



Mandated Marketing Programs For California Commodities

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EXECUTIVE SUMMARY

Marketing programs that operate under either federal or state legislation are industry-initiated, self-financed, and government-mandated. Federal marketing orders and state marketing programs have a long tradition and have been an important part of California agriculture. As of May, 1995, there were 48 state marketing programs and 13 federal marketing orders in California. The number of state marketing programs has been increasing, while the number of federal marketing orders has been declining. A total of 24 new state programs were added since 1980 and 15 were terminated. Of the 17 federal marketing orders operating in 1993, four were eliminated by May 1995, with none added.

Three types of state marketing programs are currently in use in California: marketing orders, commissions and councils. All state marketing orders are authorized by the California Marketing Act of 1937, whereas commodity commissions and councils are authorized by specific laws. Each administrative body is authorized to collect assessments from producers and, in some cases, handlers. The assessments, which are collected at the first handler level, may be based on units or value of the commodity. Authorized marketing program activities include quantity controls, market promotion, research and development, container or pack regulations, and quality standards and inspection.

Various types of quantity (volume) controls are authorized under the federal law, but they are no longer a standard practice for state marketing programs. Quality controls are also more common in federal programs than in state programs. Most state marketing programs focus on research and promotion. Quality standards and inspection are more common for the commodities that are processed or dried such as dried figs, canning cling peaches, processed strawberries, and processed tomatoes. Of the 48 state marketing programs, seven operate quality inspections.

The majority of California's state marketing programs are for fruits, nuts and vegetables. There are 20 programs for fruits and nuts, 11 programs for vegetables, eight for animal products (dairy, eggs, beef, and seafood), four for grains, and five for miscellaneous products. While state marketing programs have traditionally had a strong representation in the

fruit industry, recent expansion was into coverage of more vegetable crops. Five of 11 programs for vegetables were added in the late 1980s.

The growing role of state marketing programs is also evident in the growth in their budgets, partly because an increasing proportion of production value has been withheld for marketing programs. Since 1988, budgets for state marketing programs in California have totaled over \$100 million annually. From about 0.2 percent of production value two decades ago, the total marketing program budget is now close to one percent of production value. In 1992, marketing programs spent \$117 million; \$86 million (74%) was spent on promotion, \$9 million (8%) on research, and the remaining \$22 million (19%) on administration and miscellaneous activities (such as inspections). Promotion budgets grew as fast as the total marketing program budget. Research budgets have remained a small constant share, less than 0.1 percent, of production value.

The intensity of marketing programs, measured by the total marketing program budget as a share of production value, differs across commodity categories. While the intensity is close to one percent in aggregate, those for fruit crops, in aggregate, exceeded one percent, and in recent years they reached as high as two percent. This contrasts with vegetables or animal products whose marketing program intensities fluctuated around 0.3 percent.

Commodity specific patterns extend to the allocation of promotion and research budgets. Marketing programs for tree crops and animal products focus on promotion, while those for field crops and vegetables tend to focus more on research. For example, programs for tree crops allocated an average of about 60 percent of their budget to promotion and less than 20 percent to research. However, vegetable programs allocated about 20 percent of their budgets to promotion and 40 to 60 percent to research. The most extreme case was found with programs for animal products (dairy, eggs, and beef): promotion budgets ranged around 60 and 70 percent of total budgets, with little research (less than 10 percent of their total budget). Some of the largest programs spent little on research, which explains why only eight percent of the state marketing program budget in total was spent on research.

INTRODUCTION

California agricultural producers have a long tradition of group action to deal with marketing problems. Their initial efforts during the early 1900's focused on the organization of marketing cooperatives. While they initially enjoyed some short-run successes in voluntary quality control and supply management programs, free-rider problems doomed most of their early attempts to enhance product prices. When marketing order legislation was enacted, the organized commodity groups were well-prepared to embrace both state and federal marketing order programs to correct free rider problems.

Working with the appropriate government officials and legislators, California producers have organized and approved a mix of state and federal marketing orders, commodity commissions and commodity councils. These programs, which operate under broad enabling legislation and individual statutes, covered more than 50 percent of California agricultural commodities in 1995, based on value (Table 1). Marketing programs have been especially significant for California fruit, nut, and vegetable industries.

As the number and functions for marketing programs in California have grown in recent years, the economic merit of the programs has been increasingly questioned. Government sponsored commodity marketing programs are often considered "voluntary" because they are initiated, approved, and financed by the industry, and they can be terminated by an industry referendum. However, once approved by an industry vote, program assessments are mandatory, and the mandatory nature of assessments has been subject to considerable legal challenge.¹

Despite their importance, the literature describing California marketing programs is sparse and out of date (French et al.; Gunn). This study provides a comprehensive status report on California marketing programs from a historical perspective. We first describe how the federal and state marketing programs work. We then focus on state programs, and examine the importance of the marketing program in each industry, using budget figures. The core of the report is devoted to analyzing historical program budgets by activity and by industry.

Table 1. Value Shares of Commodities Under California Marketing Programs, 1993

| Category* | Value of Production | | Ratio of Value Under Marketing Programs to CA Total |
|-----------------|---------------------------|---|---|
| | California Total (\$1000) | Commodities Under Marketing Programs** (\$1000) | |
| Field Crops | 3,125,108 | 557,582 | 0.18 |
| Fruits and Nuts | 5,701,396 | 2,948,804 | 0.52 |
| Vegetables | 4,206,762 | 2,765,730 | 0.66 |
| Animal Products | 5,233,145 | 4,455,566 | 0.85 |
| Nursery | 1,920,876 | 241,042 | 0.13 |
| Total | 20,187,287 | 10,968,724 | 0.54 |

* Fishery and forestry are excluded.

** Commodities listed below are based on 1995 marketing programs. However, value of production data used here are based on 1993 because 1993 was the most recent year for which consistent value data were available for various categories.

Source: California Agriculture Statistical Review 1993 and other marketing program materials.

¹ The U.S. Supreme Court is now scheduled to review the marketing program for California peaches, plums and nectarines during the 1996/1997 term. The outcome of this case could affect millions of dollars worth of agricultural promotion.

LEGISLATIVE BACKGROUND

Federal marketing orders, first authorized in the Agricultural Adjustment Act of 1933 (AAA), were developed as part of government efforts to increase and stabilize farm incomes during the 1930s. After the AAA was terminated, portions related to marketing orders and agreements were revised and re-enacted as the Agricultural Marketing Agreement Act of 1937 (AMAA). California enacted similar legislation, the California Marketing Act of 1937, at the same time. These acts, with amendments, continue to serve as the enabling legislation for marketing orders and agreements in California.²

Federal marketing orders can cover a production region in more than one state, while state marketing programs are restricted to commodities produced within individual states.³ Federal marketing orders tend to focus on quality regulations and sometimes volume controls, while state marketing programs tend to focus more on research programs and promotion.⁴ Federal marketing orders are applicable to milk and specified groups of fruit, vegetables and other specialty crops, while state marketing programs are available for all commodities.

Three types of state marketing programs are available to California producers: marketing orders, commissions and councils. All state marketing orders are authorized by the California Marketing Act of 1937, whereas commissions and councils are authorized by separate specific laws. Some of the earliest councils include the Dairy Council of California established in 1945 and the Beef Council in 1957. The earliest commission, the California Table Grape Commission, dates back to 1968.

While the stated purposes of the state marketing programs established under these various laws are to develop more efficient and equitable marketing and to aid producers in maintaining their purchasing power, marketing programs authorized under different legislation tend to operate slightly differently (CDFA 1985). In general, the commission laws tend to provide industry groups with more autonomy and administrative freedom than allowed by marketing orders (see the discussion under finance). At the same time, council laws tend to place more emphasis on generating and disseminating public information about health and welfare. For example, one of the main functions of the Dairy Council is to provide the industry a means of market development through public education on nutrition.

Both federal and state marketing programs are industry-initiated and sponsored by producers, and sometimes handlers of a commodity. With marketing programs, the industry affected by the program can institute production and marketing research and development projects, conduct advertising and promotion programs, specify quality standards, standardize packs or containers, and smooth the flow of the commodity to market or permit only a certain portion of the crop to move into specified outlets. California marketing programs tend to specialize in one or two of the above selection (i.e., advertising and quality standards, or research).

² Marketing orders and agreements generally are spoken of synonymously. The basic difference is that agreements are signed contracts between the Secretary of Agriculture and individual handlers of a particular commodity. They are voluntary and affect only the handlers who sign. An order, on the other hand, is usually initiated by growers, and when in effect it regulates the handling operations of all handlers in the relevant production or marketing area whether or not they sign the accompanying agreement (Farrell and Wood).

³ State marketing programs include commissions and councils as well as marketing orders. Federal marketing programs are referred to as federal marketing orders.

⁴ This focus tends to be based on evolution of the legislation; federal orders did not allow advertising and promotion until they were amended in 1962.

PROGRAM ESTABLISHMENT

The provisions of each program specify the rules for program establishment, funding, and activities allowed. While federal and California state programs have similar provisions, they differ in detail. We first discuss the provisions of the state programs with discussion of federal programs in a later section.

3.1 California Marketing Programs

3.1.1 Program Initiation, Enactment, Amendment and Termination

Procedures involved in instituting marketing orders, commissions, and councils are, in general, similar to the procedure originally established for marketing orders by the California Marketing Act of 1937. However, some major differences exist in legislative procedures. While a marketing order can be established with an industry consensus, a commission or a council requires special legislation. Existing marketing programs can also be amended or terminated. The procedures to initiate, enact, amend and terminate a marketing program are described below.

Marketing Orders

Marketing orders are initiated by the industry (the same is true for commissions and councils). First, a preliminary draft of the marketing order is prepared by the California Department of Food and Agriculture (CDFA) and an industry committee. A public hearing is held on the proposed provisions in the draft order, to determine whether it is in the interest of the industry and in the public interest. The last legal requirement before instituting a marketing order is to obtain approval of the proposal by an industry vote.

Approval by producers requires support from at least 65 percent of all producers by number who produced more than 50 percent of the total volume of the commodity produced for a market in a given period, or more than 50 percent of all producers by number who produced at least 65 percent of total volume produced for market. Lists of producers for voting are usually developed from information submitted by handlers as required by the Secretary of Food and Agriculture (referred to in the rest of the report as the director).

If a marketing order directly affects handlers, approval is required by at least 65 percent of all handlers by number or by handlers who handled at least 65 percent of the total volume of the commodity in

the preceding season. In the case of processed commodities, assent by at least 65 percent of all processors of the commodity, both by numbers and by volume, is required. The proposed marketing order may be made effective by the director with an Order of the Director, once the industry has given the required approval (CDFA 1985). While the whole process from the drafting of a program to final approval by the director normally takes four to six months, obtaining an industry consensus can be a lengthy process.

Amendments to a marketing order, other than minor amendments, must be developed in the same manner as the original order. Amendments must be discussed at a public hearing and submitted for a vote before they may become effective. When a termination date is specified in the order, termination is automatic. A marketing order may also include a provision that requires periodic reapproval of the order by an industry vote. Otherwise, a public hearing must be held at least once every five years to ascertain industry opinion on the effectiveness and need for continuation of the order. A public hearing can be also requested by a petition of at least 25 percent by number and volume of producers or handlers affected. A marketing order can also be terminated at the industry request, with the approval of more than 50 percent of producers who produce more than 50 percent of the product volume. If a marketing order is inactive for three consecutive seasons, the director can terminate the order without a public hearing or vote.

Commissions and Councils

The initial procedure for establishing a commission or a council is the same for each of the two. With industry initiation, commission or council laws are developed as assembly or senate bills. If the bill is passed in the state legislature, with the Governor's signature the law goes into effect. A council is established with the passage of the council law, but a commission also requires an industry referendum. The referendum requirements for approval of a commission are the same as those of the marketing order. Unlike marketing orders, the process does not involve a public hearing, but obtaining legislative passage can be a lengthy procedure.

Existing commission or council laws may be amended and terminated by an industry referendum.

Most commission programs hold referenda every five years to consider their continuation or termination. With a two-thirds vote of the commission members, the commission may recommend to the director that operations be suspended. Producers or handlers may also petition the director to suspend the operation of the commission.

Provisions for continuation or termination differ among councils. For example, the Beef Council remains operative permanently unless a referendum among the state's producers is triggered by the director, while the Dairy Council has a more conventional continuation procedure—every four years, the director holds a public hearing to decide whether the council shall stay in effect.

3.1.2 Finance

All California marketing programs are self-financed. Each producer and handler directly affected pays an assessment levied on each unit or on the value of the commodity marketed, to provide funds to cover costs incurred in the formulation, operation, and enforcement of the program (including state government administrative expenditures).

The California Marketing Act provides for certain maximum assessment rates that may be collected under a marketing order. The maximum amount for administrative purposes (rent, insurance, staff salaries) is 2.5 percent of the gross dollar volume of sales by producers to handlers. For orders involving advertising and promotion, an assessment should not exceed 4 percent of the gross dollar volume of sales. A maximum of 6.5 percent can be levied on both producers and handlers if both are directly affected by the marketing order.

