

AN ESRI TECHNICAL PAPER

**JUNE 2023** 

## Methodology statement: 2023 U.S. Business Locations and Business Summary data

380 New York Street Redlands, California 92373-8100 usa 909 793 2853 info@esri.com esri.com



Copyright © 2023 Esri All rights reserved. Printed in the United States of America.

The information contained in this document is the exclusive property of Esri. This work is protected under United States copyright law and other international copyright treaties and conventions. No part of this work may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, or by any information storage or retrieval system, except as expressly permitted in writing by Esri. All requests should be sent to Attention: Contracts and Legal Services Manager, Esri, 380 New York Street, Redlands, CA 92373-8100 USA.

The information contained in this document is subject to change without notice.

Esri, the Esri globe logo, The Science of Where, Tapestry, ArcGIS, <u>esri.com</u>, and @esri.com are trademarks, service marks, or registered marks of Esri in the United States, the European Community, or certain other jurisdictions. Other companies and products or services mentioned herein may be trademarks, service marks, or registered marks of their respective mark owners.

#### Methodology statement: 2023 U.S. Business Locations and Business Summary data

#### Table of contents

| Data sources and content4 | ŀ |
|---------------------------|---|
| Business Locations data   | 5 |

### Methodology statement: 2023 U.S. Business Locations and Business Summary data

Esri extracts its business data from a comprehensive list of businesses licensed from Data Axle. This list contains data for over 13 million U.S. businesses—including the company name, location, franchise code, industry classification code, number of employees, and sales volume. The industry data in the Business Summary dataset is current as of February 2023. Business locations are current as of April 2023. However, depending on the product or data delivery mechanism, location data may be updated more frequently throughout the calendar year.<sup>1</sup>

#### Data sources and content

In 2023, Esri migrated to Data Axle's updated delivery platform, which is higher in data quality and content accuracy. This new platform contains many more attributes covering detailed business characteristics such as business type, professional specialization, brand, and more. The data also features improvements such as precise company or brand name capitalization, previous code-based values have been replaced with readable attribute values, and many locations also feature associated shopping center or building names.<sup>2</sup>

The Data Axle delivery platform leverages a myriad of sources to update their business listings. This work includes scrubbing directory listings, web monitoring, identifying new business activity (via permits, licenses, phone connections, and so on), news alerts, public filing or bankruptcy notices, USPS postal information, and more. But most importantly, the data is continuously updated via an extensive telephone verification process. Roughly 24 million calls are made per year to maintain and update these business analytics.

Esri provides reports and file extracts from the business database that include the number of businesses by industry classification and employment size or sales volume; total employment; and, when available and applicable, information about total sales. Also included are both versions of industry classification—the former fourdigit Standard Industrial Classification (SIC) system and the updated and expanded six-digit 2022 North American Industry Classification System (NAICS). In addition to the typical SIC and NAICS summary-level codes, the database also includes Data Axle's proprietary six-digit SIC and eight-digit NAICS industry codes.

<sup>&</sup>lt;sup>1</sup> Consult the product release notes or visit <u>Esri Business Summary</u> to obtain the current business data vintages.

<sup>&</sup>lt;sup>2</sup> More detailed information on business locations attributes, including changes stemming from the migration to the Data Axle platform, can be found at <u>Data Axle</u>.

Data Axle's sales data for private companies must be modeled since this sensitive information is proprietary and virtually impossible to obtain. Its primary source data to model this variable comes from the U.S. Department of Commerce. Data Axle's total annual sales volume is estimated by applying a county-level six-digit NAICS industry sales per employee multiplier to its location employment data and corresponding six-digit NAICS industry code. Data from the Bureau of Economic Analysis is also used to account for price changes so the estimates reflect current dollar values. Furthermore, a corporate sales volume is only available on headquarter records. The data reflects actual sales compiled from annual reports, newspapers, and periodicals. If this information is not available, sales estimates are inferred using a median value of existing reported sales data across the different combinations of employee size classes and industry classifications. Note that sales volumes are not provided for certain lines of businesses such as governmental offices, associations, and educational institutions because they do not produce sales.

#### Business Locations data

An address list of businesses is compiled by Data Axle from its sources and telephone verifications. These addresses are geocoded to assign latitude and longitude coordinates to the business site and append census geographic codes via spatial overlay. ArcGIS Pro was used for geocoding addresses. In addition to improved address-matching logic, the locators leverage up-to-date reference data from authoritative sources, including community, commercial, and governmental providers. The quality of address matching varies depending on the quality of the input address as well as the availability of reference data in the area. The vast majority of all business addresses are geocoded to a ranged street centerline or detailed address location such as the center of a building or parcel.

Geographic codes are appended to the addresses, and Data Axle's employment and sales data is summarized by industry for all 11 of Esri's geographic layers and is available by any user-defined polygon such as a ring or drive time.

Lastly, records flagged as a kiosk from Data Axle's place type attribute are not included in the Business Summary database. Records listing items such as ATMs, electric charging stations, donation drop boxes, mailing and shipping kiosks, and video rental kiosks are omitted. However, all records remain in the Business Locations database. Records with a missing number or box number (such as a P.O. Box or Rural Route number) address are generally dropped unless other supporting information exists to spatially place the point.

For more information about business data, call 1-800-447-9778.

#### Esri's data development team

Led by chief demographer Kyle R. Cassal, Esri's data development team has more than 40 years of experience in market intelligence. The team's economists, statisticians, demographers, geographers, and analysts produce independent small-area demographic and socioeconomic estimates and forecasts for the United States. The team develops exclusive demographic models and methodologies to create market-proven datasets, many of which are now industry benchmarks, such as Tapestry<sup>™</sup> Segmentation, Consumer Spending, Market Potential, and annual Updated Demographics. Esri<sup>®</sup> demographics power ArcGIS<sup>®</sup> through dynamic web maps, data enrichment, reports, and infographics.



#### Esri, the global market leader in geographic information system (GIS) software, offers the most powerful mapping and spatial analytics technology available.

Since 1969, Esri has helped customers unlock the full potential of data to improve operational and business results. Today, Esri software is deployed in more than 350,000 organizations including the world's largest cities, most national governments, 75 percent of Fortune 500 companies, and more than 7,000 colleges and universities. Esri engineers the most advanced solutions for digital transformation, the Internet of Things (IoT), and location analytics to inform the most authoritative maps in the world.

Visit us at esri.com.

# For more information, visit esri.com/data/esri\_data.



#### **Contact Esri**

380 New York Street Redlands, California 92373-8100 USA

1 800 447 9778 τ 909 793 2853 ϝ 909 793 5953 info@esri.com esri.com

Offices worldwide esri.com/locations