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U.S. Fresh Produce Markets

Marketing Channels, Trade Practices, and Retail Pricing Behavior

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Abstract

Retail consolidation, technological change in production and marketing, and growing consumer demand for produce have altered the traditional market relationships between producers, wholesalers, and retailers. Increasingly, produce suppliers are asked to provide additional marketing services and incentives in exchange for volume purchases and other commitments by buyers. This report synthesizes the results from a multiphase project that examined the dynamics of produce marketing, the produce shipper-retailer relationship, and how changes in the produce market affect the relative market influence of producers, retailers, and consumers.

Keywords: Fresh fruits and vegetables, fresh produce, fresh produce marketing channels, supermarket, market power, competition, trading practices.

Acknowledgments

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Summary

By all accounts, marketing fresh fruits and vegetables has been transformed. First, consumer demand has increased for greater variety and quality in fresh produce. Second, supermarkets have merged, acquired new stores, and grown larger. Third, anecdotal evidence suggests that the role of merchant wholesalers in produce has become less important while that of the foodservice sector has increased. And fourth, nonprice provisions such as marketing fees have grown increasingly common in transactions between retailers and grower-shippers.

ERS's study of the produce industry aimed to answer several questions. What is the current state of the produce industry? How do produce shippers and retailers conduct business? And is the increased use of different types of marketing fees the result of growing retailer influence or business efficiencies?

The scarcity of public data led ERS to use a three-pronged approach.

- ERS collaborated with Cornell University, and exhausted the public domain for data describing the fresh produce industry; these results are published in the ERS report, *Understanding the Dynamics of Produce Markets: Consumption and Consolidation Grow*, August 2000.
- Because data on transactions between shippers and retailers are scarce, ERS—in collaboration with the University of California, Davis; University of Arizona, and University of Florida—conducted interviews of shippers, retailers, and wholesalers for information on marketing of grapes, oranges, grapefruit, tomatoes, lettuce, and bagged salad. While the small number of interviews warrant caution in interpreting the findings, the research enhances understanding of recent changes in produce marketing. Results from this portion of the project are published in *U.S. Fresh Fruit and Vegetable Marketing: Emerging Trade Practices, Trends, and Issues*, January 2001.
- ERS contracted studies with university researchers to assess the pricing by retailers for some fresh produce commodities in selected markets. Timothy Richards and Paul Patterson (Arizona State University) investigated supermarket retailer behavior in the selling and buying of Washington apples, California oranges, California grapes, and Florida grapefruits in *Competition in Fresh Produce Markets: An Empirical Analysis of Channel Performance,* published by ERS in September 2003. Richard Sexton, Mingxia Zhang, and James Chalfant (University of California, Davis) examined the market for California and Arizona iceberg lettuce, packaged salads, and Florida and California tomatoes in *Grocery Retailer Behavior in the Procurement and Sale of Perishable Fresh Produce Commodities*, published by ERS in September 2003.

U.S. produce markets have evolved considerably since the 1980s. Per capita consumption of fresh fruits and vegetables increased 6 percent between 1987 and 1995, and 8 percent between 1995 and 2000. New products were introduced to meet burgeoning consumer demand, and as a result, the average produce department is larger. The marketing channels have changed also. The share of produce volume sold directly by grower-shippers to retail supermarkets has increased, as have sales to the foodservice sector.

Mass merchandisers, emphasizing everyday-low-price strategies, have provided new competition for supermarkets. In response, large supermarket retailers have emphasized customer service while pursuing efficiency gains and lower capital investment costs. Many of them have merged or acquired other chains, citing the potential for lower costs through streamlined operations, volume discounts in buying, and exclusive partner relationships. Consolidation through mergers and acquisitions by grocery retailers has produced a significant increase in the share of total U.S. grocery store sales by the largest firms.

Coincident with these changes were new provisions in retailer-shipper transactions. Most controversial is the "slotting fee," where suppliers pay a lump sum to retailers for introducing their new products to the supermarket shelves. The use of fees and services is controversial. Some argue that they are a manifestation of retailers' market power over shippers, while others suggest the various fee and service requests have efficiency-based motives. Because both points of view are valid, empirical evidence is needed to provide greater insight into the factors underlying fees and retail consolidation. To date, no comprehensive empirical studies have examined these issues, largely because transaction data are proprietary. Thus, the issue remains unresolved.

To assess emerging practices in the produce sector, such as retailers' requests that shippers pay slotting fees or provide services like customized containers, it helps to understand the importance of retailer market power. If they possess little or no market power, then fee and service requests must be driven by efficiency concerns, in which case policy response is inappropriate. If market power exists, fees and services may be a symptom of that market power, but the appropriate policy remedies may not focus on disallowing use of such fees and services so much as the exertion of market power itself. If retailers hold market power over grower-shippers or consumers, banning the use of particular fees and/or services may simply cause that power to be manifested elsewhere, such as in lower acquisition prices, and perhaps at the cost of reduced efficiency.

