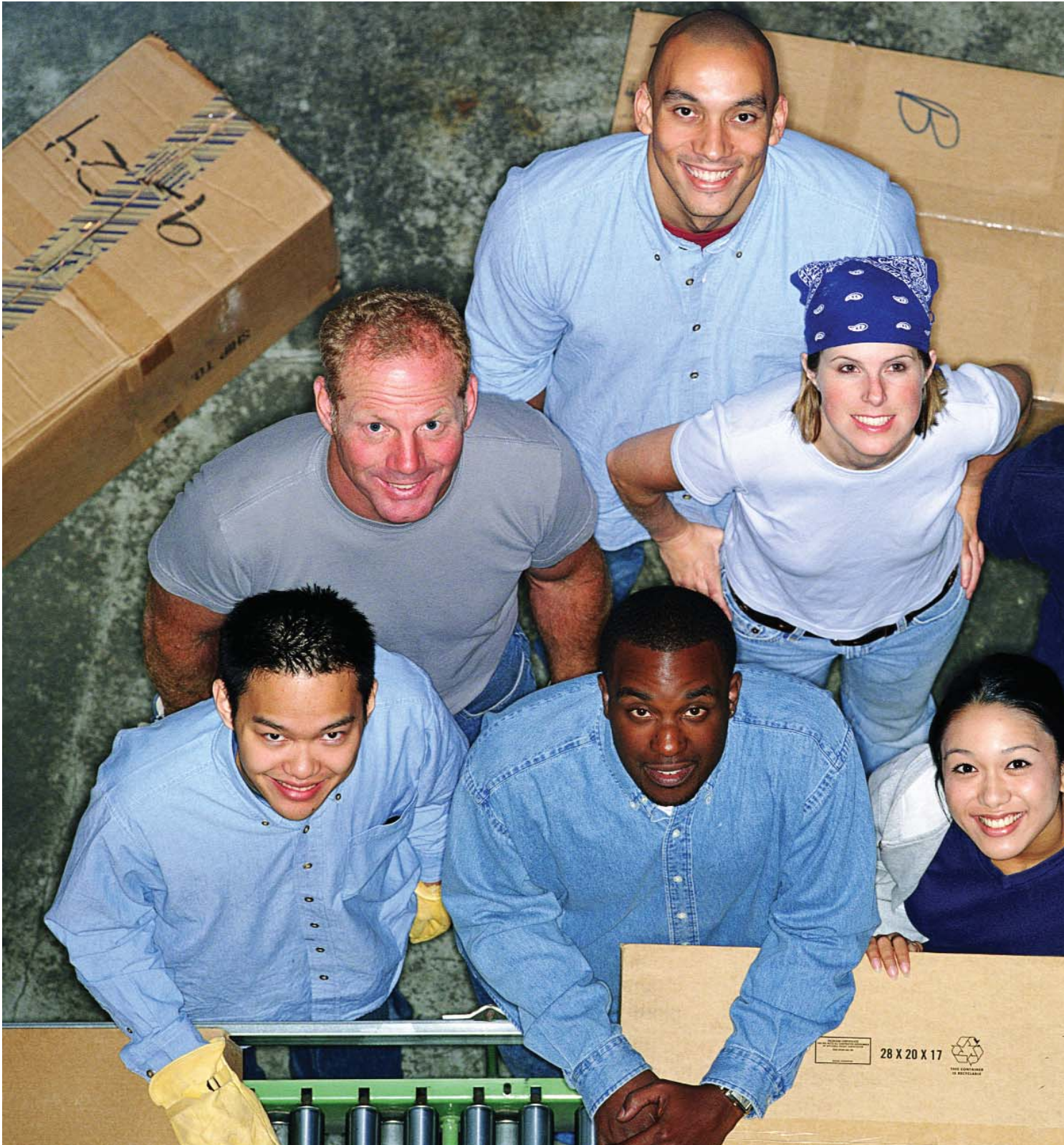


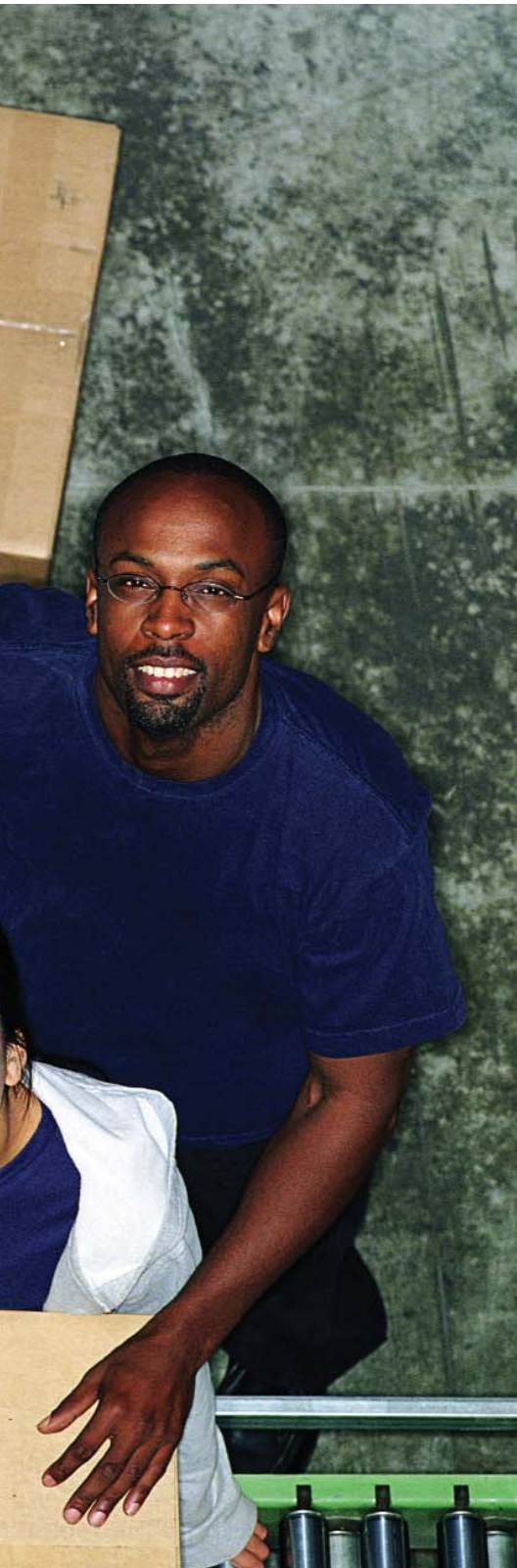
SUPPLY CHAIN MANAG



EMENT OVERVIEW



A GLOBAL TEAM EFFORT



Supply chains have eliminated U.S. manufacturing jobs but created many new jobs coordinating supply chain efforts.

by Cliff Welborn

Do you buy bread, magazines, or shoes; own a car, refrigerator, or telephone; use gasoline, toothpaste, or aspirin? If you answered yes, you have experience with supply chains. A supply chain is the collection of people and companies that work together to make products and services available to consumers. Supply chain management is a topic that has received much attention recently. While many specific industries are experiencing reductions and downsizing, supply chain management is a rapidly growing field. All products reach the end customer through some type of supply chain: it may be relatively simple with a few companies performing all of the steps to complete a product, or it may be a complex series of relationships between several different organizations located across the entire globe. Supply chain management refers to the coordination between different organizations to acquire raw materials, transform them into finished goods, and deliver products to customers. Like all organizations, supply chains are made up of people. The people in a supply chain are responsible for performing many different activities.

As the name implies, a supply chain has some similarities to a physical chain. Different organizations in the chain represent individual links. When one link in a physical chain fails, the entire chain fails. The same is true in a supply chain: if one organization fails to perform its tasks, the entire supply chain will fail. In the past, many companies wanted to operate under a strategy known as *vertical integration*. They wanted to own and control all of the functions necessary to bring a product to its finished state and not rely on other companies to perform work on their products. An alternate strategy is for a company to focus on its *core competency*: the thing the

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Figure 1. Supply Chain Activities

Planning and Communicating



PhotoDisc

Acquiring Raw Materials



Corbis

Manufacturing Products



Dynamic Graphics Inc.

