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CONVENIENCE FOODS AND HOME-PREPARED FOODS: Comparative Costs, Yield, and Quality, Larry G. Traub and Dianne D. Odland. National Economics Division, Economics, Statistics, and Cooperatives Service, U.S. Department of Agriculture, Agricultural Economic Report No. 429.

ABSTRACT

Convenience products were shown to represent about half the sales of foods purchased for consumption at home. Based on retail food prices collected from chain grocery stores in Philadelphia, Milwaukee, San Francisco-Oakland, and New Orleans, 58 percent of the convenience foods studied cost more per serving than their fresh or home-prepared counterparts. Most of the convenience foods studied required less time and fuel for home preparation and did not differ significantly in eating quality from their counterparts made from a home recipe.

Keywords: Convenience foods, Home-prepared foods, Food expenditure, Food sales, Food costs, Preparation time, Fuel consumption, Yield, Food composition, Eating quality.

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SUMMARY

This report evaluates the impact of convenience products on national food sales and expenditures and compares convenience foods and their fresh or home-prepared counterparts for costs (of food, fuel used in preparation, and preparation time), yield, composition, and eating quality. Food costs were based on retail food prices collected in Philadelphia, Milwaukee, San Francisco-Oakland, and New Orleans. Data on yield, composition, fuel, time, and eating quality were based on laboratory studies.

Convenience products were shown to represent about half the sales of food purchased for consumption at home. About one-fourth of these sales were for products introduced to the market in 1960 or after.

Based on retail food prices, 58 percent of the 166 convenience products studied had a higher per serving food cost than their fresh or home-prepared version, about 24 percent had a lower cost, and about 18 percent had a similar cost. These 166 convenience products accounted for \$7.58 per \$100 spent for food, while the cost of duplicating them with fresh or home-prepared foods was \$9.50. Most of the more expensive convenience foods were purchased in small quantities and therefore had a negligible effect on food expenditure; a few of the less expensive convenience products were purchased in large quantities and had a tremendous effect on food expenditure.

The cost of most foods varied significantly among forms (home-prepared and convenience), cities, and months when food prices were collected. Both convenience items and fresh or home-prepared foods were most expensive in Philadelphia. Processed foods were cheapest in New Orleans. Fresh and home-prepared foods were cheapest in San Francisco-Oakland.

The cost of labor for preparing most convenience products at home was appreciably lower than that for preparing similar foods from a recipe. The cost for 94 percent of the frozen convenience products was less than that for their fresh or home version, although some of the convenience items required a longer total preparation time. When frozen and canned forms could be compared, the canned usually cost less to prepare and required less total preparation time.

Of the 41 convenience products for which fuel data were collected, fuel for preparation of 63 percent cost less, for 22 percent cost about the same, and for 15 percent cost more than fuel for the home version. Fuel for preparation of canned products was usually less costly than fuel for preparation of alternative convenience forms or home-prepared foods.

When the costs for food, fuel, and preparation time (at the minimum wage) were combined for 41 convenience products, nearly half were less expensive than their home version. About 60 percent of the convenience products were less expensive when the cost of preparation time was based on a cook's wage.

Ingredient comparisons showed that some convenience entrees contained a higher proportion of components such as pasta or sauce and a lower proportion of meat, poultry, fish, or cheese than their home-prepared counterparts.

Fifty-three foods were evaluated by a trained taste panel. All home-prepared items and 76 percent of the convenience products were rated at least "good" (4 on a 5-point scale) in overall quality. Only 3 of 24 convenience products having a home-prepared counterpart were rated significantly lower than their counterpart in all quality factors (appearance, flavor, texture, and overall quality).

Convenience Foods and Home-Prepared Foods

Comparative Costs, Yield, and Quality

Larry G. Traub and Dianne D. Odland ^{1/}

INTRODUCTION

Rising food and fuel prices, the increasing value of homemakers' time, and the introduction of many new convenience products complicate consumers' food-buying decisions. This study can help consumers in making food choices by providing information on the cost and quality relationships between convenience products and home-prepared foods. The study will be of particular help to economists, home economists, nutrition educators, and others who advise consumers on their food purchases.

The objectives of the study were to determine: the percentage of all food sales accounted for by convenience foods; the effect of convenience food sales on total food expenditures; the costs per serving (food, fuel used in preparation, and preparation time) of convenience foods and home-prepared foods; the yield and composition of convenience foods and home-prepared foods; and the eating quality (appearance, texture, flavor, and overall quality) of convenience foods and home-prepared foods.

Although price data used in the study were collected in the midseventies, the price relationship between convenience foods and fresh and ingredient foods has remained fairly stable. From 1975 through 1978, the average index for those items in the Consumer Price Index (CPI) that were primarily fresh and ingredient foods increased by 20 percent. The average index for those items in the CPI that were primarily convenience foods increased by 18 percent. When coffee is excluded from those calculations, the indices are 15 percent for fresh and ingredient foods and 17 percent for convenience foods.

The results of the study were:

- Convenience foods accounted for nearly half of all foods sold for consumption at home.
- About 58 percent of 166 selected convenience products cost more per serving (based on retail food prices) than their home-prepared versions, 24 percent cost less, and 18 percent cost about the same.

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- Convenience foods that were more expensive than their home-prepared versions were purchased in small quantities, whereas convenience foods less expensive than their home versions were purchased in large quantities, more than offsetting expenditures for the more expensive items.
- When the cost of convenience foods and their home-prepared versions were prorated in a typical \$100 food expenditure pattern, convenience foods cost \$7.58, compared with \$9.50 for the home-prepared foods.
- Convenience items usually required less fuel for preparation and were prepared more quickly than their home-prepared counterparts.
- When the costs of fuel and preparation time (computed at a cook's wage) were added to food cost for 41 convenience foods, 60 percent were less expensive than their home-prepared versions.
- Some home-prepared entrees contained a higher proportion of meat, poultry, fish, or cheese than their convenience food counterparts, which usually had more of other components such as pasta or sauce.
- The eating quality of most convenience foods did not differ significantly from their home-prepared versions.

While this study provides basic information helpful in making food choices, it does not answer for the individual consumer the more general question of which food form is best to use--convenience or home-prepared. In addition to cost, preparation time, use of fuel, composition, and eating quality, other factors may influence food purchase decisions. For example, food preferences, skill in preparing foods, equipment available for food preparation, food storage facilities, and nutritional concerns may also affect food choices.

Scope of Study

Products selected for study included foods from the following categories: beef, pork, poultry, finfish, shellfish, pizza, rice, spaghetti, vegetables, fruits, dairy products, eggs, baked goods, desserts, soups, baby foods, coffee, and tea. Several different food forms (fresh, home-prepared, frozen, canned, etc.) were included for food products in each category. Many of the products studied were the same foods represented in previous studies on convenience foods conducted by USDA (6, 9, 12, 14, 15, 21). 2/ A number of these products were retested in the laboratory to reflect the yield and composition of products currently on the market. Several dozen products that have become available since the previous studies were also tested.

To determine the portion of food sales represented by convenience foods, food sales data were obtained for 1973. Food price data were collected from chain grocery stores in Philadelphia, Milwaukee, San Francisco-Oakland, and New Orleans from July 1974 through June 1975. Foods for which cost data were obtained were weighted by sales to determine their effect on food expenditures in a \$100 purchase pattern; the cost of duplicating these foods with fresh or home-prepared foods was calculated. Cost of time for home preparation was determined by applying the minimum wage rate or the wage rate of a cook to food preparation times as measured in the laboratory. Cost of fuel for home food preparation was based on the amount of fuel used during laboratory food preparation multiplied by average gas and electric rates. Eating quality of foods was evaluated by a trained taste panel.

2/ Underscored numbers in parentheses refer to the sources listed in the bibliography.

Definitions of Convenience, Fresh, and Ingredient Foods

Convenience food products require less preparation time or fewer preparation activities in the kitchen. Ease in storage, change in storage space requirements, and ease in transporting the food from the market to the home because of lighter weight or reduced bulk are also convenience attributes. Canned cut green beans are a convenience compared with fresh beans because canned beans have been washed, cut, and cooked. Even more convenience is incorporated in multi-ingredient products such as a frozen green bean casserole in which the recipe has been prepared by industry.

In this study, the term convenience food refers to fully or partially prepared foods in which a significant amount of preparation time, culinary skills, or energy inputs have been transferred from the home kitchen to the food processor and distributor. Soft drinks, dry snacks (crackers, chips, etc.), and ready-to-eat cereals are also included in this definition, even though they usually have no home-prepared counterpart. Convenience products are called established if they were introduced to the marketplace before 1960 (e.g., canned and frozen green beans) and new generation if introduced in 1960 or after (e.g., frozen green bean casserole and sweet and sour pork frozen in a pouch).

Foods not classified as a convenience product are either fresh or ingredient foods. Fresh foods include unprocessed food items such as meat, produce, and eggs. Ingredient foods are processed food products that may be used in food preparation and are usually the most basic form in their category. Ingredient foods include items like flour, sugar, fluid milk, bulk cheese, bulk margarine, spices, and plain pasta. Most ingredient foods cannot be or at least are not commonly prepared in the home. In this study, food products used as ingredients were excluded from the ingredient category if they were fresh items, like eggs, or if they were processed items in which convenience attributes had been added to a basic product, like grated or shredded cheese, soft margarine, and nonfat dry milk.

Concerns About and Developments in Convenience Foods

Food processors utilize new technologies to introduce new products or variations in the marketplace so as to maintain or increase their shares of the market. In 1976, according to A. C. Nielsen Co., food companies introduced 6,300 new products or variations, most of which were minor variations of existing food products (20). Some of these products may be market failures and a portion of their research, development, and marketing costs could be passed on to consumers through higher prices for other food products.

In introducing new products or variations, the food industry attempts to provide consumers with foods having superior convenience, taste, freshness, availability, and variety over the current market selections. Industry argues that convenience food products on the market are a response to consumer demands brought about by rising income, increasing opportunity cost of one's time ^{3/}, growing negative attitude toward food preparation, and changing life style. Furthermore, industry representatives point out that new product development and marketing activities contribute to employment and economic growth.

Some consumers and many of their advocates have serious reservations about processed foods and contend that they cause high food prices, use more fuel and nonrenewable resources, are low in nutrients, and may contain harmful ingredients.

^{3/} The cost of sacrificing the next best alternative use of one's time.

A 1974 study found that consumers were dissatisfied with some convenience products, especially foods that have more services added to them, like frozen TV dinners, ready-to-eat puddings, baby foods, boil-in-the-bag vegetables, toaster pastries and tarts, and packaged entrees prepared in a skillet (11). Other convenience items, like canned and frozen single-ingredient vegetable and fruit items, frozen and canned fruit juices, packaged cake mixes, cookies, and breakfast cereals were rated much higher. The reasons for the dissatisfaction related to price, taste, and healthfulness.

Such concerns have had an impact on the consumption of some convenience products. For instance, the poundage of frozen plate dinners (TV dinners) sold in 1971 was nearly four times greater than that sold in 1960, but the poundage sold in 1976 was less than a third of that sold in 1971 (18). The quantity of frozen snacks (hors d'oeuvres, eggrolls, snack logs, etc.) sold increased by 71 percent from 1970 to 1973, decreased by 33 percent from 1973 to 1974, and remained stable from 1974 to 1976 (18).

There is a concurrent trend toward increased consumption of processed vegetables. Per capita consumption of frozen vegetables, on a fresh weight basis, rose from 18.9 pounds in 1966 to 20.5 pounds in 1976--an increase of 8 percent (24, 25). Sales of vegetables that are combined with a sauce or other ingredients decreased by 2 percent from 1972 to 1973 but increased by 38 percent from 1973 to 1976 (18). Per capita consumption of frozen french fried potatoes has risen steadily every year from the early sixties to the present (24, 25). Per capita consumption of processed potatoes was 15 pounds higher in 1976 than for fresh potatoes (25).

SALES OF CONVENIENCE FOODS

Food processors have introduced thousands of new products and variations to their established lines over the past several decades. Some of these have become successful and have altered the product mix in retail grocery stores.

Food sales data were purchased from Lebharr-Friedman, publishers of Chain Store Age. Data represented 1973 sales of 1,200 chain retail grocery stores with annual sales of \$1 million or more, which were owned and operated by six retail chains. Participating stores were from all geographic areas in the United States, but were not randomly sampled from the population. Their sales represented approximately 2 percent of all food sales of chain retail grocery stores in the Nation.

Sales data were extrapolated to calculate the market share of each food type (fresh, established convenience, new generation convenience, or ingredient) and by each form (fresh; frozen; refrigerated; canned or bottled; dried, dehydrated, and packaged mixes; ready baked; or not elsewhere classified) for 19 food groups.

Almost one-half the total foods sold in these stores were convenience foods (table 1). Thirty-five percent of the sales for convenience foods were for canned or bottled products, 19 percent were for ready-baked products, and 16 percent were for frozen products. Established convenience foods accounted for about 36 percent of all food sales, while new generation convenience foods accounted for about 13 percent. The sales of new generation convenience foods were the greatest for canned or bottled products and dried, dehydrated, and packaged mix products. Sales of new generation breakfast items, snacks, soups, and ethnic foods were equal to or greater than sales of established convenience foods in each category (table 2). New generation snacks accounted for 1.8 percent of all food sales.

Most sales of meat and vegetable new generation convenience foods were for frozen items, a situation influenced by four-compartment plate dinners, boil-in-the-bag entrees, vegetables combined with other ingredients or sauces, and self-basting turkeys. Sales of the newer frozen baked goods were slightly higher than sales of the newer baked-goods mixes. With the introduction of flavored yogurt and individually wrapped slices of cheese and cheese food, new generation refrigerated dairy convenience products accounted for almost 1 percent of total food sales. Soft, whipped, and liquid forms of margarine comprised most of the sales for newer refrigerated fat and oil products. New generation ready-to-eat cereals, including natural, high-protein, and the newer presweetened types, constituted 1 percent of total sales. Sales of canned single-strength soups were almost three times greater than sales of new generation dried soups. Almost one-half the sales of baby food products were for those introduced to the marketplace since 1960. The sales of freeze-dried coffee and lemon-flavored instant tea were three-fourths the sales of plain instant coffee and instant tea.

Table 1--Percentage of food sales by type and form for chain grocery stores, 1973

Type	Fresh	Frozen	Refrigerated	Canned or bottled	Dried, dehydrated, packaged mixes	Ready baked	Not elsewhere classified ^{1/}	Total
Fresh	36.6	--	--	--	--	--	--	36.6
Established convenience foods	--	5.5	3.8	13.8	3.3	7.6	1.6	35.6
New generation convenience foods	--	2.4	1.7	3.3	3.0	1.7	.7	12.8
Ingredient foods	--	--	6.7	3.9	3.2	--	1.2	15.0
Total	36.6	7.9	12.2	21.0	9.5	9.3	3.5	100.0

^{1/} The major items in this category were toaster pastries, ready-to-serve dips, flour, salts, cake and cookie decorations, ground roasted coffee, and dietetic candy, salt, and sweeteners.

-- = not applicable.

Source: Lebharr-Friedman Inc., New York, publishers of Chain Store Age.

Table 2--Percentage of food sales by food category, type, and form for chain grocery stores, 1973

Type by category	Fresh	Frozen	Refrigerated	Canned or bottled	Dried, dehydrated, packaged mixes	Ready baked	Not elsewhere classified	Total
	Percent							
Meat:								
Fresh	25.8	--	--	--	--	--	--	25.8
Established convenience foods	--	.9	--	.8	2/	--	--	1.7
New generation convenience foods	--	.7	--	.1	--	--	--	.8
Total	25.8	1.6	--	.9	2/	--	--	28.3
Vegetables:								
Fresh	5.5	--	--	--	--	--	--	5.5
Established convenience foods	--	.9	--	3.0	.2	--	--	4.1
New generation convenience foods	--	.5	--	.2	.1	--	--	.8
Ingredient foods	--	--	--	.4	.2	--	--	.6
Total	5.5	1.4	--	3.6	.5	--	--	11.0
Fruits, berries, juices, and nectars:								
Fresh	2.5	--	--	--	--	--	--	2.5
Established convenience foods	--	1.1	.4	2.2	2/	--	--	3.7
New generation convenience foods	--	2/	--	.1	2/	--	--	.1
Ingredient foods	--	--	--	--	.3	--	--	.3
Total	2.5	1.1	.4	2.3	.3	--	--	6.6
Baked goods:								
Established convenience foods	--	.3	.4	2/	.4	7.6	--	8.7
New generation convenience foods	--	.4	.1	.1	.3	--	--	.9
Total	--	.7	.5	.1	.7	7.6	--	9.6
Dairy and eggs:								
Fresh	2.8	--	--	--	--	--	--	2.8
Established convenience foods	--	1.5	1.8	.2	.2	--	2/	3.7
New generation convenience foods	--	2/	.9	2/	.1	--	--	1.0
Ingredient foods	--	--	6.7	--	--	--	--	6.7
Total	2.8	1.5	9.4	.2	.3	--	2/	14.2

Continued

Table 2--Percentage of food sales by food category, type, and form for chain grocery stores, 1973--Continued

Type by category	Fresh	Frozen	Refrigerated	Canned or bottled	Dried, dehydrated, packaged mixes	Ready baked	Not elsewhere classified	Total
Finfish and shellfish:								
Established convenience foods	--	0.5	0.1	1.3	--	--	--	1.9
New generation convenience foods	--	.2	--	.3	--	--	--	.5
Total	--	.7	.1	1.6	--	--	--	2.4
Fats and oils (excluding butter):								
Established convenience foods	--	--	1.0	.3	2/	--	--	1.3
New generation convenience foods	--	--	.7	.1	2/	--	--	.8
Ingredient foods	--	--	2/	1.7	--	2/	2/	1.7
Total	--	--	1.7	2.1	2/	--	2/	3.8
Breakfast items:								
Established convenience foods	--	.1	.1	--	.9	--	--	1.1
New generation convenience foods	--	.1	--	--	1.1	2/	.1	1.3
Total	--	.2	.1	--	2.0	2/	.1	2.4
Soups:								
Established convenience foods	--	--	--	.5	2/	--	--	.5
New generation convenience foods	--	2/	--	.6	.2	--	--	.8
Total	--	2/	--	1.1	.2	--	--	1.3
Nationality foods:								
Established convenience foods	--	.1	--	.5	2/	--	--	.6
New generation convenience foods	--	.4	--	.2	2/	2/	--	.6
Total	--	.5	--	.7	2/	2/	--	1.2
Snacks:								
Fresh	2/	--	--	--	--	--	--	2/
Established convenience foods	--	--	--	.4	--	--	.1	.5
New generation convenience foods	--	--	--	.1	--	1.7	2/	1.8
Total	2/	--	--	.5	--	1.7	.1	2.3

Table 2--Percentage of food sales by food category, type, and form for chain grocery stores, 1973--Continued

Type by category	Fresh	Frozen	Refrigerated	Canned or bottled	Dried, dehydrated, packaged mixes	Ready baked	Not elsewhere classified	Total
								Percent
Desserts, jams, jellies, and preserves:								
Established convenience foods	--	2/	--	0.6	0.1	--	2/	0.7
New generation convenience foods	--	--	2/	.1	2/	--	--	.1
Ingredient foods	--	--	--	.7	.2	--	2/	.9
Total	--	2/	2/	1.4	.3	--	2/	1.7
Sugar and syrups:								
Established convenience foods	--	--	--	.2	--	--	2/	.2
New generation convenience foods	--	--	--	2/	--	--	--	2/
Ingredient foods	--	--	--	2/	1.0	--	--	1.0
Total	--	--	--	.2	1.0	--	2/	1.2
Condiments, sauces, gravies, pickles, and olives:								
Established convenience foods	--	--	--	.6	--	--	--	.6
New generation convenience foods	--	--	--	.2	.1	--	--	.3
Ingredient foods	--	--	--	.8	--	--	--	.8
Total	--	--	--	1.6	.1	--	--	1.7
Baking supplies:								
New generation convenience foods	--	--	--	--	.2	--	--	.2
Ingredient foods	--	--	--	.2	1.2	--	.9	2.3
Total	--	--	--	.2	1.4	--	.9	2.5
Baby foods:								
Established convenience foods	--	--	--	.5	2/	2/	2/	.5
New generation convenience foods	--	--	--	.4	2/	2/	2/	.4
Total	--	--	--	.9	2/	2/	2/	.9
Coffee, tea, and nonjuice beverages:								
Established convenience foods	--	--	--	2.6	1.4	--	1.2	5.2
New generation convenience foods	--	2/	--	.1	.9	--	.5	1.5

Table 2--Percentage of food sales by food category, type, and form for chain grocery stores, 1973--Continued

Type by category	Fresh	Frozen	Refrigerated	Canned or bottled	Dried, dehydrated, packaged mixes	Ready : baked	Not elsewhere classified <u>1/</u>	Total
Coffee, tea, and nonjuice beverages-- Continued								
Ingredient foods	--	--	--	0.1	--	--	--	0.1
Total	--	<u>2/</u>	--	2.8	2.3	--	1.7	6.8
Diet foods:								
Established convenience foods	--	--	<u>2/</u>	<u>2/</u>	--	--	--	<u>2/</u>
New generation convenience foods	--	--	<u>2/</u>	.7	<u>2/</u>	<u>2/</u>	<u>2/</u>	.7
Ingredient foods	--	--	--	<u>2/</u>	--	--	.1	.1
Total	--	--	<u>2/</u>	.7	<u>2/</u>	<u>2/</u>	.1	.8
Miscellaneous: <u>3/</u>								
Established convenience foods	--	.1	--	.1	.1	--	.3	.6
New generation convenience foods	--	.1	--	--	--	--	.1	.2
Ingredient foods	--	--	--	--	.3	--	.2	.5
Total	--	.2	--	.1	.4	--	.6	1.3

1/ The major items in this category were toaster pastries, ready-to-serve dips, flour, salts, cake and cookie decorations, ground roasted coffee, and dietetic candy, salts, and sweeteners.