Econometric analysis indicated that retailers do influence prices paid to fresh produce shippers and by consumers for some commodities. Retailer ability to hold shipper prices below competitive prices was evident for grapefruit, apples, and lettuce, but not for tomatoes, grapes, and oranges. Consumer prices in excess of purely competitive prices were evident for apples, oranges, grapefruit, fresh grapes, tomatoes, and lettuce.

ERS' multiphase project has provided a deeper understanding of the relationship between retailers and shippers, ranging from the form of the transaction to the degree of retailers' influence over prices paid to shippers for some products. Despite these advances, several important questions remain. Specifically, does the presence of market power engender new trends in marketing, such as direct buying from grower-shippers, supply chain management, and fees and services? Or are they the outcome of efforts to gain distribution efficiencies? Making that determination requires additional research.

Introduction

The fresh produce market has changed markedly over the last 15 years. Shifts in consumer demand, technological change in production and marketing, and retail consolidation have altered the traditional market relationships between producers, wholesalers, and retailers. Consumers are eating more fresh produce, purchasing a wider variety year-round, and demanding more convenience, like bagged salads. Information technology has introduced efficiencies throughout the supply chain, reducing production and marketing costs. Retail consolidation has occurred rapidly as large supermarket firms have merged or been acquired. Mass merchandisers and warehouse club retailers are selling an increasing volume of food products with low-price strategies. Fresh fruits and vegetables sold to restaurants, fast-food outlets, and other foodservice operators have grown to account for more than half of all retail produce sales.

Against this backdrop of changing supply and demand relations, fresh produce suppliers for supermarkets and mass merchandisers are being asked to provide additional marketing services and incentives in exchange for volume purchases and other commitments by buyers. The demand for such fees and services coincides with new modes of supermarket retailer operation.

To assess emerging practices in the produce sector, such as retailers' requests that shippers pay slotting fees or provide various services, it helps to understand the importance of retailer market power. If they possess little or no market power, then fee and service requests must be driven by efficiency concerns, in which case policy response is inappropriate. If market power exists, fees and services may be a symptom of that market power, but the appropriate policy remedies may not focus on disallowing use of such fees and services. Rather, the focus of policy should be on the exertion of market power itself. If retailers hold market power over grower-shippers or consumers, banning the use of particular fees and/or services may simply cause that power to be manifested elsewhere, such as in lower acquisition prices, and perhaps at the cost of reduced efficiency.

To put the changing relationship between produce suppliers and supermarket retailers in perspective, ERS, at the request of the Secretary of Agriculture, conducted a multiphase project, the results of which are summarized in this report. The overall project had three major objectives:

- Develop a comprehensive overview of the produce industry from grower-shipper to retailer, including consumption and retail sales trends, markets and marketing channels, and the changing structure of produce buyers.
- Identify and characterize the types of trade practices used in the produce industry, including fees and services provided by shippers, contracts, and other marketing strategies.
- Analyze shipper-to-retailer and retailer-to-consumer pricing behavior to assess the relative influence of retailers, grower-shippers, and consumers in the market for fresh produce.

The project focused on several homogeneous fresh produce items: California grapes, California oranges, California vine-ripe tomatoes, Florida and California mature-green tomatoes, Florida grapefruit, California and Arizona lettuce, bagged salads, and Washington apples.[1] These products were selected for their importance as a share of total production volume or share of retail sales. In terms of farm value, leading fruit products are grapes, oranges, and apples. (In terms of volume, apples, oranges, grapefruit, and grapes are the top fruit products.) The fruits with the highest value at the retail level in 1997 were apples, oranges, and strawberries. In terms of farm value, leading vegetable products were potatoes, tomatoes, and lettuce. At the retail level, the top three vegetables in 1997 were lettuce, tomatoes, and potatoes.

All of the issues summarized here are examined in detail in several companion publications (see box).

[1]Apples are included in the examination of retail pricing behavior only, while both trade practices and retail pricing behavior are explored for oranges, grapefruit, grapes, tomatoes, and lettuce.

The Project's Publications

ERS collaborated with Geoffrey M. Green, Edward W. McLaughlin, and Kristen Park, from Cornell University, to develop a comprehensive overview of the produce industry, including changes in consumption, retail sales, and marketing channels. The research relied on public data to document changes in produce markets from 1987 to 1997 in the United States, and identified consumer, retailer, wholesaler, and supplier forces acting on market channels. The results of this research were published in the ERS report, *Understanding the Dynamics of Produce Markets: Consumption and Consolidation Grow*, published by ERS in August 2000.

