

A Practitioner's Guide to Custom Industry Segmentation

INTRODUCTION

When off-the-shelf industry segmentation doesn't align with a business's vertical definitions, marketers need to create custom segmentations by mapping standard codes to their vertical definitions. This paper reviews when custom segmentation is necessary to meet business needs and explains a clear step-by-step methodology to perform what may otherwise have been a challenging exercise.

WHY HAVE MARKET SEGMENTATION?

Market segmentation enables business leaders to better understand their customers and their needs. The results and consequent learnings may influence decisions across the organization in a number of functional areas. For instance, marketers, who are typically the primary users and often the owners of a company's segmentation rules, need to understand which groups of customers are most important to their business. Strategically, this enables them to gauge market penetration and identify pockets of unmet demand to inform new product development. Tactically, segmentation analysis allows marketers to *identify and target* the best prospects and to market to them most effectively, and it allows sales organizations to *align resources*.

Common segmentation dimensions include geography, company size (usually measured by revenue and/or employees), geography, and industry vertical.

Industry classification codes categorize companies by their business activity. The SIC and NAICS codes are the most commonly used industry classification codes in the United States. Knowing the SIC and/or NAICS codes for a company enables businesses to locate information about its industry and competitors.

Primary codes represent the line of business from which the company generates the most revenue. Sometimes a secondary code is also provided. Among the reasons SIC and NAICS codes are used by businesses:



To identify existing and potential companies by industry.



To create targeted marketing campaigns.



To identify competitors in their industry or region.

SIC

- Developed by the U.S. government in the late 1930s and last revised in 1987.
- No longer maintained by the federal government but still used by organizations and companies.
- Government assigned SIC codes were defined at two, three, and four-digit levels.
- To offer finer granularity to customers, Dun & Bradstreet extended the taxonomy to eight digits. For example: 5812 represents 'eating place'; 58120108 represents "Italian restaurant".
- To help companies who have built their systems on SIC codes, we continue to maintain both the standard SIC code and this higher resolution level.

NAICS

- Developed in 1997 by government agencies of the three North American Free Trade Agreement countries: the U.S., Canada, and Mexico.
- Contain up to six digits; like SIC codes, the longer the number, the more specific the industry.
- Since many companies still use SIC codes, D&B maintains a proprietary crosswalk between SIC and NAICS codes.

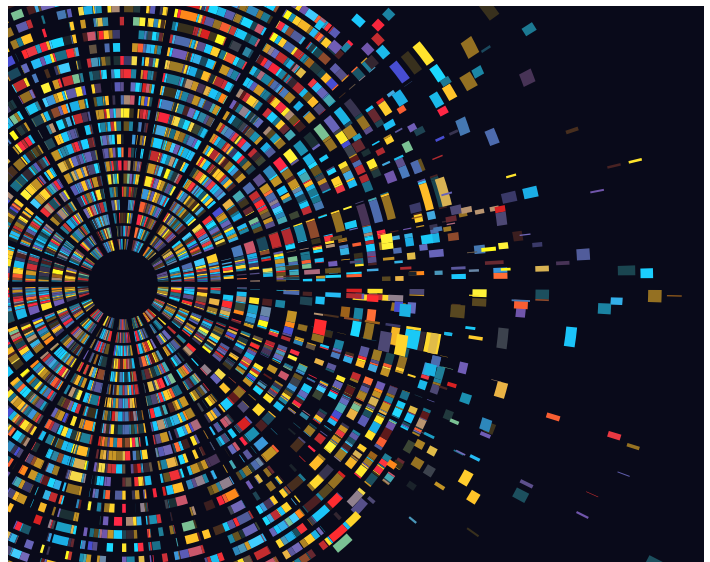
THE CASE FOR CUSTOM INDUSTRY SEGMENTATION

There are several industry classification systems. The most commonly used industry segmentation data fields are SIC (Standard Industrial Classification) and NAICS (North American Industry Classification System) codes. These classification systems use hierarchical taxonomies, grouping businesses into broad categories and subcategories to enable users to assign industries at a high level and/or granular level based on their business needs and the decisions these categories will drive. In most cases, the final categories are defined by hierarchies to allow simple groupings when possible and more granularity when needed. In a rapidly changing business-to-business environment, businesses may struggle when relying on these standard classifications. When more accuracy is required, which is most of the time, these broad categories don't match desired target segments. This is the point at which businesses consider grouping industry codes into customizable, manageable segments.