Marketing program assessment rates are proposed by the industry and require approval by the director each marketing year. When the program deals with produce both for fresh and processing use, separate assessment rates apply. Handlers and processors are usually required to pay the assessment on behalf of the producers from whom they receive the product, in order to facilitate the collection of the program's assessments. Handlers and processors may in turn deduct such assessment payments from any money owed to their producers. For example, the marketing order for processing cling peaches established a producer assessment rate of \$5 per ton delivered to the processor and a processor assessment rate of \$3 per ton of cling peaches accepted for processing during the 1995-96 crop season (Order of the Secretary of Food and Agriculture). For convenience in making collections, each processor is required to remit the assessments of \$8 per ton on

behalf of both producers and the processor to the Cling Peach Advisory Board, and deduct \$5 from the payment owed to producers. While the marketing group usually receives the assessments directly, the Marketing Branch of CDFA handles the collection of any delinquent assessments.

A major difference between marketing orders and the other marketing programs is that commissions and councils have more autonomy in allocating their budgets. Each marketing order board is required to submit quarterly statements of income and expenditures, in addition to obtaining the approval of its annual budget by CDFA. However, commissions and councils are not subject to such requirements. They can develop their own operating plans (thus budgets), and appoint their own managers and advisory boards, without prior approval of the director.

3.2 Federal Marketing Orders

The enabling legislation for federal marketing orders was amended in 1961 to include all agricultural commodities except those specifically excluded in the amending legislation (Farrell and Wood). There were 36 active (6 are inactive) federal marketing orders for fruits, vegetables, nuts, and specialty crops in January 1995, 12 fewer than in 1981 (Neff and Plato) (Appendix Table 1). Of the 36 federal orders, 13 were effective for California crops as of January, 1995.⁵

A federal marketing order generally is initiated by a written proposal from handlers and producers to the Secretary of Agriculture. After initiation, the regulations promulgated under the Agricultural Marketing Agreement Act (AMAA) require a public hearing for all interested parties to offer comments on the proposal. The Secretary of Agriculture has the authority to determine, based on the outcome of the hearing, whether the proposal serves the public interest. If approved by the Secretary, a referendum is held, in which two-thirds of the producers, or producers representing two-thirds of the volume produced in the proposed marketing order area, must vote to adopt the order. If an order is to be issued with a marketing agreement, handlers who have handled not less than 50 percent of the total volume of the commodity covered by the order must sign the marketing agreement (Neff and Plato).

⁵ The three federal orders for California-Arizona citrus (lemons, Valencia oranges, and Navel oranges) were terminated in August 1994.

AUTHORIZED ACTIVITIES

Both federal and state marketing programs may contain provisions for one or more of the following six types of activities: 1) generic advertising and sales promotion; 2) production, processing and marketing research; 3) quality regulations with inspection; 4) supply management or volume control; 5) standardization of containers or packs; and 6) prohibition of unfair trade practices. Quality standards and supply management are regulatory in nature while advertising and research are nonregulatory, market support programs. Category (6) has been used very infrequently (Nuckton and French).⁶ These activities are authorized by AMAA for federal marketing orders, and by the California Marketing Act for the state marketing orders. Patterned after state marketing orders, commission and council laws also include provisions authorizing similar activities.

An important distinction between state and federal marketing programs arises with respect to activities authorized. Various types of quantity (volume) controls are authorized under both federal and state law. However, state programs typically focus on research and promotion activities. Volume controls are not common practice under the state law. Quality controls are also more common in federal programs than in state programs. Of the 48 existing state marketing programs, 11 are authorized to exercise quality controls and only seven are active.

A major exception to the above discussion is the California state marketing order for milk. California is the only major dairy producing state that operates outside the federal milk marketing order system. California law and regulations provide for price pooling, classified pricing by end use, and a quota system, that together determine individual producer revenues. This program is quite distinct from the other state marketing programs and is not analyzed in the present paper. For a description and analysis of this program the reader is referred to Sumner and Wolf (1995) and Ekboir, Sumner, and Wolf (1995).

⁶ The most common use has been to comply with regulations about price posting so that growers will know what price they are to be paid for current deliveries. Since the mid-1960s, it has only been applied to cling peaches, strawberries for processing, and pistachios, under the California Act.

⁷ The Federal orders for almonds, hazelnuts and olives permit brand advertising credits but these credits are not presently being used (Powers, p.20)

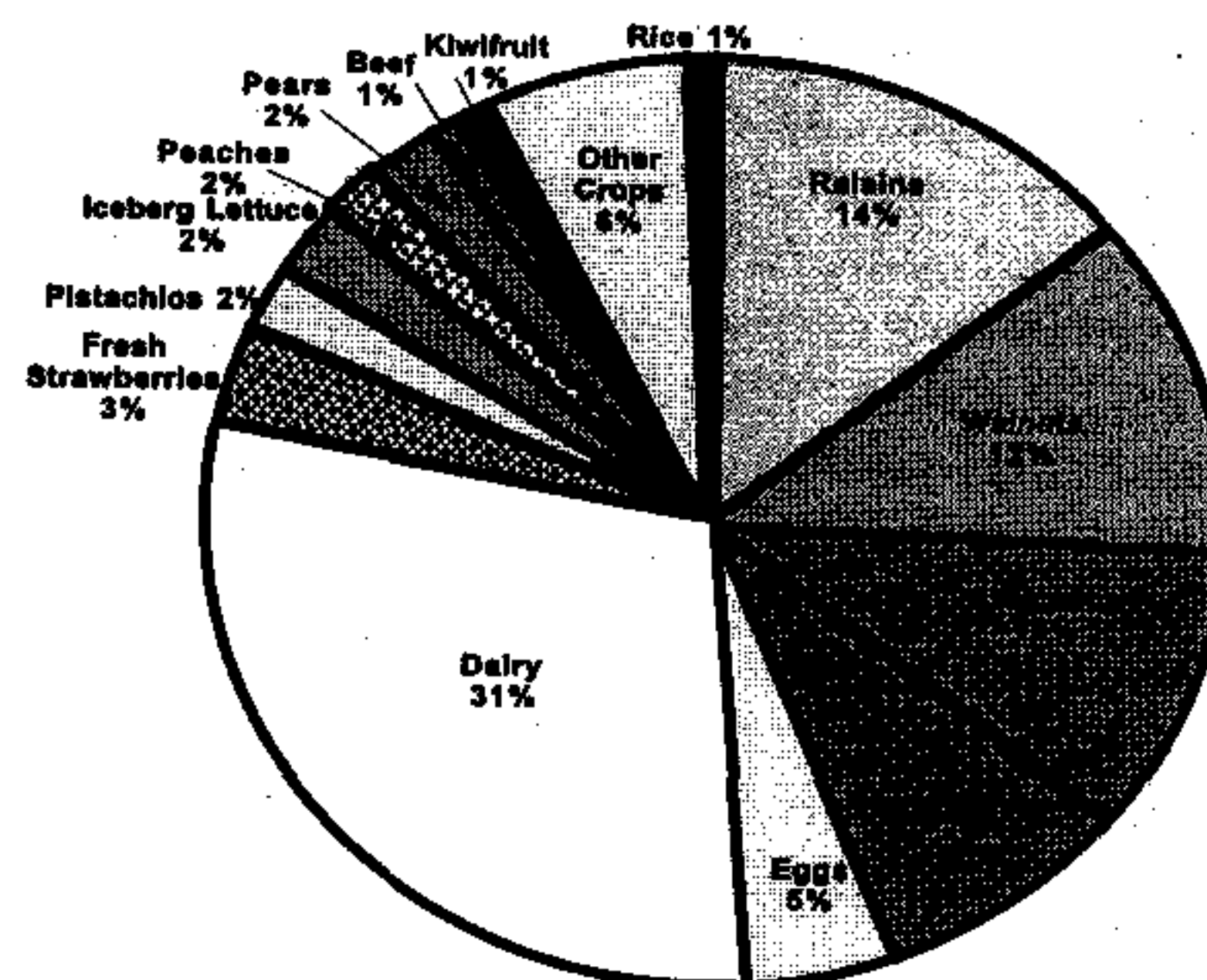
4.1 Advertising and Promotion

Generic advertising and commodity promotion are designed to increase demand and prices for a relatively homogeneous commodity produced by many farmers. Advertising and promotion include consumer education and public relations. Media used for these activities include television, radio, newspapers, mass circulation magazines, and cooking demonstrations. From an expenditure standpoint, advertising and promotion is the most important marketing activity. (In what follows, advertising and other types of promotion are referred to as promotion.)

Most commodity groups focus on generic promotion. A successful promotion, thus, usually requires that the commodity group accounts for a high proportion of the supply of the commodity. California producers are particularly active in promotion, given that California is the major or only U.S. producer of such specialty crops as almonds, avocados, pistachios, prunes, walnuts, kiwifruit, olives, table grapes and artichokes. Because California producers control most of the supply of these crops, they are in a position to capture the benefits from advertising to increase demand for them (Carman et al.)

In addition to self-financed promotion, supplemental federal and state funding is sometimes available to these commodity groups. The U.S. Department of Agriculture grants promotion funds through

Figure 1: 1992 Promotion Expenditure Shares by Crop
(Total California Promotion Budget for State Marketing Programs = \$86 million)

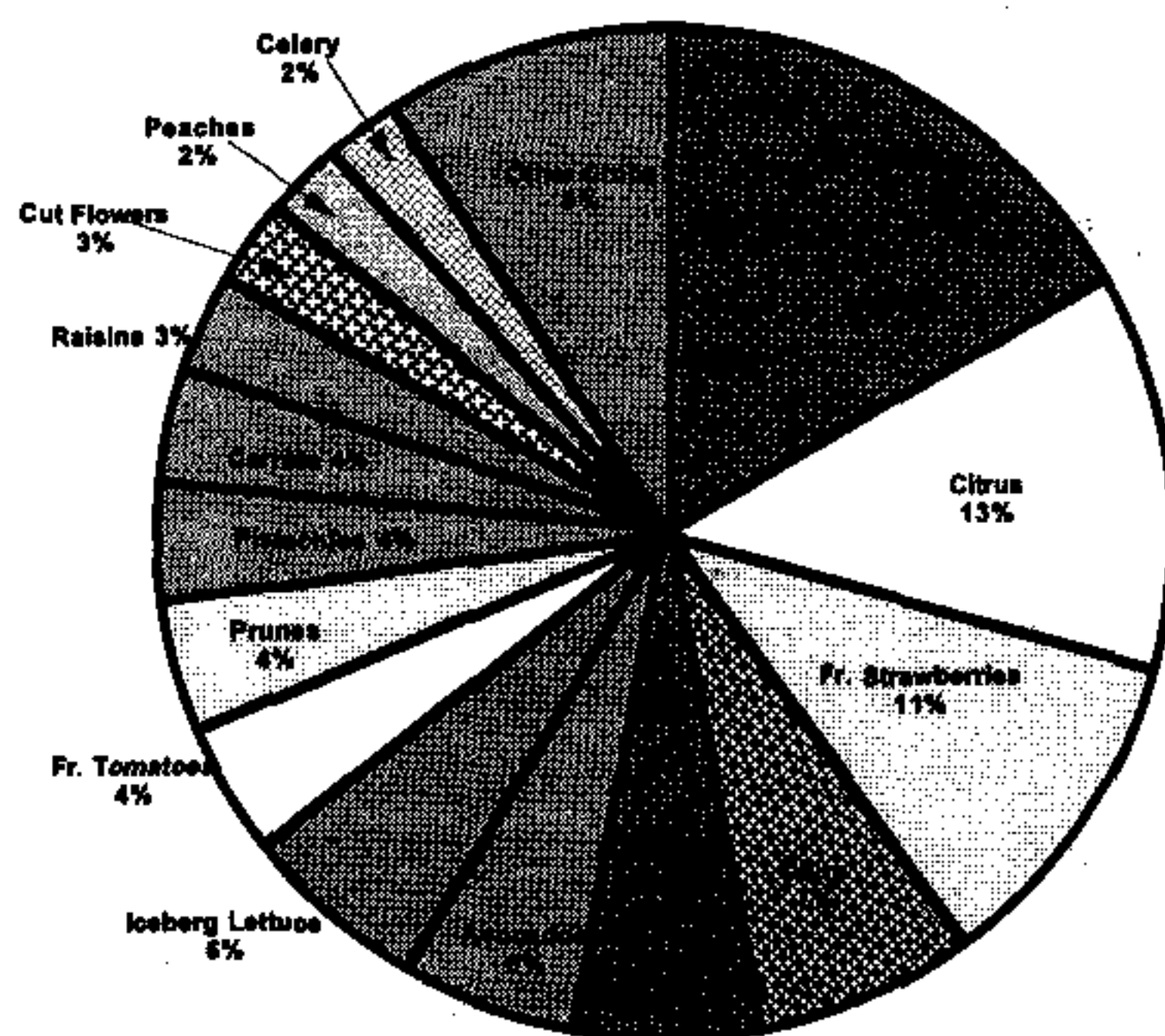


the Market Access Program (MAP) (formerly, Targeted Export Access program (prior to 1990) and Market Promotion Program (prior to 1996)), and CDFA makes funds available through the Export Program. These funds are specifically targeted for promotion of U.S. (for MAP) and California (for state funding) farm products in overseas markets.