2/ Less than 0.1 percent.

3/ Includes skillet-main dish mixes, dry vegetable protein, nondairy products, and pasta products not elsewhere classified.

-- = not applicable.

Source: Lebharr-Friedman Inc., New York, publishers of Chain Store Age.

EFFECT OF CONVENIENCE PRODUCTS ON FOOD EXPENDITURE

The effect of convenience products on food expenditure is governed by each food's market share and its cost per serving. Each product will affect food expenditure differently because market share and cost vary among products.

The effect of convenience products on food expenditure was measured by comparing the amount spent on convenience foods with the amount required to duplicate them with fresh or home-prepared foods. The first step in determining this effect was to divide each convenience food's sales by its cost per serving to obtain the number of servings of the convenience food purchased. ^{4/} This figure was multiplied by the cost per serving of the fresh or home-prepared food counterpart to determine the amount of money a consumer would have to spend on ingredients to prepare an equal number of servings of the home-prepared version. Both sales of convenience foods and the cost of duplicating them with fresh or home-prepared foods were converted to a \$100 purchase pattern.

Convenience products included in this analysis accounted for \$7.58 of each \$100 spent for food (table 3); the cost of an equal number of servings of the fresh or home-prepared versions of these foods was \$9.50 or \$1.92 more. ^{5/} Established convenience products cost \$1.89 less per \$100 than their fresh or home-prepared counterparts, and new generation convenience products cost \$0.03 less per \$100. ^{6/} The least expensive form of each food (fresh or home-prepared, frozen, canned, dried, etc.) cost \$6.34 per \$100; the most expensive food forms cost \$10.74.

The effect of convenience products on food expenditure varied considerably among food categories (figure 1). Increasing the consumption of fresh vegetables or fruits in lieu of their processed forms, in general, would increase consumer expenditure for food. This relationship would most likely occur when fresh vegetables and fruits are out of season. In contrast, food expenditures would decline with increased home preparation of baked goods and desserts, and beef, pork, and poultry items.

Weighting costs per serving by sales, as in the \$100 purchase pattern, showed that the effect of the less expensive convenience foods more than balanced the effect of the more expensive ones. That is, the costs of convenience, such as additional preparation and packaging, was more than offset by higher spoilage and transportation costs of fresh foods and by greater marketing efficiencies of convenience foods.

^{4/} Per serving costs for convenience, fresh, and home-prepared foods are given in the next section.

^{5/} When orange juice made from frozen concentrate was excluded from the comparative cost calculations, the cost of convenience products was \$6.69 per \$100 spent for food and the cost of their fresh or home-prepared counterparts was \$7.05, a difference of only \$0.36.

^{6/} When orange juice made from frozen concentrate was excluded from the comparative cost calculations, established convenience products cost \$5.90 per \$100 and their fresh or home-prepared counterparts cost \$6.23, a difference of \$0.33.

Table 3--Effect of convenience products on food costs per \$100 spent for all food in chain grocery stores 1/

Foods	Cost of convenience foods	Cost of equivalent amounts of fresh or home-prepared foods	Difference in cost of convenience and home-prepared foods
		<u>Dollars</u>	
Established convenience foods			
Cost increasing <u>2/</u>	3.67	2.55	1.12
Cost decreasing <u>3/</u>	<u>3.12</u>	<u>6.13</u>	<u>-3.01</u>
Total	6.79	8.68	-1.89
New generation convenience foods			
Cost increasing .....	.29	.17	.12
Cost decreasing	<u>.50</u>	<u>.65</u>	<u>-.15</u>
Total .....	.79	.82	-.03
All convenience foods			
Cost increasing	3.96	2.72	1.24
Cost decreasing	<u>3.62</u>	<u>6.78</u>	<u>-3.16</u>
Total	7.58	9.50	-1.92

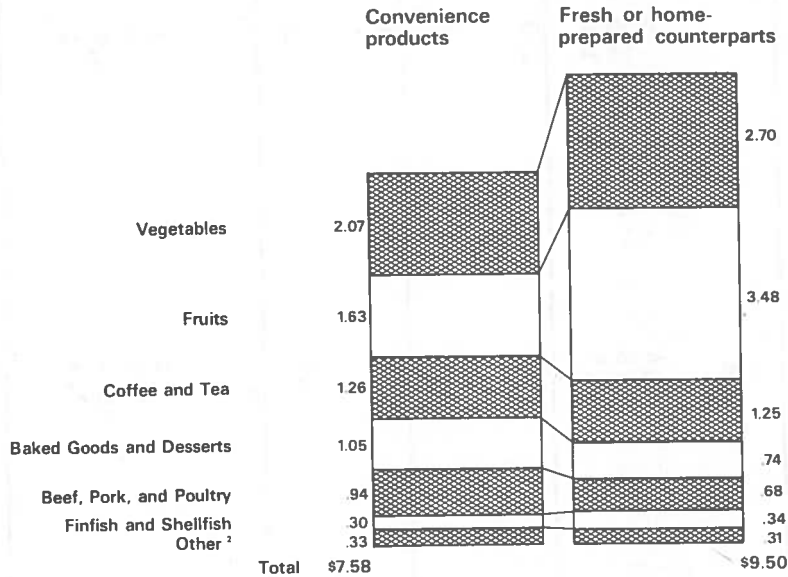
1/ 1973 sales data were procured from Lebharr-Friedman Inc., New York.

2/ "Cost increasing" refers to convenience foods which were more expensive than their fresh or home-prepared counterpart.

3/ "Cost decreasing" refers to convenience foods which were less expensive than their fresh or home-prepared counterpart.

Figure 1

COST OF SELECTED CONVENIENCE PRODUCTS VS. FRESH OR HOME-PREPARED COUNTERPARTS



¹ Amounts spent on convenience foods per \$100 spent for all food in chain grocery stores in 1973 and the amount required to duplicate these convenience foods with fresh or home prepared foods

² Includes dairy, eggs, pizza, rice, spaghetti and baby foods

Cost Decreasing Convenience Foods

Processing has reduced the marketing costs of some convenience products. For example, removing the pods from fresh peas and lima beans reduces their weight. Concentrating and freezing juice from oranges reduces bulk and spoilage and increases storage time over the fresh product. Marketing costs for convenience foods can also be reduced when manufacturers purchase their raw supply either at the peak of the season--when there is an excess on the market and the price is usually the lowest--or at a prespecified price from a contract grower.

Purchases of convenience foods that were less expensive than their home-prepared counterparts accounted for \$3.62 per \$100 spent for all foods in chain retail grocery stores (table 4). Most of these purchases were for established convenience foods. Equal servings of fresh or home-prepared foods would have cost the consumer \$3.16 more than the convenience forms of these foods; orange juice accounted for nearly half of the difference.

- Orange juice from frozen concentrate amounted to \$0.89 per \$100 of food expenditures--\$1.57 less than orange juice prepared from fresh juice oranges.
- Canned green peas substituted for fresh green peas would decrease food expenditures by \$0.39 per \$100.
- Coffee made from instant granules or the freeze-dried instant form rather than from ground roasted coffee beans would decrease food expenditures by \$0.17 and \$0.12, respectively, per \$100. Using April 1977 coffee prices, the decrease

Table 4--Savings from convenience products that were less expensive than their fresh or home-prepared counterparts, per \$100 spent for all food in chain grocery stores 1/

Product	Amount spent on convenience products	Cost of an equal number of servings of fresh or home-prepared foods	Savings using convenience products
<u>Cents</u>			
Beef:			
Chili-macaroni, skillet main dish mix	1.4	1.4	<u>2/</u>
Lasagna, skillet main dish mix	2.3	2.8	0.5
Patties, soy protein added to ground beef	14.7	16.5	1.8
Total	18.4	20.7	2.3
Pork:			
Sausage, precooked, frozen	.4	.5	.1
Total	.4	.5	.1
Poultry:			
Chicken chow mein, canned	3.0	3.0	<u>2/</u>
Total	3.0	3.0	<u>2/</u>
Finfish and shellfish:			
Tuna noodle casserole, skillet main dish mix	.7	.8	.1
Shrimp, cooked, canned	3.8	5.3	1.5
Shrimp, cooked, partly prepared, frozen	11.8	16.4	4.6
Shrimp, fried, breaded, prefried, frozen	1.9	2.0	.1
Other (2 products) <u>3/</u>	.1	.1	<u>2/</u>
Total	18.3	24.6	6.3
Pizza and spaghetti:			
Spaghetti, canned	6.2	8.9	2.7

See footnotes at end of table.

Table 4--Savings from convenience products that were less expensive than their fresh or home-prepared counterparts, per \$100 spent for all food in chain grocery stores 1/--Continued

Product	Amount spent on convenience products	Cost of an equal number of servings of fresh or home-prepared foods	Savings using convenience products
Fruits--Continued			
Other (2 products) 3/	0.1	0.1	2/
Total	138.7	331.4	192.7
Baked goods and desserts:			
Bread stuffing, incomplete mix	2.8	3.6	.8
Brownies, incomplete mix	1.1	1.4	.3
Brownies, complete mix	1.1	1.4	.3
Devil's food cake, incomplete mix	2.9	4.1	1.2
Pound cake, incomplete mix	1.1	1.1	2/
Yellow cake, incomplete mix	4.8	5.5	.7
Chocolate frosting, complete mix	.4	.5	.1
Pancakes, complete mix	1.5	2.2	.7
Chocolate pudding, cooked, complete mix	2.3	2.7	.4
Chocolate pudding, instant, complete mix	.9	1.2	.3
Waffles, incomplete mix	.5	.8	.3
Total	19.4	24.5	5.1
Baby foods:			
Peaches, commercially processed	1.5	3.0	1.5
Peas, commercially processed	.6	1.0	.4
Total	2.1	4.0	1.9

See footnotes at end of table.

Continued

Table 4--Savings from convenience products that were less expensive than their fresh or home-prepared counterparts, per \$100 spent for all food in chain grocery stores 1/--Continued

Product	Amount spent on convenience products	Cost of an equal number of servings of fresh or home-prepared foods	Savings using convenience products
		<u>Cents</u>	
Coffee:			
Instant, granules	38.6	55.5	16.9
Instant, freeze-dried	27.8	39.9	12.1
Total	66.4	95.4	29.0
<hr/>			
Total, all foods	361.7	678.0	316.3

1/ 1973 sales data were procured from Lebharr-Friedman Inc., New York.

2/ Less than 0.1 cent.

3/ The convenience products listed under "Other" account individually for one-half cent or less per \$100 spent for all food in chain grocery stores. Products included were: frozen crabcakes and frozen, minced, extruded, breaded, prefried shrimp; canned plain and Harvard beets; canned, red sour cherries; and lemon juice in a plastic container.

was \$0.41 and \$0.37 for instant granules and instant freeze-dried crystals, respectively.

- Frozen french-fried potatoes accounted for \$0.10 less per \$100 of food expenditures than french fries prepared from fresh potatoes.

Of 49 convenience foods that were less expensive than their home-prepared versions, 28 of them each reduced total food expenditures by less than 1 cent per \$100.

Cost Increasing Convenience Foods

Many convenience foods are more expensive than home-prepared foods. Two causes may be low sales volume, which will raise the costs of processing and distribution, and greater utility or services incorporated in the product. The fuel required to store, distribute, and merchandise frozen foods, particularly slow-moving items, is also costly. Finally, many ready-to-serve bakery items may be relatively expensive because of their short shelf life and the special packaging and handling they require.

Convenience foods more expensive than their fresh or home-prepared counterparts amounted to \$3.96 per \$100 spent for all foods in chain stores (table 5). An equal number of servings of home-prepared or fresh foods cost \$1.24 less--\$2.72 per \$100 spent for food. Baked goods and dessert products accounted for 29 percent of these potential savings.

- Tea made from tea bags would increase food expenditures by \$0.20 per \$100 spent on food compared with tea made from leaves.
- Ready-to-serve baked goods substituted for home-prepared baked goods would increase food expenditures by \$0.10 per \$100.
- Frozen fried chicken dinner or turkey dinner substituted for home-prepared chicken or turkey dinner would increase food expenditures by \$0.05 per \$100.

Many of the more expensive convenience foods are purchased in very small quantities and, therefore, have a negligible effect on total food expenditures. Of 112 convenience foods that were more expensive than their fresh or home-prepared counterpart, 77 of them each increased food expenditures by less than 1 cent per \$100 spent for food.

Table 5--Increased costs from convenience products that were more expensive than their fresh or home-prepared counterparts, per \$100 spent for all food in chain grocery stores 1/

Product	: Amount spent : Cost of an equal :		Added cost of
	on convenience products	of fresh or home-prepared foods		using convenience products
	<u>Cents</u>		
Beef and pork:			
Beef, dinner, frozen	2.9	1.9	1.0
Beef, lasagna, frozen	6.1	3.1	3.0
Beef, patties, frozen	.3	.2	.1
Beef, pie, frozen	5.8	3.2	2.6
Beef, sloppy Joe sandwich sauce, canned	1.0	.6	.4
Beef, stew, canned	8.4	6.4	2.0
Meat loaf, dinner, frozen	2.3	.9	1.4
Other (1 beef product, 2 pork products) 2/	.2	.2	3/
Total	27.0	16.5	10.5
Poultry:			
Chicken, a la king, pouch, frozen	1.8	1.1	.7
Chicken, whole, braised, without giblets, canned	.6	.5	.1
Chicken, chow mein, frozen	.7	.5	.2
Chicken, fried, batter dipped, prefried, frozen	4.8	3.0	1.8
Chicken, fried, dinner, frozen	11.7	6.3	5.4
Chicken, meat, boned, in broth, canned	2.5	1.0	1.5
Chicken, pie, frozen	9.7	7.8	1.9
Chicken, salad sandwich spread, canned	4.3	2.4	1.9
Turkey, dinner, frozen	9.2	4.5	4.7
Turkey, tetrazzini, frozen	.1	0	.1
Total	45.4	27.1	18.3
Finfish and shellfish:			
Haddock, dinner, frozen	1.9	1.1	.8
Pollack fish sticks, frozen	6.7	6.3	.4
Crab, deviled, frozen	.6	.5	.1
Crabmeat, canned	2.3	1.9	.4

See footnotes at end of table.

Continued

Table 5--Increased costs from convenience products that were more expensive than their fresh or home-prepared counterparts, per \$100 spent for all food in chain grocery stores 1/--Continued

Product	Amount spent : on convenience : products :	Cost of an equal : number of servings : of fresh or home- : prepared foods :	Added cost of : using convenience : products
	<u>Cents</u>		
Finfish and shellfish--Continued			
Other (3 products) 2/	0.1	0.1	3/
Total	11.6	9.9	1.7
Pizza, rice, and spaghetti:			
Pizza, frozen	6.5	4.0	2.5
Pizza, mix	1.1	1.0	.1
Rice, cooked, parboiled	2.3	1.5	.8
Rice, cooked, precooked	6.4	3.6	2.8
Spanish rice, mix	.7	.7	3/
Other (3 products) 2/	.1	.1	3/
Total	17.1	10.9	6.2
Vegetables:			
Broccoli spears, frozen	11.8	9.8	2.0
Butter beans, canned	1.2	.3	.9
Carrots, diced, canned	.1	.1	3/
Carrots, sliced, canned	2.2	2.1	.1
Corn, cut, frozen	3.9	3.9	3/
Corn, cut, canned	21.2	20.1	1.1
Corn, on-the-cob, frozen	23.9	23.6	.3
Green beans, frozen	2.6	2.4	.2
Green beans, canned	14.7	12.4	2.3
Green bean casserole, frozen	.2	.1	.1
Hawaiian-style, frozen	.6	.4	.2
Pork and beans, canned	23.4	23.2	.2
Potatoes, au gratin, frozen	.6	.4	.2
Potatoes, au gratin, dehydrated	1.1	.8	.3
Potatoes, boiled, whole, canned	1.7	.4	1.3
Potatoes, hash-browned, dehydrated	.7	.3	.4

Table 5--Increased costs from convenience products that were more expensive than their fresh or home-prepared counterparts, per \$100 spent for all food in chain grocery stores 1/--Continued

Product	Amount spent		Cost of an equal		Added cost of
	on convenience products	: of fresh or home-prepared foods	: number of servings	: of fresh or home-prepared products	
					Cents
Vegetables--Continued					
Potatoes, mashed, dehydrated	7.6		5.9		1.7
Potatoes, scalloped, dehydrated	1.6		.7		.9
Potatoes, stuffed, sour cream and chives, frozen	.7		.4		.3
Other (4 products) 2/	.1		.1		3/
Total	119.9		107.2		12.7
Fruits:					
Coconut, shredded, plastic bag	.1		.1		3/
Cranberry sauce, whole, canned	2.0		1.8		.2
Grapefruit sections, canned	3.5		1.3		2.2
Pineapple, chunks, canned	4.3		4.0		.3
Peaches, halves, canned	5.0		4.2		.8
Peaches, diced, individual serving, canned	.7		.4		.3
Raspberries, red, canned	.2		.1		.1
Raspberries, red, frozen	.3		.2		.1
Strawberries, sweetened, sliced, frozen	3.9		2.4		1.5
Strawberries, sweetened, whole, frozen	3.8		2.4		1.4
Other (3 products) 2/	.2		.1		.1
Total	24.0		17.0		7.0
Dairy and eggs:					
Cheese, fondue, chilled	.3		.3		3/
Whipped cream, aerosol can	5.4		4.2		1.2
Eggs, scrambled, cholesterol-free substitute, frozen	.7		.3		.4
Total	6.4		4.8		1.6

Continued

See footnotes at end of table.

Table 5--Increased costs from convenience products that were more expensive than their fresh or home-prepared counterparts, per \$100 spent for all food in chain grocery stores 1/--Continued

Product	Amount spent : on convenience : products	Cost of an equal : number of servings : of fresh or home- : prepared foods	Added cost of : using convenience : products
	<u>Cents</u>		
Baked goods and desserts:			
Baking powder biscuits, chilled	2.8	1.9	0.9
Baking powder biscuits, complete mix .....	.5	.3	$\frac{3}{1}$
Brownies, frozen .....	.4	.3	.1
Angelfood cake, complete mix	1.5	1.3	.2
Angelfood cake, ready-to-serve	4.3	2.3	2.0
Bundt cake, fudge, incomplete mix .....	.8	.8	
Devil's food cake, frozen	1.1	.7	$\frac{3}{4}$
Devil's food cake, ready-to-serve	4.3	2.7	1.6
Pound cake, frozen	1.7	.7	1.0
Pound cake, ready-to-serve	4.3	2.3	2.0
Yellow cake, ready-to-serve	4.3	2.3	2.0
Sugar cookies, chilled in roll	1.7	1.2	.5
Frosting, white, incomplete mix	1.0	.8	.2
Corn muffins, incomplete mix	1.7	1.6	.1
Pancakes, incomplete mix	2.7	2.3	.4
Pancakes, frozen	5.3	1.7	3.6
Apple pie, frozen	7.7	5.2	2.5
Apple pie, ready-to-serve	2.2	1.3	.9
Cherry pie, complete mix	4.8	4.7	.1
Cherry pie, frozen .....	.7	.6	.1
Cherry pie, ready-to-serve	2.2	1.5	.7
Coconut cream pie, frozen .....	.7	.5	.2
Chocolate pudding, individual serving, canned	1.9	1.4	.5
Orange sherbet, ready-to-serve	2.1	1.3	.8
Waffles, incomplete mix .....	.9	.8	.1
Waffles, frozen	7.6	2.6	5.0
Yeast rolls, complete mix .....	.8	.5	.3
Yeast rolls, frozen .....	.2	.1	.1
Yeast rolls, brown-and-serve	7.5	2.5	5.0
Yeast rolls, heat-and-serve	7.5	2.9	4.6

Table 5--Increased costs from convenience products that were more expensive than their fresh or home-prepared counterparts, per \$100 spent for all food in chain grocery stores 1/--Continued

Product	Cents	
	Amount spent : on convenience : products :	Cost of an equal : number of servings : of fresh or home- : prepared foods :
Baked goods and desserts--Continued		
Other (3 products) 2/	0.1	0.1
Total	85.3	49.4
Baby food:		
Beef liver, commercially processed	.2	.1
Total	.2	.1
Tea:		
Bags	35.1	15.3
Instant, in jar	15.7	9.2
Instant, lemon-flavored, in jar	8.5	5.0
Ready-to-drink, canned	.1	3/
Total	59.4	29.5
Total, all foods	396.3	272.4
		123.9

1/ 1973 sales data were procured from Lebharr-Friedman Inc., New York.

