

Introduction to Value Chains in the North Carolina in the Global Economy website

What is a value chain?

A value chain describes the full range of activities that firms and workers carry out to bring a product from its conception to its end use and beyond. This includes activities such as design, production, marketing, distribution and support to the final consumer. The activities that comprise a value chain can be contained within a single firm or divided among different firms. Value chain activities can produce goods or services, and can be contained within a single geographical location or spread over wider areas. (For additional background on the origins and extensive research associated with this concept, see the Duke-hosted website, www.globalvaluechains.org .)

Value Chain Dimensions

Each industry value chain is composed of three dimensions that work together to produce final products and services for the market. These include:

Value-Added Activities: Value is created in products and services via a series of six steps: Research & Development, Design, Production, Logistics, Marketing and Services. Each of these varies in degree of importance, depending on the industry. In the visual depictions under the Value Chains tab in the NCGE website, the top line is composed of the most important value-adding activities for each industry. By hovering your cursor over these boxes, additional information on these activities and their connection with the supply chain will appear.

Supply Chain: Each industry also has an input-output process that begins with raw materials and continues through the making of components and subassemblies, final product manufacturing, distribution and sales. In the value chain visuals in the website, the supply chain is broken into five colors; each represents one of the basic stages in the supply chain. When you place your cursor over these boxes, a description of each activity will appear along with statistics on the number of firms, employees, and average annual wages per employee in North Carolina. The large arrows represent the main stages in the supply chain, whereas the boxes listed directly below a large arrow represent specific *types* of products or markets.

Supporting Industries: The third dimension of our value chain is supporting industries. Common examples include machinery manufacturers, chemical producers, and label and packaging providers. These actors are included in the bottom row of the visual depictions. By hovering your mouse over these boxes, the stages in the supply chain that are impacted by these supporting industries are highlighted, and in addition you will see statistics and additional text.

About NAIC codes:

The United States Bureau of Labor Statistics uses the North American Industry Classification System (NAIC) to identify industries. The NAIC system was developed jointly with Canada and Mexico to enable comparable statistics among the three North American Free Trade Agreement (NAFTA) countries. NAIC is a production-oriented

classification system for business establishments (defined as a single physical location at which economic activity occurs) in which economic units that use like processes to produce goods or services are grouped together. This system was implemented in 1997 to replace the 1987 Standard Industrial Classification (SIC) system. The SIC system, developed in the 1930s, was the first attempt to establish a classification system that would allow for uniformity and comparability of data collected and published by all national and state government agencies, trade associations, and research organizations (www.census.gov).

NAIC is a six-digit system designed so that the industrial coverage is progressively narrower with the successive additional digits, with six-digits as the standard. The broadest level of classification is contained in the first two digits that determine the **sector** an establishment falls within. Twenty sectors are included in the NAIC system, of which 16 are service-based and four are production-based. The next level of aggregation (three digits) determines the **sub-sector** and the fourth level corresponds to the **industry group**. It is not until one reaches the fifth digit that an **industry** is actually determined and with the sixth digit the **U.S. industry** is defined. See below for a breakdown of *Broadwoven Fabric Mills*, NAIC code 313210.

Sample Breakdown of the NAIC Classification System

NAIC level	NAIC code	Description
Sector	31-33	Manufacturing
Sub-sector	313	Textile Mills
Industry group	3132	Fabric Mills
Industry	31321	Broadwoven Fabric Mills
U.S. Industry	313210	Broadwoven Fabric Mills

Whereas the NAIC code system helps us to identify the discrete elements of a value chain, the system is not specific to any particular value chain. Rather its 20 sectors can be viewed as broad underpinnings of value chains, such as raw materials (agriculture and mining), processing and final product manufacturing (construction and manufacturing), then wholesale, retail, service, and supporting industries (design, government, business services, etc).

Source of statistics used in the NCGE website:

[Employment Security Commission of North Carolina](#)

[Reference USA](#)