



## U.S. Business Demographic Baseline and Forecast

### Summary

The DRG U.S. Business Demographic Baseline and Forecast is a database containing business demographic data, specifically built for use in the design, development, and application of market size models and forecasts for technology product and services.

### Taxonomies and Metrics

Industries (20 in Private Sector, 21 in Public Sector)	Years (23)
Forestry, Fishing, Hunting, Agriculture	1998 to 2020
Mining	Sectors (2)
Utilities	Private
Construction	Public
Manufacturing	Business Size Class (10) (Employees)
Wholesale	Less than 5
Retail	5 to 9
Transportation, Warehousing	10 to 19
Information	20 to 99
Finance, Insurance	100 to 499
Real Estate, Rental, Leasing	500 to 999
Professional, Scientific, Technical Services	1000 to 2499
Management of Companies, Enterprises	2500 to 4999
Admin. Support, Waste Mgmt., Remediation	5000 to 9999
Education	10000 or more
Health Care, Social Assistance	Metrics (5)
Arts, Entertainment, Recreation	Employees
Accommodation, Food Services	Firms
Other Services	Primary Firms (Industry Unique)
Auxiliaries & Unclassified	Establishments (Sites)
National Defense	Annual Payroll

## Application

Technology product/service market size and forecast models require business demographic data as inputs for many types of models.

- **Usage/Adoption models** need this data to size the **Total Available Market** that is being penetrated
- **Initial Sales models** need this data to estimate the **number of potential buying units**
- **Recurring Sales models** need this data to compute **installed bases**

The objective of these models is to provide a high confidence forecast of near term demand, and therefore often require considerable historic data that transcends anomalous economic shocks and contain information that allows identification of the long-term trends and cycle influencing demand. Obtaining this historic and forecast data is often time consuming and challenging, especially where there are significant contextual criteria such as business size, industry, and legal form of ownership (public vs. private).

**DRG can provide you with the exact data needed to support your model development effort thereby considerably shortening the time spent in research and discovery, allowing your analysts to develop and deliver their forecasts sooner.**

## Development

### Sources

The DRG U.S. Business Demographic Baseline and Forecast database is constructed using data obtained from the following sources.

- U.S. Census Bureau
- U.S. Bureau of Labor Statistic
- U.S. Department of Defense
- U.S. Office of Personal Management
- U.S. Congressional Budget
- U.S. Bureau of Economic Analysis

### Analysis and Construction

DRG has been designing, developing, and applying technology products and services market size and forecast models for over three decades, and has considerable experience in using business demographic data in these models. One of the most difficult challenges often encountered is reconciling data from different government sources and accounting for definitional differences and methodologies. DRG has solved three of the most common problems in building its U.S. Business Demographic Baseline and Forecast.

## How Many Businesses Are In an Industry? Firms and Primary Firms

Many forecasters will use the data available from the U.S. Census Bureau – Statistics of United States Business to estimate the number of business in an industry and size class. However, this may often lead to overestimating the size of the market. The methodology employed by the U.S. Census Bureau to construct this data allows firms to be counted in more than one industry. As a result, the total number of firms by industry is larger than the total number of firms by Employment Size Class.

DRG has developed a proprietary algorithm (**MatrixSolver™**) that removes the industry double counting and produces the Primary Firm metric, while preserving the Employment Size Class constraints. The sum of Primary Firms by industry will equal the sum of Firms by Employment Size Class and therefore is often a better estimate of the number of Firms in the economy.

Depending on context, either Firms or Primary Firms can be used in forecasting. If the target market includes any firm with some business activity in the specified industry, then Firms should be the selected metric. If the target market were limited to Firms whose primary business is the specified industry, then Primary Firms would be the appropriate metric. For example, in 2012 there were 7,307 Firms with 100 to 499 Employees that had some business activity in the Retail Industry. However, there were only 6,183 Firms whose primary business is Retail.