ERS collaborated with researchers from the University of California (Roberta Cook-Canela), University of Arizona (Gary Thompson), and University of Florida (Suzanne Thornsbury). The results of this effort were published as *U.S. Fresh Fruit and Vegetable Marketing: Emerging Trade Practices, Trends, and Issues,* published by ERS in January 2001. In this report, ERS relied on in-person discussions with shippers, wholesalers, and retailers to provide a rich description of current marketing practices, covering sales channels, types of sales, and fees (including the widely discussed slotting fee) and services that are frequently part of transactions.

Timothy Richards and Paul Patterson (Arizona State University) investigated supermarket retailer behavior in the selling and buying of Washington apples, California oranges, California grapes, and Florida grapefruits in *Competition in Fresh Produce Markets: An Empirical Analysis of Channel Performance,* published by ERS in August 2003. Richard Sexton, Mingxia Zhang, and James Chalfant (University of California, Davis) examined the market for California and Arizona iceberg lettuce, packaged salads, and Florida and California tomatoes in *Grocery Retailer Behavior in the Procurement and Sale of Perishable Fresh Produce Commodities*, published by ERS in August 2003.

Today's Produce Industry[2]

Fresh fruit and vegetable products move quickly through the marketing system to combat spoilage. After harvest, fresh produce is handled and packed either by a shipper or grower-shipper. Produce grown in the United States may be exported, or sold direct to consumers, retail stores, or foodservice establishments. Sales from grower-shippers to retailers and foodservice establishments might be mediated by wholesalers or brokers, or might occur directly.

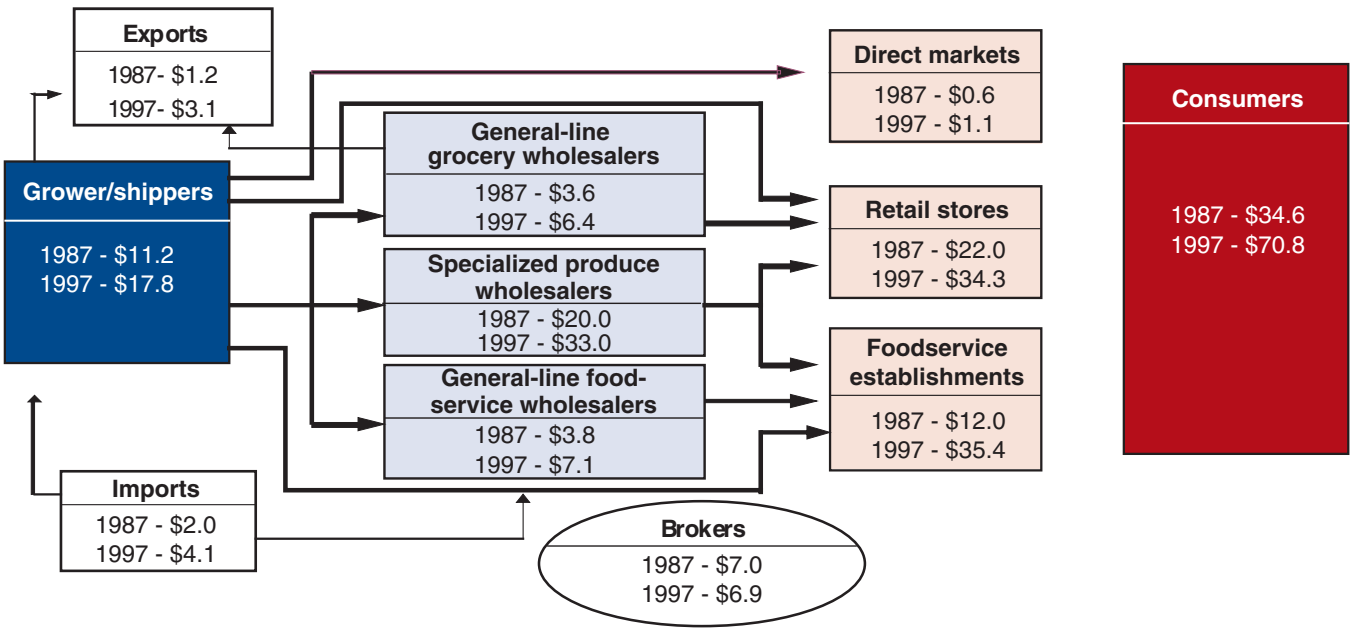
These marketing channels have undergone considerable change since the late 1980s. Prior to 1987, fresh fruit and vegetable markets were more fragmented; most transactions took place between produce grower-shippers and wholesalers on a day-to-day basis, based on fluctuating market prices and quality levels. Today, a typical produce sale may take place between a multi-product grower-shipper and a large supermarket retailer under a standing agreement or contract specifying various conditions and terms, including marketing services provided by the grower-shipper, volume discounts, and other price adjustments and quality specifications. Changes in these marketing services coincided with the growth of value-added and consumer-branded products, increasing variety, consolidation of food wholesalers and retailers, the expansion of the foodservice sector, and the greater role of produce imports and year-round supply.