For many marketers, an off-the-shelf grouping is a suitable starting point for their custom segmentation. For example, the Industry Sector used in D&B Hoovers, which groups over 200 two-to-six-digit SIC codes into 29 sectors, may be all the customization needed, as it was designed to apply to a broad range of businesses. Other prepackaged groupings options include the Standard and Poor's and MSCI's Global Industrial Classification Standard (GICS®), designed primarily for the financial community. However, predefined categories are sometimes too broad; they may lack specificity for a particular business and not be able to support the level of customization required.

If off-the-shelf groupings don't align with a particular business's view of vertical segmentation, that business needs to consider mapping standard codes to their unique industry segments. However, this process can be messy, confusing, and time-consuming. As a result, teams either abandon their efforts or fail to deliver the mapping to the business on time, delaying critical decisions and actions.

The purpose of this guide is to walk through the custom industry segmentation mapping process. It starts with defining the business drivers for the segmentation, then outlines practical steps to output a table listing industry codes that correspond to each custom category.



Customer Case Study

A cloud computing service provider uses custom industry groupings to personalize website content.

For simplicity in both actioning data and reporting results, they needed to consolidate the roughly 90 two-digit SIC codes into a manageable number—few enough that they could plan an appropriate set of actions for each group AND few enough to fit in dashboard charts. After reviewing their business plans, they agreed on a set of 13 custom vertical categories, each with a particular set of needs (see Figure 1).

The Dun & Bradstreet Data Advisory experts then worked with them to map all two-digit SIC codes to one of the 13 categories.

Now, once they identify a site visitor using D&B Visitor Intelligence, they apply this mapping to derive the custom vertical grouping. In turn, this grouping is used to match needs to the visitor's profile so the cloud provider can present the most relevant offers to them.



DISCOVERY

SETTING THE STAGE

Before starting the industry mapping exercise, it's helpful to establish context. This is best done by creating a shared document, as it makes it easier to refer to the true business goals in order to guide the effort.

Here are questions we recommend addressing:

Business goals of the custom industry segmentation exercise:

- ✓ Why is industry classification important to our business?
- ✓ What team(s) and which people/roles need the classification mapping?
- ✓ What decisions are being made with this information (e.g., are sales territories and commissions based on it)?
- ✓ How is this information used in communications (e.g., for internal reporting and/or in reporting results by industry to Wall Street)?
- ✓ What are the consequences of misclassification? Is it a mere embarrassment, does it cause channel conflict, does it affect compensation, and/or is there a hard dollar cost?

Existing segmentation:

- ✓ Does the business use an existing industry categorization? Do we have a desired set of industry categories? (If so, get a copy of the existing groupings and have a discussion of why these groups were selected.)
- ✓ What other fields are used in segmentation (e.g., revenue, employees, geography, products purchased, etc.)?

Challenges:

- ✓ What are the limitations of the current mapping approach (i.e., what is driving the need for custom segmentation)?
- ✓ What issues have arisen? Have there been any consequences, or are there potential consequences?
- ✓ How do we handle misclassifications?
- ✓ Is there a process to manually override classification for high-priority records?
- ✓ How are "other" (less-important or not identified) industries grouped?

SETUP

GATHERING THE PIECES

With the context of the classification project set, the next step is to gather the tools and items needed to map standard industry codes—including the most common, SIC and NAICS—in custom industry segments:

Discovery findings

Starting with a best practice, make sure the team keeps the business goals front and center. Refer to them frequently. Review the questions and post responses to the questions so as not to lose sight of the intended goal(s).

Desired mapping categories

This is the list of custom industry segments or categories into which the business needs customers and prospects to be sorted. Ideally, it contains definitions of each category along with examples of top customers. Depending on the business and the use case, we generally find that aiming for five to 20 categories leads to more productive discussions, easier reporting, and clearer decisions (see Figure 1).

Industry data on specific companies

If not already documented, have a way to look up the industry code for sample businesses. This may be a flat file from a third party or an online tool such as D&B Hoovers.

Industry classification reference

This should be a nested list of SIC or NAICS codes with definitions for each value. Dun & Bradstreet maintains more detailed categories for the SIC codes than the US Department of Labor does! These industry code tables are available here: dnb.com/utility-pages/dnb-demographic-firmographic-code-tables.

Spreadsheet tool

Although more advanced analytics tools are typically used for analyzing data based on industry codes, Microsoft Excel or Access are often readily accessible, easy to use, and suitable for this exercise.