4.2 Research

Research provisions permit the industry to use program funds to conduct farm-related and off-farm (post-harvest) research and development projects to improve the production, distribution, and consumption of the commodity covered. Farm-related research may include, for example, control or eradication of insects and diseases and the development of new varieties resistant to a certain disease or with better handling properties. Off-farm research includes such efforts as developing a package that extends shelf-life, or evaluating potential marketing opportunities. Any production or processing research carried out under a California marketing order, requires joint selection and approval by the Vice President for Agriculture and Natural Resources of the University of California, and the marketing order board. The research projects are performed by the university unless research facilities are unavailable.

Figure 2: 1992 Research Expenditure Shares by Crop
(Total California Research Budget
for State Marketing Programs = \$8.7 million)



4.3 Quality Standards

Quality standards include such items as minimum size, grade, minimum sugar content, and ma-

turity requirements for the commodity marketed. Regulations on quality standards are intended to maintain or enhance market demand by keeping inferior products from the market. In order to set grade standards through a federal or state marketing program, there must be no federal minimum grade standards applied to the domestic market for that product.

Marketing programs can provide mandatory inspection to enforce minimum standards. On the other hand, inspection relating to California minimum standards in the Food and Agricultural Code is not mandatory (CDFA). All minimum grade standards established in the California Food and Agricultural Code apply only to commodities that are marketed in fresh form. Therefore, state marketing programs are often used to regulate the quality of the products for processing use.

4.4 Volume Control

Supply management authorizes farm commodity groups to legally regulate the supply of agricultural products. Quantity provisions regulate the total volume that can be marketed, how the product will be used (fresh vs. processed), or the flow of products into the market. Various volume control methods have been used. Reserve pools are used to limit supply to a particular end-use or to manage supply within and across crop years (Alston et al.). Flow-to-market restrictions regulate the amount of product shipped to a given market during a given time period.

One role of supply management is to minimize product shortages or gluts in the market by evening out flow of the commodity to the market. However, volume controls have been controversial. The debate concerns whether the industry exercises monopoly power to the detriment of consumers through legal means of marketing programs. Volume controls are generally implemented under federal orders and have not been used by any state marketing order since the 1970s (CDFA).

4.5 Standardization of containers or packs

These requirements fix the size, capacity, weight, dimensions or packing of the container that handlers must use in the packaging, sale, shipment, or handling of produce. Standardization of containers and packages can lower marketing costs by eliminating deceptive pricing or by lowering handling and transportation costs. However, as with quality controls and supply controls, requiring these standards has not been without controversy.

Table 2. Value Shares of Commodities Under California Marketing Programs, 1993

| Value of Production | | | |
|---------------------|---------------------------------|---|---|
| Category* | California Total (\$1000) | Commodities Under Marketing Programs** (\$1000) | Ratio of Value Under Marketing Programs to CA Total |
| Field Crops | 3,125,108 | 557,582 <u>Including</u> Alfalfa Seed 34,100 Wheat 141,390 Dry Beans 76,571 Wild Rice 5,560 Rice 299,961 | 0.18 |
| Fruits and Nuts | 5,701,396 | 2,948,804 <u>Including</u> Apples 138,320 Pears 78,848 Apricots 31,993 Pistachios 162,640 Avocados 117,939 Plums 93,954 Cherries 43,203 Prunes 140,360 Citrus 745,100 Fr. Strawberries 457,808 Figs 24,592 Proc. Strawberries 92,531 Kiwifruit 17,413 Table Grapes 326,070 Cling Peaches 113,033 Walnuts 364,000 | 0.52 |
| Vegetables | 4,206,762 | 2,765,730 <u>Including</u> Artichokes 45,499 Melons 233,043 Asparagus 88,900 Peppers 149,057 Fresh Carrots 195,172 Potatoes 189,636 Celery 230,545 Fresh Tomatoes 267,300 Iceberg Lettuce 837,540 Proc. Tomatoes 92,531 | 0.66 |
| Animal Products | 5,233,145 | 4,455,566 <u>Including</u> Dairy 2,662,824 Beef 1,526,230 Eggs 266,512 | 0.85 |
| Nursery | 1,920,876 | 241,042 <u>Including</u> Cut Flowers 241,042 | 0.13 |
| Total | 20,187,287 | 10,968,724 | 0.54 |

* Fishery and forestry are excluded.

** Commodities listed below are based on 1995 marketing programs. However, value of production data used here are based on 1993 because 1993 was the most recent year for which consistent value data were available for various categories.

Source: California Agriculture Statistical Review 1993 and other marketing program materials.

RECENT MARKETING PROGRAMS IN CALIFORNIA

In 1995, the state had 48 active marketing programs including 28 marketing orders and agreements, 16 commissions, and four councils. The importance of these marketing programs in the state's agriculture is indicated by the fact that state marketing programs cover more than half of value of the state's agricultural products (this figure excludes fishery and forestry products). Table 2 shows commodity value under state marketing programs as a proportion of total commodity value produced in California, for each commodity category.

California marketing programs cover over 80 percent of the state's production of animal products. Milk and beef have been among the oldest and largest program commodities in the state's marketing program history. Next, in terms of value, 66 percent of all vegetable production is covered under state marketing programs, followed by the fruit and nut category in which 52 percent of production is covered by state marketing programs. However, while fruit and nut crops in California have had a long history of active marketing programs, such programs are rather recent for California vegetable industries. In the next section, we examine how state marketing programs have changed over the decades.

5.1 Evolution of California Marketing Programs

California marketing programs have undergone continuing changes since their beginnings in 1937. While a majority of marketing programs have been effective for decades, new programs have been added and many past programs have been either terminated or consolidated with others. There are now a greater number of state marketing programs than in the early 1970s; 38 in 1971 increased to 48 in 1995 (Appendix Table 2). As of January 1995, state marketing programs included: 1) 28 marketing orders and agreements (including those for alfalfa seed, apricots, artichokes, dry beans, cantaloupes, fresh carrots, celery, cherries, citrus, figs, iceberg lettuce, melons, milk, cling peaches, pears, plums, pistachios, potatoes, prunes, rice handlers, rice research, wild rice, processing strawberries, tomatoes, and processing tomatoes); 2) 16 commissions (including those for apples, asparagus, avocados, eggs, cut flowers, forest products, grape rootstock, kiwifruit, peppers, pistachios, fresh strawberries, table grapes, walnuts, wheat, Lake

county wine grapes, and Lodi-Woodbridge wine grapes); and 3) four councils (including those for beef, dairy, salmon, and seafood).

During the 1970s and the early 1980s, the total number of marketing programs declined. This decline was mostly due to the termination of multiple programs that covered the same (or similar) commodities. For example, during the 1970s, there were four marketing orders for various types of peaches: a marketing order for processing cling peaches, a joint marketing order for canning and freezing cling peaches, a processors' marketing order for clingstone peaches, and a marketing order for California fresh peaches. By 1984, only the joint marketing order for processing cling peaches remained. A similar situation existed with pears. Since the 1950s, there were four marketing orders for pears: fresh Bartlett, fresh Bartlett promotion, fresh fall and winter pears, and canning Hardy pears. These programs were either terminated or consolidated, and now only one pear program remains.

The California fruit industries have been actively involved in marketing programs since their initiation. For instance, of the 11 marketing programs that were established prior to 1950 and continued to exist at least for two decades (since then, some were terminated), seven were for fruits.⁸ Tree crops continue to have a strong representation in marketing programs and in 1995 there were 20 programs for fruits and nuts.

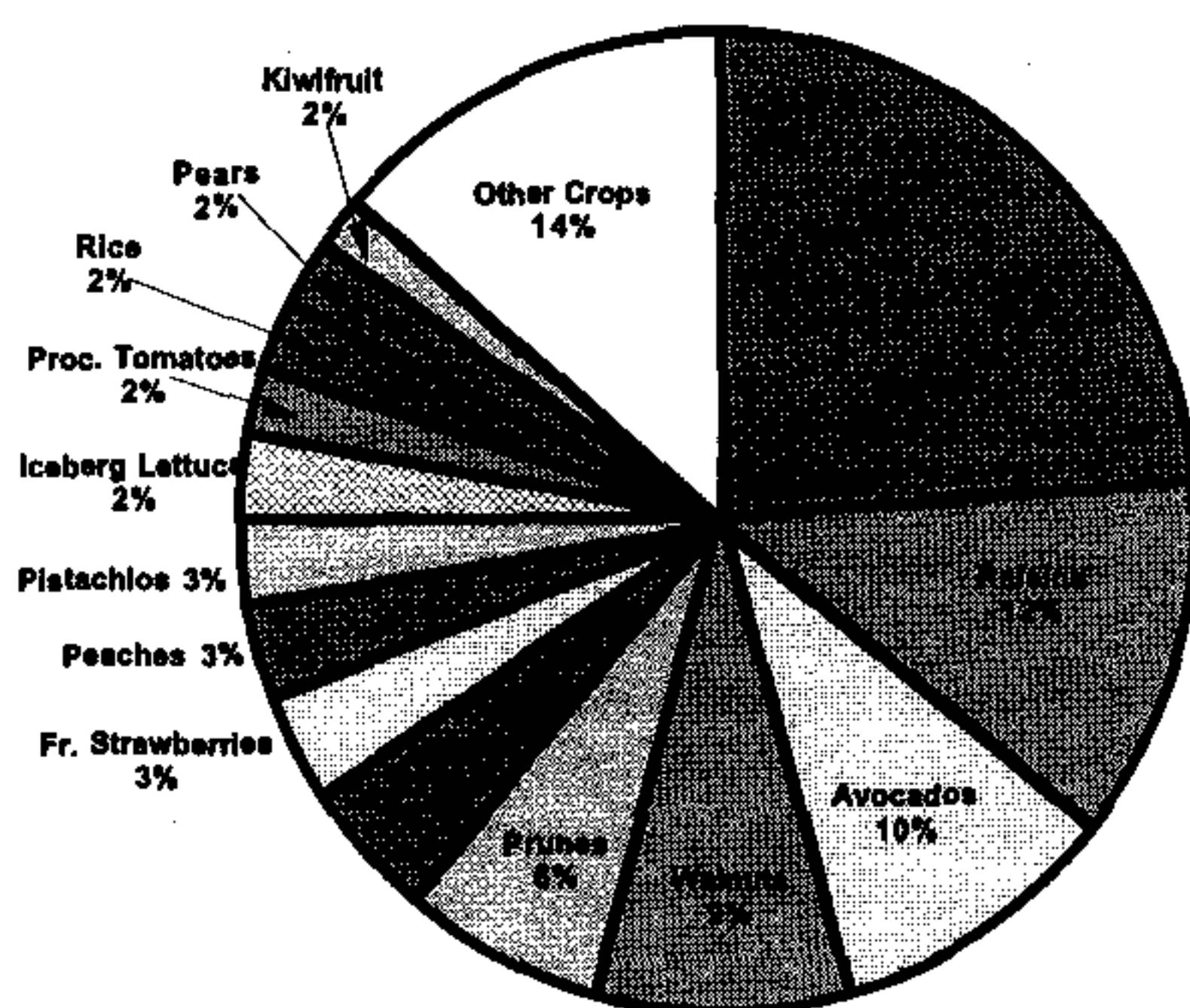
Although the total number of marketing programs has not always increased, the number of commodities covered under the marketing programs expanded, and became more diverse over time. Vegetables have emerged as an important category of marketing programs. Only one vegetable crop, lettuce, was included in the 11 early commodity marketing programs (prior to 1950). However, over time, marketing programs for vegetables were steadily added. In 1971, five programs covered four different vegetables (artichokes, asparagus, brussels sprouts, and lettuce). This number increased to seven programs by the early 1980s, covering artichokes, celery, iceberg lettuce, melons, potatoes, and fresh

⁸ These 11 commodities were early apples (established in 1948), dried figs (1944), desert grapefruit (1941), lettuce (1942), fresh Bartlett pears (1937), fresh fall and winter pears (1941), poultry and turkey (1947), raisins (1949), wine (1938), processing pears (1938), and dairy council (1945).

tomatoes. In the early 1980s, the marketing order for Brussels sprouts was terminated and the marketing order for lettuce was split into two programs by activity, research and promotion.⁹ There were 11 programs for vegetables in 1995, covering artichokes, cantaloupes, carrots, iceberg lettuce, melons, potatoes, fresh tomatoes, processing tomatoes, asparagus, and peppers.