In 1997, $1.1 billion worth of produce was sold directly to the consumer, $34.3 billion in retail stores, and $35.4 billion through foodservice establishments (fig. 1). While the dollar amount of produce moving through specialized produce wholesalers increased from $20 billion in 1987 to $33 billion in 1997, the share of produce wholesaler sales to retailers declined —from 38.1 percent to 34.6 percent (fig. 2). Large retail stores have increased the volume of direct purchases, bypassing produce wholesalers. At the same time, wholesalers dramatically increased their share of produce sales to the foodservice channel—from 8.4 percent of sales in 1987 to 21.2 percent of sales in 1997. This threefold increase occurred as consumers devoted more of their food dollar to restaurants, fast-food outlets, schools, and other foodservice outlets.

Americans are spending more on fresh produce, and in addition to buying a greater quantity of produce, they are buying new value-added products. Per capita consumption of fresh fruits and vegetables increased 6 per-

[2]For additional information on the material in this section, see Kaufman et al., 2000.

Figure 1
Fresh fruit and vegetable marketing channels 1987 and 1997

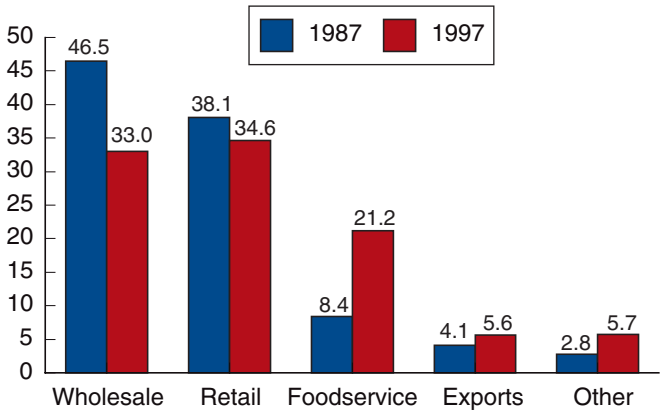


Note: All values are in $ billion.
Sources: Census of Wholesale Trade Census of Retail Trade; Blue Book, 1997; McLaughlin et al., 1998.

Figure 2

Produce wholesalers sales

Produce wholesaler sales to retailers declined while sales to food service increased



Source: Census of Wholesale Trade, 1987 and 1997.

cent between 1987 and 1995, and 8 percent between 1995 and 2000 (table 1). As consumption has increased, so has the demand for variety, convenience, and quality, as evidenced by the explosion in produce department offerings (fig. 3). Many products (for example, lettuce and tomatoes) are available year-round, produce is precut, and more packaged and branded products are available. The share of branded produce increased from 7 percent in 1987 to 19 percent in 1997, while fresh-cut produce and packaged salads rose from 1 percent to 15 percent of total sales (fig. 4).

Supermarkets, including supercenters,[3] accounted for the largest share (91.5 percent) of produce sales in foodstores in 1997, amounting to $30.2 billion. Produce sales by supermarkets and supercenters totaled almost 43 percent of total retail produce sales by foodstores and foodservice establishments (Kaufman et al., 2000). For this reason, supermarket developments have considerable impact on wholesalers, grower-shippers, and other intermediaries.

Economic forces—from both consumers and competitors—have been changing the environment in which supermarkets compete. The share of income spent for food-at-home purchases continues to fall. Consumers spent almost 47 percent of their food dollars in the foodservice/restaurant sector in 2000, compared with 44.7 percent in 1987 and 46.6 percent in 1997 (ERS, 2003).

[3]A supercenter is a large combination supermarket and discount general merchandise store, with grocery products accounting for up to 40 percent of selling area.

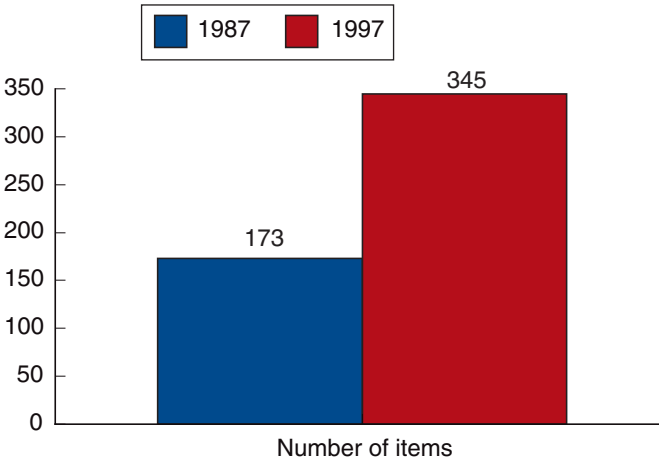
Table 1—U.S. consumption of fresh fruits and vegetables

	Pounds of Consumption Per Capita		
	1987	1995	2000
Fresh fruits	121	125	130
Fresh vegetables	162	177	196
Total	283	301	326

Source: USDA, *Fruit and Tree Nuts Situation and Outlook Yearbook*, 2000, and *Vegetables and Specialties Situation and Outlook Yearbook*, 2000.