Desired Mapping Categories		
Customer Vertical Category (The groupings)	Verticals Included (and Excluded) (These are the verticals whose codes you'll add for the mapping)	Company Examples
Agriculture, Forestry, Fishing	Crops, Livestock, Forestry	Cargill, Tyson Foods
Mining	Metal, Coal, Oil and Gas	Rio Tinto, Southern Copper
Construction	Residential and Commercial	Bechtel, AECOM
Manufacturing	Food, Chemicals (excluding Pharmaceuticals), Paper, Electronics, Petroleum Products	Nestle, Pepsi, Mars, Kimberly-Clark, Nissan Motors
Transportation	Land, Rail, Water, and Air Travel; Pipelines	FedEx, A. P. Moller–Maersk, American Airlines
Wholesale	Durable and Non-durable Goods	WorldWideBrands, Sysco
Retail	Food, General, Automotive, Apparel, Furniture, excluding Restaurants and Bars	Walmart, Kroger, Pep Boys, Target
Finance, Insurance, Real Estate	Deposit and Non-deposit Credit, Insurance, Realtors	JPMorgan Chase, Farmers Insurance
Personal Services	Amusement, Personal Grooming, excluding Health Care and Hospitality	Supercuts, Six Flags
Hospitality	Restaurants, Hotels, Bars	Hilton, Starbucks
Professional Services	Legal, Social, Engineering, Accounting	KMPG, ADP, SAP
Public Administration	Federal, State, and Local Governments	The state of New Jersey, Westfield Public Schools
Health Care and Life Sciences	Hospitals, Doctors' Offices, Pharmaceuticals	Mayo Clinic, CVS, Bristol Myers Squibb

Figure 1: An example of a cloud computing provider's categories group verticals that have similar needs, which means they can be addressed with similar solutions.

PROCESS/MAPPING

GENERAL APPROACH

General approach

Segmentation is typically established by analyzing existing customers. If this has not yet been done, the first step is to consistently append an established coding system such as SIC or NAICS to existing clients. If the effort is too large to tackle all at once, we recommend focusing on industries with a proportionally large number of customers or prioritizing based on current spend. Considering additional fields may also help you understand who the customer is and why it should be classified in a particular industry group. For example, if customers are purchasing the same specialized product(s) or service(s) from you, their needs may be considered similar enough to be categorized together. Other times, products may be generic or universally useful and not applicable in determining industry classification.

There are multiple ways of accomplishing this task, but one relatively simple, methodical approach is to start with the nested list of industry codes and add columns for the individual custom categories. This is the column where we will enter the grouping or category that each code belongs to. In our experience, we have used two general approaches to setting up these columns:

- **A single column** in which to add the custom category.
- **Multiple columns for custom categories.** In this format, the correct columns are marked or checked to represent the assignment for each row. This approach allows better visibility to all the available categories. By making the options easier to visualize, this approach makes it easier to handle ambiguous situations in which a standard category may appear to fit into multiple custom categories.

Your efforts should begin by mapping at the highest possible level, assigning a custom category to two-digit industry codes. If you find that companies from the same two-digit standard code land in different custom categories, this signals additional details are needed.

Whether you use one or multiple columns, here are the steps.

For each row of two-digit industry codes:

1. **Standard code to custom category.** If the two-digit SIC code clearly belongs in a custom category based on descriptions, type that category in the Custom Category column corresponding to the row.
2. **Custom category to standard code.** When cases are less obvious, it may help to work from the custom category to the standard code instead (see Figure 2, below on the following page). Tactics include:
 - **Search for keywords** from the custom category in the standard code definition.
 - **Look up examples** of top companies from your “Desired mapping categories” document (referenced above). Note the industry codes assigned to these companies. These industry codes should be added to this category.
 - **Look for exceptions.** When companies with the same two-digit custom category land in different custom categories:
 - › **Drill down** to the four-digit standard code.
 - › **Check adjacent** standard codes; should they be added?
 - › **Attempt to move up** a level, as a check. Should the whole level be assigned? For instance, if you are at a four-digit SIC level, should you select at the three-digit or the two-digit level?
3. **Repeat** steps 1 and 2 for all rows; continue drilling down as needed until all standard code rows are assigned to a custom category and all conflicts and exceptions are resolved through iteration. For instance, drilling down to an even more granular level, such as the six-digit NAICS codes or D&B’s proprietary six- and eight-digit SIC codes, may be required.