The evolution of marketing programs also extends to the choice of the type of program. Recent marketing programs have tended to be in the form of a commission or a council rather than a marketing order. In 1980, there were seven commissions, two councils and 26 marketing orders and agreements, whereas in 1995, marketing programs included 16 commissions, four councils, and 28 marketing orders and agreements. This is a 129 percent increase in the number of commissions and a 100 percent increase in councils, compared to an eight percent increase in the number of orders and agreements. The recent tendency to form commissions and councils may be attributable to the greater autonomy provided under commission and council laws than under the California Marketing Act of 1937.

Figure 3: 1992 Total Marketing Expenditure by Crop (Total California Marketing Budget = \$116.8 million)



⁹ Lettuce research and promotion were administered by the Iceberg Lettuce Research Advisory Board and the Iceberg Lettuce Commission, respectively. The Iceberg Lettuce Commission was terminated in 1992.

¹⁰ These six orders were for Washington peaches, Georgia peaches, Maine potatoes, Texas valley tomatoes, Florida celery and South Texas lettuce.

¹¹ There were 14 federal orders in California in January 1995, but the order for California Tokay grapes was terminated in May 1995. The order for potatoes affects only two northern counties of California, Siskiyou and Modoc counties.

5.2 Activities of Recent California Marketing Programs

Appendix Table 3 lists the authorized marketing activities for all California marketing programs and shows whether the authorized activities are currently active or not. As shown in the Table, while market promotion and research are typical activities of marketing groups (31 programs are engaged in active research and promotion, and 14 are active in either research or promotion), quality standards and inspection are not (seven active programs). Quality standards and inspection are more relevant for the commodities that are processed or dried such as figs, cling peaches, processed strawberries, and processed tomatoes. Furthermore, some programs authorize only promotion or only research. For example, the programs for alfalfa seed, celery, citrus research, iceberg lettuce, melons, and rice research, deal only with research activities. On the other hand, the rice handlers' marketing program manages only market promotion activities.

Before being marketed, the commodities that are subject to quality standards and inspection provisions are required to be inspected and certified by an agricultural commissioner to ensure compliance with quality provisions. The quality standards include minimum sugar content, maturity standards, color requirements, size requirements, and other requirements for appearance. Quality inspections are usually performed at the time of packing ("in-line") for both shed and field operations. For products sold in bulk, that are usually designated for processing use, inspections are performed at the time of unloading and a certificate of compliance is issued upon inspection.

5.3 Federal Marketing Orders Affecting California Commodities

In 1995, there were 42 federal marketing orders and agreements for fruit, vegetable and specialty crops. Of these 42, six federal orders were non-functioning because they were either suspended for a period of time or inactive.¹⁰ Thirteen of these federal marketing orders directly affect California products: nectarines, peaches, winter pears, kiwifruit, desert grapes, olives, potatoes, almonds, walnuts, dates, raisins, dried prunes, and spearmint oil (Appendix Table 4).¹¹

Regarding activities authorized, quality regulations are most common. All of the 13 programs affecting California crops, except spearmint oil, have

grade and size regulations, and seven have pack or container regulations. Quantity controls are, however, less common—four orders out of ten are authorized to regulate quantities, but two are inactive. Market allocation¹² and a reserve pool¹³ are authorized for California almonds and raisins (USDA).

Concerning research and promotion activities, federal and state marketing programs are complementary with each other. For walnuts, the state program conducts promotion and the federal program conducts research. For potatoes, both federal and state programs are authorized to conduct research, with no promotion activity authorized by either. However, only the state program for potatoes is in effect with the federal program remaining inactive. The state program for kiwifruit is currently active for both promotion and research while the federal program for kiwifruit is authorized to conduct re-

search but does not. The federal kiwifruit order is used for minimum grade and size standards that complement the state sponsored promotion.

¹² A market allocation is a quantity provision in a fruit and vegetable marketing order specifying a maximum quantity that can be sold for a given use or market. This provision usually raises producer/handler returns by limiting supplies in a use for which demand is relatively unresponsive to price, while diverting supplies to a market use with a more price responsive (elastic) demand.

¹³ A reserve pool is a quantity provision in a fruit and vegetable marketing order that requires that some marketable supplies be withheld from the primary (fresh) market for sale in a secondary food market (such as frozen or processed), for sale in a nonfood use, or for stocks to be sold in a future marketing year.

HISTORICAL ALLOCATION OF MARKETING FUNDS

The budgets for California state marketing programs have totaled over \$100 million annually since 1988, and were \$117 million in 1992, the last year for which we had comparable data (Figures 1-3). The data reported exclude those for the state marketing orders regulating milk prices and quantities, since these programs are unique and therefore not comparable with others analyzed here. (Note that data for nonregulatory programs such as the Dairy Council, are included.) The total budget in 1992 was more than five times larger than a decade earlier and was allocated 74 percent to promotion and eight percent to research, with the balance allocated to administration, inspection and other miscellaneous expenses.

A number of factors contributed to the increase in marketing funds in California. First, California marketing programs expanded progressively over time to include more agricultural products. One area of expansion, as previously noted, was into coverage of more vegetable crops. In addition to an increase in the number of programs and commodities, California agricultural industries increased marketing volumes. Since marketing funds are assessed on each unit of sales volume, marketing funds also increased. Further, California agriculture has become even more diversified as new or previously minor crops such as kiwifruit and pistachios were developed into major products. To develop markets for these products, commodity groups often sought collective action and used marketing programs. Further, as mentioned earlier, supplemental funding from state and federal sources also helped commodity groups expand their market promotion activities.¹⁴ To assist producers' efforts to expand markets, the state and federal governments also subsidized export market promotion through their matching fund programs.

The following budget analysis is based largely on historical budget records of current marketing programs. Some terminated marketing programs are included in the data, but not comprehensively. For this reason, our historical records may not necessarily coincide with the actual total budget numbers and our figures tend to understate the total budgets of California marketing programs. More detailed information is presented in the appendix.

First, as an overview, actual marketing budget figures are presented by commodity for selected years. These budget numbers are then presented as

a proportion of gross value of production, which offers some insight into the size of marketing programs in relation to total sales. The next section focuses mostly on the allocation of the marketing budget to the two most important activities—research and promotion. To examine this, we calculated each activity's average share in the total budget for each state marketing program.

6.1 California Marketing Expenditures for Selected Years

Appendix Tables 5 through 7 present actual expenditures of California state marketing programs for the selected years, 1985, 1990, and 1992. Budget figures presented include total marketing program funding (Appendix Table 5), research budgets (Appendix Table 6), and promotion budgets (Appendix Table 7). For each budget category, programs are listed in descending order of their budget size.

In the most recent decade, the marketing programs for dairy and raisins were the two largest in terms of total budget.¹⁵ Dairy is the most important industry in value in California and given the scale of this industry, its large marketing budgets are not surprising. The raisin industry is also large. Grapes are the second-most important commodity in California by value, and raisin grapes, even before the value is added in processing, account for at least one third of total grape value. In interpreting the data in Appendix Tables 6 and 7, note that some programs conduct only research or promotion. For example, the programs for alfalfa seed, citrus research, celery, peppers, potatoes, and processed tomatoes conduct research but no promotion, while the programs for walnuts, grapefruit (no longer exists), and cantaloupes perform market promotion but no research.¹⁶

¹⁴ For example, in 1989, USDA's Targeted Export Assistance program awarded \$32.5 million to California farm marketing programs and the State's Export Program awarded about \$0.5 million (Gunn).

¹⁵ The California marketing program for raisins has been terminated.

¹⁶ On the other hand, commodities such as rice and iceberg lettuce have separate programs for research and promotion. Rice research is conducted by the Rice Research Board and promotion is handled by the Rice Handlers Advisory Board. Iceberg lettuce also had the Iceberg Lettuce Research Advisory Board for research and a commission for promotion.

6.2 Marketing Budgets as a Proportion of Gross Value of Production

6.2.1 Aggregate Perspective

The nominal marketing budgets differ a great deal across commodities, largely because the markets differ in scale. To investigate the relative importance of each program in the corresponding commodity market, we expressed the marketing budgets as a share of total production value. In a time-series context, this allows us to investigate the changes in budget allocation, controlling for changes in sales volume. Figure 4 presents these research and promotion shares of marketing activity in terms of spending intensities for the period of 1973 to 1992, for the aggregate of all programs. These shares are calculated by adding all program budgets in each year by expenditure category (research, promotion, and total) and dividing these numbers by the commodity's gross value of production in the corresponding year.

Marketing program budgets as a percentage of production value rose sharply between 1973 and 1983, but then tended to level off during the following decade (Figure 4). Two important trends are evident. First, the state marketing program budgets increased at a faster rate than the rate of increase in production value. This suggests the growing importance of marketing programs in California. This growth occurred during the 1970s and the early 1980s. In 1973, state marketing budgets were less than 0.2 percent of production value, but by 1984, over one percent. Since then this percentage has stagnated. Second, increases in budgets for promotion accounted for virtually all

of the growth in total budgets between 1973 and 1983. Over the past decade, promotion budgets have varied around 0.7 percent of production value. By contrast, research budgets remained almost constant at less than 0.1 percent of production value.

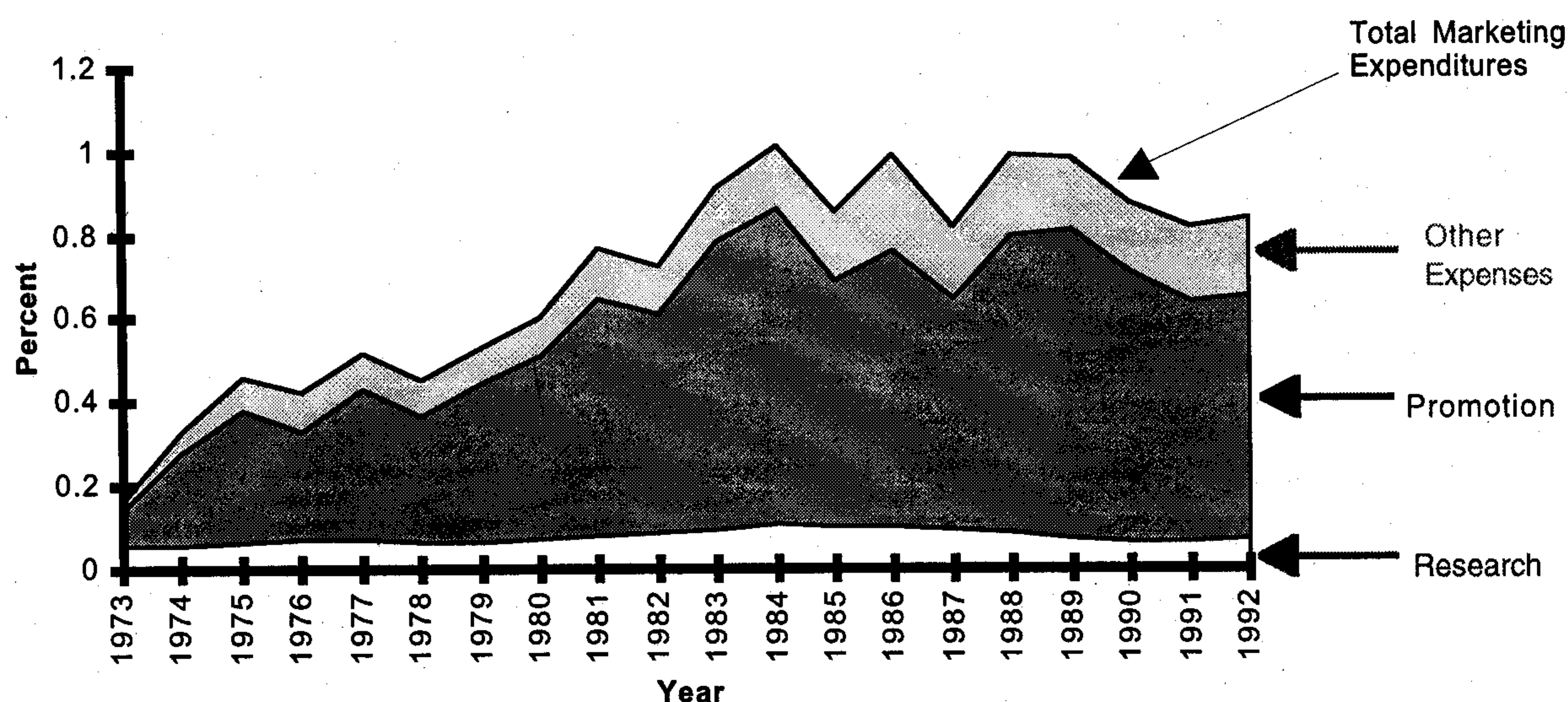
6.2.2 Commodity-specific Perspective

To investigate the commodity-specific patterns, we calculated the same budget shares of production value for four commodity categories: field crops plus flowers, fruit and nuts, vegetables, and animal products (Figure 5). The field crops plus flowers category includes grains, beans, and cut flowers,¹⁷ fruits and nuts include all tree crops and strawberries, vegetables include melons as well as other vegetables, and animal products include milk, eggs, meats, and seafood. Figure 5 presents the budget relationships for each selected commodity category.