Figure 3

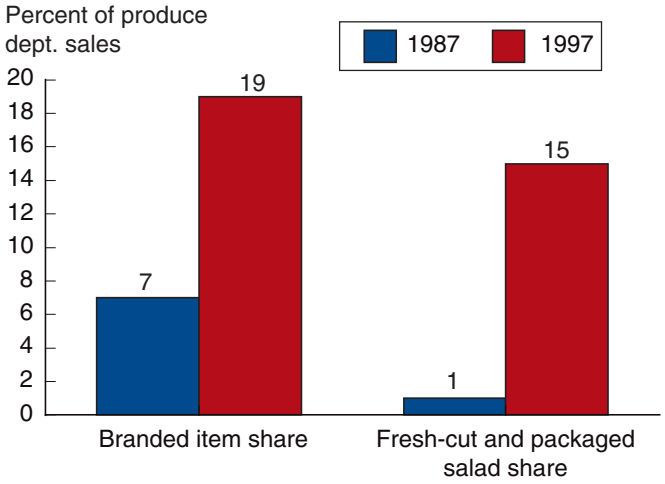
The variety of fresh produce items carried by retailers has increased



Source: Supermarket Business, October 1999.

Figure 4

Branded and packaged items account for a growing share of produce sales



Source: P. Kaufman, et. al. "Understanding the Dynamics of Produce Markets," USDA-ERS (AIB-758).

In addition, rapid expansion of retail food sales by mass merchandise and warehouse club stores has provided additional competition; they captured 8.5 percent of total retail food sales in 2000, up from 2.4 percent in 1987 and 6.8 percent in 1997. Meanwhile, the share of food sales by supermarkets fell from 63.7 percent to 57.8 percent over 1987-2000.

Mass merchandisers such as Wal-Mart, Kmart, and Target have emphasized everyday-low-price strategies to achieve rapid growth in food sales. They have also introduced innovations in the procurement and distribution of the products they sell to gain efficiencies and lower costs (Kinsey 2000; *Supermarket News*, 2002a, 2002b). They customarily purchase large volumes of produce to obtain the lowest prices from suppliers.

Some mass merchandisers, such as Wal-Mart, do not accept fees as part of their transactions. Instead, Wal-Mart provides suppliers with real-time store sales data to support distribution, inventory management, and instore promotion activities (Kinsey, 2000). Wal-Mart also introduced a standardized returnable (to the supplier) plastic container that is used both for distributing fresh fruit and vegetable products to their stores and for instore product display. The Wal-Mart model emphasizes cooperation and coordination of activities in the supply chain between suppliers and buyers, with the goal of reducing systemwide costs. Many features of the so-called "Wal-Mart model" were incorporated in the supermarket industry initiative known as Efficient Consumer Response (ECR), introduced in 1992.

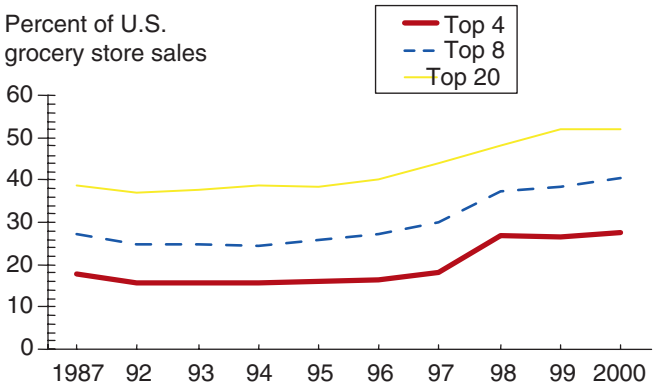
Large supermarket retailers have sought efficiency gains, in the form of lower labor and capital costs, product differentiation, and improved consumer services (*Wall Street Journal*, 1998).

Many supermarket retailers have merged or expanded through acquisitions, citing the potential for lower costs as an incentive for becoming larger (Kroger Co., 2000; Safeway, 2001; *Food Institute Digest*, 2000). Consolidating retailers have cited potential cost savings through streamlining of product distribution functions (*Wall Street Journal, The Packer*, company press releases). Large retailers typically perform wholesaling activities such as purchasing goods from suppliers, arranging for shipment to distribution warehouses, and replenishing store-level inventory.