2/ Convenience products listed under "Other" account individually for 0.2 cent or less per \$100 spent for all foods in chain grocery stores. Products included were: beef stroganoff skillet main dish mix, sweet and sour pork frozen in a pouch, and sweet and sour pork sauce and glaze mix; frozen tuna noodle casserole, shrimp newburg frozen in a pouch, and frozen shrimp creole; chilled pizza, fried rice frozen in a pouch, and Spanish rice mix; broccoli spears with butter sauce frozen in a pouch, frozen broccoli spears au gratin, frozen broccoli spears with hollandaise sauce, and frozen potato patties; frozen sliced peaches, sweetened sliced strawberries frozen in a pouch, and sweetened whole strawberries frozen in a bulk bag; and ready-to-serve brownies, sugar cookies, and coconut cream pie.

3/ Less than 0.1 cent.

FOOD COST

Usually the largest cost in preparing a food at home is for ingredients. The cost data presented here are for food only. In later sections, costs for fuel and preparation time are considered.

Procedure

Food price data were collected from leading chain retail grocery stores in Philadelphia, Milwaukee, San Francisco-Oakland, and New Orleans, each city representing a different region of the United States. This design allows for capturing price variations that may exist because of differences in the cost of transporting goods from the point of production to each city, the wage rate structure of the city, the income level of consumers in the city, and the competitive structure of the city's food distribution system. Price data were obtained over 12 months (July 1974 through June 1975) and were gathered in the month's first week that included Thursday, Friday and Saturday--the same monthly food price collection pattern used by the Bureau of Labor Statistics (BLS). Prices were collected for brands and nonbrands with the highest sales for a total of 337 foods. These prices were converted to price per ounce and were weighted for brand and chain store effects in the manner described below.

The *brand effect* is the ratio of either brand food sales (national or regional) or nonbrand food sales (store brands, private labels, and contract or control labels) to total sales. When prices for both brand and nonbrand food products were collected, the price of the brand food was weighted by 0.82, the price of the nonbrand was weighted by 0.18, and the two prices were summed. ^{7/} When the price of only a brand or a nonbrand food product was collected, the price of the food product was weighted by 1.00. This procedure assumed the same ratio of brand sales to total food sales for all products. Each food product probably has a unique brand effect ratio, but no data were available to compute a ratio for each product.

The *chain store effect* is the market share of an individual chain store relative to sales of all chain stores that participated in the study and sold the product. Each month, the price per ounce of a product for each chain store was weighted by the chain's market share. ^{8/} Weighted prices for each chain store were then summed, yielding monthly weighted prices per city.

Weighted price data were used to compute the cost for equivalent weight servings of each convenience food and its home-prepared or fresh counterpart. The price per ounce was multiplied by the number of ounces of the convenience product or by the

^{7/} The brand effect weights used in this study were obtained from the Food Marketing Institute, Washington, D.C. office.

^{8/} Sales data for computing chain store market shares were compiled from the 1975 Grocery Distribution Guide (10).

number of ounces of each ingredient in the home-prepared formulation. Cost per serving was computed by dividing the total cost of ingredients by the number of servings provided by the convenience food product or the home-prepared formulation.

To make cost comparisons between home-prepared and convenience foods more valid, the quantity of the most costly ingredient(s) in a recipe was held in the same proportion to all ingredients as found in the convenience counterpart when feasible. ^{9/} For example, in adjusting the cost of home-prepared chicken chow mein, the amount of chicken costed was reduced to the amount found in the commercial product. Quantities of the remaining ingredients in the home recipe were then adjusted proportionately. The formula used to compute the factor to adjust the quantity of the remaining ingredients was the following:

$$\text{Factor} = \frac{(\text{Weight of all ingredients}) - (\text{Adjusted weight of most costly ingredient})}{(\text{Weight of all ingredients}) - (\text{Unadjusted weight of most costly ingredient})}$$

Ingredient quantity adjustments were based on yield and composition data reported in appendix table 1 and Agriculture Handbook No. 102 (16). When a home recipe had more than one convenience food counterpart, the convenience form with the least quantity of the most costly ingredient was selected.

It was not necessary to calculate adjusted cost estimates for some items because equal weight servings already contained the same amount of the most costly ingredient. For example, equal weight servings of all-beef patties contained the same quantity of beef whether prepared from the frozen form or from fresh ground beef; 2-ounce servings of lean chicken meat were used to cost fried chicken; equivalent portions of lean meat and other foods in frozen plate dinners were used to calculate the cost of home-prepared dinner counterparts.

For products in which quantity adjustments were made to equalize the relative proportion of the most costly ingredient contained in home-prepared and convenience food forms, both adjusted and unadjusted cost estimates are reported. Other instances where more than one cost per serving was calculated are as follows: fruits based on drained solids and solids and liquid; sausage cooked with and without water; foods prepared with margarine or with butter; angelfood cake (only whites of eggs are used) including cost of whole eggs or only egg whites; and fresh and convenience forms of peaches and peas as alternative ingredients for home-prepared baby food.

Where alternative cost estimates are reported, the cost selected for comparisons in the descriptive and statistical analyses was the one in which the quantity of ingredients was adjusted, fruits were drained, sausage was cooked without water, margarine was used, only the cost of egg whites was included, and baby food was made from fresh peaches and peas.

Descriptive Analysis

Of the 295 foods studied, 181 were convenience products, 5 were ingredient foods, and the remainder were home-prepared or fresh foods (see p. 3 for definitions). One hundred and sixty-six of the 181 convenience foods had a home-prepared or fresh counterpart, seven had an ingredient food counterpart, and eight had no counterpart. Ninety-seven convenience products (58 percent) cost more per serving (based on the four-city average) than their home-prepared or fresh counterpart, about 24 percent cost less, and about 18 percent cost about the same (table 6--see footnotes at end of table for definitions of cost more, less, and same per serving.)

^{9/} The most costly ingredient was the one that accounted for the greatest percentage of the total cost in preparing a recipe, not the ingredient that had the highest cost per ounce.

Table 6--Number of convenience foods more and less expensive than fresh or home-prepared forms by city ^{1/}

Product category	Milwaukee			Philadelphia			New Orleans			San Francisco-Oakland			Four-city average		
	More	Less	Same	More	Less	Same	More	Less	Same	More	Less	Same	More	Less	Same
	expen- :sive <u>2/</u> :	expen- :sive <u>3/</u> :	expen- :sive <u>4/</u> :	expen- :sive <u>2/</u> :	expen- :sive <u>3/</u> :	expen- :sive <u>4/</u> :	expen- :sive <u>2/</u> :	expen- :sive <u>3/</u> :	expen- :sive <u>4/</u> :	expen- :sive <u>2/</u> :	expen- :sive <u>3/</u> :	expen- :sive <u>4/</u> :	expen- :sive <u>2/</u> :	expen- :sive <u>3/</u> :	expen- :sive <u>4/</u> :
Beef	8	2	1	8	1	2	8	3	0	8	2	1	8	2	1
Pork	2	0	1	2	1	0	3	0	0	3	0	0	3	0	0
Poultry	10	0	1	10	1	0	11	0	0	11	0	0	10	0	1
Finfish and shellfish	7	6	0	13	2	0	4	4	0	6	5	0	7	7	1
Pizza, rice, and spaghetti	6	3	1	8	2	1	9	2	0	6	2	2	8	2	1
Vegetables	20	14	3	14	13	10	21	11	2	15	11	8	17	13	7
Fruits	12	5	2	10	8	2	11	5	3	12	5	2	12	5	4
Dairy and eggs	2	0	1	2	0	1	3	0	0	3	0	0	3	0	0
Baked goods and desserts	30	6	9	24	10	11	25	10	9	28	6	9	27	9	9
Baby foods	1	2	0	1	1	2	0	2	0	1	2	0	1	2	0
Coffee and tea	0	1	4	1	0	5	1	0	5	2	0	4	1	0	5
Total	98	39	23	93	39	34	96	37	19	95	33	26	97	40	29

^{1/} The data for each city and the four-city average are totals based on the per serving costs recorded in tables 7 through 16. The number of foods in each food product category may differ between cities because price data were not always available in each city.

^{2/} A convenience food was more expensive than its fresh or home-prepared counterpart when the cost per serving of the convenience form minus the cost per serving of the fresh or home-prepared form was equal to or greater than 1 cent.

^{3/} A convenience food was less expensive than its fresh or home-prepared counterpart when the cost per serving of the fresh or home-prepared food minus the cost per serving of the convenience form was equal to or greater than 1 cent.

^{4/} A convenience food had the same cost as its fresh or home-prepared counterpart when the difference between their costs per

Forty-six of the foods studied were new generation convenience products. Thirty-six of these had a home-prepared or fresh counterpart, five had an ingredient food counterpart, and five had no counterpart. Twenty-six (72 percent) of the new generation convenience products having a fresh or home-prepared counterpart were more expensive than the home-prepared version.

Costs for 18 foods were calculated twice, once with margarine and once with butter, because these fats can be substituted for each other. Using margarine reduced per serving costs by an average of only 4 percent.

Ingredients for 25 home recipes and 2 convenience foods were adjusted so that their most costly ingredient was held in the same proportion to the sum of all ingredients as in the convenience form that had the least quantity of the most costly ingredient. ^{10/} This procedure resulted in a 14-percent reduction in the average cost per serving. In 11 home recipes with an established convenience food counterpart, average costs were reduced by 23 percent. In 14 recipes with a new generation convenience food counterpart, average costs were reduced by 8 percent. Cost of the two convenience foods was decreased by 5 percent.

Milwaukee had the greatest number of convenience products that were more expensive than their home-prepared counterpart (table 6). The number of convenience products that cost the same or less than their homemade version ranged from 56 of 152 foods in New Orleans to 73 of 166 foods in Philadelphia (all the foods studied were not sold in each city).

Beef

Fresh, prepackaged beef accounts for most of today's beef consumption, but a variety of processed beef products are also available. Some products are complete dinners and some are entrees (the main dish only). Packaged mixes to which beef is added at home are also available. To reduce cost, food processors have reformulated many of their prepared foods by substituting vegetable protein, usually soy protein, for some of the meat.

The cost per serving of 11 convenience beef dishes was compared with that of similar dishes prepared from basic ingredients. The convenience products included two frozen dinners, three skillet main dish mixes, and six other beef products.

Eight of the 11 convenience beef products cost more than the same foods prepared from scratch (table 7). These eight products included all of the frozen entrees and dinners and one of the three skillet main dishes made from a packaged mix. Frozen beef dinner cost 1-1/2 times as much and frozen meat loaf dinner about 2-1/2 times as much as similar home-prepared dinners. Frozen lasagna and frozen beef pie were almost double the cost of these foods prepared at home and canned sloppy Joe sandwich sauce, a newer convenience food product, cost nearly two-thirds more than its home-prepared version.

^{10/} The 25 home recipes were beef pie, beef stew, chicken chow mein, chicken pie, pollack fish sticks, crabcakes, deviled crab, breaded fried shrimp, shrimp creole, cheese pizza, pork and beans, chili-macaroni skillet main dish, lasagna, lasagna skillet main dish, sloppy Joe sandwich sauce, stroganoff skillet main dish, sweet and sour pork, chicken a la king, chicken salad sandwich spread, turkey tetrazzini, tuna noodle casserole, shrimp newburg, fried rice, broccoli spears au gratin, and broccoli spears with hollandaise sauce. The first 11 home recipes had an established convenience food counterpart; the last 14 had a new generation convenience food counterpart. The two convenience foods in which ingredients were adjusted were sweet and sour pork from a sauce and glaze mix and tuna noodle casserole from a skillet mix.

Table 7--Beef: Cost per serving by city and four-city average, standard deviation, and coefficient of variation, 1974-75

Product	Cents				Percent		
	Milwaukee	Philadelphia	New Orleans	San Francisco	Four-city average	Standard deviation	Coefficient of variation
Chili-macaroni, skillet main dish:							
Home-prepared 1/	27.3	32.3	32.9	26.3	29.8	3.4	11
Home-prepared 2/	25.9	29.9	30.6	24.5	27.8	3.1	11
Mix 3/	27.1	32.3	30.9	28.2	29.6	2.9	10
Dinner:							
Home-prepared	44.2	62.6	54.6	48.0	52.3	8.7	17
Frozen	60.5	93.5	77.3	84.1	78.9	13.2	17
Lasagna:							
Home-prepared 1/	44.8	45.4	44.0	45.3	44.9	5.7	13
Home-prepared 2/	51.4	53.9	52.0	51.8	52.3	1.8	3
Frozen 3/	98.1	63.5	95.0	91.2	86.8	15.0	17
Lasagna, skillet main dish:							
Home-prepared 1/	29.6	33.7	33.3	29.5	31.6	2.8	9
Home-prepared 2/	33.6	37.4	37.0	32.9	35.3	2.7	8
Mix 3/	22.7	30.8	27.1	24.1	26.2	3.7	14
Patties, all beef:							
Home-prepared	17.4	24.2	23.9	18.9	21.1	3.9	18
Frozen, raw	40.9	38.8	33.6	37.4	37.6	3.3	9
Patties, soy protein added to ground beef:							
Added at home	14.7	18.1	18.0	17.0	16.9	2.1	12
Added at store 3/	13.1	17.3	16.0	13.5	15.0	2.2	15
Pie:							
Home-prepared 1/	18.9	21.2	20.1	18.8	19.7	1.3	7
Home-prepared 2/	24.4	32.1	28.6	25.5	27.6	3.8	14
Frozen	35.7	42.2	31.8	33.0	35.7	4.3	12
Sloppy Joe sandwich sauce:							
Home-prepared 1/	9.6	11.1	11.2	9.4	10.3	1.0	10
Home-prepared 2/	12.4	16.1	16.1	13.0	14.4	2.2	15
Canned 3/	17.8	15.3	17.0	18.0	17.0	1.1	6

Table 7--Beef: Cost per serving by city and four-city average, standard deviation, and coefficient of variation, 1974-75--Continued

Product	Cents								Coefficient of variation
	Milwaukee	Philadelphia	New Orleans	San Francisco	Four-city average	Standard deviation			
Stew:									
Home-prepared $\frac{1}{2}$ /	22.7	27.0	25.5	27.1	25.6	2.5		10	
Home-prepared $\frac{2}{2}$ /	25.3	30.8	29.1	31.0	29.0	3.1		11	
Canned	33.5	33.2	33.3	34.8	33.7	0.8		2	
Stroganoff, skillet main dish:									
Home-prepared $\frac{1}{2}$ /	36.9	40.9	44.0	36.1	39.5	3.8		10	
Home-prepared $\frac{2}{2}$ /	37.1	41.7	44.6	36.5	40.0	4.0		10	
Mix $\frac{3}{2}$ /	38.6	67.3	47.7	36.0	47.4	13.1		28	
Meat loaf dinner:									
Home-prepared	27.2	29.4	28.8	27.4	28.6	1.6		6	
Frozen	76.0	77.0	57.6	70.0	70.2	8.1		12	

$\frac{1}{2}$ / Ingredients adjusted.
 $\frac{2}{2}$ / Ingredients not adjusted.
 $\frac{3}{2}$ / New Generation convenience food.

Of the three skillet main dish mixes, skillet lasagna cost about 17 percent less than a similar entree prepared from a recipe, chili-macaroni cost about the same as its home version, and beef stroganoff cost about 20 percent more than its home version.

Beef patties with soy protein were less expensive when soy was added to ground beef by the grocery store rather than at home because grocery stores buy soy protein at wholesale for about 2 to 3 cents per ounce, while consumers purchase soy protein at retail for over 13 cents per ounce. Both forms of soy-beef patties were cheaper than all-beef patties.

Convenience beef products were generally most expensive in Philadelphia and cheapest in Milwaukee. Milwaukee and San Francisco-Oakland had the highest number of home-prepared beef dishes made at the least cost. These two cities are close to production areas, resulting in reduced transportation costs, which may account for the lower cost of beef products. Philadelphia had the greatest number of home-prepared beef dishes made at the highest cost.

Pork

Two convenience forms of ham, one convenience form of sausage, and two convenience forms of sweet and sour pork were included in the study. Both convenience forms of sweet and sour pork, two new generation convenience products, were over 20 cents per serving more than the dish prepared from basic ingredients (table 8). A serving of canned ham cost about the same as an equal weight serving of lean meat from a fully cooked ham. Patties made from fresh bulk sausage and cooked with water were the cheapest form of sausage, but frozen precooked sausage links were less expensive than fresh links cooked without water.

Fresh sausage patties and links were most expensive in Philadelphia and least expensive in New Orleans. Most of the convenience products in the pork category were the cheapest in Milwaukee.

Poultry

Meat from poultry is very adaptable to processing. In this study, the costs per serving of nine processed chicken products and two processed turkey products were compared with the costs per serving of similar dishes prepared from home recipes.

Eight of the nine chicken convenience products cost more than similar products prepared at home. Canned chicken chow mein cost about the same as its home-prepared counterpart--21 cents per serving less than chow mein prepared from the frozen product (table 9). Canned, boned chicken meat in broth was 2-1/2 times more costly than boned chicken meat from a cooked fresh chicken. Chicken a la king frozen in a pouch and canned chicken salad sandwich spread--two new generation convenience foods--and frozen, batter-dipped, deep-fat-fried chicken were about 60 percent more expensive per serving than their home-prepared counterparts. Fried chicken dinner prepared from scratch cost 29 cents per serving less than a frozen dinner that needed only to be heated before serving. The home-prepared version of chicken pie cost 20 percent less (\$0.07) per serving than the heated frozen pie. Frozen turkey dinner and turkey tetrazzini cost about 36 cents per serving more than their home-prepared counterparts.

The convenience forms of chicken and turkey products were most costly in Philadelphia and cheapest in New Orleans. Because of higher retail turkey prices in Philadelphia, both home-prepared turkey dinner and turkey tetrazzini were most expensive in this city.

Table 8--Pork: Cost per serving by city and four-city average, standard deviation, and coefficient of variation, 1974-75

Product	Cents				Percent		
	Milwaukee	Philadelphia	New Orleans	San Francisco-Oakland	Four-city average	Standard deviation	Coefficient of variation
Ham, cured:							
Fully cooked	24.8	32.7	30.9	30.5	29.7	4.7	16
Canned	23.9	36.3	28.5	27.3	29.0	5.3	18
Sweet and sour pork:							
Home-prepared <u>1/</u>	32.2	31.7	31.0	34.1	32.2	1.9	6
Home-prepared <u>2/</u>	42.8	40.3	42.8	53.4	44.8	5.7	13
Frozen, pouch <u>3/</u>	46.5	47.8	57.4	55.8	52.3	7.2	14
Sauce and glaze mix <u>1/</u> <u>3/</u>	56.5	55.9	61.3	61.8	59.0	5.3	9
Sauce and glaze mix <u>2/</u> <u>3/</u>	58.0	55.0	61.2	72.9	62.1	7.8	13
Sausage:							
Fresh, bulk <u>4/</u>	29.5	32.9	18.2	27.2	26.9	6.2	23
Fresh, bulk <u>5/</u>	23.5	26.2	14.5	21.7	21.5	5.0	23
Fresh, link <u>4/</u>	36.4	37.0	31.9	29.0	33.6	4.1	12
Fresh, link <u>5/</u>	29.0	29.5	25.4	23.1	26.8	3.2	12
Frozen, link, precooked	28.9	28.9	25.5	29.9	28.3	2.8	10

1/ Ingredients adjusted.

2/ Ingredients not adjusted.

3/ New generation convenience food.

4/ Cooked without water.

5/ Cooked with water.

Table 9--Poultry: Cost per serving by city and four-city average, standard deviation, and coefficient of variation, 1974-75

Product	Milwaukee	Philadelphia	New Orleans	San Francisco	Four-city average	Standard deviation	Coefficient of variation
Chicken:							
A la king:							
Home-prepared 1/	21.6	23.0	23.2	23.8	22.9	1.6	7
Home-prepared 2/	20.7	22.0	22.2	22.7	21.9	1.4	6
Frozen, pouch 3/	35.0	36.2	39.9	35.6	36.4	2.5	7
Braised, whole:							
Home-prepared	18.2	19.5	19.6	20.4	19.4	1.7	9
Canned, without giblets	27.2	26.1	24.3	25.3	25.7	1.5	6
Chow mein:							
Home-prepared 1/	32.1	34.0	34.6	32.9	33.4	5.3	6
Home-prepared 2/	38.4	40.9	41.4	41.4	40.5	2.8	7
Canned	31.3	31.8	35.8	33.9	33.2	2.8	8
Frozen	53.8	51.3	48.7	63.2	54.3	7.0	13
Fried, flour coated:							
Home-prepared, whole	22.1	23.6	23.1	23.7	23.1	1.7	7
Home-prepared, cut-up	23.4	25.1	26.2	26.4	25.3	2.0	8
Fried, batter dipped:							
Home-prepared	22.7	24.4	25.3	25.3	24.4	1.8	7
Frozen, prefried	44.5	45.1	33.1	34.8	39.4	6.1	15
Fried, dinner:							
Home-prepared 4/	32.7	34.3	34.1	33.1	33.6	1.7	5
Home-prepared 5/	32.9	34.5	34.3	33.2	33.7	1.3	4
Frozen	59.2	75.0	60.9	55.7	62.7	8.2	13
Meat:							
Home-prepared	14.0	15.0	15.1	15.7	15.0	1.3	9
Canned, boned, in broth	36.8	38.8	35.6	37.1	36.9	2.3	6
Pie:							
Home-prepared 1/	30.4	29.6	28.5	26.0	28.7	2.4	8
Home-prepared 2/	29.5	30.8	29.8	29.7	30.0	1.6	5
Frozen	35.8	42.3	31.6	32.9	35.6	4.4	12

See footnotes at end of table.