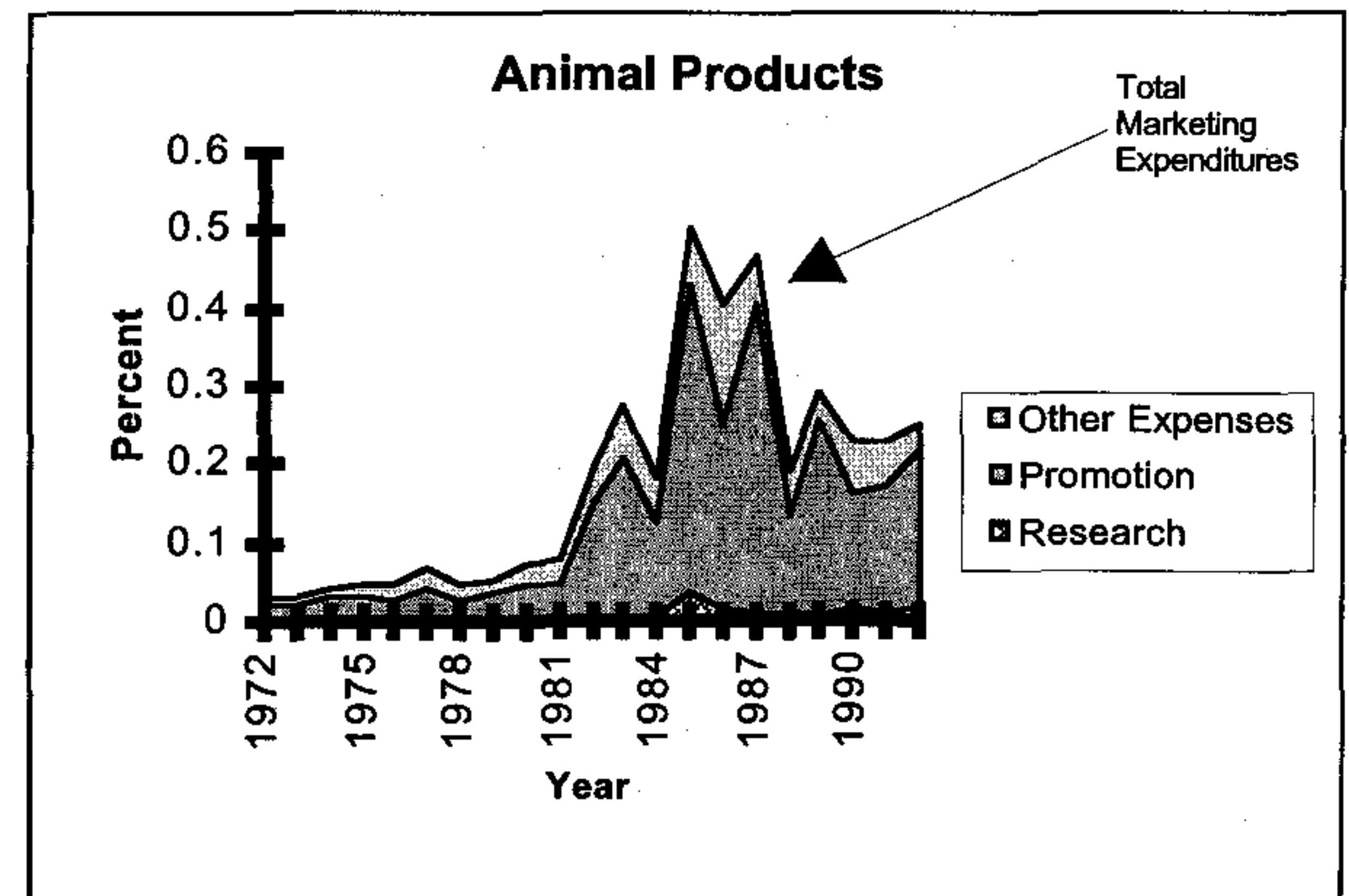
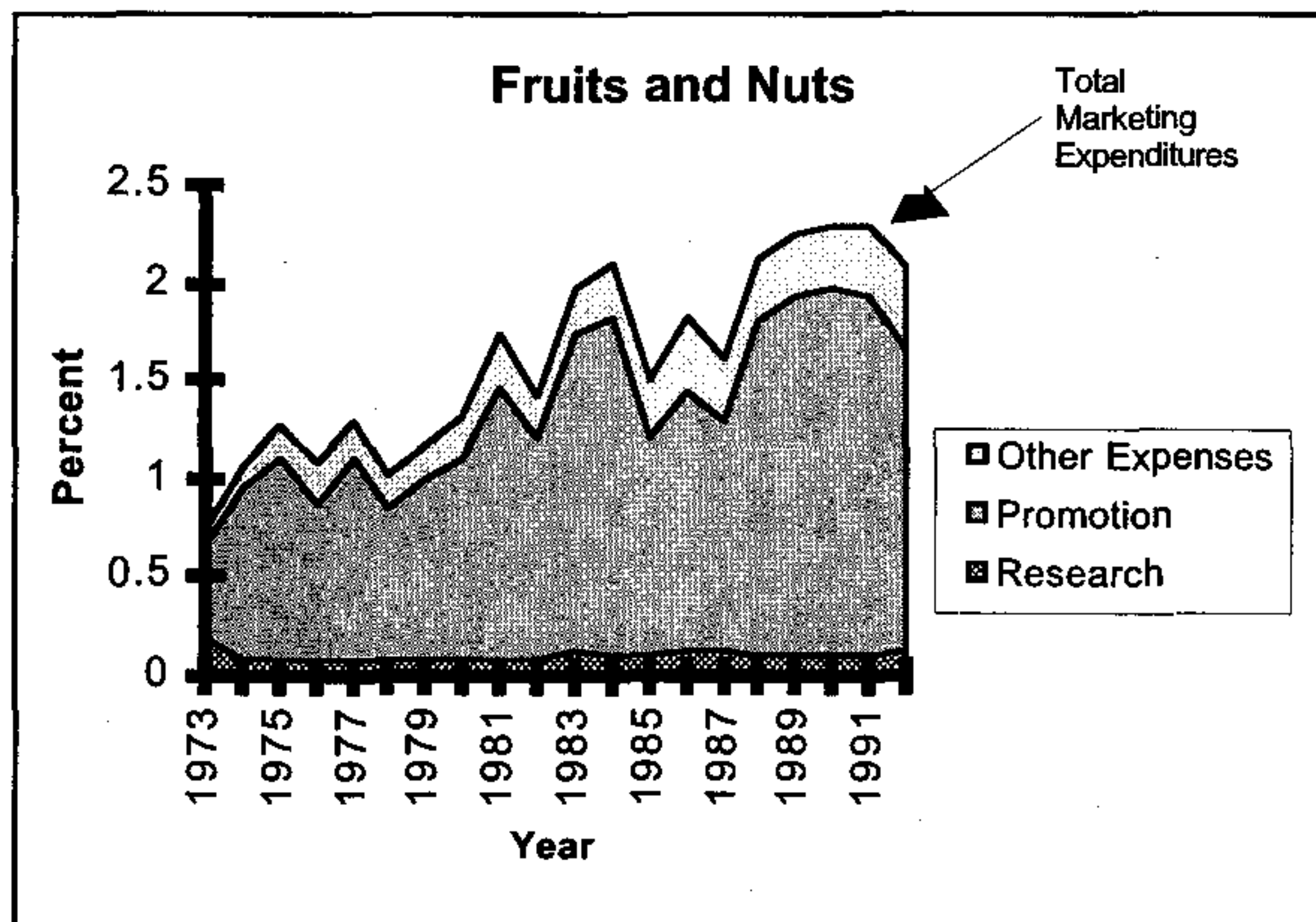
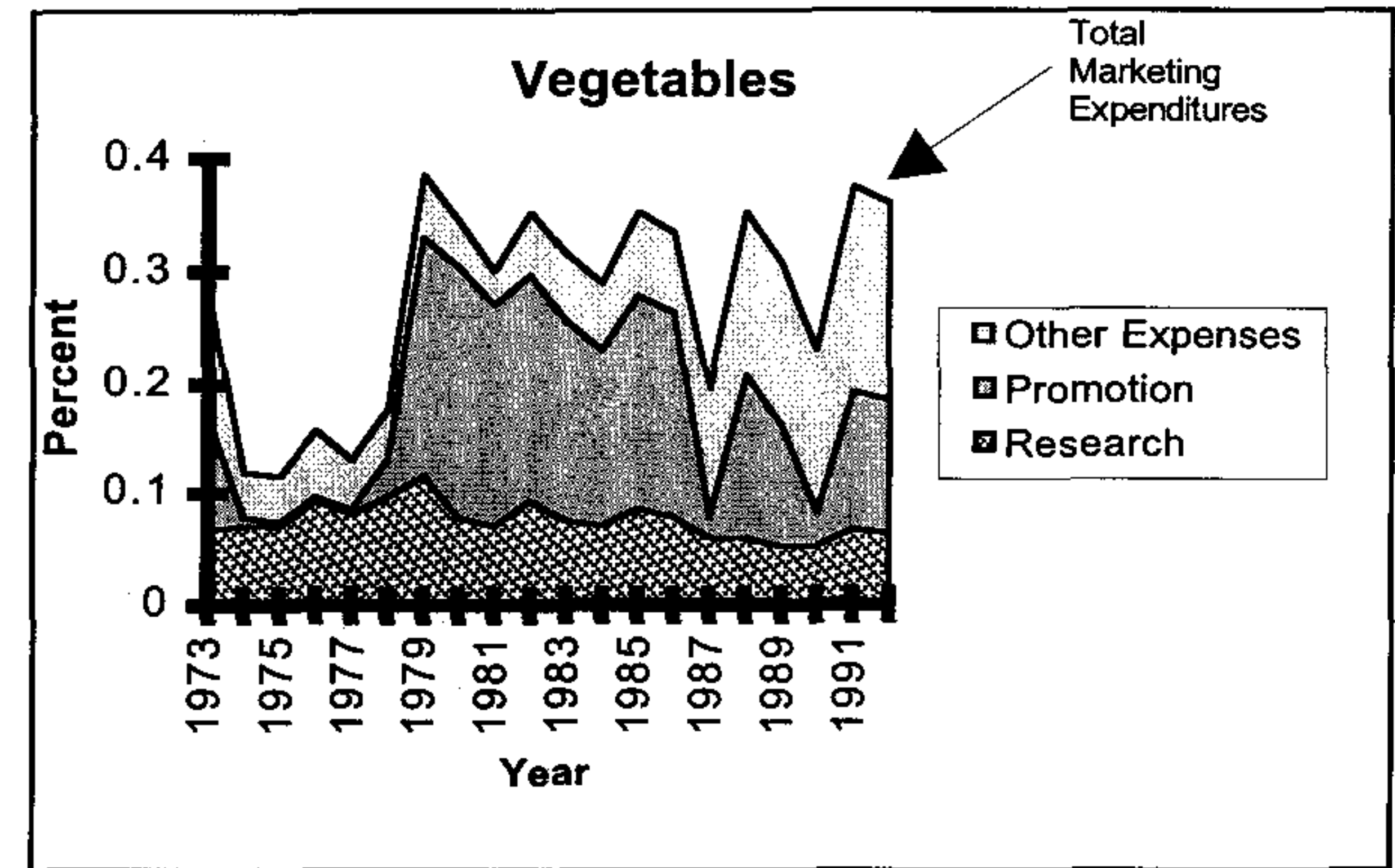
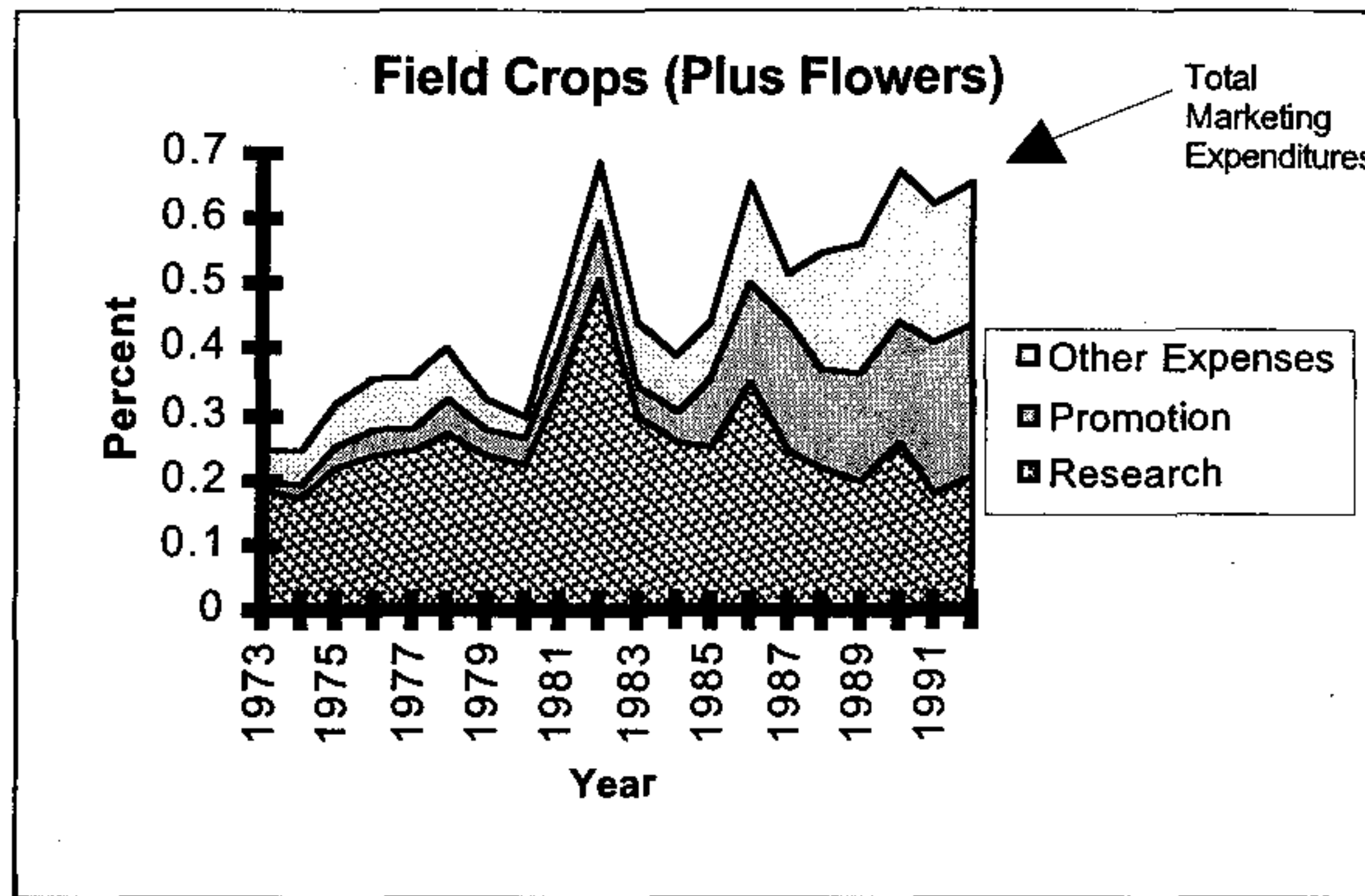
Fruit and nuts stands out among all categories with its much larger total marketing budgets compared to value of production. While the total marketing budgets for all other categories remained far below one percent of total production value, those of fruit and nut crops exceeded one percent for most years, and in recent years, they reached as high as two percent of total production value. This contrasts with vegetables or animal products whose total marketing budgets fluctuated around only 0.3 percent of production value.