Supply-chain management practices such as continuous inventory replenishment, the use of cross-docking facilities, direct store delivery by suppliers, and selective use of specialty wholesalers can reduce the need for large distribution centers and their associated costs. The number of distribution centers can be reduced, while remaining warehouses can be used more efficiently. Supply chain initiatives have also spurred the greater use of forward contracting arrangements that set fixed prices for suppliers.

To achieve these efficiencies, retailers are consolidating, as evidenced by a significant increase in the share of total U.S. grocery store sales by the largest firms (fig. 5). By 2000, the share of the 20 largest retailers had reached 52.0 percent of total grocery sales, up from 36.5 percent in 1987. While retail concentration at the national level has increased, concentration at the local level has not changed significantly. This is important because local concentration may influence the degree of retailer control over consumer prices.

Figure 5
U.S. grocery store concentration, 1987-2000[1]



[1]Includes grocery sales of Wal-Mart supercenters but no other mass merchandisers.
Sources: Monthly Retail Trade Survey, Census Bureau; Company annual reports.

New Relationships Between Retailers and Shippers: Trade Practices

Retailer-shipper agreements center on quantity and price considerations. Increasingly, however, retailer-shipper transactions include off-invoice marketing and trade practices. "Trade practices" cover both fees (such as volume discounts and slotting fees) and services (like automatic inventory replenishment, special packaging, and requirements for third-party food safety certification.) The term also refers to the overall structure of a transaction—for example, long-term relationships or contracts versus daily sales with no continuing commitment. The specific provisions of transactions between buyers and sellers are, by their nature, proprietary. Little public information is available, except for anecdotal information reported in trade publications.

There are differences in opinion about the growing use of fees and services in marketing produce. Shippers argue that mergers have given retailers market power over them, citing fees and services as evidence. These fees, they argue, undercut competition and reduce consumer welfare by reducing output, increasing prices, or slowing product innovation. Retailers counter that the explosion in new products exerts enormous pressure on a limited amount of shelf space, and fees serve to efficiently allocate that space. Thus, increases in fees reflect the increasing cost of retailing (Bloom et al., 2000).

To better understand trade practices, ERS and its cooperators conducted personal interviews with shippers, supermarket retailers, and wholesalers.[4] The interviews focused on the following products: California grapes, California oranges, Florida and California mature-green tomatoes, California vine-ripe tomatoes, Florida grapefruit, and California/Arizona lettuce (head, leaf, and romaine) and bagged salads. Shippers, retailers, and wholesalers answered questions about contracts, fees, marketing services, pricing, number of accounts, and length of accounts for the years 1994 and 1999.

Seventy-four personal interviews were conducted: 57 with shippers and 17 with retailers and wholesalers (table 2). Proportional random sampling was used to select the shippers interviewed, with medium and large firms given more weight in the sample selection process than small. (Small shippers sell very little to retailers, the focus of the study.) Retailers (supermarkets) and wholesalers were both large and midsized, and covered different regions.

Interview results suggest that the structure of the shipping industry varies greatly according to product. For example, in 1999 there were 149 California grape shippers, with none accounting for over 6 percent of total industry sales. At the other extreme, there were only 25 California tomato shippers, down from 31 in 1996. While there were 54 bagged salad firms selling to retailers (down from 63 in 1994), the top two firms accounted for 76 percent of total fresh-cut salad sales in supermarkets. Hence, for a few fresh produce items, concentration of sales at the shipper level has surpassed that of retailers, even though the sales of these firms may still be small relative to those of the large retail chains.

The wave of retail consolidation in the late 1990s raised the question of whether newly formed companies were merging their buying operations. If they were, shippers might have fewer supermarket customers since each buyer would be purchasing for a larger number of stores, which might increase the negotiating power of buyers relative to shippers.

When asked about the number of customers (supermarket, foodservice, and mass merchandisers), shippers reported small changes in the number of regular customers. Although some shippers reported a decrease in the total number of customers, roughly as many reported an increase. Some shippers were selling to fewer but larger retail accounts, and others were replacing retail accounts with other types, such as foodservice buyers.

Supermarket retailers report similar findings: between 1994 and 1999, retailers reported that the number of their produce buyers remained fairly constant at the corporate and division levels, although 18 percent reported a decline in field buyers. The ultimate impact on shippers of fewer supermarket field buyers is likely offset by the increase in purchases by foodservice buyers and mass merchandisers.