Continued

Table 9--Poultry: Cost per serving by city and four-city average, standard deviation, and coefficient of variation, 1974-75--Continued

Product	Cents				Cents		Coefficient of variation
	Milwaukee	Philadelphia	New Orleans	San Francisco	Four-city average	Standard deviation	
Salad, sandwich spread:							
Home-prepared <u>1/</u>	17.9	17.9	19.9	19.4	18.8	1.5	8
Home-prepared <u>2/</u>	17.8	18.3	19.6	19.6	18.8	1.5	8
Canned <u>3/</u>	29.2	35.6	32.4	35.5	33.2	2.9	9
Turkey:							
Dinner:							
Home-prepared	35.9	36.7	33.9	35.4	35.5	1.8	5
Frozen	66.0	81.3	65.5	72.3	71.3	7.5	11
Tetrazzini:							
Home-prepared <u>1/</u>	42.1	44.2	42.0	36.9	41.4	3.0	7
Home-prepared <u>2/</u>	42.2	43.8	41.2	38.7	41.5	2.6	6
Frozen <u>3/</u>	83.6	81.6	69.2	79.9	78.6	7.1	9

1/ Ingredients adjusted.
2/ Ingredients not adjusted.
3/ New generation convenience food.
4/ With margarine.
5/ With butter.

Finfish and Shellfish

The cost per serving was determined for 4 finfish convenience products, 11 shellfish convenience products, and their home-prepared counterparts. Four new generation convenience foods were studied.

Tuna noodle casserole made from a skillet main dish mix was about 3 cents per serving less than its home-prepared version, but frozen haddock dinner and frozen tuna noodle casserole were 41 cents per serving more than their home-prepared counterparts (table 10). Frozen pollack fish sticks cost slightly more than pollack fish sticks prepared from a recipe.

Frozen and canned shrimp were each about 29 percent cheaper per serving than cooked raw shrimp in the shell. Two of the four convenience forms of fried shrimp were cheaper and two were more expensive than fried shrimp prepared from raw shrimp in the shell. The least expensive form of fried shrimp was the frozen product in which the shrimp had been peeled, deveined, minced, extruded, breaded, and prefried. Frozen shrimp newburg, a boil-in-the-bag entree and a new generation convenience food, cost about 47 cents per serving more than shrimp newburg prepared from frozen, raw, deveined, and peeled shrimp. Crabcakes made from fresh crabmeat cost over 1-1/2 times as much as the frozen product, but deviled crab prepared from fresh crabmeat cost almost 9 cents per serving less than frozen deviled crab. Fresh cooked crabmeat was cheaper than canned crabmeat.

Most of the home-prepared shrimp and crab dishes were cheapest in Philadelphia. Ingredients to make home-prepared shrimp dishes were most expensive in Milwaukee, while ingredients to make crab dishes were most expensive in San Francisco-Oakland. Ten of the 15 finfish and shellfish convenience products studied were the least costly in New Orleans.

Pizza, Rice, and Spaghetti

The cost per serving of four pizza products, five rice or rice-based products, and two spaghetti products were computed. Two new generation convenience products--frozen appetizer pizza and fried rice frozen in a pouch--were included.

Cheese pizza made from a home recipe was the least expensive form of pizza, costing about three-fourths as much as pizza made from a mix, half as much as chilled or frozen pizza, and only one-fourth as much as frozen appetizer pizza (table 11). Canned spaghetti or spaghetti mix was less costly than spaghetti prepared from a recipe, probably because less expensive cheeses were used in the convenience products. Cooked parboiled and precooked rice cost 52 and 76 percent more per serving, respectively, than cooked long-grain rice. Spanish rice from a mix or a can did not cost appreciably more than home-prepared Spanish rice. But a serving of frozen fried rice (a boil-in-the-bag entree) was only 1-4/5 times as expensive as fried rice prepared from basic ingredients.

The home versions of all three rice products were the least costly in New Orleans. Frozen and chilled pizza, canned and packaged mix spaghetti, and precooked rice were the cheapest in Philadelphia. Each of these convenience products cost the most in San Francisco-Oakland.

Vegetables

The cost per serving of 37 processed vegetable products was compared with the cost per serving of their fresh or home-prepared counterparts. Frozen, canned, and dehydrated products were represented. Of the convenience vegetable products studied,

Table 10---Finfish and shellfish: Cost per serving by city and four-city average, standard deviation, and coefficient of variation, 1974-75

Product	Milwaukee	Philadelphia	New Orleans	San Francisco	Four-city average	Standard deviation	Coefficient of variation	Cents		Percent
Finfish:										
Pollack fish sticks:										
Home-prepared 1/.....	20.6	20.0	23.0	NA	20.9	4.9	23			
Home-prepared 2/.....	24.2	23.3	29.4	NA	25.0	3.1	12			
Frozen	24.9	22.2	21.0	21.6	22.4	1.9	8			
Haddock dinner:										
Home-prepared 3/.....	59.1	57.9	55.7	61.0	58.5	2.4	4			
Home-prepared 4/.....	59.7	58.6	56.4	61.5	59.1	2.4	4			
Frozen	92.6	120.9	103.9	82.5	99.9	15.6	16			
Tuna noodle casserole:										
Home-prepared 1/.....	25.2	26.0	28.0	25.0	26.1	1.5	6			
Home-prepared 2/.....	29.4	29.9	31.9	28.5	29.9	1.6	5			
Frozen 5/.....	74.4	72.0	55.5	66.4	67.3	8.9	13			
Skillet mix 1/ 5/.....	22.9	22.5	23.4	23.9	23.2	1.2	5			
Skillet mix 2/ 5/.....	24.3	23.7	24.6	24.0	24.2	.9	4			
Shellfish:										
Crabcakes:										
Home-prepared 1/ 3/.....	54.1	51.7	53.3	54.6	53.4	3.0	6			
Home-prepared 2/ 3/.....	85.8	80.9	85.4	87.4	84.9	5.5	6			
Home-prepared 1/ 4/.....	54.4	52.1	53.7	54.8	53.8	1.9	4			
Home-prepared 2/ 4/.....	86.0	81.1	85.6	87.6	85.0	5.5	6			
Frozen	NA	34.0	35.9	NA	34.9	1.3	4			
Crab, deviled:										
Home-prepared 1/ 3/.....	30.8	29.6	30.8	31.6	30.7	1.6	5			
Home-prepared 2/ 3/.....	62.9	59.4	63.0	64.5	62.4	4.1	7			
Home-prepared 1/ 4/.....	31.4	30.3	31.6	32.0	31.3	1.6	5			
Home-prepared 2/ 4/.....	63.2	59.8	63.4	64.8	62.8	4.1	7			
Frozen	44.8	41.3	32.0	40.1	39.6	4.9	12			
Crabmeat:										
Fresh, cooked, chilled ..	60.2	56.4	60.4	61.8	59.7	4.3	7			
Canned	72.8	66.2	56.6	87.7	70.8	13.8	19			

Continued

See footnotes at end of table.

Table 10--Finfish and shellfish: Cost per serving by city and four-city average, standard deviation, and coefficient of variation, 1974-75--Continued

Product	Cents				Four-city average	Standard deviation	Coefficient of variation
	Milwaukee	Philadelphia	New Orleans	San Francisco			
Shrimp, cooked:							
Home-prepared 1/	82.8	48.5	NA	79.4	70.3	16.5	23
Canned	44.8	53.8	52.0	49.7	50.1	4.5	9
Frozen, partly prepared	50.9	52.9	47.9	49.9	50.4	4.7	9
Shrimp, breaded, fried:							
Home-prepared 1/	51.1	37.7	NA	48.3	45.7	9.5	21
Home-prepared 2/	82.2	54.3	NA	78.2	71.6	13.2	18
Frozen, raw, partly prepared, unbreaded	75.9	71.8	65.9	77.9	73.7	5.4	7
Frozen, partly prepared, breaded	44.4	60.4	41.6	NA	48.8	9.6	20
Frozen, breaded, prefried	45.0	53.2	35.4	42.7	44.1	7.1	16
Frozen, minced, extruded, breaded, prefried 5/	31.3	61.3	29.0	32.2	33.3	8.5	26
Shrimp, newburg:							
Home-prepared 1/	68.2	66.7	61.0	66.7	66.2	3.4	5
Home-prepared 2/	76.9	74.3	68.3	76.6	74.7	4.3	6
Frozen, pouch 5/	117.0	109.9	113.6	NA	112.8	8.8	8
Shrimp, creole:							
Home-prepared 1/ 3/	65.8	43.9	NA	61.2	57.0	13.0	23
Home-prepared 2/ 3/	95.1	59.8	NA	89.8	81.6	16.7	20
Home-prepared 1/ 4/	66.4	44.6	NA	61.7	57.6	13.8	24
Home-prepared 2/ 4/	95.6	60.4	NA	90.1	82.0	16.6	20
Frozen	NA	68.0	43.9	67.3	57.8	12.2	21

- 1/ Ingredients adjusted.
- 2/ Ingredients not adjusted.
- 3/ With margarine.
- 4/ With butter.
- 5/ New generation convenience food.

NA = not available.

Table 11.--Pizza, rice, and spaghetti: Cost per serving by city and four-city average, standard deviation, and coefficient of variation, 1974-75

Product	Cents				Standard deviation	Coefficient of variation
	Milwaukee	Philadelphia	New Orleans	San Francisco-Oakland			Four-city average
Pizza:						
Home-prepared <u>1/</u>	29.3	30.4	29.1	28.7	29.4	1.5
Home-prepared <u>2/</u>	37.9	40.1	36.9	36.5	37.9	2.2
Chilled	60.5	50.4	54.7	68.0	58.4	7.4
Mix	33.7	44.1	37.5	35.9	37.8	7.8
Frozen	61.9	53.0	59.5	73.2	61.9	7.6
Frozen, appetizer <u>3/</u>	107.5	133.4	130.9	125.3	124.3	13.4
Rice, cooked:						
Regular, long grain	3.1	2.8	2.5	3.2	2.9	.4
Parboiled (converted)	5.9	3.9	3.8	3.8	4.4	.9
Precooked (instant)	5.2	4.4	5.1	5.5	5.1	.4
Fried rice:						
Home-prepared <u>1/</u>	14.0	14.0	11.4	13.6	13.3	1.3
Home-prepared <u>2/</u>	16.3	15.5	14.7	18.4	16.2	1.6
Frozen, pouch <u>3/</u>	NA	24.8	23.7	NA	24.3	4.2
Spanish rice:						
Home-prepared	11.3	10.1	9.0	9.2	9.9	1.1
Canned	10.5	13.5	10.0	9.8	11.0	1.6
Mix <u>4/</u>	9.0	10.0	10.8	10.4	10.1	.9
Mix <u>5/</u>	9.2	10.3	11.1	10.6	10.3	.9
Spaghetti with tomato sauce:						
Home-prepared	24.8	21.7	21.9	20.5	22.2	2.0
Canned	14.7	14.5	16.1	16.1	15.3	1.0
Mix <u>4/</u>	16.8	14.3	14.7	18.4	16.0	2.0
Mix <u>5/</u>	17.1	14.7	15.1	18.7	16.4	2.0

1/ Ingredients adjusted.
2/ Ingredients not adjusted.
3/ New generation convenience food.
4/ With margarine.
5/ With butter.

NA = not available.

35 percent were less costly than their fresh or home-prepared counterparts (table 12). Most of these products were canned or frozen single-ingredient items, like asparagus spears, beets, brussels sprouts, green peas, lima beans, french-fried potatoes, and spinach.

The convenience forms of green peas, lima beans, and spinach cost about half as much per serving as the fresh form; the convenience forms of beets and french-fried potatoes cost about two-thirds to three-fourths as much per serving as the fresh form. Fresh asparagus spears cost approximately 3 cents more per serving than frozen and canned asparagus. During the peak harvesting period of April and May, however, fresh asparagus was 2 cents per serving cheaper than canned or frozen. Potato puffs were about 1 cent cheaper when purchased frozen than when prepared from fresh potatoes.

Seven convenience vegetable products--canned diced carrots, frozen and canned cut corn, frozen corn-on-the-cob, frozen green beans, green beans frozen in a bulk bag, and pork and beans--cost about the same as their fresh or home-prepared counterparts. Therefore, noneconomic factors such as family preference, nutritive value, and preparation time would probably be instrumental in the homemaker's decision on which food form to prepare.

Of the frozen vegetable products that were also available canned, half cost about the same and half were slightly cheaper than the canned form. One-third of the frozen vegetable products and one-half of the canned products were cheaper than their fresh or home-prepared version. All dehydrated potato products were more expensive than items prepared with fresh potatoes, but dehydrated au gratin potatoes were cheaper than the frozen form. Frozen broccoli spears with butter sauce in a boil-in-the-bag pouch, a new generation convenience food, were 6 cents more per serving than plain frozen broccoli spears and 9 cents more per serving than fresh broccoli.

Fresh and home-prepared vegetable dishes were the most costly in New Orleans and the least costly in San Francisco-Oakland, which is closer to a major vegetable-producing area. Convenience vegetable products were most expensive in Milwaukee and least expensive in San Francisco-Oakland.

Fruits

Of the 23 processed fruit products studied, all were more expensive than their respective fresh fruit counterpart except the convenience forms of lemon juice and orange juice (table 13). Fresh lemon juice cost over three times more than bottled juice. Reconstituted lemon juice in a squeezable plastic container was over 2 cents per serving cheaper than lemon juice from fresh lemons, but was 3 cents per serving more than reconstituted bottled lemon juice. The plastic container, being small and flexible, provides additional convenience when lemon juice is needed for table use.

Orange juice from fresh oranges was 2-3/4 times more costly than orange juice from frozen concentrate and approximately 1-3/4 times more costly than single-strength juice in a can or chilled juice in a bottle.

The two market forms of synthetic orange drink--frozen concentrate and crystals--were similar in cost. Orange drink made from frozen concentrate was cheaper than all forms of orange juice. Orange drink made from crystals was similar in cost to juice made from frozen concentrate but cost less than all other orange juice forms.

Most processed fruit products, whether canned or frozen, are packed in liquid, i.e., water, juice, or light, medium, or heavy sirup. The value of the liquid portion of the fruit product varies with the type of liquid and its use to the homemaker. Therefore, the cost per serving of processed cherries, grapefruit, peaches, pineapple, raspberries, and strawberries was calculated for both drained solids and solids and

Table 12--Vegetables: Cost per serving by city and four-city average, standard deviation, and coefficient of variation, 1974-75

Product	Cents				Four-city average	Standard deviation	Coefficient of variation
	Milwaukee	Philadelphia	New Orleans	San Francisco-Oakland			
Asparagus spears:							
Fresh	23.1	25.0	26.2	18.1	23.1	05.2	23
Frozen	19.2	20.2	21.3	20.6	20.3	1.1	5
Canned	19.8	19.7	20.0	18.5	19.5	.8	4
Beets:							
Fresh	13.1	14.3	12.8	10.1	12.5	2.8	22
Canned, diced, plain	9.8	8.2	8.7	9.0	8.9	.9	10
Canned, diced, Harvard	7.9	6.6	6.8	8.9	7.5	1.1	15
Broccoli spears:							
Fresh	12.7	15.6	12.2	12.8	13.3	2.3	17
Frozen	18.5	15.9	16.2	13.5	16.0	2.0	12
Frozen, pouch, butter sauce 1/	23.6	18.3	23.3	23.1	22.1	2.5	11
Broccoli spears au gratin:							
Home-prepared 2/	28.1	25.4	25.8	23.3	25.7	2.0	8
Home-prepared 3/	28.1	25.3	25.7	22.9	25.5	2.1	8
Frozen 1/	26.0	39.6	36.6	37.3	36.1	5.1	14
Broccoli spears with hollandaise sauce:							
Home-prepared 2/	19.8	17.7	17.7	15.4	17.7	1.8	10
Home-prepared 3/	20.1	17.8	17.9	15.4	17.8	1.9	11
Frozen, with sauce packet 1/	25.0	26.0	25.5	25.1	25.4	1.4	6
Brussels sprouts:							
Fresh	12.3	14.0	18.7	10.7	13.8	4.2	30
Frozen	10.5	11.7	11.3	13.8	11.8	1.5	13
Butter beans:							
Home-prepared, drained solids	4.4	4.3	3.8	4.1	4.1	.7	17
Home-prepared, solids and liquid	4.3	4.2	3.7	4.1	4.0	.7	18
Canned, drained solids	13.7	13.5	15.9	12.0	13.8	2.0	14
Canned, solids and liquid	11.0	10.9	12.8	9.7	11.1	1.3	12

See footnotes at end of table. Continued

Table 12--Vegetables: Cost per serving by city and four-city average, standard deviation, and coefficient of variation, 1974-75--
Continued

Product	-----Cents-----				Percent		
	Milwaukee	Philadelphia	New Orleans	San Francisco	Four-city average	Standard deviation	Coefficient of variation
Carrots:							
Fresh	7.5	6.7	5.8	7.0	6.8	1.0	15
Canned, sliced	9.6	10.0	8.3	11.1	9.7	1.3	13
Canned, diced	6.6	7.1	7.9	6.8	7.1	.7	10
Corn, cut:							
Fresh	9.7	10.8	10.5	13.1	11.0	2.4	22
Frozen	12.5	10.6	11.9	9.4	11.1	1.4	13
Canned	13.0	9.2	12.5	11.7	11.6	2.1	18
Corn on the cob:							
Fresh	11.7	13.0	12.5	15.8	13.2	2.9	22
Frozen	13.4	13.2	14.1	12.8	13.4	.9	7
Green beans, cut:							
Fresh	8.4	8.7	6.7	8.4	8.1	1.6	20
Frozen	8.8	8.9	8.5	8.3	8.6	.6	7
Frozen, bulk bag 1/	8.0	7.8	8.2	7.8	7.9	.6	8
Canned	10.1	8.9	10.1	9.3	9.6	1.0	10
Green bean casserole:							
Home-prepared	21.0	20.8	21.4	20.7	21.0	1.1	5
Frozen 1/	32.2	25.2	21.6	20.1	25.1	4.8	19
Green peas:							
Fresh	31.6	26.7	28.1	23.4	27.3	4.7	17
Frozen	10.1	11.3	10.5	12.0	11.0	.9	8
Canned	12.3	8.9	13.6	9.9	11.2	2.4	21
Hawaiian-style:							
Home-prepared	15.5	15.4	13.4	14.1	14.6	1.4	10
Frozen 1/	21.1	21.0	20.4	19.6	20.5	1.1	5
Lima beans:							
Fresh	34.5	25.7	NA	NA	28.7	4.9	17
Frozen	10.9	11.9	10.7	11.6	11.2	.9	8
Canned	17.2	12.2	14.2	14.0	14.4	2.3	16

See footnotes at end of table.

Continued

Table 12--Vegetables: Cost per serving by city and four-city average, standard deviation, and coefficient of variation, 1974-75--
Continued

Product	Cents				Percent		
	Milwaukee	Philadelphia	New Orleans	San Francisco : Oakland	Four-city average	Standard deviation	Coefficient of variation
Pork and beans:							
Home-prepared 2/	12.8	13.0	12.6	14.4	13.2	1.7	13
Home-prepared 3/	12.6	12.9	12.0	13.8	12.8	1.5	12
Canned	15.3	12.6	14.4	13.9	14.0	1.0	7
Potatoes, au gratin:							
Home-prepared 4/	8.5	8.5	8.8	7.7	8.4	.5	6
Home-prepared 5/	8.8	8.9	9.2	8.0	8.7	.6	7
Frozen 1/	22.6	27.8	23.8	26.5	25.2	2.6	10
Dehydrated 4/	11.5	13.1	11.7	11.5	11.9	.8	7
Dehydrated 5/	11.6	13.2	11.8	11.6	12.1	.8	7
Potatoes, boiled, whole:							
Fresh	3.5	3.5	3.6	2.5	3.3	.8	24
Canned	13.0	12.4	13.4	11.9	12.7	.9	7
Potatoes, french fried:							
Home-prepared	10.4	10.0	10.7	8.9	10.0	.8	8
Frozen	7.0	6.6	6.0	7.8	6.9	.7	10
Potatoes, hash-browned:							
Home-prepared 4/	5.0	5.1	5.1	4.0	4.8	.7	15
Home-prepared 5/	5.3	5.4	5.5	4.3	5.1	.8	16
Dehydrated 4/	12.3	12.3	12.0	12.2	12.2	.5	4
Dehydrated 5/	13.0	13.1	12.8	12.8	12.9	.5	4
Potatoes, mashed:							
Home-prepared	3.9	4.0	4.1	3.1	3.8	.6	16
Dehydrated	5.3	4.6	4.8	4.6	4.9	.3	6
Potatoes, patties:							
Home-prepared	4.3	4.2	4.4	3.3	4.0	.6	15
Frozen	10.9	12.1	NA	NA	11.5	.9	8
Potatoes, puffs:							
Home-prepared	8.4	8.4	8.3	7.4	8.1	.5	6
Frozen	6.5	8.5	6.6	6.0	6.9	3.2	46

See footnotes at end of table. Continued

Table 12--Vegetables: Cost per serving by city and four-city average, standard deviation, and coefficient of variation, 1974-75--
Continued

Product	-----Cents-----				-----		Coefficient of variation
	Milwaukee	Philadelphia	New Orleans	San Francisco- Oakland	Four- city average	Standard deviation	
Potatoes, scalloped:							
Home-prepared <u>4/</u>	5.0	5.2	5.5	4.4	5.0	0.6	12
Home-prepared <u>5/</u>	5.2	5.4	5.7	4.5	5.2	.6	12
Dehydrated <u>4/</u>	10.4	12.0	10.3	10.3	10.7	.8	7
Dehydrated <u>5/</u>	10.6	12.2	10.5	10.5	10.9	.8	7
Potatoes, stuffed, sour cream: and chives:							
Home-prepared	12.6	11.6	12.7	9.2	11.5	1.6	14
Frozen <u>1/</u>	26.0	21.2	20.1	20.0	21.8	2.7	12
Spinach:							
Fresh	24.1	30.4	28.8	16.7	24.7	5.8	23
Frozen	16.1	10.8	9.5	8.5	11.2	3.0	27
Canned	14.1	13.8	12.8	11.7	13.1	1.6	12

1/ New generation convenience food.

