER BEING LONGITUDE) PROVIDED IN A DECIMAL DEGREE FORMAT, WITH A NEGATIVE SIGN FOR LONGITUDE. NOT AVAILABLE IN PUERTO RICO & VIRGIN ISLAND
Longitude		SEE LATITUDE DESCRIPTION
EIN		EMPLOYMENT IDENTIFICATION NUMBER - WILL HAVE BLANKS

Credit Alpha Score		THE CODES WERE DEVELOPED FROM THE DEMOGRAPHIC INFORMATION IN THE INFOGROUP DATABASE INCLUDING EMPLOYEES AND YEARS IN BUSINESS AS WELL AS HISTORICAL PERFORMANCE DATA AND OTHER INFORMATION. INFOGROUP DEVELOPED PREDICTIVE STATISTICAL MODELS BASED ON MULTIVARIATE REGRESSION ANALYSIS TO DETERMINE CREDITWORTHINESS OF BUSINESSES - WILL HAVE BLANKS
Credit Numeric Score		EACH CREDIT SCORE IS ASSIGNED A NUMBER BASED UPON THE ALPHA SCORE - WILL HAVE BLANKS
Foreign Parent Flag		1 INDICATES FOREIGN AFFILIATION - WILL HAVE BLANKS
CensusBlock		A COMBINATION OF CENSUS BLOCKS WITHIN A CENSUS TRACT (VALUES 1-9 OR BLANK)
SICDescription		THE DESCRIPTION FOR THE SIC CODE FOR THE LAST YEAR
NAICSDescription		THE DESCIPTION FOR THE NAICS CODE FOR THE LAST YEAR
Stock_Ticker_ Symbol		A SERIES OF LETTERS ASSIGNED TO A SECURITY FOR TRADING PURPOSES. WILL HAVE BLANKS
Stock_Ticker_ Label	Yes	THE ABBREVIATION FOR THE NAME OF THE STOCK EXCHANGE - WILL HAVE BLANKS
Time Series Variables (exist every year in the database 1997-2020) **Format**: Field Name+4-digit year		
HQABI		THE PARENT NUMBER IDENTIFIES THE CORPORATE PARENT OF THE BUSINESS AND ALSO SERVES AS THE ABI NUMBER FOR THE HEADQUARTERS SITE OF THE PARENT. THIS FIELD PROVIDES 'CORPORATE OWNWERSHIP' LINKAGE INFOMRATION. THIS IINFORMATION IS NOT COLLECTED OR MAINTAINED FOR THE TYPES ORGANIATION FOR WICH OWNERSHIP IS AMBIGUOUS. CHURCHES AND SCHOOLS, IN PARTICULAR, ARE NOT LINKED FOR THIS REASON
ZipCode		HISTORICAL ADDRESS ZIP CODE EACH YEAR
SIC		A LINE OF BUSINESS THAT COMPANY ENGAGES IN: 6 DIGITS
NAICS		THE DESCRIPTION FOR THE PRIMARY 6 DIGIT NAICS CODE. 2012 DEFINITION WITH 2 DIGIT ADDITIONAL EXTENSION TO MAP WITH SIC

Seg	Yes	MARKET SEGMENTS GROUPING 6-DIGIT NAICS: ET = EXTERNAL TRADE, LT = LOCAL TRADE, NTH = NON TRADE/ HEALTHCARE
Type	Yes	3 ESTABLISHMENT TYPES TOTALING 100%: R = RESIDENT (EITHER STANDALONE OR HQ IN THE REGION EXAMINED) NR = NONRESIDENT (HQ NOT IN THE REGION EXAMINED) NC = NONCOMMERCIAL (GOVERNMENT, NONPROFIT, DETERMINED BY NAICS)
Emp		NUMBER OF EMPLOYEES AT THAT LOCATION
EstCat	Yes	INDICATES IF RECORD IS HQ, SUBSIDIARY, BRANCH, OR STANDALONE: 1=HQ 2=BRANCH 3=SUBSIDIARY 9=INDEPENDENT OR INDIVIDUAL (ONE JOB WHERE INDIVIDUAL NAME=COMPANY NAME)
SalesModeli	Yes	BDRC MODLED SALES VOLUME AT THAT LOCATION (IN THOUSANDS)
CBSA		CORE BASES STATISTICAL AREA (EXPANDED MSA CODE) EACH YEAR
FIPS		FIRST 2 BYTES = STATE CODE, LAST 3 BYTES = COUNTY CODE (LOCATION)
HQFIPS	Yes	PARENT NUMBER (ESTABLISHMENT) FIPS EACH YEAR
CDIST	Yes	CONGRESSIONAL DISTRICT IDENTIFICATION FOR EVERY ESTABLISHMENT EACH YEAR IN THE TIME-SERIES FROM THE 115TH CONGRESS
CTCounty	Yes	STARTING IN 2019: AN 11-DIGIT STATISTICAL SUBDIVISION OF A COUNTY FORMAT: FIPS + CENSUSTRACT