Although the total number of produce buyers of all types may not have changed much for most shippers between 1994 and 1999, the importance of the largest buyers has increased (table 3). The top four buyers accounted for 22 to 45 percent of sales in 1999, depending on the product. The largest increase (11

[4]Results from these interviews are reported in greater depth in Calvin et al.

Table 2—Number of firms interviewed, total number of shippers, and share of State production

Type of firm	Firms interviewed	Shippers in State	Share of 1999 State production[1]
		Number	*Percent*
Shippers			
California fresh grape	9	149	19
California orange	9	39	38
Florida grapefruit	8	110	54
California tomato	8	25	56
California tomato (repackers)	2	n.a.	n.a.
Florida tomato	6	65	32
California/Arizona lettuce[2]	8	n.a.	n.a.
California/Arizona bagged salad[3]	7	54	n.a.
Retailers and wholesalers			
National retailers	8	n.a.	n.a.
Regional retailers	6	n.a.	n.a.
Wholesalers	3	n.a.	n.a.

Notes: n.a.= Not available or not applicable.
[1]Imports and production from other States handled by these shippers were excluded in determining the sample share of State production.
[2]Lettuce includes head, leaf, and romaine.
[3]Number of firms selling bagged salads nationally to mainstream supermarkets is used as a proxy for the number of California/Arizona shippers.
Sources: Calvin et al., 2001.

Table 3—Share of total shipper sales going to top 4 and top 10 buyers, 1994 and 1999[1]

	California grapes	California oranges	Florida grapefruit	California tomatoes	Florida tomatoes	CA&AZ lettuce
Top 4 buyers:			*Percent of sales*			
1994	29	28	26	26	34	21
1999	31	34	29	28	45	22
Top 10 buyers:						
1994	47	46	54	45	48	37
1999	49	52	51	48	59	39

[1]Results are based on a limited number of observations and must be interpreted with caution.
Source: Economic Research Service, Produce Marketing Study interviews, 1999-2000.

percent) in this share was for Florida tomato shippers. Retail buyers, on the other hand, reported their top four suppliers provided from 85 to 97 percent of total purchases, depending on the product, in 1999 (fig. 6).

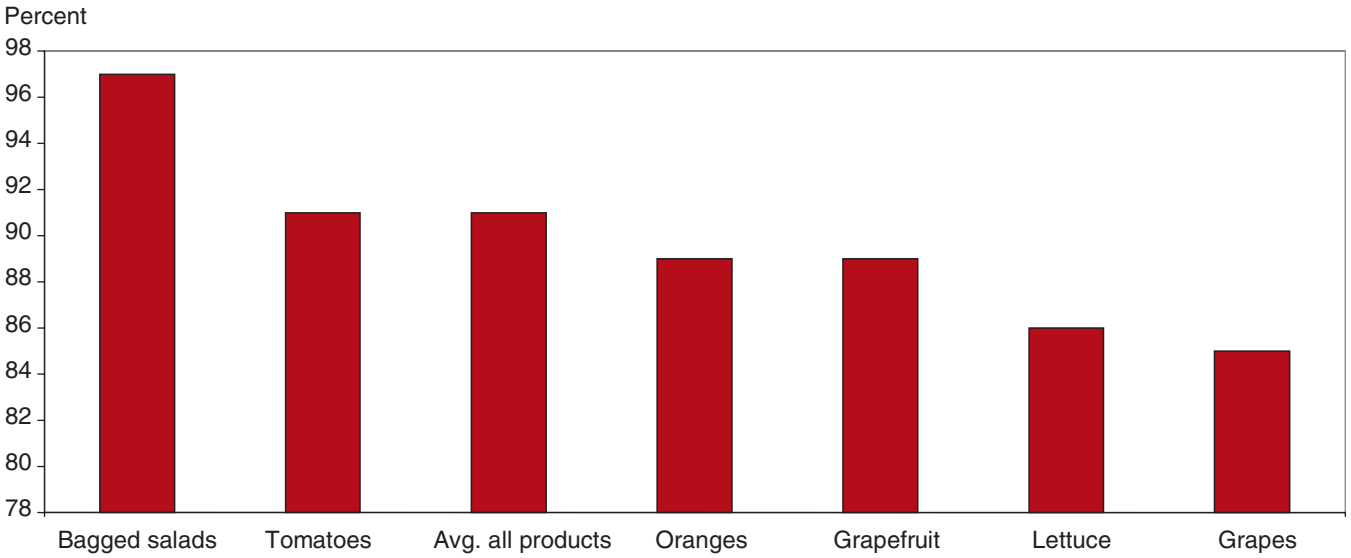
Nonprice Provisions

Traditionally, the fresh produce industry has been characterized by daily sales transactions. For grapes, oranges, grapefruit, and tomatoes, daily sales remain the most important sales mechanism across all types of buyers. However, the share of daily transactions to total transactions declined from 72 percent in 1994 to 58 percent in 1999. The use of advance pricing arrangements for promotions increased from 19 to 24 percent over the same time period, and the number of weeks in advance for which prices are fixed appears to have grown as well.