2/ Ingredients adjusted.

3/ Ingredients not adjusted.

4/ With margarine.

5/ With butter.

NA = not available.

Table 13--Fruits: Cost per serving by city and four-city average, standard deviation, and coefficient of variation, 1974-75

Product	Cents				Percent		
	Milwaukee	Philadelphia	New Orleans	San Francisco-Oakland	Four-city average	Standard deviation	Coefficient of variation
Cherries, red sour, pitted:							
Fresh	17.1	27.7	26.2	19.3	21.8	4.5	21
Canned, water packed, drained solids	18.5	22.2	25.2	20.7	21.7	2.6	12
Canned, water packed, solids and liquid	14.3	17.1	19.4	15.9	16.7	2.0	12
Coconut:							
Fresh	2.0	1.9	1.3	1.5	1.7	.4	24
Plastic bag, shredded	3.4	2.9	2.7	3.1	3.0	.4	13
Cranberry sauce, strained:							
Fresh	6.4	7.3	7.1	6.2	6.8	.8	12
Canned	6.0	5.1	6.3	6.1	5.9	.8	14
Cranberry sauce, whole:							
Fresh	4.9	5.5	5.4	4.7	5.2	.6	12
Canned	5.9	5.1	6.2	6.1	5.8	.8	14
Grapefruit, sections:							
Fresh, drained solids	10.4	11.2	11.1	16.0	12.1	3.1	26
Fresh, solids and liquid	11.1	12.1	12.0	17.3	13.1	3.3	25
Canned, drained solids	13.4	12.5	14.8	15.5	14.1	1.5	11
Canned, solids and liquid	10.0	9.3	11.0	11.5	10.5	1.1	10
Lemon juice:							
Fresh, home-prepared	9.3	9.1	5.2	8.3	8.0	2.0	25
In plastic container	7.1	5.6	4.4	5.3	5.6	1.4	25
In bottle	2.7	2.0	2.8	3.0	2.6	.4	15
Orange juice:							
Fresh, home-prepared	15.3	12.9	9.7	9.6	11.9	3.2	27
Bottled, pasteurized	9.5	6.4	5.1	6.8	6.9	1.7	25
Canned	7.9	4.5	6.0	8.0	6.6	1.8	27
Frozen concentrate	4.3	4.5	4.2	4.2	4.3	.3	7
Orange drink (synthetic):							
Frozen concentrate <u>1/</u>	3.2	3.5	3.2	3.4	3.3	.9	27
Crystals <u>1/</u>	4.3	3.7	4.0	3.7	3.9	.5	13

Continued

See footnotes at end of table.

Table 13--Fruits: Cost per serving by city and four-city average, standard deviation, and coefficient of variation, 1974-75--Continued

Product	-----Cents-----				Standard deviation	Coefficient of variation
	Milwaukee	Philadelphia	New Orleans	San Francisco-Oakland			Four-city average
Peaches:						
Fresh	13.7	16.4	15.0	13.1	4.1	28
Canned, halves, heavy syrup drained solids	16.3	18.8	18.1	16.5	1.5	9
Canned, halves, heavy syrup: solids and liquid	11.0	12.7	12.3	11.2	1.0	8
Canned, diced, individual serving container, drain- ed solids 1/.....	24.3	25.5	22.7	23.9	2.0	8
Canned, diced, individual serving container, solids and liquid 1/	16.5	17.4	15.5	16.3	1.4	8
Frozen, sliced, drained solids	32.7	25.5	27.5	18.8	5.2	20
Frozen, sliced, solids and liquid	23.8	18.5	20.0	13.7	3.8	20
Pineapple:						
Fresh	12.9	12.1	10.5	10.7	1.5	13
Canned, chunks, drained solids	12.9	12.6	12.8	11.8	.8	6
Canned, chunks, solids and liquid	11.1	10.9	11.1	10.1	.6	6
Raspberries, red:						
Fresh	NA	34.0	NA	12.7	11.7	50
Canned, drained solids	34.8	37.6	NA	NA	1.6	4
Canned, solids and liquid	23.2	25.1	NA	NA	1.1	5
Frozen, drained solids	33.9	36.0	32.8	34.5	1.2	3
Frozen, solids and liquid	26.5	28.2	25.7	27.0	.9	3
Strawberries, sweetened:						
Fresh, drained solids	19.7	27.2	17.5	17.3	5.1	25
Fresh, solids and liquid	22.2	30.7	19.8	19.8	5.7	24
Canned, drained solids	40.3	NA	53.4	47.5	5.6	13
Canned, solids and liquid	17.4	NA	23.1	20.5	2.4	12
Frozen, sliced, carton, drained solids	33.8	30.6	35.3	33.0	2.2	7
Frozen, sliced, carton, solids and liquid	21.5	19.5	22.5	21.0	1.4	7

See footnotes at end of table. Continued

Table 13--Fruits: Cost per serving by city and four-city average, standard deviation, and coefficient of variation, 1974-75--Continued

Product	-----Cents-----							Coefficient of variation
	Millwaukee	Philadelphia	New Orleans	San Francisco- Oakland	Four- city average	Standard deviation		
Strawberries, sweetened-- Continued								
Frozen, sliced, pouch, drained solids <u>1</u> /	33.1	31.6	31.8	NA	32.5	.8	2	
Frozen, sliced, pouch, solids and liquid <u>1</u> /	25.6	24.5	24.7	NA	25.2	.6	2	
Frozen, whole, tub, drained: solids	33.2	32.0	35.2	31.6	33.0	2.0	6	
Frozen, whole, tub, solids and liquid	21.8	21.0	23.1	20.8	21.7	1.3	6	
Frozen, whole, bulk bag, drained solids <u>1</u> /	21.3	22.7	21.1	21.7	21.7	1.4	6	
Frozen, whole, bulk bag, solids and liquid <u>1</u> /	20.4	21.7	20.1	20.7	20.7	1.3	6	

1/ New generation convenience food.

NA = not available.

liquid. For the descriptive and statistical analysis of comparative costs, the liquid portion was assumed to have no economic value to the homemaker (zero opportunity cost) and the weight of the drained fruit was selected for comparison.

Frozen peaches, canned peaches in individual serving containers, frozen and canned raspberries, frozen whole strawberries in a plastic tub, and frozen sliced strawberries in a carton and in a thaw-and-serve pouch were approximately 1-1/2 to 1-4/5 times more costly than their fresh fruit counterpart. The cost of canned strawberries was more than double the cost of fresh strawberries, but individually quick-frozen strawberries packaged in a bulk bag cost only slightly more than the fresh fruit.

Fresh fruits were the most costly in Philadelphia and the least expensive in San Francisco-Oakland. This can be partially explained by the differential in transportation charges for shipping the fresh fruits to these cities from points of production. Philadelphia and New Orleans each had the highest number of convenience fruit products that were the cheapest among the four cities in the study.

Dairy and Eggs

The cost per serving of nine convenience dairy products and one cholesterol-free egg substitute was analyzed. Three products had a fresh or home-prepared counterpart seven had an ingredient food counterpart, and seven were new generation convenience foods.

A serving of scrambled eggs prepared from the frozen cholesterol-free egg substitute was almost twice as expensive as scrambled fresh eggs (table 14). The higher cost of this convenience product, however, may be of little significance to those purchasing it for dietary reasons, i.e., reduced cholesterol intake, allergy to egg yolk, etc.

Very small price differences were found among forms of process American cheese: loaf, sliced, or individually wrapped slices. American cheese food in an aerosol can cost over three times as much as cheese food in a loaf. But uses of these two food forms differ, so their expected cross elasticity of substitution would be low. Cheese fondue made from a recipe cost 5 cents per serving less than chilled cheese fondue, a new generation convenience food.

Whipped cream in an aerosol can cost 2 cents more per 1-ounce serving than fresh whipped cream. However, the canned product had about twice the volume of fresh whipped cream. Comparing cost by volume, about one-fourth cup of canned whipped cream cost 4.3 cents compared with 6.6 cents for fresh whipped cream. The low density of canned whipped cream is made possible by the use of emulsifiers and the design of the nozzle on the aerosol container.

Nonfat dry milk cost one-third less than fluid skim milk.

All forms of butter and margarine differed in their costs per pound, but had a similar cost per serving, which is only a fraction of a pound. Soft margarine which is easy to spread and liquid margarine which is convenient to use on popcorn and corn on the cob were about 14 cents per pound more expensive than stick margarine. Soft and liquid margarine cost 10 cents less per pound and stick margarine cost 24 cents less per pound than bulk or quartered butter.

The convenience forms of dairy and egg products were most costly in Philadelphia and San Francisco-Oakland and were cheapest in Milwaukee. Scrambled fresh eggs were most expensive in Philadelphia and least expensive in San Francisco-Oakland.

Table 14--Dairy and eggs: Cost per serving by city and four-city average, standard deviation, and coefficient of variation, 1974-75

Product	Cents				Standard deviation	Coefficient of variation
	Milwaukee	Philadelphia	New Orleans	San Francisco-Oakland			Four-city average
American process cheese:						
Loaf 1/	17.3	16.6	16.7	15.6	1.3	8
Sliced	17.4	17.6	15.6	16.6	1.1	7
Singles (individually wrapped) 2/	16.9	16.7	15.7	17.7	1.2	7
American cheese food:						
Loaf 1/	11.6	12.1	13.3	10.7	1.2	10
Aerosol can 2/	34.7	40.6	NA	37.9	12.4	33
Cheese fondue:						
Home-prepared	28.0	32.4	25.5	28.4	2.6	9
Chilled 2/	36.3	32.5	27.2	38.2	5.7	17
Butter:						
Bulk 1/	1.7	1.8	2.1	NA	.2	11
Quartered	1.9	2.1	2.0	1.9	.1	5
Margarine:						
Quartered 1/	1.3	1.5	1.4	1.4	.2	14
Soft, tub 2/	1.6	1.8	1.7	1.6	.1	6
Liquid, squeeze bottle 2/	1.6	1.8	1.7	1.6	.1	6
Milk, nonfat:						
Fluid, skim 1/	8.0	9.7	10.3	8.7	.9	10
Dry, instant 2/	5.5	5.1	5.4	5.9	.4	7
Whipped cream:						
Fresh, home-prepared	7.7	7.1	6.1	5.5	1.4	21
Ready whipped, aerosol can	7.9	9.3	7.5	9.7	1.1	13
Eggs, scrambled:						
Home-prepared, fresh	13.2	15.4	13.4	12.5	1.7	12
Frozen cholesterol-free substitute 2/	24.9	25.4	26.4	27.6	2.8	11

1/ Ingredient food (see p. 3 for definition).

2/ New generation convenience food.

NA = not available.

Baked Goods and Desserts

The marketplace offers an almost unlimited choice of baked goods and desserts with different levels of built-in services. Ready-to-serve products require the least preparation in the home but usually can be stored for only a limited time. Frozen and chilled products, which usually need only be thawed or heated before serving, are also convenient. Mixes usually require the most preparation. A complete mix requires only milk or water, sometimes a minor flavoring ingredient such as vanilla extract, and sometimes a small amount of shortening or oil to grease baking utensils. An incomplete mix requires eggs, butter or margarine, or other ingredients in addition to water or milk.

The cost per serving was calculated for 45 processed products. Several product forms were represented: 11 ready-to-serve, 11 frozen or chilled, 10 complete mixes, 11 incomplete mixes, 1 brown-and-serve, and 1 heat-and-serve product. Of all convenience baked goods and dessert products, 60 percent were more expensive than the same item prepared from a recipe (table 15). Nearly all ready-to-serve, frozen, and chilled products were more costly than their homemade versions. Of the products made from mixes, 43 percent cost less and 33 percent cost about the same as their home version. Pancakes and waffles prepared from an incomplete mix were over 1-3/4 times more costly than these foods prepared from a complete mix. This cost relationship reflects the higher price of fresh eggs purchased at retail and added by the homemaker to the incomplete mix to make a product, relative to the price of powdered eggs bought at wholesale and blended with other ingredients by the manufacturer to make the complete mix. Pancakes and waffles made from a complete mix cost only one-fifth as much as frozen pancakes and waffles.

The costs per serving of brown-and-serve and heat-and-serve yeast rolls were, respectively, about 3 and 2-1/2 times greater than that of yeast rolls made from basic ingredients. Frozen devil's food cake was about 1-3/4 times more costly per serving and frozen pound cake was about 2-2/3 times more costly per serving than their home versions.

Two-thirds of the home-prepared baked goods and desserts were most expensive in Philadelphia, while San Francisco-Oakland and Milwaukee each had the highest number of least expensive home-prepared products in this group. New Orleans and San Francisco-Oakland had the highest number of most expensive convenience forms of baked goods and desserts, but New Orleans also had the greatest number of least expensive convenience products.

Soup

Several convenience forms of soups--canned condensed, canned single-strength, frozen, and dried--are available to homemakers. The costs per serving were calculated for three forms of split-pea soup with ham and one of green pea soup.

A serving of split-pea soup from a frozen pouch was 3-1/2 times more expensive than a serving of reconstituted canned condensed soup, but only 1-1/3 times more expensive than canned single-strength soup (table 16). Reconstituted dried green pea soup from a single-serving packet cost about 50 percent more per serving than canned condensed soup. Three of the four market forms of pea soup were most expensive in San Francisco-Oakland.

Baby Foods

Commercial baby foods are a convenient alternative to pureeing table foods. The cost per serving was compiled for commercially processed liver, peas, and peaches baby food and for their home-prepared counterparts made from fresh, frozen, or canned foods.

Table 15--Baked goods and desserts: Cost per serving by city and four-city average, standard deviation, and coefficient of variation, 1974-75

Product	Cents				Standard deviation	Coefficient of variation
	Milwaukee	Philadelphia	New Orleans	San Francisco-Oakland			Four-city average
Baking powder biscuits:						
Home-prepared	2.7	2.6	2.9	2.5	2.7	0.3
Complete mix	2.7	2.9	3.9	2.9	3.1	.4
Chilled	4.0	4.8	4.0	3.1	4.0	1.0
Bread stuffing:						
Home-prepared	8.1	8.1	6.7	6.9	7.4	.7
Incomplete range top mix 1/	6.1	5.9	5.4	6.4	5.9	.5
Brownies:						
Home-prepared	4.4	5.1	5.2	4.7	4.9	.4
Incomplete mix	3.6	3.8	4.2	3.8	3.8	.3
Complete mix	3.5	3.9	3.9	4.0	3.8	.3
Frozen	6.3	6.2	6.6	6.1	6.3	.4
Ready-to-serve	5.7	6.7	8.1	6.7	6.8	1.6
Angel food cake:						
Home-prepared 2/	6.7	7.7	6.9	6.4	6.9	.9
Home-prepared 3/	8.0	9.3	8.3	7.6	8.3	1.1
Complete mix	8.0	8.1	8.4	7.8	8.1	.7
Ready-to-serve	11.2	12.3	14.7	12.3	12.7	2.2
Bundt cake, fudge:						
Home-prepared	14.4	15.9	15.5	14.6	15.1	1.5
Incomplete mix 1/	15.4	15.3	15.7	15.9	15.6	2.2
Devil's food cake:						
Home-prepared	7.5	8.2	8.0	7.4	7.8	.8
Incomplete mix	5.5	5.3	5.8	5.3	5.4	.5
Frozen	13.6	13.6	9.8	13.7	13.1	1.6
Ready-to-serve	9.9	13.5	11.7	13.6	12.2	1.9
Pound cake:						
Home-prepared 4/	4.0	4.5	4.2	4.0	4.2	.5
Home-prepared 5/	4.4	5.0	4.7	4.3	4.6	.4
Incomplete mix	4.1	4.0	4.4	4.0	4.1	.5
Frozen	11.0	10.9	10.8	10.7	10.9	.9
Ready-to-serve	7.5	7.9	7.8	7.5	7.7	.5

See footnotes at end of table.

Continued

Table 15--Baked goods and desserts: Cost per serving by city and four-city average, standard deviation, and coefficient of variation, 1974-75--Continued

Product	Milwaukee	Philadelphia	New Orleans	San Francisco	Four-city average	Standard deviation	Coefficient of variation
-----Cents-----							
Yellow cake:							
Home-prepared $\frac{4}{1}$	4.5	5.1	4.9	4.5	4.8	0.5	10
Home-prepared $\frac{5}{1}$	4.7	5.2	5.1	4.6	4.9	.5	10
Incomplete mix	4.1	4.2	4.2	4.2	4.2	.5	12
Ready-to-serve	7.9	10.6	8.0	9.1	8.9	1.5	17
Sugar cookies:							
Home-prepared $\frac{4}{1}$	1.9	2.1	2.0	1.9	1.9	1.3	16
Home-prepared $\frac{5}{1}$	2.1	2.3	2.2	2.1	2.2	1.3	14
Chilled in roll	2.9	2.8	2.3	2.7	2.7	.4	15
Ready-to-serve	2.3	2.5	2.3	3.1	2.5	.4	16
Chocolate frosting:							
Home-prepared $\frac{4}{1}$	6.2	7.3	7.0	6.6	6.8	.9	13
Home-prepared $\frac{5}{1}$	6.5	7.6	7.4	6.9	7.1	.9	13
Incomplete mix $\frac{4}{1}$	5.2	4.5	6.1	4.8	5.1	.9	18
Incomplete mix $\frac{5}{1}$	5.4	4.7	6.3	4.9	5.3	.9	17
White frosting, fluffy:							
Home-prepared $\frac{2}{1}$	1.9	2.2	2.1	1.8	2.0	.3	15
Home-prepared $\frac{3}{1}$	2.0	2.4	2.3	1.9	2.1	.4	19
Complete mix	2.2	2.0	2.9	3.5	2.6	.7	27
Corn muffins:							
Home-prepared	3.3	3.7	3.3	4.8	3.8	1.2	32
Incomplete mix	4.0	4.0	4.0	4.1	4.0	.4	10
Pancakes:							
Home-prepared	10.7	11.2	11.4	10.4	10.9	.6	6
Incomplete mix	12.6	13.1	13.5	12.5	12.9	.6	5
Complete mix	7.2	7.1	7.0	8.0	7.3	.5	7
Frozen	36.2	32.3	34.7	NA	34.4	2.1	6
Apple pie:							
Home-prepared $\frac{4}{1}$	12.7	16.0	14.1	13.1	14.0	1.6	11
Home-prepared $\frac{5}{1}$	12.8	16.1	14.3	13.2	14.1	1.3	9
Frozen	22.8	19.5	18.0	21.6	20.5	2.0	10
Ready-to-serve	33.5	21.1	16.9	24.7	24.0	6.3	26

Table 15--Baked goods and desserts: Cost per serving by city and four-city average, standard deviation, and coefficient of variation, 1974-75--Continued

Product	Milwaukee	Philadelphia	New Orleans	San Francisco		Four-city average	Standard deviation	Coefficient of variation
				Oakland	San Francisco			
-----Cents-----								
Cherry pie:								
Home-prepared ^{4/}	14.0	19.9	19.3	15.6	16.6	2.6	16	
Home-prepared ^{5/}	14.3	20.2	19.6	15.8	16.9	2.6	15	
Complete mix	16.4	16.5	17.1	18.9	17.2	1.4	8	
Frozen	23.5	24.2	19.0	21.3	22.0	2.7	12	
Ready-to-serve	34.1	21.9	15.8	23.8	23.9	6.8	28	
Coconut cream pie:								
Home-prepared	13.2	13.6	13.4	12.5	13.1	.9	7	
Incomplete mix	19.5	18.4	19.5	19.8	19.3	1.3	7	
Frozen	23.8	21.1	20.2	19.3	21.1	2.2	10	
Ready-to-serve	28.3	24.8	17.8	26.7	24.4	4.5	18	
Pudding, chocolate:								
Home-prepared	10.8	12.0	12.2	11.6	11.7	.9	8	
Complete mix, cooked	9.5	9.7	10.8	9.5	9.9	.9	9	
Complete mix, instant	8.6	9.3	10.2	8.9	9.2	.9	10	
Canned, individual serving container ^{1/}	16.6	17.5	17.6	16.8	17.1	1.4	8	
Sherbet, orange:								
Home-prepared	5.9	6.7	6.8	5.8	6.3	.7	11	
Ready-to-serve	9.3	12.2	9.9	8.9	10.1	2.1	21	
Waffles:								
Home-prepared	6.3	6.7	6.6	6.1	6.4	.4	6	
Incomplete mix	7.2	7.4	7.7	7.2	7.4	.3	4	
Complete mix	4.1	4.0	3.7	4.3	4.0	.3	8	
Frozen	18.2	19.5	18.3	17.5	18.5	1.1	6	
Yeast rolls:								
Home-prepared	2.2	2.4	2.6	2.3	2.3	.3	13	
Complete mix	3.8	3.3	3.7	NA	3.6	.3	8	
Frozen	3.3	3.7	2.8	9.7	5.0	3.0	60	
Brown-and-serve	6.2	7.9	5.4	8.2	6.9	1.4	20	
Heat-and-serve	4.7	7.6	NA	5.8	6.0	1.2	20	

^{1/} New generation convenience food. ^{2/} Based on cost of egg whites only. ^{3/} Based on cost of whole eggs. ^{4/} With margarine. ^{5/} With butter. NA = not available.

