

Your-economy Time Series (YTS) 2019 Database Description 1997 - 2019

YTS (Your-economy Time Series) is an annual 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, and government establishments.

YTS data is the resource behind the popular and free website <u>YourEconomy.org</u>, and is available for aggregation and direct purchase from the <u>BDRC website - About the</u> <u>Data</u>.

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.

YTS Time-series Assembly

YTS is assembled from 23 Infogroup Business Data historical files. Each January, Infogroup delivers to BDRC their annual historical snapshot. Each snapshot is closed at the end of the year and prepared for release by the end of the year. No more establishments will be added or changes made to any snapshot once the file has been closed.

All snapshots are assembled into one master database (YTS) using the Infogroup unique ID; ABI (American Business Identifier) to link all historical files together. Each year over 600 time- series variables including BDRC uniquely assembled variables (eg. congressional districts) are assembled from the original Infogroup 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 or estimating is used in this process unless (in rare circumstances) there is no data within YTS to compare.

All ATM machines, video kiosks, and other automated kiosks are removed (deactivated) from the data. Financial and real estate vehicles (funds, bonds) are not in the Infogroup database and will not be in YTS.

Also in rare circumstances, major data outliers are identified, verified, and repaired (imputed) algorithmically. This typically accounts for less than 1% of all YTS data. YTS remains transparent, 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 of data (Infogroup annual snapshots), YTS is updated and all years of data are verified and if necessary, changed to reflect the latest information. Consequently, each annual release of YTS will include all years of data.

InfoGroup Actual Reported Versus Modeled Values

Jobs - approximately 49% of the Infogroup 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.

Sales - because verifiable sales volume figures are virtually impossible to obtain from private businesses, Infogroup has developed, and continually improves, a model that estimates the sales volume for the company. The model's primary source is the U.S. Department of Commerce supplied data on sales per employee for each 6-digit NAICS code at the county level, where available, and indexed to this level where current data at that specificity is not available. Infogroup then leverages data from

the Infogroup database including the number of employees at the location, industry codes (4 digit SIC and 6 digit NAICS), and the county and state the business resides in to calculate the estimated sales volume. Starting in 2017, wherever possible, corporate sales volume figures are actual numbers or reported figures from annual reports, newspapers and periodicals. Where those figures are NOT available, median values are calculated for combinations of SIC4 (Industry) and Employment size, utilizing the reported sales figures currently available.

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 soleproprietorships 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.

InfoGroup Methodology Changes

The following significant changes were made to Infogroup historical files:

- In the third quarter of 2018, Infogroup added a new verification source upgrading pre-verified and suspect records to the verified file. The result was a significant increase in both births and deaths for 2018.
- Beginning with the 2018 data, the YTS annual snapshot contained establishments thru the end of the year (12/31) as opposed to closing the file at the end of July for each of the previous 21 annual snapshots. This had a positive impact on finding "latest year" data which is used to find, verify, and add more establishments particularly in the last 5 years.
- Historically, the corporate sales volume was not recorded for a parent or subsidiary headquarters. Starting in 2017, wherever possible, these corporate

sales volume figures are actual numbers or reported figures from annual reports, newspapers and periodicals. Where those figures are NOT available, median values are calculated for combinations of SIC4 (Industry) and Employment size.

- In 2016-2017, Infogroup undertook an effort to purge unverifiable business locations. If a business could not be reached via telephone verification, and no alternative phone number could be found, it is flagged as "out of business" and removed from the verified database.
- Also in 2017, their methods and inputs used to model a location's sales were updated. This resulted in a reduction in total sales in 2017.
- During the period 2011-2012 Infogroup introduced a large number of establishments that had previously not been in any of their databases. This significantly influenced the pre- verified or "suspect" data as the actual year start date of these establishments was coded as 2011 or 2012 when they could have started anytime from 1997.

Resulting YTS Changes

Resulting from the Infogroup methodology changes, the following changes were implemented in the YTS data:

- Infogroup's new verification data source in 2018 allowed more establishments to meet the strict criteria of the verified data. While total establishments in 2018 trend with growth (net) patterns and previous year totals, the increase is primarily reflected in the starts and closed in 2018 compared to 2017. <u>Read more...</u>
- Starting with the YTS 2018 data, the result of the 12/31 close date for the Infogroup 2018 historical snapshot, and the addition of a new Infogroup verification source, BDRC found and verified more establishments which resulted in more accurate annual change (2014-2017) totals, particularly for establishments and jobs (churn factors: birth, death, expansion, contraction, moves), and a significant increase in births and deaths (verified) establishments in 2018.
- Based on the 2011-2012 Infogroup methodology changes, and subsequently a <u>peer review</u> completed on YTS in the spring of 2018, YTS 2017 no longer used most of the pre-verified or suspect data files due to the year start date not being reliably determined. This resulted in significantly fewer establishments but with greater intent on conducting business throughout the entire database. This data is available for the first time on <u>YourEconomy.org</u> in fall of 2018.

• BDRC updated the Infogroup sales model starting in YTS 2018. This data will be available on <u>YourEconomy.org</u> starting with the 2019 update.

Additional Information

YTS Standard Variable List Business Employment Data: YTS versus CES and CPS