Warehousing Goods



Brand X Pictures

Selling to Customers



Image 100

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company is best at doing. In a modern supply chain, different companies work together, each performing only its core competency to complete a task. Core competencies might include planning and coordinating activities, finding and selecting supply chain members, making products, and transporting products to supply chain members and customers. When each member of a supply chain performs only the activities it is good at, the overall supply chain becomes more efficient than a single company trying to perform all necessary functions on its own.

Supply chains have many different sizes and configurations; Figure 1 depicts a common arrangement. Each stage represents individuals who perform their particular job function. Career choices within the supply chain management field are as diverse as the industries involved.

Some members of a supply chain are responsible for planning activities and communicating the plans to supply chain partners. Others are responsible for acquiring the raw materials (metal ores, crops, livestock, etc.) that will be used to produce products. Some partners are responsible for converting raw materials into finished goods. These manufacturing jobs are found in workplaces ranging from small shops with just a few workers to giant factories with thousands of employees. Manufactured products are often sent to warehouses before they are taken to their final retail destinations. In warehouses, employees manage the unloading, storage, and loading of inventory. From warehouses, products are sent to retail locations where consumers purchase them. Throughout the entire chain are people involved with the distribution of products from one stage to the next. Distribution employees transport products from one location to another.

Supply chain management seeks to find the best organization to perform each task required to transform a product from conceptual design through raw material to finished consumer item. Global supply chain management not only considers the best domestic source but also the best source worldwide to perform a task. While this approach has decreased the number of manufacturing jobs in the U.S., it has created many new jobs related to coordinating supply chain members' efforts and transporting and distributing products. Today, many companies specialize in providing logistics and distribution support services, which include such activities as analyzing data, warehousing products, and transporting goods from location to location.

Much supply chain management focuses on distribution or logistics functions. The products of a supply chain must be physically moved from

one location to another to allow each specialized link to perform its task. Coordinating the supply chain efforts and making sure transportation is efficient are major objectives. Computer systems are often used to help analyze data used in making logistics decisions such as who should perform each task, when a task should begin, how much material is needed, and what is the best transportation method (plane, boat, train, truck).

Many logistics and distribution firms choose to locate in Tennessee due to our transportation infrastructure (roads, rail systems, interstates, and airports) and proximity to a major portion of the U.S. population. There are more people within a six-hour drive of Nashville than anywhere in the country. Fifty percent of the U.S. population lives within 600 miles of Nashville. Tennessee has 1,105 miles of interstate system. Nashville is one of only four U.S. cities to have six legs of interstates converging within its limits. Tennessee's interstates include I-40 east-west from Memphis to Knoxville; I-65 north-south through Nashville; I-24 east-west through Nashville; I-75 north from Chattanooga to Jellico; I-55 north-south through Shelby County; and I-81 from near Knoxville to Bristol. In addition, Tennessee has six major rail lines operating on 2,340 miles of track and 888 miles of navigable river channels. Tennessee has six commercial and 75 general aviation airports. Air cargo carriers operate from Chattanooga, Knoxville, Memphis, Nashville, and Tri-Cities Regional airports. Annually, \$287 billion in goods are shipped from sites in Tennessee and \$200 billion in goods are shipped to sites in Tennessee using a combination of plane, boat, train, and truck carriers. This complex distribution network requires a skilled workforce to support its planning, storage, and transportation activities.

Ultimately, a supply chain is a team of people working together to satisfy a customer's needs. Members have new business titles but perform the basic business functions that have existed for years. What makes the modern supply chain different from previous operations is the growing trend toward globalization. Today's world-class supply chain knows no geographical boundaries. Partners are selected based on their ability to perform needed activities. The goal is to design the most efficient and effective supply chain and benefit the end customer. Tennessee companies become supply chain partners by contributing their core competencies. This brings a new type of job growth to the state and makes consumer products available in the most efficient manner possible. ■

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