Table 16--Soup, Baby Foods, Coffee and Tea: Cost per serving by city and four-city average, standard deviation, and coefficient of variation, 1974-75

Product	Cents				Standard deviation	Coefficient of variation
	Milwaukee	Philadelphia	New Orleans	San Francisco		
				Oakland	Four-city average	
Soup:						
Split-pea, with ham:						
Canned, condensed	10.9	10.9	10.8	11.2	10.9	0.6
Canned, single strength 1/	23.9	26.7	28.4	31.3	27.6	3.2
Frozen, pouch 1/	NA	28.3	NA	48.5	38.4	10.8
Dried, individually packaged						
serving (green pea) 1/	15.0	16.4	15.7	16.1	15.8	2.4
Baby Foods:						
Beef liver:						
Home-prepared	16.5	19.5	24.4	27.5	22.0	3.8
Commercially processed	31.1	33.8	29.0	30.7	32.0	1.0
Peaches:						
Home-prepared, cooked fresh						
peaches	17.3	20.7	19.1	16.5	18.5	5.2
Home-prepared, canned peaches	12.8	14.7	14.2	12.9	13.7	1.2
Commercially processed	9.6	8.9	9.1	9.0	9.1	.6
Peas:						
Home-prepared, fresh peas	22.8	19.3	20.3	16.9	19.7	3.4
Home-prepared, frozen peas	10.1	11.2	10.4	11.9	10.9	.9
Home-prepared, canned peas	12.9	9.3	14.2	10.4	11.7	2.5
Commercially processed	13.2	12.2	12.6	12.4	12.6	.8
Coffee:						
Roasted, regular grind	2.4	2.4	2.5	2.1	2.3	.1
Instant, granules	1.4	1.5	1.7	1.7	1.6	.2
Instant, freeze-dried 1/	1.5	1.5	1.9	1.6	1.6	.2
Tea:						
Leaves	.7	.7	.8	.7	.7	.1
Bags	1.6	1.4	1.7	1.7	1.6	.2
Instant, in jar	1.1	1.2	1.3	1.2	1.2	.1
Instant, lemon-flavored, in jar 1/	.9	1.1	1.5	1.2	1.2	.9
Ready-to-drink, lemon-flavored, canned 1/	NA	10.3	11.6	11.5	11.3	2.5

Commercially processed beef liver baby food cost 10 cents more per serving than the same weight of beef liver cooked and pureed at home (table 16), but baby food prepared from either fresh cooked peaches or canned peaches was more costly than their commercial counterpart. Baby food made at home from fresh peaches was nearly 5 cents more per serving than baby food made from canned peaches. Puree from cooked fresh peas was about 1-3/4 times more expensive per serving than puree from cooked frozen or canned peas.

Two of the three commercially processed baby foods were the most expensive in Milwaukee and the cheapest in Philadelphia.

Coffee and Tea

Processing raw coffee and tea to an instant form reduces their bulk and weight and, therefore, their marketing costs. Coffee and tea can be prepared from a variety of forms depending upon individual tastes and preferences. The comparative costs of a 6-fluid-ounce serving were computed for three forms of coffee and five forms of tea.

The cost of preparing coffee from instant granules or from freeze-dried crystals was 1.6 cents per serving (table 16)--about two-thirds that of coffee brewed from regular grind. 11/ Tea made from leaves was the least expensive form of tea--0.7 cent per serving, about one-half the cost of tea made from bags or either instant form. Ready-to-drink lemon-flavored tea in a can, a product that competes primarily with soft drinks, was more than 11 cents per serving.

All forms of coffee and tea were most expensive in New Orleans. Coffee and tea convenience products were least expensive in Milwaukee.

Statistical Analysis

It was hypothesized that cost per serving was related to three independent variables: (1) form of the food; (2) city where foods were priced; and (3) month when foods were priced. 12/ This section of the report discusses the economic relationship of each variable to cost per serving.

11/ Due to the poor weather conditions in South America in 1976, the coffee crop was reduced, causing a rapid increase in coffee prices. Prices were collected in April 1977 for all three forms of coffee in all test cities. A cup of coffee brewed from regular grind almost tripled in cost from 1974-75 to 1977. The cost of a cup of coffee made from instant granules and freeze-dried crystals increased much less--80 and 50 percent, respectively.

12/ This hypothesis was statistically tested using regression analysis. The significance level selected was 1 percent. The 295 individual food products for which cost per serving was determined were grouped according to the major food they represent. For example, fresh, frozen, and canned peas were grouped as peas. This resulted in 111 foods for analysis. The reference category for food form was the home-prepared or fresh food; for city, San Francisco-Oakland; and for month, December. The model used to express the relationship of form, city, and month to the cost per serving of food i , $i = 1, \dots, 111$, was

$$CPS_{i,j,k,l} = F_{ij} + C_{ik} + M_{il} + e_i$$

where

F_{ij} = form j for food i , $j = 1, \dots, n$ and $n \leq 6$ depending upon i ,

C_{ik} = city where food prices were collected for food i , $k = 1, \dots, 4$,

M_{il} = month when food prices were collected for food i , $l = 1, \dots, 12$, and

e_i = error term.

Form Effect

Significant differences were found between the mean cost per serving of the different food forms for 107 of 111 foods. For each of these foods, consumers could have saved a significant amount of money by buying the less expensive form.

No appreciable cost differences were noted between canned and fully cooked ham, between fresh and frozen corn on the cob, among loaf, sliced, and individually wrapped slices of process American cheese, or between coffee from instant granules and freeze-dried crystals. Personal preference would influence one's decision on which form of these foods to buy.

City Effect

Significant differences in the mean cost per serving between the four study cities were found for 108 foods. The differences may be attributed to differences in marketing costs (labor, transportation, etc.) and pricing structure in each test city. Differences among mean costs for each city were not significant for American cheese food, shrimp newburg, and beef liver baby food. Consumers in all cities were paying about the same price.

Time Effect

Seventy-three foods exhibited significant differences among monthly per serving costs. As expected, vegetable products exhibited significantly lower mean costs from July through October (the harvest season for many vegetables). The cost per serving of several foods in the beef and dairy categories was significantly different during the summer months (June through August). Traditionally, in these months, milk is produced at its lowest cost per unit (dairy cows are in pasture) and beef is sold at its highest price (strong demand).

FUEL USE AND COST IN FOOD PREPARATION

Because of rising fuel prices and the large amounts of fuel required to cook some foods, the cook may wish to consider the relative amounts of fuel used in preparing different foods and different forms of the same food. During the processing of many convenience products, industry performs a number of food preparation steps. The present study considers only the fuel required for preparing food in the home. The amount of fuel used for other activities associated with home food preparation, like food storage and cleanup, and the fuel used by industry in processing, transportation, and distribution were not studied.

The cost of fuel used during food preparation depends on a number of factors. One is the source of fuel. The price per unit of electricity was approximately five times the price of an equivalent amount of gas, but the cooking efficiency of electricity is about twice that of gas. ^{13/} This made the cost of fuel required for operating an electric range top or oven to be approximately 2-1/2 times that of a gas range top or oven.

The type of appliance and length of time it is used also affect fuel costs. Small appliances, like an electric can opener, blender, and mixer, operate with a small amount of fuel because they are generally used for a short period of time. By contrast, long cooking times on either the range top or range oven use comparatively large amounts of fuel.

Other factors affecting fuel consumption and cost during home food preparation are appliance design, use patterns, dimensions of oven cavity, number of times the oven door is opened during cooking, the time allowed for preheating, size of burners, quality of cooking utensils, temperature of food before cooking, and room temperature at the time of food preparation. The importance of each of these factors will vary among households.

Procedure

To determine the amount of fuel required for preparation of home recipes and convenience products, the "on time" of the appliances used was recorded during laboratory food preparation. Data were collected for 94 foods--59 convenience products and 35 home-prepared items. Forty-one of the convenience products had a home-prepared counterpart.

Appliances used for food preparation included the surface units of a 30-inch, four-burner conventional household gas range and the following electrical equipment:

^{13/} Cooking efficiency is defined as the ratio of the amount of energy absorbed by food during cooking to the total amount of fuel supplied to the cooking appliance. Values for cooking efficiency were based on energy consumption data for gas and electric range tops and range ovens, excluding gas pilots (27).

30-inch conventional household range oven, standard and hand mixers, blender, can opener, deep fat fryer, and grill. Time at each setting for each appliance, e.g., oven temperature and mixer speed, was recorded during preparation of all foods tested. Time for preheating appliances was included: 10 minutes for the oven, 8 minutes for the deep fat fryer, and 9 minutes for the grill.

For range top cooking, the flame setting used (high, medium, simmer, or warm) was selected according to the needs of the specific preparation step and size of cooking utensil used. For example, lasagna noodles were cooked in a large pot of water on a burner set at a high flame; margarine for the sauce in shrimp newburg was melted in a saucepan on a burner set at simmer.

An estimate of watt-hours required during use of each electric appliance was obtained by multiplying the "on time" of the appliance by the number of watts consumed at a specific setting. For the deep fat fryer and grill, the "on time" considered was the time when the appliance was generating heat.

The wattage required by each setting on the electric mixers, blender, can opener, deep fat fryer, and grill used in the study was measured with a wattmeter at the National Bureau of Standards (NBS). ^{14/} Data on the watt-hours required for operation of a conventional electric range oven were obtained from time-temperature curves provided by NBS. Values assume a 10-minute preheat, one opening of the oven door, and a room temperature of 23°C (73°F). Fuel consumption for the various flame settings on front and back gas burners was based on the efficiency (Btu/h--British thermal units per hour) of conventional gas range burners as measured by NBS, and does not include the amount of fuel required by the pilot. Total Btu's of gas were then converted to equivalent number of watt-hours. ^{15/} Assuming a two-to-one efficiency ratio between electric and gas fuel used for cooking, watt-hour data for operation of the gas range top were divided by two to calculate the fuel used by electric burners. ^{16/} Similarly, watt-hour data for operation of the electric range oven were doubled to calculate the fuel used by a gas oven.

Since conventional ovens have an extremely low cooking efficiency, the amount of fuel used to heat a single serving of food would be about the same as that used to heat an entire market unit of the convenience form or an entire recipe of home-prepared food. ^{17/} Several market units of oven-heated convenience foods could also be prepared with about the same amount of fuel as that required by one unit. Therefore, meaningful comparisons can be made between the amount of fuel used by an oven in heating a market unit of convenience food and a home recipe, even though the number of servings provided by the two food forms may differ. The fuel necessary for the range top preparation of multiple units of frozen boil-in-the-bag products, like chicken a la king or shrimp newburg, is probably greater than the fuel required to heat only one market unit of these convenience products.

The cost per therm (100,000 Btu's) for gas and the cost per watt-hour for electricity were computed from net monthly bills to residential customers published by BLS (30). These bills were collected from July 1974 through June 1975 in Milwaukee, Philadelphia, San Francisco-Oakland, and Houston. (Because BLS does not collect data for New Orleans, data representing Houston were used. Like New Orleans, Houston is

^{14/} Appliances were not metered during laboratory food preparation.

^{15/} 3.412 Btu's per watt-hour.

^{16/} The efficiency ratio between gas and electricity was based on energy consumption values for gas and electric range tops and range ovens, excluding gas pilots (27).

^{17/} Cooking efficiency is about 7 percent for gas ovens and 14 percent for electric ovens (27).

located in a State that produces natural gas and sells much of it at the unregulated intrastate level.)

Gas bills were available for three monthly nonheating rates (10, 25, and 40 therms) and for one heating rate (100 therms). The highest nonheating rate (40 therms) was considered to be most appropriate for use in this study. Using a rate of 10 therms per month would assume that no other gas appliance (hot water heater or furnace) was being used since 10 therms per month provides only enough gas to operate a conventional household range (2). Using a rate of 25 therms per month would assume that a residence was not heated with gas, which is not true for most residences having a gasline. Using a rate of 100 therms per month would assume a high year-round usage, which is probably not realistic for most households even if they have gas heat.

Using 40 therms per month, a mean price of 21 cents per therm or 0.000717 cent per watt-hour was computed. Price per watt-hour was multiplied by the watt-hours the gas burner was used during food preparation.

Electric bills were available from BLS for three monthly rates: 100, 250, and 500 kilowatt-hours (kWh). According to the Federal Power Commission, a typical residence in areas having a population of 2,500 or more consumed 7,253 kWh in 1975 (7). On this basis, the 500 kWh per month usage or 0.0035 cent per watt-hour was selected for the study.

The fuel cost for preparing each convenience food form was compared with the fuel cost for preparing its home-prepared version. When the range top or oven was used in food preparation, cost figures for use of fuel are reported for both gas and electricity. 18/ Otherwise, values are given only for electricity since the other electric appliances (e.g., mixer, blender, can opener) have no gas-operated counterparts.

Results

In the present study, products with the greatest fuel cost included home-prepared lasagna, fully cooked ham, home-prepared pork and beans, and home-prepared baked stuffed potatoes with sour cream and chives (table 17). There was no fuel cost for several convenience products since no appliance was required for preparation. Examples of such include canned chicken salad sandwich spread, whipped cream in an aerosol can, ready-to-eat sugar cookies, pudding in single-serving containers, and commercially processed baby food peaches.

Of the 41 convenience products with a home-prepared counterpart, 26 had a lower fuel (electricity) cost than their home version, 9 had about the same fuel cost (a difference of 0.1 cent or less), and 6 had a greater fuel cost.

Convenience products which had higher fuel costs than home-prepared foods were sweet and sour pork frozen in a pouch, frozen fish sticks, parboiled rice, frozen pancakes, frozen yeast rolls, and beef liver baby food. Frozen fish sticks and pancakes probably required more fuel than their home versions because different appliances were used in their preparation (see table 17). Pancakes prepared on an electric grill--whether home-prepared or made from a complete or incomplete mix--required only 30 to 40 percent of the fuel used to heat frozen pancakes in a

18/ Fuel cost figures for the range top and oven represent only the fuel used for cooking since fuel used by gas pilots was excluded. The total cost of operating a gas range top or oven with continuously burning pilots would be almost double this cost since pilots require nearly the same amount of fuel as is used in cooking (27).

Table 17--Fuel used during preparation of home-prepared and convenience products

Product	Size of sample		Appliances used	Fuel used 1/		Cost of fuel used 2/	
	Amount prepared	Servings 2/		Gas	Electricity	Gas	Electricity
<u>BEEF</u>							
<u>Lasagna:</u>							
Home-prepared	1 recipe	10.0	range top oven (375°F) can opener total 4/	2947 2080 -- 5027	1474 1040 1 2515	2.1 1.5 -- 3.6	5.2 3.6 3/ 8.8
Frozen 5/	12-oz. package	1.2	oven (400°F)	2600	1300	1.9	4.6
<u>Patties, all beef:</u>							
Home-prepared	1.5-lb. ground beef	6.0	range top	373	186	.3	.7
<u>Patties, soy protein added to ground beef:</u>							
Added at home	1-lb. ground beef and one packet (1/4 package) soy protein	6.6	range top	375	188	.3	.7
Added at store 5/	1.5-lb. soy-beef blend	7.0	range top	367	184	.3	.6
<u>Sloppy Joe sandwich sauce:</u>							
Home-prepared	1 recipe	7.7	range top	435	218	.3	.8
Canned 5/	15.25-oz. can	5.4	range top can opener total 4/	131 -- 131	66 6/ 66	.1 -- .1	.2 3/ .2

-----Watt-hours-----
-----Cents-----

See footnotes at end of table.

Table 17--Fuel used during preparation of home-prepared and convenience products--Continued

Product	Size of sample		Appliances used	Fuel used 1/		Cost of fuel used 2/	
	Amount prepared	Servings 2/		Gas	Electricity	Gas	Electricity
PORK							
Ham, cured:							
Fully cooked	shank half	23.9	oven (325°F)	4908	2454	3.5	8.6
Canned	5-lb. can	28.4	oven (325°F)	3690	1845	2.6	6.5
Sweet and sour pork:							
Home-prepared	1 recipe	5.8	range top can opener total 4/	912 -- 912	456 1 457	.7 -- .7	1.6 3/ 1.6
Frozen, pouch 5/	14-oz. package	2.4	range top	1981	990	1.4	3.5
Sauce and glaze mix 5/	19-oz. package	4.9	range top can opener total 4/	619 -- 619	310 1 311	.4 -- .4	1.1 3/ 1.1
POULTRY							
Chicken a la king:							
Home-prepared	1 recipe	8.4	range top	7/ 641 8/ 2810	7/ 320 8/ 1405	.5 2.0	1.1 4.9
Frozen, pouch 5/	5-oz. package	.9	can opener range top	-- 1386	6/ 693	-- 1.0	3/ 2.4
Chicken salad, sandwich spread:							
Home-prepared	1 recipe	10.0	range top	7/ -- 8/ 1098	7/ -- 8/ 549	-- .8	-- 1.9
Canned 5/	7.5-oz. carton	3.0	--	--	--	--	--

-----Watt-hours-----
-----Cents-----

See footnotes at end of table.

Table 17--Fuel used during preparation of home-prepared and convenience products--Continued

Product	Size of sample		Appliances used	Fuel used 1/		Cost of fuel used 2/	
	Amount prepared	Servings 2/		Gas	Electricity	Gas	Electricity
-----Watt-hours-----Cents-----							
POULTRY--Continued							
Turkey tetrazzini:							
Home-prepared	1 recipe	6.7	range top oven (375°F) can opener blender total 4/	1882 9/ 2080 -- -- 3962	941 9/ 1040 6/ 6/ 1981	1.3 1.5 -- -- 2.8	3.3 3.6 3/ 3/ 6.9
Frozen 5/	12-oz. package	1.4	oven (400°F)	2600	1300	1.9	4.6
FINFISH AND SHELLFISH							
Pollack fish sticks:							
Home-prepared	1 recipe	6.7	deep fat fryer (375°F)	--	359	--	1.3
Frozen	16-oz. package	6.0	oven (400°F)	1760	880	1.3	3.1
Tuna noodle casserole:							
Home-prepared	1 recipe	4.5	range top oven (375°F) can opener total 4/	876 1800 -- 2676	438 900 1 1339	.6 1.3 -- 1.9	1.5 3.2 3/ 4.7
Frozen 5/	11.5-oz. package	1.4	oven (400°F)	2600	1300	1.9	4.6
Skillet main dish mix 5/	8.75-oz. package	5.1	range top can opener total 4/	404 -- 404	202 1 203	.3 -- .3	.7 3/ .7
Shrimp newburg:							
Home-prepared	1 recipe	6.0	range top	952	476	.7	1.7

Table 17--Fuel used during preparation of home-prepared and convenience products--Continued

Product	Size of sample		Appliances used	Fuel used 1/		Cost of fuel used 2/	
	Amount prepared	Servings 2/		Gas	Electricity	Gas	Electricity
			-----Watt-hours-----			-----Cents-----	
FINFISH AND SHELLFISH--Continued:							
Shrimp newburg--Continued							
Frozen, pouch 5/	6.5-oz. package	1.6	range top	660	330	0.5	1.2
PIZZA							
Chilled	9-oz. package	1.1	oven (450°F)	1900	950	1.4	3.3
Mix	15.38-oz. package	1.9	oven (425°F) can opener total 4/	2120 --- 2120	1060 1 1061	1.5 -- 1.5	3.7 3/ 3.7
Frozen	13.5-oz. package	1.6	oven (450°F)	2060	1030	1.5	3.6
Frozen, appetizer 5/	7.25-oz. package	.9	oven (425°F)	1760	880	1.3	3.1
RICE							
Regular, long grain	1 cup rice	6.2	range top	422	211	.3	.7
Parboiled (converted)	1 cup rice	6.2	range top	518	259	.4	.9
Precooked, (instant)	7-oz. box	7.0	range top	205	102	.1	.4
VEGETABLES							
Broccoli spears au gratin:							
Home-prepared	1 recipe	6.0	range top oven (400°F) total 4/	836 1980 2816	418 990 1408	.6 1.4 2.0	1.5 3.5 4.9
Frozen 5/	10-oz. package	1.9	oven (400°F)	2580	1290	1.8	4.5

See footnotes at end of table.