Sector	Private						
Industry	Retail						
Employment Size Class	100 to 499						
Metric	2012	2013	2014	2015	2016	2017	CAGR
Annual Payroll (\$1,000)	33,997,002	33,790,872	33,640,953	33,179,244	32,940,862	32,666,175	-0.8%
Employees	1,047,380	1,032,911	1,020,763	1,004,113	986,466	965,187	-1.6%
Establishments	48,209	48,645	49,007	48,686	48,833	48,623	0.2%
Firms	7,307	7,229	7,170	7,074	6,972	6,846	-1.3%
Primary Firms	6,183	6,109	6,049	5,962	5,869	5,755	-1.4%
Metric - Annual Growth	2012	2013	2014	2015	2016	2017	
Annual Payroll (\$1,000)		-0.6%	-0.4%	-1.4%	-0.7%	-0.8%	
Employees		-1.4%	-1.2%	-1.6%	-1.8%	-2.2%	
Establishments		0.9%	0.7%	-0.7%	0.3%	-0.4%	
Firms		-1.1%	-0.8%	-1.3%	-1.4%	-1.8%	
Primary Firms		-1.2%	-1.0%	-1.4%	-1.6%	-1.9%	

∞ Δ Daniel Research Group (2013)

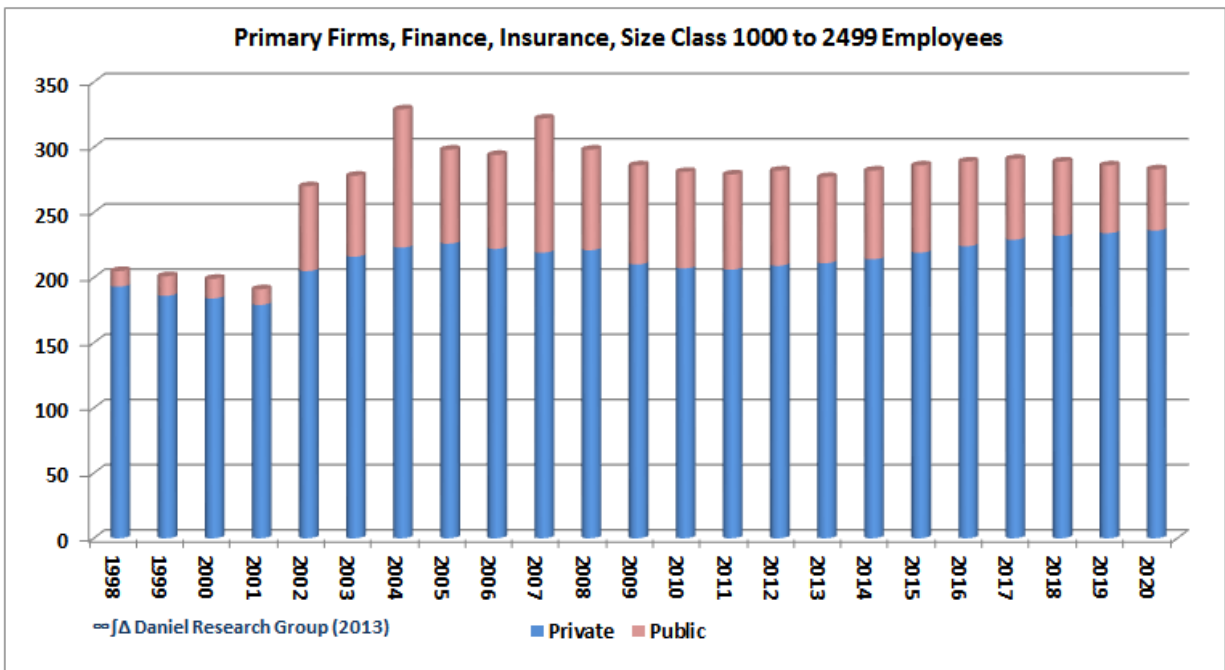
## Tiling the Plane - Private and Public Sectors

One of DRG's primary objective in constructing the Baseline and Forecast was to build a data set describing the U.S. business structure that met the criteria of being mutually exclusive and exhaustive. All employed persons, the organizations they are employed by, and the places they work, are accounted for only once.

This required finding solutions for two problems.

1. The U.S. Census Bureau uses different taxonomies to structure the data for Public and Private sectors.
2. The Private Sector data provided by the U.S. Census Bureau includes some Public Sector data.