¹⁷ The inclusion of cut flowers is arbitrary, but this was done in order not to create another category for cut flowers for which the data begin only from 1991.

Figure 4. Annual State Marketing Budget as a Proportion of Value of Production (1973-1992)



**Figure 5: Annual State Marketing Budget as a Proportion of Value of Production
by Commodity Category (1973-1992)**



6.3 Program-Average of Promotion and Research Budget Shares

This section examines the patterns of how each program has allocated its marketing budget between research and promotion. To investigate this allocation, we calculated the expenditures on promotion and research as a share of each program's total marketing budget. Table 3 shows the average allocation for each commodity, over the period 1976-1994. First, to examine the budget allocation pattern for commodity categories, the simple averages of these shares across programs were calculated for each commodity category and are presented in Figure 6.

For fruits and nuts and animal products, promotion is far more important than research—both spent more than half of their funds on promotion and very little on research.¹⁸ Promotion shares for fruits and nuts rose gradually from 0.4 to 0.6 from 1973-1983. From 1983 to 1992, the shares leveled off at around 0.6. Promotion shares for animal products were also

high, fluctuating around 0.6 and 0.7. Regarding research budgets, while fruits and nuts programs were engaged in some research, animal product programs conducted very little research, allocating less than 10 percent of their total budget to these activities. Small research budgets for animal products may be, in part, due to their programs' functional differences. The majority of programs for animal products are organized under councils, whose main functions involve consumer education on food safety and nutrition. These education and information expenses are the major part of their promotion expenses.

Contrary to the emphasis on promotion by the programs for fruits and nuts and animal products, those for field crops and vegetables allocated much more funds, on average, to research than to promotion, even though this tendency has been declining. In particular, the relative emphasis on research is most pronounced for vegetables.¹⁹ While promotion shares ranged around 0.2, research shares ranged between 0.6 and 0.4. For vegetables, research expenditures have always been greater than promotion expenditures.

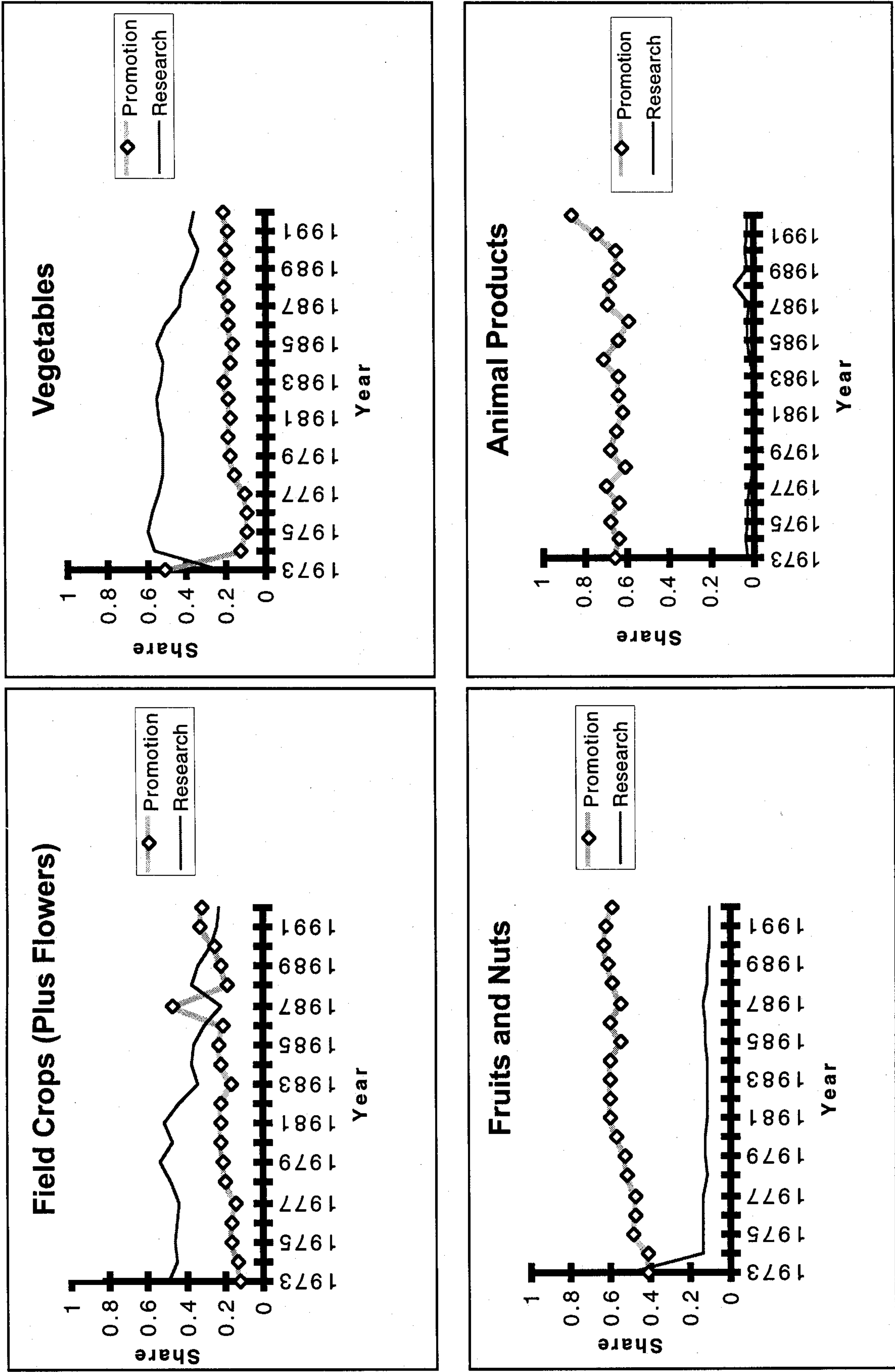
¹⁸ When promotion activities of federal marketing orders are included, promotion budgets become much larger (see Table 5). Most federal orders affecting California are for tree crops and their promotion budgets are, on average, over 50 percent of the total budget (see Carman et al. 1992).

¹⁹ This result may seem contradictory to what we observed in Figure 5. In Figure 5, for vegetables, the percentage of research budgets to total production value was much lower than that of promotion budgets to total production value. Figure 5 was generated based on the sum of research budgets normalized by the sum of production value (thus, weighted by the program importance) for each category while the figures here are based on the simple average, giving equal weight to minor and major programs. If only a few large (budget-wise) programs had a tendency to allocate the major part of their budgets to promotion with most small programs conducting mostly research, then the program average will wash out the effect of large promotion budgets. When we investigated the data, this was in fact the case. The Iceberg Lettuce Commission was the largest marketing agency which was engaged in promotion among vegetables. During the 1980s, its annual promotion budgets were almost as large as the sum of the rest of the marketing budgets in vegetables. Further, until the late 1980s, many vegetable marketing programs were engaged exclusively in research activities.

Table 3. Average Research and Promotion Budget Shares Out of Total Marketing Funds by Commodity (1970-1994)

| Category | Commodity | Promotion Share | Research Share |
|-------------------------------|--------------------|-----------------|----------------|
| Field Crops (Plus Flowers) | Cut Flowers | 0.51 | 0.16 |
| | Dry Beans | 0.39 | 0.16 |
| | Wild Rice | 0.37 | 0.26 |
| | Wheat | 0.24 | 0.17 |
| | Rice | 0.12 | 0.77 |
| | Alfalfa Seed | 0 | 0.71 |
| Fruits and Nuts | Walnuts | 0.95 | 0 |
| | Raisins | 0.90 | 0.03 |
| | Plums | 0.88 | 0.00 |
| | Table Grapes | 0.82 | 0.03 |
| | Prunes | 0.79 | 0.09 |
| | Avocadoes | 0.78 | 0.05 |
| | Wine Grapes | 0.74 | 0.13 |
| | Apricots | 0.70 | 0.01 |
| | Kiwifruit | 0.69 | 0.04 |
| | Fresh Strawberries | 0.68 | 0.15 |
| | Grapefruit | 0.67 | 0 |
| | Pistachios | 0.60 | 0.13 |
| | Pears | 0.59 | 0.03 |
| | Peaches | 0.56 | 0.04 |
| | Figs | 0.44 | 0.05 |
| | Proc. Strawberries | 0.01 | 0.00 |
| | Citrus | 0 | 0.91 |
| | Desert Grapes | 0 | 0 |
| Vegetables | Artichokes | 0.69 | 0.04 |
| | Iceberg Lettuce | 0.46 | 0.37 |
| | Asparagus | 0.39 | 0.05 |
| | Carrots | 0.34 | 0.51 |
| | Cantaloupe | 0.27 | 0 |
| | Fresh Tomatoes | 0.21 | 0.55 |
| | Celery | 0 | 0.69 |
| | Melons | 0 | 0.68 |
| | Peppers | 0 | 0.61 |
| | Potatoes | 0 | 0.68 |
| | Proc. Tomatoes | 0 | 0.13 |
| Animal Products | Eggs | 0.81 | 0.05 |
| | Beef | 0.70 | 0.02 |
| | Dairy | 0.58 | 0.04 |
| | Turkey | 0.57 | 0.02 |
| | Honey | 0.52 | 0.02 |

Figure 6: Average Budget Shares by Commodity Category
(Research, Promotion Budget Expenditures/Total Funding)



CONCLUSION

Marketing programs in California have been in place for more than half a century. Even though essential features of the marketing programs remain unchanged, the commodities covered by the marketing programs and the emphasis of program activities have changed over time. The recent trends indicate that vegetables have emerged as important program commodities along with tree crops. In addition, promotion activities have become relatively more important as measured by outlays. The share of production value allocated to promotion increased over time, while research budgets have maintained their small, constant share of production value.

While previous studies describe how marketing programs operate, our study is the first that has compiled relatively recent time series data on California program budgets. Our budget analysis allows comparisons across and among commodity programs.

Such comparisons may also allow more informed hypotheses about why budgets have changed in the ways that they have, or in suggesting more specific areas for research. A natural question arising from our findings concerns the payoff from increasing investments on promotion activities compared to the payoff from research. Existing studies have been either theoretical, or empirical but specific to a particular situation or commodity. Measuring the payoff to promotion and research, and assessing the distribution of benefits for various types of programs, is an important area for economic research and analysis, particularly, given the mandated nature of marketing programs. Another important question relates to budget patterns across commodities. Explaining why research and promotion budget allocations differ among commodities is another area to which economists can contribute.