Continued

Table 17--Fuel used during preparation of home-prepared and convenience products--Continued

Product	Size of sample		Appliances used	Fuel used 1/		Cost of fuel used 2/	
	Amount prepared	Servings 2/		Gas	Electricity	Gas	Electricity
<u>VEGETABLES--Continued</u>							
Broccoli spears with hollandaise sauce:							
Home-prepared	1 recipe	5.6	range top	895	448	0.6	1.6
Frozen, with sauce packet 5/.	10-oz. package	2.2	range top	270	135	.2	.5
Butter beans:							
Home-prepared	1 cup dry beans	4.9	range top	1367	684	1.0	2.4
Canned	two 15-oz. cans	5.1	range top can opener total 4/	890 -- 890	445 1 446	.6 -- .6	1.6 3/ 1.6
Green beans, cut:							
Frozen	two 9-oz. packages	8.0	range top	402	201	.3	.7
Frozen, bulk bag 5/	one-half 20-oz. bag	4.3	range top	517	258	.4	.9
Canned	two 16-oz. cans	7.0	range top can opener total 4/	521 -- 521	260 1 261	.4 -- .4	.9 3/ .9
Green bean casserole:							
Home-prepared	1 recipe	6.8	range top oven (350°F) can opener total 4/	785 1880 -- 2665	392 940 1 1333	.6 1.3 -- 1.9	1.4 3.3 3/ 4.7
Frozen 5/	9.5-oz. package	2.2	oven (350°F)	2140	1070	1.5	3.7

-----Matt-hours-----

Number

-----Cents-----

See footnotes at end of table.

Table 17--Fuel used during preparation of home-prepared and convenience products--Continued

Product	Size of sample		Appliances used	Fuel used 1/		Cost of fuel used 2/	
	Amount prepared	Servings 2/		Gas	Electricity	Gas	Electricity
		Number			-----Watt-hours-----		-----Cents-----
VEGETABLES--Continued							
Hawaiian-style:							
Home-prepared	1 recipe	5.0	range top can opener total 4/	209 -- 209	104 1 105	0.1 -- .1	0.4 3/ .4
Frozen 5/	10-oz. package	2.8	range top	175	88	.1	.3
Pork and beans:							
Home-prepared	1 recipe	4.6	range top oven (350°F) can opener total 4/	1826 2620 -- 4446	913 1310 1 2224	1.3 1.9 -- 3.2	3.2 4.6 3/ 7.8
Canned	two 16-oz. cans	4.6	range top can opener total 4/	187 -- 187	94 1 95	.1 -- .1	.3 3/ .3
Potatoes au gratin:							
Frozen 5/	11.5-oz. package	2.5	oven (400°F)	2720	1360	2.0	4.8
Dehydrated	5.5-oz. package	5.7	range top oven (400°F) total 4/	119 2440 2559	60 1220 1280	.1 1.7 1.8	.2 4.3 4.5
Potatoes, stuffed, sour cream and chives:							
Home-prepared	6 medium potatoes	6.0	oven (425°F) standard mixer total 4/	4260 -- 4260	2130 4 2134	3.1 -- 3.1	7.5 3/ 7.5
Frozen 5/	19-oz. package (4 potato halves)	3.3	oven (450°F)	3120	1560	2.2	5.5

See footnotes at end of table.

Continued

Table 17--Fuel used during preparation of home-prepared and convenience products--Continued

Product	Size of sample		Appliances used	Fuel used 1/		Cost of fuel used 2/	
	Amount prepared	Servings 2/		Gas	Electricity	Gas	Electricity
			-----Watt-hours-----			-----Cents-----	
			Number				
DAIRY AND EGGS							
Cheese fondue:							
Home-prepared	1 recipe	6.0	range top	430	215	0.3	0.8
Chilled 5/	14-oz. package	4.9	range top	241	120	.2	.4
Whipped cream:							
Fresh, home-prepared	two 8-oz. cartons whipping cream	16.3	hand mixer	--	3	--	3/
Ready whipped, aerosol can	7-oz. can	6.8	--	--	--	--	--
Eggs, scrambled:							
Home-prepared, fresh eggs	6 eggs	3.0	range top	30	15	3/	.1
Frozen cholesterol-free substitute 5/							
.....	two 8-oz. cartons	3.9	range top	64	32	3/	.1
BAKED GOODS AND DESSERTS							
Baking powder biscuits:							
Home-prepared	1 recipe	9.7	oven (450°F)	2100	1050	1.5	3.7
Complete mix	2 cups mix	9.2	oven (450°F)	1980	990	1.4	3.5
Chilled	8-oz. can	5.5	oven (450°F)	1940	970	1.4	3.4
Bread stuffing:							
Home-prepared	1 recipe	3.8	range top	412	206	.3	.7
.....	.....	.....	oven (325°F)	2320	1160	1.7	4.1
.....	.....	.....	total 4/	2732	1366	2.0	4.8

Continued

Table 17--Fuel used during preparation of home-prepared and convenience products--Continued

Product	Size of sample		Appliances used	Fuel used 1/		Cost of fuel used 2/	
	Amount prepared	Servings 2/		Gas	Electricity	Gas	Electricity
-----Watt-hours-----							
-----Cents-----							
BAKED GOODS AND DESSERTS--Continued							
Bread stuffing--Continued							
Incomplete range top mix 5/	6-oz. package	9.9	range top	368	184	0.3	0.6
Bundt cake, fudge:							
Home-prepared	1 cake	12.0	range top	142	71	.1	.2
			oven (350°F)	2420	1210	1.7	4.2
			standard mixer	--	11	--	3/
			total 4/	2562	1292	1.8	4.5
Incomplete mix 5/	23.5-oz. package	9.8	oven (350°F)	2280	1140	1.6	4.0
			standard mixer	--	4	--	3/
			total 4/	2280	1144	1.6	4.0
Cookies, sugar:							
Home-prepared	1 recipe	32.5	oven (375°F)	2480	1240	1.8	4.3
Chilled in roll	18-oz. roll	32.5	oven (375°F)	2260	1130	1.6	4.0
Ready-to-serve	13.5 oz. package	27.8	--	--	--	--	--
Frosting, white, fluffy:							
Home-prepared	1 recipe	24.1	range top	742	371	.5	1.3
			standard mixer	--	12	--	3/
			total 4/	742	383	.5	1.3
Complete mix	7.2-oz. package	17.1	range top	79	40	.1	1.1
			standard mixer	--	10	--	3/
			total 4/	79	50	.1	.2

See footnotes at end of table.

Continued

Table 17--Fuel used during preparation of home-prepared and convenience products--Continued

Product	Size of sample		Appliances used	Fuel used 1/		Cost of fuel used 2/	
	Amount prepared	Servings 2/		Gas	Electricity	Gas	Electricity
			-----Watt-hours-----			-----Cents-----	
			Number				
BAKED GOODS AND DESSERTS--Continued							
Pancakes:							
Home-prepared	1 recipe	2.9	grill	--	315	--	1.1
Incomplete mix	1 cup mix	2.4	grill	--	312	--	1.1
Complete mix	1 cup mix	1.7	grill	--	248	--	.9
Frozen 5/	10.5-oz. package	1.7	oven (400°F)	1540	770	1.1	2.7
Pudding, chocolate:							
Complete mix, cooked	4-oz. package	4.3	range top	282	141	.2	.5
Complete mix, instant	4.5-oz. package	4.7	hand mixer	--	1	--	3/
Canned, individual serving con- tainer 5/	5-oz. can (from 20-oz. carton containing 4 cans)	1.1	--	--	--	--	--
Yeast rolls:							
Home-prepared	1 recipe	24.7	range top oven (400°F) total 4/	11 1860 1871	6 930 936	3/ 1.3 1.3	3/ 3.3 3.3
Complete mix	14.25-oz. package	16.7	oven (400°F)	1840	920	1.3	3.2
Frozen	24-oz. package	18.0	oven (425°F)	1980	990	1.4	3.5
Brown-and-serve	12-oz. package	9.3	oven (450°F)	1880	940	1.3	3.3
Heat-and-serve	8-oz. package	6.9	oven (350°F)	1160	580	.8	2.0

See footnotes at end of table.

Continued

Table 17--Fuel used during preparation of home-prepared and convenience products--Continued

Product	Size of sample		Number	Appliances used		Fuel used 1/		Cost of fuel used 2/	
	Amount prepared	Servings 2/		Gas	Electricity	Gas	Electricity	Gas	Electricity
				Watt-hours					Cents
SOUP									
Split-pea with ham:									
Canned, condensed	11.5-oz. can	2.5		213	range top	106	0.2	0.4	
				--	can opener	1	--	3/	
				213	total 4/	107	.2	3/	.4
Canned, single strength 5/	14.75-oz. can	1.7		106	range top	53	.1	.2	
				--	can opener	1	--	3/	
				106	total 4/	54	.1	3/	.2
Frozen, pouch 5/	8.25-oz. package	1.0		892	range top	446	.6	1.6	
Dried, individually packaged serving (green pea) 5/	1-oz. packet (from 4-oz. box containing four packets)	.9		148	range top	74	.1	.3	
BABY FOODS									
Beef liver:									
Home-prepared	about 1/4 lb. liver	1.0		125	range top	62	.1	.2	
				--	blender	3	--	3/	
				125	total 4/	65	.1	3/	.2
Commercially processed	3.5-oz. jar	1.1		198	range top	99	.1	.4	
Peaches:									
Home-prepared from cooked fresh peaches	1 peach	1.0		483	range top	242	.3	.8	
				--	blender	1	--	3/	
				483	total 4/	243	.3	3/	.9

See footnotes at end of table.

Continued

Table 17--Fuel used during preparation of home-prepared and convenience products--Continued

Product	Size of sample		Number	Appliances used		Fuel used 1/		Cost of fuel used 2/	
	Amount prepared	Servings 2/		Gas	Electricity	Gas	Electricity	Gas	Electricity
-----Watt-hours-----									
-----Cents-----									
BABY FOODS--Continued									
Peaches--Continued									
Home-prepared from canned peaches	2 peach halves	1.4		blender can opener total 4/	--	1	--	--	3/ 3/ 3/
Commercially processed	4.75-oz. jar	1.7	--	--	--	--	--	--	--
Peas:									
Home-prepared from fresh peas	about 5.5 oz. peas in pod	1.0	292	range top blender total 4/	--	146	0.2	--	.5 3/ .5
Home-prepared from frozen peas	about 2/3 cup frozen peas	1.0	188	range top blender total 4/	--	94	.1	--	.3 3/ .3
Home-prepared from canned peas	about one-third 17-oz. can	1.0	113	range top blender can opener total 4/	--	56	.1	--	.2 3/ 3/ .2
Commercially processed	4.75-oz. jar	1.3	200	range top	--	100	.1	--	.4

1/ Fuel values for operation of range top and range oven are expressed in terms of both gas and electricity. For gas, Btu have been converted to watt-hours (3.412 Btu's per watt-hour).

2/ Rounded figures. 3/ Less than 0.05 cent.

4/ Total fuel cost per product is the sum of unrounded cost figures for each appliance. For products in which both gas and electric appliances were used, e.g., gas range top or range oven and an electric mixer, blender, or can opener, the cost of electricity for operation of the electric appliance is included in the total cost of gas since these appliances have no gas-operated counterpart.

5/ New generation convenience food.

6/ Less than 0.5 watt-hour.

7/ Fuel for cooking chicken not included.

8/ Fuel for cooking chicken included.

9/ Fuel for roasting turkey not included.

-- = not applicable.

conventional electric range oven. The difference in cost between using a gas range oven or an electric grill was small. However, the cost of using an electric range oven was two to three times greater than using the grill.

The frozen casserole-type dishes--lasagna, turkey tetrazzini, broccoli au gratin, and green bean casserole--used less total fuel for preparation than their home-prepared versions, even though they required longer baking times in the oven. The difference in the total amount of fuel used was due to range top steps required by the home-prepared foods. Similar steps had already been completed during commercial preparation of convenience products, thus range top fuel was not required.

Canned products usually used less fuel in their preparation than did alternative convenience forms and home-prepared foods. Canned sloppy Joe sauce, chicken salad sandwich spread, butter beans, pork and beans, and whipped cream cost less to prepare than their corresponding home-prepared products; canned ham cost less than fully cooked ham; canned pudding cost less than cooked or instant pudding made from a mix; and canned condensed and canned single-strength split-pea soup cost less than split-pea soup frozen in a pouch.

Of the four forms of soup studied--canned condensed, canned single-strength, dried, and frozen in a pouch--the frozen product required a comparatively large amount of fuel because it had to be heated in more than a quart of boiling water.

The highest fuel cost for baby foods was for fresh peaches which cost nearly 1 cent to cook on an electric range top. When the baby's portion of food had already been cooked and only fuel for blending was required, the cost of fuel for preparing home-prepared baby foods was insignificant. Cooking liver, frozen peas, or canned peas for home-prepared baby food required less fuel than heating the commercial food in a pan of water on the range top because a lower burner setting was used during most of the cooking period for the home-prepared foods.

TIME AND COST OF FOOD PREPARATION

With improved employment opportunities and more equitable wage rates for women, and with many women required to work outside the home, the value of time spent in preparing food has become more significant. The actual time required for food preparation and the value of this time can influence decisions regarding which food forms to purchase. The amount of time and the cost of time spent in preparing convenience foods and their home counterparts were studied.

Procedure

During the preparation of foods to determine their yield, the active and total time for preparation of 43 home-prepared foods and 80 convenience products was measured. "Active" time included all steps that required the full or partial attention of the cook, for example, paring potatoes, measuring ingredients, or browning ground beef. Time for processes like baking was not considered active time since the cook was free for other activities. The time spent boiling water was considered active time if the amount of water used was critical to subsequent food preparation steps and had to be carefully attended, for example, water for cooking rice or vegetables. The time spent in boiling large amounts of water, for example, water used in cooking lasagna noodles, was not considered active time. "Total" time included the time for all steps, active and passive, from the beginning to the end of food preparation.

Timing was started after all ingredients, equipment, and utensils were assembled. Active and total preparation times were recorded in minutes and seconds and converted to the nearest quarter minute. Time for cleanup was not studied.

For several foods tested, two values were determined for both active and total preparation time--one that included preliminary preparation steps and one that did not. For example, in preparing baby food, one timing included cooking and pureeing one serving of food, while a second timing was based on the assumption that the food had already been prepared for the family and the baby's portion needed only to be pureed. Preparation time for commercially prepared baby food liver and peas included heating the food to serving temperature in a small pan of water on the range top.

The cost of active preparation time was computed for all foods tested in the present study and for those foods tested in previous USDA studies (6, 9, 14, 15, 21) for which preparation times were available. Preparation costs were calculated for a total of 80 home-prepared or fresh foods and 135 convenience products.

To reflect differences in the value of time spent in food preparation, two alternative hourly wage rates were used in preparation time computations. The first rate was the average minimum wage for the years 1974-75: \$2.05 per hour or 3.42 cents per minute (28). This wage rate is the minimum pay that homemakers would receive in the open market for their time.

Because cooking skills usually demand a higher wage than the minimum, a second wage--that of a cook--was also selected. Rates compiled by the Bureau of Labor Statistics for 1973 in Philadelphia, San Francisco-Oakland, and Milwaukee (rates not available in New Orleans) were weighted by the average of the 1974-75 average hourly earning index of production or nonsupervisory workers on private nonagricultural payrolls, the category in which cooks are included (29). A mean wage rate of \$4.73 per hour or 7.88 cents per minute was computed.

Because many home recipes and fresh foods yielded a greater number of servings than their convenience counterpart(s), preparation costs were reported on a per serving basis as well as for the total amount of food prepared.

Results

The labor cost for preparing 3 of 80 fresh or home-prepared items--chicken chow mein, crabcakes, and baby food made from fresh peas--was over \$1 per serving based on a cook's wage, but only about half as much based on the minimum wage (table 18). The labor cost of 15 home-prepared items was \$0.50 to \$1 per serving based on a cook's wage; two-thirds of these foods were in the fish and vegetable categories. Based on the minimum wage, preparation costs were greater than food costs for over one-third of the home-prepared foods; using a cook's wage, preparation costs exceeded food costs for over two-thirds of the foods. For convenience foods, the home preparation cost was less than half the food cost for nearly seven-eighths and about two-thirds of the foods, based on the minimum and cook's wages, respectively.

Convenience products having the highest labor cost per serving (either wage basis) included fried breaded shrimp prepared from raw, peeled, deveined frozen shrimp, sweet and sour pork prepared from a sauce and glaze mix, hash-browned potatoes made from a dehydrated mix, and frozen potato patties. Labor costs for these foods ranged from \$0.41 to \$0.38 per serving based on the cook's rate; the minimum wage cost for these foods was about \$0.17.

In most instances, the home labor cost of preparing convenience products was appreciably lower than that for preparing foods from a recipe. For some convenience items, however, like parboiled rice and scrambled eggs prepared from the cholesterol-free egg substitute, the labor cost was slightly more than that of the fresh or home-prepared food. Parboiled rice required more water for cooking than long-grain rice, so the time necessary for the water to boil before adding the rice was slightly longer. Scrambled eggs from cholesterol-free egg substitute required a longer time to set during cooking than did fresh eggs.

From the standpoint of both labor cost and total time required for preparation, canned goods usually offered a considerable advantage over the fresh or home-prepared food. The market wage labor cost of preparing most canned foods was less than 2 cent per serving. Two canned shellfish products--crabmeat and shrimp--had higher labor costs than most other canned foods: the canned crabmeat required cartilage pieces to be removed and the canned shrimp required sand veins to be removed. Heating canned pork and beans rather than preparing pork and beans from a recipe represented the greatest savings in total preparation time--over 3 hours. Other canned products save between 1 and 3 hours of total preparation time compared with their home-prepared counterparts: diced plain and Harvard beets, spaghetti in tomato sauce, strawberries chicken chow mein, chicken salad sandwich spread, butter beans, and beef stew.

Ninety-four percent of the frozen products had a lower labor cost (either wage basis) than their fresh or home-prepared counterpart, but some frozen items required more total time for preparation. For example, broccoli spears with butter sauce frozen in a pouch required a slightly longer total preparation time than did fresh

Table 18--Preparation time and cost of active preparation time for home-prepared and convenience products

Product	Size of sample		Preparation time 1/		Cost of active preparation time	
	Amount prepared	Servings 1/	Active	Total	Total 1/	Per serving 2/
			Hours	Minutes	Hours	Minutes
			Number	Hours	Minutes	Minutes
BEEF						
Chili-macaroni, skillet main dish:						
Home-prepared 5/	1 recipe	6.0	0	15-1/4	0	35-1/4
Mix 5/ 6/	7.25-oz. package	5.0	0	9-3/4	0	25
Dinner:						
Frozen 7/	11-oz. package	1.0	0	1/2	0	30-1/2
Lasagna:						
Home-prepared 5/	1 recipe	10.0	0	28	1	46
Frozen 5/ 6/	12-oz. package	1.2	0	1	0	51
Lasagna, skillet main dish:						
Home-prepared 5/	1 recipe	6.0	0	17-1/4	0	42
Mix 5/ 6/	7.75-oz. package	5.3	0	10-1/4	0	36
Patties, all beef:						
Home-prepared 5/	1.5 lb. ground beef	6.0	0	7-1/4	0	17-1/4
Frozen, raw 7/	8-oz. package	1.6	0	3-1/2	0	12-1/2
Patties, soy protein added to ground beef:						
Added at home 5/	1-lb. ground beef and one packet (1/4 package) soy protein	6.6	0	7	0	19-1/2
Added at store 5/ 6/	1.5-lb. soy-beef blend	7.0	0	8-1/4	0	18-1/4

-----Cents-----

Table 18--Preparation time and cost of active preparation time for home-prepared and convenience products--Continued

Product	Size of sample		Preparation time 1/		Cost of active preparation time					
	Amount prepared	Servings 1/	Active	Total	Total	Per serving 2/				
			Hours	Minutes	Hours	Minutes				
		Number	Hours	Minutes	Hours	Minutes				
BEEF--Continued										
Pie:										
Frozen 5/	8-oz. package	1.0	0	1/4	0	30-1/4	0.9	2.0	0.9	2.0
Sloppy Joe sandwich sauce:										
Home-prepared 5/	1 recipe	7.7	0	5	0	18-3/4	17.1	39.4	2.2	5.1
Canned 5/ 6/	15.25-oz. can	5.4	0	2-3/4	0	7-3/4	9.4	21.7	1.7	4.0
Stew:										
Home-prepared 7/	1 recipe	6.3	0	47	2	57	160.7	370.4	25.5	58.8
Canned 7/	24-oz. can	2.8	0	1	0	13	3.4	7.9	1.2	2.8
Stroganoff, skillet main dish:										
Home-prepared 5/	1 recipe	4.4	0	10-3/4	0	30	36.8	84.7	8.3	19.1
Mix 5/ 6/	17.25-oz. package	4.8	0	7-3/4	0	15	26.5	61.1	5.6	12.8
Meat loaf dinner:										
Frozen 5/	11-oz. package	1.0	0	1/2	0	30-1/2	1.7	3.9	1.7	3.9
PORK										
Ham, cured:										
Fully cooked 5/	Shank half (about 6.75 lb.)	23.9	0	1/2	3	4	1.7	3.9	.1	.2
Canned 5/	5-lb. can	28.4	0	1	2	6-1/4	3.4	7.9	.1	.3
Sweet and sour pork:										
Home-prepared 5/	1 recipe	5.8	0	31	1	2-3/4	106.0	244.3	18.3	42.1
Frozen, pouch 5/ 6/	14-oz. package	2.4	0	1-1/4	0	34-1/2	4.3	9.8	1.8	4.2

See footnotes at end of table.