The use of contracts has also become more common. In 1999, short-term contracts accounted for 11 percent of total commodity sales (grapes, oranges, grapefruit, and tomatoes), and long-term (annual or multiyear) contracts 7 percent. Lettuce sales mechanisms in 1999 were similar to those of other commodities, except that all contracts were long term. Bagged salad shippers indicated that annual or multiyear contracts are the standard for retail sales.

Since the inception of supermarkets when retailers requested free samples of products, nonprice provisions have been part of the retailer-shipper transaction. Since then, new kinds of provisions have been intro-

Figure 6
Share of produce purchased by retailers from their top four suppliers in 1999



Source: Economic Research Service, Produce Marketing Study interviews, 1999-2000.

duced. Shipper and retailer interviews provided insight into the frequency and magnitudes of the provisions. Most shippers and retailers reported that the incidence and magnitude of fees and services associated with transactions had increased between 1994 and 1999. Fees paid to retailers are usually around 1 percent of sales for grapes, oranges, grapefruit, and tomatoes, and range from 1 to 8 percent for bagged salads. Overall, 48 percent of the types of fees requested were new in the last 5 years (1994-99).

Forty-one percent of firms reported they had lost accounts when they did not comply with a fee request from retail or mass-merchandise buyers. The most frequently paid type of fee is the volume discount, a trade practice that has been used for years, although shippers agree that the incidence and magnitude of this fee has increased. Volume incentives can promote a more stable relationship between suppliers and retailers; as the retailer buys more units from the supplier, costs per unit decline, providing an incentive for the retailer to buy larger quantities (over the season) from a particular supplier. Shippers and retailers may both gain efficiencies in marketing by increasing the size of accounts.

Slotting fees have long been used in the supermarket for dry grocery items, and recently entered the fresh produce department. Slotting fees are common for fresh-cut produce and may be either requested by retailers or offered by shippers. Bagged-salad shippers reported that shippers, not retailers, first introduced slotting fees to this industry in an attempt to buy market share from their competition; they also reported that the fees began before the last wave of retail consolidation. Slotting fees were reported to range from $10,000 to $20,000 for small retail accounts to $500,000 for a division of a multiregional chain, and up to $2 million to acquire the entire business of a large multiregional chain. None of the grape, orange, grapefruit, and tomato shippers reported paying slotting fees as defined in our study.

Requests for marketing services from produce shippers have increased, with 77 percent of requests reported as new between 1994 and 1999 (see box "Select Services Requested"). Overall, shippers reported having lost 21 percent of accounts for noncompliance with a service request. Shippers believe they receive more benefits from providing services than from paying fees, as they may obtain advantages relative to competitors. This likely explains their higher compliance with services than fees. According to shippers, the most common service requested is third-party food safety certification, followed by returnable plastic containers.

Retailer interviews indicate that 9 out of 10 retailers requested more services from their suppliers in 1999 than in 1994. On average, retailers report requesting 5.5 different services from suppliers. The top three ser-

Select Services Requested

Third-party food certification. Third-party food certifiers examine suppliers for compliance with microbial quality control processes, pesticide application, and pesticide residue regulations.

Returnable containers/pallets. Recyclable plastic cartons and standardized pallets may help to streamline handling at the distribution and retail levels.

Electronic data interchange. Electronic interchanges between specific retailers and their preferred suppliers are used for invoicing, electronic ordering, and other procurement activities.

Provision of private labels. Private-label products (also known as "house brands") bear the name of the retail outlet where they are sold (such as Safeway or Stop & Shop). Suppliers and retailers can lower costs and increase gross margins by selling private-label products.

Automatic inventory replenishment. The supplier is electronically integrated into the buyer's inventory management system. The preferred supplier has responsibility for and access to the data necessary to co-manage the inventory with the retailer.

Category management. Retailers who use category management (merchandising of product groupings based on actual consumer purchasing patterns) analyze detailed sales data to create an optimal product mix, usually with the help of a manufacturer from within that category.

vices requested (as reported by retailers) are private-label produce items, category management, and electronic data interchange. More than half of retailers asked for special transportation arrangements (such as discounts on transportation for large volume sales), new types of packaging, and third-party food safety certification.

Interviews with shippers and retailers indicate that their relationship is changing. But are increased fees and services the result of retailer market power over shippers? Or has the trading relationship changed because of increased consumer demand, technological innovations in marketing/retailing fresh produce, and growth in foodservice firms and mass merchandisers? An important first step in addressing these questions is to examine retailer pricing behavior.