APPENDIX

DATA

Collecting historical data on marketing funds for the state marketing commodity groups was a challenge because there is no official report which contains such information for all of the groups. We combined various sources of data going back to as early as 1970 (if the marketing programs existed) and as recently as 1994. The major part of the data was obtained from the Marketing Branch of the California Department of Food and Agriculture (CDFA). CDFA has a substantial amount of budget information because the CDFA is authorized to oversee the state marketing programs and, as part of this responsibility, commodity marketing boards are required to submit annual and quarterly budget reports to CDFA.

The marketing fund data include total annual expenditures broken down into activity categories including market promotion, research and development, and inspection. In addition to marketing fund data, our data set includes value of production for each commodity with a marketing program. These value data were collected from various issues of the CDFA annual publication, California Agricultural Statistics Review. Our data, thus, include information on the name of the commodity, year, value of production, total marketing funds, and expenditures on market promotion, research, and inspection (if irrelevant, zero).

Annual marketing funds for each marketing group are allocated based on its marketing (or crop) year which may differ among commodities and may not necessarily coincide with the calendar year. For the non-crop categories such as meats, eggs, or milk, budget years usually coincide with calendar years. However, for most crops, marketing years tend to

begin in the second half of the calendar year and the majority of the 12 months of a marketing year tend to fall in the following year. Thus, to construct annual data based on a consistent year, we consider the later year of the marketing year as a budget year in our data. For example, if a marketing year spans from September 1, 1993 to August 31, 1994, we would consider this marketing year's expenditure data to be the 1994 data.

Even though most of our data include complete time-series budget information, budget data for all sequential years were not available for some commodities. To fill in the missing years, we contacted the commodity groups directly to inquire about the data we needed. However, the responses were mixed and we had only limited success. Information tends to be missing more often either in the early period or in the recent period. Thus, even though our data base spans the period from 1970 to 1994, our budget analysis used the period of 1973 to 1992 which contains more complete data information.

Marketing programs considered in our budget investigation do not include all programs that existed during the period of our study. Over the period, many marketing programs were terminated. Budget figures for the terminated programs were difficult to obtain. Thus, our data collection effort was focused on compiling the historical records of the currently existing programs. We included terminated programs so long as data were available. Due to the exclusion of some previously existing programs, the sum of the budgets over all programs underestimates actual expenditures.

Appendix Table 1. Federal Marketing Orders and Agreements
(as of January 1995)

| Commodity | Grade | Size | Pack & Container | Flow to Market | Market Allocation | Reserve Pool | Producer Allotments | Research & Development | Advertising | Year Effective |
|----------------------------|-------|------|------------------|----------------|-------------------|--------------|---------------------|------------------------|-------------|----------------|
| Florida Citrus Fruit | A | A | 1 | 2 | | | | | | 1939 |
| Texas Oranges & Grapefruit | A | A | A | | | | | A | A | 1960 |
| Florida Limes | A | A | A | 1 | | | | A | A | 1955 |
| Florida Avocados | A | A | A | 2 | | | | A | A | 1954 |
| CA Nectarines | A | A | A | | | | | A | A | 1958 |
| CA Peaches | A | A | A | | | | | A | A | 1939 |
| Georgia Peaches | I | I | | | | | | I | | 1942 |
| CA Kiwifruit | A | A | A | | | | | I | | 1984 |
| Washington Peaches | I | I | I | | | | | I | | 1960 |
| Washington Apricots | A | A | A | | | | | A | | 1957 |
| Washington Cherries | A | A | A | | | | | A | | 1957 |
| WA-OR Fresh Prunes | A | A | A | | | | | A | | 1960 |
| CA Desert Grapes | A | A | I | 2 | | | | A | | 1980 |
| CA Tokay Grapes | A | A | A | 1 | | | | A | A | 1940 |
| OR-WA-CA Winter Pears | I | I | | | | | | A | A | 1939 |
| Hawaii Papayas | I | I | I | | | | | A | A | 1971 |
| 10 States-Cranberries | 3 | 3 | | | | | I | A | | 1962 |
| WA-OR Bartlett Pears | I | I | | | | | | A | | 1966 |
| CA Olives | A | A | | | | | | A | A | 1965 |
| Idaho-E. Oregon Potatoes | A | A | Pack | | | | | | | 1941 |
| WA Potatoes | A | A | Pack | | | | | | | 1949 |
| OR-CA Potatoes | A | A | Pack | | | | | I | | 1942 |
| Colorado Potatoes | A | A | Pack | | | | | I | | 1941 |
| Maine Potatoes | I | I | I | | | | | | | 1954 |
| VA-NC Potatoes | A | A | | | | | | | | 1948 |
| Georgia Vidalia Onions | A | A | | | | | | A | A | 1989 |
| Idaho-Oregon Onions | A | A | Pack | 2 | | | | A | A | 1957 |
| South Texas Onions | A | A | A | 2 | | | | A | | 1961 |
| Texas Valley Tomatoes | I | I | I | | | | | I | I | 1959 |
| Florida Tomatoes | A | A | A | | | | | A | A | 1955 |
| Florida Celery | I | I | I | 1 | | | I | I | I | 1965 |
| South Texas Lettuce | I | I | I | 1 | | | | I | | 1960 |
| South Texas Melons | A | I | A | | | | | A | | 1961 |
| CA Almonds | A | 4 | | | A | | | A | I | 1950 |
| OR-WA Filberts | A | A | Pack | | A | | | A | A | 1949 |
| CA-OR-WA Walnuts | A | A | Pack | | I | I | | A | | 1948 |
| Far West Spearmint Oil * | | | | | | A | A | A | | 1980 |
| CA Dates | A | A | Cont. | | I | | | A | A | 1955 |
| CA Raisins | A | A | | | A | A | | A | A | 1949 |
| CA Dried Prunes | A | A | Pack | | I | I | | I | | 1949 |
| Peanuts not under M.A. 146 | A | A | | | | | | | | 1990 |
| M.A. 146 Peanuts | A | A | | | | | | | | 1965 |

* Spearmint Oil Order covers the states of Washington, Idaho, Montana, Nevada, Utah, Oregon and California

1. Export Only

2. Shipping Holiday

3. Applies only to withheld (reserve) cranberries

4. Reserve Only

A= Active, I=Inactive

Appendix Table 2. California Marketing Programs (1995)

| Marketing Program Organizations | Year the Program Became Effective | Varieties or End- Use Covered |
|---|--------------------------------------|----------------------------------|
| Alfalfa Seed Production Research Board | 1973 | |
| Apricot Advisory Board | 1971 | |
| Artichoke Advisory Board | 1960 | |
| Dry Bean Advisory Board | 1970 | |
| Cantaloupe Advisory Board | 1988 | |
| CA Fresh Carrot Advisory Board | 1992 | |
| CA Celery Research Advisory Board | 1976 | |
| CA Cherry Marketing Program | 1993 | |
| Citrus Research Board | 1968 | All Citrus Except Limes |
| Fig Advisory Board | 1944 | Dried Figs |
| Iceberg Lettuce Research Advisory Board | 1973 | |
| Melon Research | 1972 | All Melons Except Watermelons |
| Manufacturing Milk Advisory Board | 1970 | |
| CA Milk Producers Advisory Board | 1969 | |
| CA Fluid Milk Processor Advisory Board | 1969 | |
| CA Cling Peach Advisory Board | 1984 | |
| Pear Advisory Board | 1992 | Bartlett |
| Pistachio Marketing Agreement | 1994 | |
| Plum Marketing Board | 1994 | |
| Plum Advisory Board | 1994 | |
| Potato Research Advisory Board | 1974 | |
| CA Prune Board | 1947 | Dried Prunes |
| Rice Handlers' Advisory Board | 1984 | |
| Rice Research Advisory Board | 1969 | |
| Processing Strawberry Advisory Board | 1960 | |
| CA Tomato Board | 1972 | Fresh Tomatoes |
| Processing Tomato Advisory Board | 1986 | |
| CA Wild Rice Board | 1968 | |
| CA Apple Commission | 1994 | |
| CA Asparagus Commission | 1990 | |
| CA Avocado Commission | 1978 | |
| CA Egg Commission | 1984 | |
| CA Cut Flower Commission | 1990 | |
| CA Forest Products Commission | 1991 | |
| CA Grape Rootstock Improv. Commission | 1993 | |
| CA Kiwifruit Commission | 1980 | |
| CA Pepper Commission | 1988 | |
| CA Pistachio Commission | 1981 | |
| CA Strawberry Commission | 1955 | Fresh Strawberries |
| CA Table Grape Commission | 1968 | |
| CA Walnut Commission | 1986 | |
| CA Wheat Commission | 1983 | |
| Lake County Winegrape Commission | 1992 | |
| Lodi-Woodbridge Winegrape Commission | 1991 | |
| CA Beef Council | 1957 | |
| Dairy Council of California | 1945 | |
| CA Salmon Council | 1991 | |
| CA Seafood Council | 1991 | |

Appendix Table 3. Authorized Activities of California Marketing Programs (1995)

| Marketing Programs | Activities | | | |
|---|------------|----------|-------------------------------------|-----------------------------------|
| | Promotion | Research | Quality Standards and Inspection | Unique Authorities |
| Programs Established Under the Marketing Act of 1937 | | | | |
| Alfalfa Seed Production | | A | | |
| Apricot | A | A | | |
| Artichoke Promotion | A | I | | |
| Bean (Dry) | A | A | I | |
| Cantaloupe | A | I | A | I ^a |
| Carrot (Fresh) | A | A | | |
| Celery | | A | | |
| Cherry | A | A | | |
| Citrus Research | | A | | |
| Figs (Dried) | A | A | A | I ^{b,c} , A ^d |
| Iceberg Lettuce Research | | A | | |
| Melon Research | | A | | |
| Manufacturing Milk (MMAB) | A | A | | |
| Market Milk (CMAB) | A | A | | |
| Milk (Fluid) | A | | | |
| Peach (Cling) | A | A | A | |
| Pear | A | A | A | |
| Pistachio Agreement | | | | A ^b |
| Plum Agreement (Inactive) | | | | |
| Plum Order | A | A | A | |
| Potato Research | | A | | |
| Prunes (Dried) | A | A | | |
| Rice Handlers | A | | | |
| Rice Research | | A | | A ^{a,e} |
| Strawberry (Processing) | I | A | A | |
| Tomato (Fresh) | A | A | | |
| Tomato (Processing) | | | A | |
| Wild Rice | A | A | I | I ^c |
| Commissions | | | | |
| Apple | A | A | I | |
| Asparagus | A | A | | |
| Avocado | A | A | I | |
| Egg | A | A | | |

Continues on page 23

Appendix Table 3 (Cont'd) . Authorized Activities of California Marketing Programs (1995)

| Marketing Programs | Activities | | | |
|---------------------------|----------------|----------|-------------------------------------|-----------------------|
| | Promotion | Research | Quality Standards and Inspection | Unique Authorities |
| Cut Flower | A | A | | |
| Forest Products | A | A | | |
| Grape Rootstock | | A | | |
| Kiwifruit | A | A | | |
| Pepper | A | A | | |
| Pistachio | A | A | | |
| Strawberry (Fresh) | A | A | | |
| Table Grape | A | A | | |
| Walnut | A | | | |
| Wheat | A | A | | |
| Lake County Winegrape | A | A | | |
| Lodi-Woodbridge Winegrape | A | A | | |
| Councils | | | | |
| Beef Council | A | A | | |
| Dairy Council | A ^b | A | | |
| Salmon Council | A | A | | I ^f |
| Seafood Council | A | A | A ^g | |

^a Weather data dissemination

I = inactive

A = active

^b Unfair trade practices

^c Stabilization pool

^d Substandard fig pool

^e Price posting

^f Purchase of fishing rights

^g Voluntary

^h Nutrition education

Appendix Table 4. Federal Marketing Orders and Agreements in California
(as of May 1995)

| Commodity | Grade | Size | Pack & Container | Flow to Market | Market Allocation | Reserve Pool | Producer Allotments | Research & Development | Advertising | Year Effective |
|----------------------------|-------|------|---------------------|-------------------|----------------------|-----------------|------------------------|---------------------------|-------------|-------------------|
| A = Active I = Inactive | | | | | | | | | | |
| Nectarines | A | A | A | | | | | A | A | 1958 |
| Peaches | A | A | A | | | | | A | A | 1939 |
| OR-WA-CA Winter Pears | I | I | | | | | | A | A | |
| Kiwifruit | A | A | A | | | | | I | | 1984 |
| Desert Grapes | A | A | I | 1 | | | | A | | 1980 |
| Olives | A | A | | | | | | A | A | 1965 |
| OR-CA Potatoes | A | A | Pack | | | | | I | | 1942 |
| Almonds | A | 2 | | | A | | | A | I | 1950 |
| CA-OR-WA Walnuts | A | A | Pack | | I | I | | A | | 1948 |
| Dates | A | A | Cont. | | I | | | A | A | 1955 |
| Raisins | A | A | | | A | A | | A | A | 1949 |
| Dried Prunes | A | A | Pack | | I | I | | I | | 1949 |
| Spearmint Oil | | | | | | A | A | A | | 1980 |