Sample Mapping

Example of how two-digit SIC codes are assigned to the Manufacturing category

Category	SIC2	SIC2 Description	Exceptions	Exception Description
Manufacturing	20	Food and Kindred Products		
	21	Tobacco Products		
	22	Textile Mill Products		
	23	Apparel, Finished Products From Fabrics, and Similar Materials		
	24	Lumber and Wood Products, Except Furniture		
	25	Furniture and Fixtures		
	26	Paper and Allied Products		
	27	Printing, Publishing, and Allied Industries		
	28	Chemicals and Allied Products	2834	Pharmaceutical Preparations
	29	Petroleum Refining and Related Industries		
	30	Rubber and Miscellaneous Plastic Products		
	31	Leather and Leather Products		
	32	Stone, Clay, Glass, and Concrete Products		
	33	Primary Metal Industries		
	34	Fabricated Metal Products		
	35	Industrial and Commercial Machinery and Computer Equipment		
	36	Electronic and Other Electrical Equipment and Components		
	37	Transportation Equipment		
	38	Measuring, Photographic, Medical and Optical Goods, and Clocks		
	39	Miscellaneous Manufacturing Industries		

Figure 2: Example of a cloud computing provider's two-digit SIC codes included under the Manufacturing vertical grouping. Note: Since Pharmaceutical Manufacturing is classified under Health Care and Life Sciences, we need to create an exception for SIC 2834 from Chemical and Allied Products (SIC 28).

Common challenges

Reclassifications and ambiguities

In working with clients, the Dun & Bradstreet team sees common reclassifications. For example, veterinarians, who are typically moved from the default SIC code of 07 (Agricultural Services) to a Professional Services category (D&B Hoovers categorizes veterinarians as Miscellaneous Professional Services) or even as a Medical Services custom category.

Some reclassifications are a matter of perspective. Amazon is typically classified as an online retailer, but some businesses may view them as a technology company based on their Amazon Web Services subsidiary. Likewise, Apple may be viewed as a manufacturing company in

some contexts and as a technology company in others. These are important points to review with the business's leaders to make sure the company in question receives the right treatment.

Large conglomerates also pose a challenge as they may have business units operating in different sectors. For example, General Electric is known for having dozens of business units operating in different lines of business. Since the industry classification is assigned at the location level based on the highest-revenue activity, some may choose to override this location-level data and instead apply the same classification as the primary GE business unit or even the Ultimate Parent company.

As you define industry segmentation, you may also need to consider companies with multiple divisions and lines of business (such as the GE or Amazon examples above) to determine if the custom category applies to the entire enterprise or to specific divisions. In such cases, it is critical to apply the custom segmentation at the right level of your customer's corporate family tree.

Absence of data

While datacentric teams aim for perfect fill rates, they also know this is not a realistic expectation either as a result of non-match or unavailable data. Therefore, one must plan for incomplete data. In such cases, they may use other information as a proxy. For example, company name and first-party purchase data can be used to infer the industry vertical. When this fails, they may draw on other segmentation variables (size, age, geography) to try to glean insights into these businesses. If an industry classification cannot be applied, consider grouping these accounts in an "Other" category. Taking value (e.g., spend or opportunity) into account may help prioritize stewardship efforts to resolve these blanks.

It can also be useful to consider whether the lack of an assigned industry classification, which is more common for newer businesses, can be indicative of sales potential. For example, micro or alternative lenders may view these businesses as good prospects, as they can partner early, embed their services, and grow with them. Similarly, technology firms whose products are designed for newer businesses may find these to be excellent prospects.

Getting feedback

As mentioned earlier, various business stakeholders (partner functions in sales, operations, marketing, and finance) will likely need to be consulted to make decisions on ambiguities. Even if the mapping proves relatively straightforward, though, the team should review the resulting categorization results with the business owners and prepare to make adjustments based on their feedback.

Consider making adjustments to your custom industry segmentation if the nature of your business changes. For example, if you have new products or territories that impact your customer base or opportunity, reclassifications may be needed.

GETTING STARTED

Customizing your industry segmentation doesn't have to be an overwhelming task. Consider these options:



DO IT YOURSELF

Our intention in writing this guide is to help break down the process of creating custom industry categories into simple steps, allowing you to get started on your own. Please reach out to your Dun & Bradstreet Client Director or Customer Engagement Director with questions on our datasets. If you don't know your Client Director, go to support.dnb.com so our Customer Service team can put you in touch with your assigned team. If you are new to Dun & Bradstreet or do not know whom to contact, you are welcome to contact one of the authors.



BRING IN EXPERT HELP

If you are facing a particularly challenging segmentation exercise, it may make sense to bring in our Data Advisory Services team to help complete the segmentation and so you can start enjoying the benefits quickly. Please contact the authors or your account team to schedule a discussion.



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