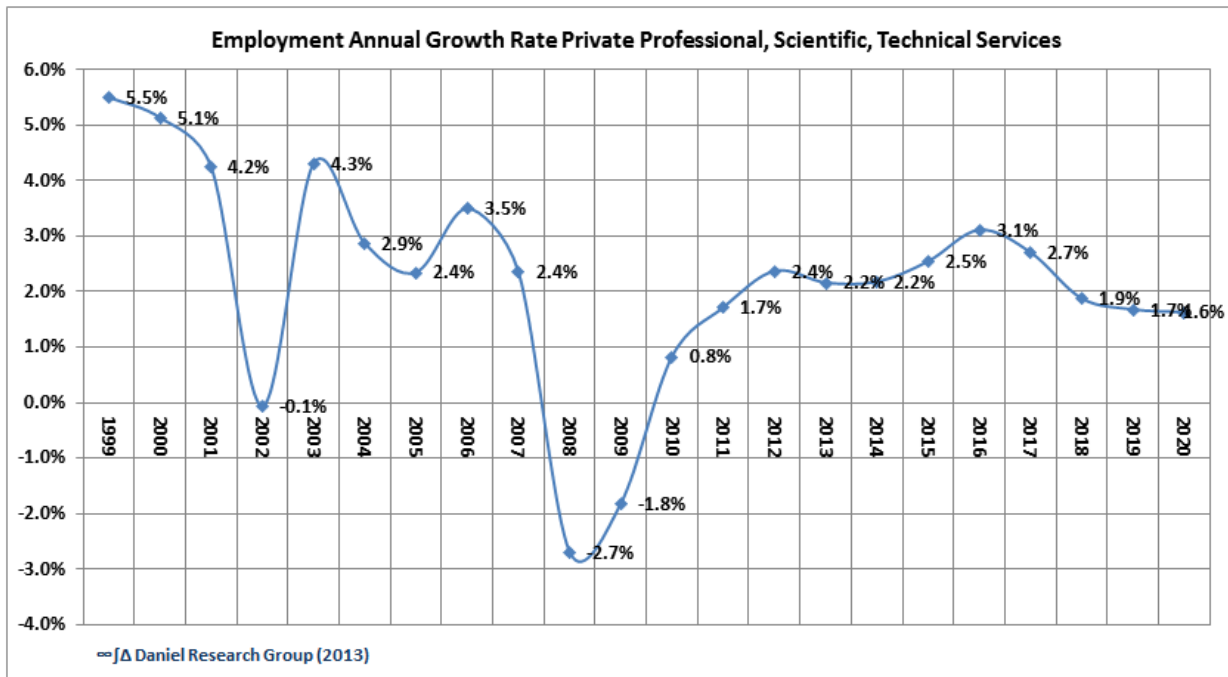
DRG solved both problems, the former by application of additional data from the U.S. Census Bureau detailing Legal Form of Ownership, and the latter by analyzing, and then mapping, the Public sector data into the Private sector taxonomies. Additionally, data from the U.S. Department of Defense pertaining to both civilian and Uniformed Military personal, bases, and other sites was added to complete the database.



## Understanding the Future - Forecast Methodology

DRG uses a combination of U.S. Government projections and its own analysis and methodologies to complete the historic Baseline and create the Forecast.

1. U.S. Labor Force projections are obtained from the Bureau of Labor Statistics
2. Unemployment Rate projections are obtained from the U.S. Congressional Budget Office
3. Industry Employment projections are obtained from the Bureau of Labor Statistics and are used to calibrate independent industry growth forecasts derived from DRG trend analysis.
4. Employment, Primary Firms, Firms, Establishments, and Payrolls within Size Classes for each industry are computed by application of various DRG modeling methodologies.



The resulting final DRG U.S. Business Demographic Baseline and Forecast database total employment time-series will match those published by the Bureau of Labor Statistics for past years, and match employment projections based on the Labor Force projections from the Bureau of Labor Statistics and the Unemployment projections from the Congressional Budget Office. Industry and Employment Size Class distributions will align tightly with those derived from the U.S. Census Bureau data.

## Availability

The DRG U.S. Business Demographic Baseline and Forecast database is available for client use under a number of licensing and deliverable arrangements. Clients may license the entire database, or request custom subsets. The database or subsets may also be incorporated into custom market sizing and forecasting models designed and developed for clients. Additional data at more granular levels in the industry taxonomy, or other metrics can be provided upon request. The Baseline and Forecast is **updated periodically** when new data is released from the various U.S. government sources.

For more information about the DRG U.S. Business Demographic Baseline and Forecast, availability, prices, or development methodology please contact Daniel Research Group.

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## About Daniel Research Group

Daniel Research Group offers consulting and market research services to clients whose products and services are technology based or enabled. The primary focus is on providing results, solutions, consulting and training to clients that have strategic and tactical decisions that require Forecast, Segmentation, Market Share, and other market modeling requirements.

The full range of traditional market research data gathering and analysis services support these engagements, including quantitative and qualitative surveys, focus groups, demographic and firmographic data acquisition and analysis, as well as input from technology and industry experts. While the emphasis is on delivering data and actionable recommendations, DRG often designs and develops custom models and modeling tools for client use, as well as providing training in these areas.