1. Shipping Holiday 2. Reserve Only

Appendix Table 5. Total Marketing Budget for Selected Years by Commodity

| Commodity | 1985 Total Budget (\$1000) | Commodity | 1990 Total Budget (\$1000) | Commodity | 1992 Total Budget (\$1000) |
|--------------------|-------------------------------------|--------------------|-------------------------------------|--------------------|-------------------------------------|
| Dairy | 19,718.8 | Dairy | 24,947.2 | Dairy | 27,471.4 |
| Raisins | 12,155.0 | Raisins | 22,395.0 | Raisins | 14,439.1 |
| Avocados | 5,190.5 | Table Grapes | 9,575.2 | Avocados | 11,193.1 |
| Eggs | 5,110.9 | Wine Grapes | 9,023.6 | Walnuts | 10,636.8 |
| Prunes | 4,338.0 | Prunes | 8,596.9 | Prunes | 7,529.7 |
| Beef | 3,774.3 | Walnuts | 8,402.4 | Eggs | 5,146.6 |
| Wine Grapes | 3,650.0 | Avocados | 8,334.7 | Fresh Strawberries | 4,255.8 |
| Fr. Strawberries | 3,252.7 | Eggs | 5,176.6 | Peaches | 3,761.4 |
| Peaches | 3,153.3 | Peaches | 4,430.2 | Pistachios | 3,547.0 |
| Iceberg Lettuce | 2,881.2 | Fresh Strawberries | 4,246.1 | Iceberg Lettuce | 3,254.5 |
| Rice | 1,980.7 | Proc. Tomatoes | 2,747.5 | Proc. Tomatoes | 2,560.7 |
| Kiwifruit | 1,028.1 | Rice | 2,561.5 | Rice | 2,557.3 |
| Pears | 1,018.0 | Pistachios | 2,407.4 | Pears | 2,452.4 |
| Citrus | 766.9 | Kiwifruit | 2,025.0 | Kiwifruit | 2,065.0 |
| Dry Beans | 461.5 | Pears | 1,376.0 | Cut Flowers | 1,490.9 |
| Fresh Tomatoes | 436.1 | Beef | 1,297.0 | Citrus | 1,205.1 |
| Wheat | 426.5 | Citrus | 1,037.8 | Beef | 1,140.5 |
| Proc. Strawberries | 387.9 | Dry Beans | 903.5 | Fresh Tomatoes | 1,082.3 |
| Apricots | 360.0 | Wheat | 886.6 | Dry Beans | 983.7 |
| Turkey | 322.2 | Figs | 750.2 | Plums | 971.5 |
| Celery | 215.4 | Fresh Tomatoes | 681.1 | Wheat | 795.0 |
| Melons | 172.6 | Apricots | 477.2 | Figs | 673.8 |
| Potatoes | 169.6 | Carrots | 473.5 | Apricots | 585.9 |
| Artichokes | 160.5 | Turkey | 469.8 | Proc. Strawberries | 552.3 |
| Honey | 119.5 | Proc. Strawberries | 441.3 | Carrots | 481.4 |
| Alfalfa Seed | 101.8 | Artichokes | 324.8 | Cantaloupes | 427.5 |
| Figs | na | Cantaloupes | 247.1 | Artichokes | 404.6 |
| Pistachios | na | Melons | 225.4 | Asparagus | 368.7 |
| | | Potatoes | 124.0 | Celery | 246.2 |
| | | Peppers | 92.2 | Melons | 221.2 |
| | | Alfalfa Seed | 83.3 | Peppers | 154.9 |
| | | Wild Rice | 55.9 | Potatoes | 132.7 |
| | | | | Alfalfa Seed | 75.0 |
| | | | | Wild Rice | 73.0 |
| Total | 71,351.9 | Total | 124,815.7 | Total | 112,936.5 |

Appendix Table 6. Research Marketing Budget for Selected Years by Commodity

| Commodity | 1985 Research Budget (\$1000) | Commodity | 1990 Research Budget (\$1000) | Commodity | 1992 Research Budget (\$1000) |
|--------------------|--|--------------------|--|--------------------|--|
| Rice | 1,438.4 | Rice | 1,423.6 | Rice | 1,382.9 |
| Dairy | 1,026.7 | Dairy | 1,362.0 | Citrus | 1,073.2 |
| Citrus | 683.4 | Citrus | 928.8 | Fresh Strawberries | 896.7 |
| Wine Grapes | 500.0 | Fresh Strawberries | 745.4 | Dairy | 681.0 |
| Fresh Strawberries | 461.8 | Wine Grapes | 600.0 | Eggs | 494.4 |
| Beef | 379.4 | Avocados | 475.0 | Avocados | 475.0 |
| Raisins | 360.0 | Eggs | 351.0 | Iceberg Lettuce | 474.7 |
| Iceberg Lettuce | 336.4 | Raisins | 350.0 | Fresh Tomatoes | 365.9 |
| Fr. Tomatoes | 261.7 | Fr. Tomatoes | 342.5 | Prunes | 328.9 |
| Eggs | 255.2 | Pistachios | 270.0 | Pistachios | 325.0 |
| Peaches | 200.9 | Table Grapes | 246.7 | Carrots | 311.1 |
| Avocados | 189.5 | Prunes | 235.1 | Raisins | 250.0 |
| Pistachios | 178.3 | Peaches | 213.0 | Cut Flowers | 240.0 |
| Celery | 165.1 | Carrots | 200.0 | Peaches | 206.5 |
| Melons | 120.8 | Melons | 170.9 | Celery | 182.0 |
| Wheat | 109.1 | Wheat | 118.5 | Melons | 123.1 |
| Prunes | 95.7 | Dry Beans | 93.0 | Pears | 112.7 |
| Alfalfa Seed | 76.2 | Potatoes | 80.0 | Peppers | 106.8 |
| Pears | 57.8 | Figs | 70.0 | Dry Beans | 103.8 |
| Kiwifruit | 45.2 | Kiwifruit | 66.7 | Wheat | 93.6 |
| Dry Beans | 37.6 | Alfalfa Seed | 52.7 | Potatoes | 80.0 |
| Figs | 25.0 | Pears | 50.0 | Alfalfa Seed | 44.3 |
| Proc. Strawberries | 3.0 | Peppers | 32.8 | Kiwifruit | 38.8 |
| Apricots | 1.1 | Wild Rice | 13.6 | Lodi | 25.0 |
| (1) | | (2) | | Asparagus | 16.4 |
| | | | | Wild Rice | 13.0 |
| | | | | Apricots | 8.0 |
| | | | | Figs | 7.0 |
| | | | | (3) | |
| Total | 7,008.2 | Total | 8,491.4 | Total | 8,459.9 |

1. In 1985 there were no research expenditures for artichokes, honey and turkey.

2. In 1990 there were no research expenditures for artichokes, cantaloupes, processing strawberries, processing tomatoes, apricots, walnuts, beef and turkey.

3. In 1992 there were no research expenditures for artichokes, cantaloupes, processing strawberries, processing tomatoes, plums, walnuts and beef.

Appendix Table 7. Promotion Marketing Budget for Selected years by Commodity

| Commodity | 1985 Promotion Budget (\$1000) | Commodity | 1990 Promotion Budget (\$1000) | Commodity | 1992 Promotion Budget (\$1000) |
|--------------------|---|--------------------|---|--------------------|---|
| Dairy | 14,713.2 | Raisins | 20,910.0 | Dairy | 25,242.0 |
| Raisins | 10,368.5 | Dairy | 20,192.3 | Raisins | 11,898.0 |
| Eggs | 4,522.7 | Table Grapes | 8,690.3 | Walnuts | 10,158.2 |
| Avocados | 4,061.7 | Walnuts | 7,991.7 | Avocados | 8,628.4 |
| Prunes | 3,959.9 | Prunes | 7,869.6 | Prunes | 6,708.2 |
| Wine Grapes | 2,600.0 | Avocados | 6,325.1 | Eggs | 4,208.2 |
| Beef | 2,581.7 | Eggs | 4,356.0 | Fresh Strawberries | 2,803.1 |
| Fresh Strawberries | 2,398.5 | Fresh Strawberries | 3,037.7 | Pistachios | 2,108.5 |
| Iceberg Lettuce | 2,019.8 | Peaches | 2,320.2 | Iceberg Lettuce | 2,035.0 |
| Kiwifruit | 796.1 | Pistachios | 1,359.0 | Peaches | 1,727.1 |
| Peaches | 664.5 | Kiwifruit | 1,323.6 | Pears | 1,708.8 |
| Pears | 537.2 | Wine Grapes | 1,111.5 | Beef | 917.0 |
| Rice | 385.0 | Beef | 1,080.9 | Kiwifruit | 864.2 |
| Dry Beans | 242.8 | Pears | 784.3 | Rice | 854.4 |
| Figs | 191.5 | Rice | 645.1 | Plums | 827.9 |
| Apricots | 179.3 | Figs | 473.9 | Cut Flowers | 610.0 |
| Turkey | 178.0 | Dry Beans | 415.6 | Dry Beans | 457.5 |
| Artichokes | 113.9 | Apricots | 343.9 | Figs | 413.9 |
| Wheat | 72.8 | Turkey | 287.6 | Apricots | 410.0 |
| Fresh Tomatoes | 56.1 | Artichokes | 242.5 | Fresh Tomatoes | 353.3 |
| Honey | 40.0 | Fresh Tomatoes | 206.2 | Artichokes | 299.7 |
| (1) | | Carrots | 205.0 | Cantaloupes | 231.5 |
| | | Wheat | 185.0 | Wheat | 162.5 |
| | | Cantaloupe | 32.8 | Asparagus | 131.6 |
| | | Wild Rice | 20.0 | Carrots | 100.0 |
| | | (2) | | Wild Rice | 37.5 |
| | | | | (3) | |
| Total | 50,683.2 | Total | 90,409.5 | Total | 83,896.5 |

1. In 1985 there were no promotion expenditures for citrus, celery, melons, potatoes, alfalfa seed, processing strawberries and pistachios.

2. In 1990 there were no promotion expenditures for citrus, melons, potatoes, alfalfa seed, peppers, processing strawberries, and processing tomatoes.

3. In 1992 there were no promotion expenditures for citrus, celery, melons, peppers, potatoes, alfalfa seed, processing strawberries and processing tomatoes.

REFERENCES

- Alston, J.M., H.F. Carman, J. Christian, J.H. Dorfman, J.-R. Murua and R.J. Sexton. *Optimal Reserve and Export Policies for the California Almond Industry: Theory, Econometrics and Simulations*. California Agricultural Experiment Station, Giannini Foundation Monograph No. 42, February 1995.
- California Department of Food and Agriculture, Marketing Branch. *Purpose and Nature of Marketing Order, Commission, and Council Programs*. 1985.
- Carman, H.F., R. Green, and G. Mandour. "Commodity Advertising Pays... or Does It?" *California Agriculture*, Vol. 46. No.2, 1992, pp. 8-12.
- Ekboir, J., D. A. Sumner, and C. A. Wolf. "A Study of California's Milk Quota System." Working paper, Department of Agricultural and Resource Economics, University of California, Davis, October 1995.
- Farrell, K. and W. Wood. "Federal Marketing Orders and Agreements for California Fruits, Vegetables, and Tree nuts." Working paper, University of California, Agricultural Extension Service, Berkeley, 1963.
- French, B., N. Tamimi, and C. Nuckton. *Marketing Order Program Alternatives: Use and Importance in California, 1949-1975*. California Agricultural Experiment Station, Giannini Foundation Information Series No. 78-2, May 1978.
- Gunn, T. *California Agricultural Market Development*. Center for Agricultural Business California State University, Fresno. November 1989.
- Neff, S. and G. Plato. *Federal Marketing Orders and Federal Research and Promotion Programs*. Washington, DC: USDA, Economic Research Service, Agricultural Economic Report No. 707, May 1995.
- Nuckton, C. F and B. French. "Marketing Orders in U.S. and California Agriculture." Working paper, University of California, Davis, Department of Agricultural Economics, 1984.
- Powers, N. J. *Federal Marketing Orders for Fruits, Vegetables, Nuts and Specialty Crops*. Washington, DC: USDA, Economic Research Service, Agricultural Economic Report, No. 629, March 1990.
- Sumner, D.A. and C. A. Wolf. "Quotas without Supply Control: Effects of Dairy Quota Policy in California." working paper, Department of Agricultural and Resource Economics, University of California, Davis, September 1995.
- U.S. Department of Agriculture, *Guidelines for Fruit, Vegetable, and Specialty Crop Marketing Orders*. Washington, DC, January 25, 1982