Continued

Table 18--Preparation time and cost of active preparation time for home-prepared and convenience products--Continued

Product	Size of sample		Preparation time 1/				Cost of active preparation time			
	Amount prepared	Servings 1/	Active	Hours	Minutes	Total	Minimum:Market wage : rate 3/	Market wage : rate 4/	Per serving 2/	
			Number	Hours	Minutes	Hours	Minutes	Cents		
PORK--Continued										
Sweet and sour pork--Cont.										
Sauce and glaze mix 5/ 6/	19-oz. package	4.9	0	24-3/4	0	29-1/2	84.6	195.0	17.4	40.1
Sausage:										
Frozen, link, precooked 7/	8-oz. package	3.2	0	5-1/4	0	5-1/4	18.0	41.4	5.6	12.9
POULTRY										
Chicken:										
A la king:										
Home-prepared 5/	1 recipe	8.4	0	8/ 20-1/2	0	8/ 28-1/4	70.1	161.5	8.4	19.3
Frozen, pouch 5/ 6/	5-oz. package	.9	0	9/ 25-3/4	9/ 2	1	88.1	202.9	10.5	24.3
				3	0	23-3/4	10.3	23.6	11.2	25.7
Braised, whole:										
Canned, without giblets 7/	52-oz. can	7.0	0	1/4	0	1/4	.9	2.0	.1	.3
Chow mein:										
Home-prepared 7/	1 recipe	3.9	0	8/ 39-3/4	8/ 1	26-1/2	135.9	313.2	34.9	80.3
Canned 5/	16-oz. can	2.9	0	9/ 54-1/4	9/ 3	13-1/2	185.5	427.5	47.6	109.6
Frozen 7/	20-oz. package	3.6	0	1-1/4	0	11-1/4	4.3	9.8	1.5	3.4
				2-3/4	0	26	9.4	21.7	2.6	6.0
Fried, flour coated:										
Home-prepared, whole 7/	1 chicken	7.6	0	12	0	51	41.0	94.6	5.4	12.4

See footnotes at end of table.

Continued

Table 18--Preparation time and cost of active preparation time for home-prepared and convenience products--Continued

Product	Amount prepared	Servings	Preparation time 1/		Cost of active preparation time		
			Active	Total	Total 1/	Per serving 2/	
		1/	Minutes	Hours	Minutes	Minimum:Market wage: rate 3/; rate 4/	Minimum:Market wage: rate 3/; rate 4/
		Number	Hours	Minutes	Hours	Minutes	Cents
POULTRY--Continued							
Chicken--Continued							
Fried, batter dipped:							
Home-prepared 5/	1 chicken	8.7	0	27	0	57	92.3 212.8 10.6 24.5
Frozen, prefried 7/	20-oz. package	4.2	0	5-1/4	0	34-1/2	18.0 41.4 4.3 9.8
Fried, dinner:							
Frozen 5/	11-oz. package	1.0	0	1-1/2	0	30	5.1 11.8 5.1 11.8
Meat:							
Canned, boned, in broth 7/	5-oz. can	1.7	0	1	0	1	3.4 7.9 2.0 4.6
Pie:							
Frozen 7/	8-oz. package	1.0	0	1-1/2	0	31-1/2	5.1 11.8 5.1 11.8
Salad, sandwich spread:							
Home-prepared 5/	1 recipe	10.0	0	8/ 16-1/2	0	8/ 16-1/2	56.4 130.0 5.7 13.1
Canned 5/ 6/	7.5-oz. carton	3.0	0	9/ 22-3/4	9/ 1	49-3/4	77.8 179.3 7.8 18.0
				1/4	0	1/4	.9 2.0 .3 .7
Turkey:							
Dinner:							
Frozen 7/	12-oz. package	1.0	0	3/4	0	33-1/4	2.6 5.9 2.6 5.9
Tetrazzini:							
Home-prepared 5/	1 recipe	6.7	0	10/ 21-1/2	10/ 1	18	73.5 169.4 11.0 25.4
Frozen 5/ 6/	12-oz. package	1.4	0	1/2	0	40-1/2	1.7 3.9 1.2 2.7

Table 18--Preparation time and cost of active preparation time for home-prepared and convenience products--Continued

Product	Size of sample		Preparation time 1/		Cost of active preparation time		
	Amount prepared	Servings 1/	Active	Total	Total 1/	Per serving 2/	
			Hours	Minutes	Hours	Minutes	
FINFISH AND SHELLFISH							
Finfish:							
Pollack fish sticks:							
Home-prepared 5/	1 recipe	6.7	0	17	0	22-3/4	
Frozen 5/	16-oz. package	6.0	0	1/2	0	14-1/2	
Haddock, dinner:							
Home-prepared 7/	4 dinners	3.9	0	35-3/4	3	22-1/4	
Frozen 7/	three 12-oz. packages	3.0	0	4-1/4	0	29-1/4	
Tuna noodle casserole:							
Home-prepared 5/	1 recipe	4.5	0	18	0	49-1/4	
Frozen 5/ 6/	11.5-oz. package	1.4	0	3/4	0	40-3/4	
Skillet main dish mix 5/							
6/	8.75-oz. package	5.1	0	11-1/2	0	30-3/4	
Shellfish:							
Crabcakes:							
Home-prepared 7/	1 recipe	6.2	1	20-3/4	1	31	
Frozen 7/	three 6-oz. packages	6.0	0	3-1/2	0	18	
Crab, deviled:							
Home-prepared 7/	1 recipe	8.5	1	6-1/2	1	44-3/4	
Frozen 7/	three 6-oz. packages	6.0	0	2-1/2	0	23	
					227.4	524.0	26.8
					8.6	19.7	1.4
					39.3	90.6	7.7
					276.2	636.3	44.5
					12.0	27.6	2.0
					61.6	141.8	13.7
					2.6	5.9	1.8
					122.3	281.7	31.4
					14.5	33.5	4.8
					58.1	134.0	8.6
					1.7	3.9	.3
					19.9		.7
					72.2		
					11.2		
					31.6		
					4.2		
					17.7		
					102.6		
					4.6		
					61.6		
					3.3		

See footnotes at end of table.

Continued

Table 18--Preparation time and cost of active preparation time for home-prepared and convenience products--Continued

Product	Size of sample	Preparation time 1/		Cost of active preparation time				
		Amount prepared	Servings 1/	Active	Total	Minimum wage rate 3/	Market wage rate 4/	Per serving 2/
		Number	Hours	Minutes	Hours	Minutes	Cents	
FINFISH AND SHELLFISH--Cont.								
Shellfish--Continued								
Crabmeat:								
Fresh, cooked, chilled 5/	12-oz. container	6.2	0	19	0	19	65.0	10.5
	two 6.5-oz. cans	4.6	0	17	0	17	58.1	12.6
Shrimp, cooked:								
Home-prepared 7/	1 pound	4.4	0	31-1/4	0	45-3/4	106.9	24.3
Canned 7/	two 4.5-oz. cans	4.0	0	16-1/4	0	16-1/4	55.6	13.9
Frozen, partly prepared 7/	two 7-oz. packages	4.1	0	4-3/4	0	20-3/4	16.2	4.0
Shrimp, breaded, fried:								
Home-prepared 7/	1 lb. shrimp	5.2	0	40	0	50	136.8	26.3
Frozen, raw, partly prepared, unbreaded 7/	two 7-oz. packages	5.2	0	27-1/4	0	43-1/2	93.2	17.9
Frozen, partly prepared, breaded 7/	16-oz. package	5.4	0	6-3/4	0	20	23.1	4.3
Frozen, breaded, prefried 7/	two 6-oz. packages	4.0	0	3-1/4	0	18-1/2	11.1	2.8
Frozen, minced, extruded, breaded, prefried 5/	16-oz. package	5.8	0	1-3/4	0	13-3/4	6.0	1.0
Shrimp newburg:								
Home-prepared 5/	1 recipe	6.0	0	15	0	25-1/2	51.3	8.6
Frozen, pouch 5/ 6/	6.5-oz. package	1.6	0	1-1/2	0	24	5.1	3.3

See footnotes at end of table.

Continued

Table 18--Preparation time and cost of active preparation time for home-prepared and convenience products--Continued

Product	Size of sample		Preparation time 1/		Cost of active preparation time								
	Amount prepared	Servings 1/	Active	Total	Number	Hours	Minutes	Hours	Minutes	Total 1/	Minimum:Market wage : rate 3/	Minimum:Market wage : rate 4/	Per serving 2/
FINFISH AND SHELLFISH--Cont.													
Shellfish--Continued													
Shrimp creole:													
Home-prepared 7/	1 recipe	6.6	0	58-3/4	1	35-1/2	200.9	463.0	30.4	70.1			
Frozen 7/	three 8-oz. packages	3.0	0	2-1/4	0	24-1/4	7.7	17.7	2.6	5.9			
PIZZA													
Home-prepared 7/	1 pizza	2.6	0	29-3/4	0	46	101.7	234.4	39.1	90.2			
Chilled 5/	9-oz. package	1.1	0	1/4	0	10-1/4	.9	2.0	.8	1.8			
Mix 5/	15.38-oz. package	1.9	0	5	0	29	17.1	39.4	9.0	20.7			
Frozen 5/	13.5-oz. package	1.6	0	1/2	0	13-1/2	1.7	3.9	1.1	2.5			
Frozen, appetizer 5/ 6/	7.25-oz. package	.9	0	3/4	0	10-3/4	2.6	5.9	3.0	6.9			
RICE													
Regular, long grain 5/	1 cup rice	6.2	0	3-1/4	0	23-1/2	11.1	25.6	1.8	4.1			
Parboiled (converted) 5/	1 cup rice	6.2	0	4-1/2	0	28-1/2	15.4	35.5	2.5	5.7			
Precooked (instant) 5/	7-oz. box	7.0	0	3-3/4	0	8-3/4	12.8	29.6	1.8	4.2			
SPAGHETTI WITH TOMATO SAUCE													
Home-prepared 7/	1 recipe	6.4	0	24-1/4	1	25-3/4	82.9	191.1	13.0	29.9			
Canned 7/	15.2-oz. can	1.7	0	1-1/4	0	11-1/4	4.3	9.8	2.5	5.8			
Mix 7/	8-oz. package	4.2	0	11-3/4	0	35	40.2	92.6	9.6	22.0			

See footnotes at end of table.

Continued

Table 18--Preparation time and cost of active preparation time for home-prepared and convenience products--Continued

Product	Size of sample		Preparation time 1/		Cost of active preparation time	
	Amount prepared	Servings 1/	Active	Total	Minimum:Market wage : rate 3/:rate 4/	Per serving 2/
	Number	Hours	Minutes	Hours	Minutes	Cents
VEGETABLES						
Asparagus spears:						
Fresh 7/	3.6	0	6-1/4	0	21-1/2	21.4 49.2 5.9 13.7
Frozen 7/	4.5	0	4-3/4	0	12-1/2	16.2 37.4 3.6 8.3
package						
Canned 7/	4.4	0	1/2	0	7	1.7 3.9 .4 .9
can						
Beets:						
Fresh 7/	2.7	0	14-1/2	1	19-1/2	49.6 114.3 18.4 42.3
1 lb. with tops						
Canned, diced, plain 7/	3.3	0	3/4	0	7-3/4	2.6 5.9 .8 1.8
glass jar						
Canned, diced, Harvard 7/	5.4	0	1-1/4	0	4-1/2	4.3 9.8 .8 1.8
16-oz. glass jar						
Broccoli spears:						
Fresh 7/	3.4	0	16-1/2	0	32-1/4	56.4 130.0 16.6 38.2
Frozen 7/	2.7	0	4-3/4	0	17-1/4	16.2 37.4 6.0 13.9
package						
Frozen, pouch, butter sauce 5/	2.4	0	4-1/2	0	35-3/4	15.4 35.5 6.4 14.8
package						
Broccoli spears au gratin:						
Home-prepared 5/	6.0	0	23	0	47-1/4	78.7 181.2 13.1 30.2
Frozen 5/ 6/	1.9	0	3/4	0	40-1/2	2.6 5.9 1.3 3.1
package						
Broccoli spears with hollandaise sauce:						
Home-prepared 5/	5.6	0	32-3/4	0	33-1/4	112.0 258.1 19.9 45.9
Frozen, with sauce packet 5/ 6/	2.2	0	7-1/4	0	13-1/4	24.8 57.1 11.3 26.0

See footnotes at end of table.

Continued

Table 18--Preparation time and cost of active preparation time for home-prepared and convenience products--Continued

Product	Size of sample		Preparation time 1/		Cost of active preparation time	
	Amount prepared	Servings 1/	Active	Total	Total 1/	Per serving 2/
			Hours	Minutes	Hours	Minutes
VEGETABLES--Continued						
Brussels sprouts:						
Fresh 7/	1 lb.	4.7	0	9-3/4	0	26
Frozen 7/	10-oz. package	3.6	0	5	0	18-1/4
Butter beans:						
Home-prepared 5/	1 cup dry beans	4.9	0	7	2	6
Canned 5/	two 15-oz. cans	5.1	0	1-1/4	0	15-3/4
Carrots:						
Fresh 7/	1 lb.	4.2	0	12-1/4	0	36-1/4
Canned, sliced 7/	16-oz. can	3.8	0	1/2	0	7-1/2
Canned, diced 7/	16-oz. glass jar	4.0	0	1-1/4	0	7-3/4
Corn, cut:						
Fresh 7/	6 ears	7.5	0	31-1/4	0	46-1/4
Frozen 7/	10-oz. package	3.3	0	6-1/2	0	12-1/2
Canned 7/	16-oz. can	3.6	0	3/4	0	7-3/4
Corn-on-the-cob:						
Fresh 7/	6 ears	6.0	0	23-1/4	0	38-1/4
Frozen 7/	16-oz. package	2.5	0	6-1/2	1	39-1/2
Green beans, cut:						
Fresh 7/	1 lb.	6.5	0	18-1/2	0	34-1/4
Frozen 5/	two 9-oz. packages	8.0	0	6	0	14-1/4
Frozen, bulk bag 5/ 6/	one-half 20-oz. bag	4.3	0	8	0	17-3/4

See footnotes at end of table.

Continued

Table 18--Preparation time and cost of active preparation time for home-prepared and convenience products--Continued

Product	Size of sample		Preparation time 1/		Cost of active preparation time	
	Amount prepared	Servings 1/	Active	Total	Total 1/	Per serving 2/
			Hours	Minutes	Hours	Minutes
VEGETABLES--Continued						
Green beans, cut--Continued						
Canned 5/	two 16-oz. cans	7.0	0	1/4	0	11-1/4
					0.9	2.0
Green bean casserole:						
Home-prepared 5/	1 recipe	6.8	0	15	0	56-1/4
Frozen 5/ 6/	9.5-oz. package	2.2	0	3/4	0	40-3/4
					51.3	118.2
					2.6	5.9
Green peas:						
Fresh 7/	1 lb.	2.1	0	11-3/4	0	26
Frozen 7/	10-oz. package	3.1	0	5	0	15
Canned 7/	16-oz. can	3.5	0	1/2	0	12-1/2
					1.7	3.9
					40.2	92.6
					17.1	39.4
Hawaiian-style:						
Home-prepared 5/	1 recipe	5.0	0	17-1/2	0	27
Frozen 5/ 6/	10-oz. package	2.8	0	4-1/4	0	7-1/4
					59.8	137.9
					14.5	33.5
Lima beans:						
Fresh 7/	1 lb.	2.0	0	15	0	41-1/4
Frozen 7/	10-oz. package	3.5	0	5-1/2	0	17-1/2
Canned 7/	17-oz. can	3.5	0	1/2	0	10-1/2
					1.7	3.9
					51.3	118.2
					18.8	43.3
Pork and beans:						
Home-prepared 5/	1 recipe	4.6	0	15-3/4	3	30
Canned 5/	two 16-oz. cans	4.6	0	3-1/4	0	8-1/4
					53.9	124.1
					11.1	25.6
Potatoes, au gratin:						
Fresh 7/	1 lb.	7.0	0	32	0	96
Frozen 5/	11.5-oz. package	2.5	0	1/4	0	45-1/4
					109.4	252.2
					.9	2.0
					15.6	36.0
					.3	.8

Continued

See footnotes at end of table.

Table 18--Preparation time and cost of active preparation time for home-prepared and convenience products--Continued

Product	Amount prepared	Servings 1/	Size of sample	Preparation time 1/			Cost of active preparation time				
				Active	Hours	Minutes	Total 1/	Minimum:Market wage : rate 3/	Minimum:Market wage : rate 4/	Per serving 2/	
			Number	Hours	Minutes	Hours	Minutes	Cents			
VEGETABLES--Continued											
Potatoes, au gratin--Cont.											
Dehydrated 5/	5.5-oz. package	5.7	5.7	0	5	0	40	17.1	39.4	3.0	6.9
Potatoes, boiled, whole:											
Fresh 7/	1 lb.	3.4	3.4	0	14	0	44	47.9	110.3	14.1	32.4
Canned 7/	15-oz. can	2.4	2.4	0	7	0	10	23.9	55.2	10.0	23.0
Potatoes, french fried:											
Home-prepared 7/	1 lb.	3.8	3.8	0	23	0	23	78.7	181.2	20.7	47.7
Frozen 7/	9-oz. package	3.2	3.2	0	2-1/2	0	20-1/2	8.6	19.7	2.7	6.2
Potatoes, hash-browned:											
Home-prepared 7/	1 lb.	3.6	3.6	0	11/ 41	0	11/ 79	140.2	323.1	39.0	89.7
Dehydrated 7/	one-half 9-oz. package	4.2	4.2	0	12/ 27	0	12/ 27	92.3	212.8	25.6	59.1
Potatoes, mashed:											
Home-prepared 5/	6 potatoes	8.8	8.8	0	12	0	35	41.0	94.6	4.7	10.7
Dehydrated 7/	one-half 7-oz. package	5.6	5.6	0	8	0	8	27.4	63.0	4.9	11.3
Potatoes, patties:											
Home-prepared 7/	1 lb.	4.1	4.1	0	51	1	15	174.4	401.9	42.5	98.0
Frozen 7/	12-oz. package	3.7	3.7	0	18	0	18	61.6	141.8	16.6	38.3
Potatoes, puffs:											
Home-prepared 7/	1 lb.	7.0	7.0	0	13/ 55	1	26	188.1	433.4	26.9	61.9
Frozen 7/	8-oz. package	3.1	3.1	0	14/ 42	0	14/ 42	143.6	331.0	20.5	47.3
				0	3	0	17	10.3	23.6	3.3	7.6

Continued

See footnote at end of table

Table 18--Preparation time and cost of active preparation time for home-prepared and convenience products--Continued

Product	Size of sample		Preparation time 1/		Cost of active preparation time	
	Amount prepared	Servings 1/	Active	Total	Total 1/	Per serving 2/
			Hours	Minutes	Hours	Minutes
		Number	Hours	Minutes	Hours	Minutes
						Cents
VEGETABLES--Continued:						
Potatoes, scalloped:						
Home-prepared 7/	1 lb.	4.8	0	19	1	19
Dehydrated 7/	4.5-oz. package	5.7	0	8	0	45-1/2
						65.0 149.7 13.5 31.2
						27.4 63.0 4.8 11.1
Potatoes, stuffed, sour cream and chives:						
Home-prepared 5/	6 medium potatoes	6.0	0	15-1/2	1	28-1/2
Frozen 5/ 6/	19-oz. package (4 potato halves)	3.3	0	3/4	0	40-3/4
						53.0 122.1 8.8 20.4
						2.6 5.9 .8 1.8
Spinach:						
Fresh 7/	1 lb.	2.8	0	18-1/2	0	24-3/4
Frozen 7/	10-oz. package	2.3	0	5	0	13-1/2
Canned 7/	15-oz. can	2.3	0	1-1/2	0	13
						63.3 145.8 22.6 52.1
						17.1 39.4 7.4 17.1
FRUITS						
Cherries, red sour, pitted:						
Fresh 7/	quart basket	4.6	0	38-1/4	0	38-1/4
Canned 7/	16-oz. can	3.0	0	1/4	0	1/4
						.9 2.0 .3 .7
Cranberry sauce, strained:						
Fresh 7/	16-oz. cellophane package	12.6	0	15-1/2	0	30-1/2
Canned 7/	16-oz. can	6.8	0	1/4	0	1/4
						53.0 122.1 4.2 9.7
						.9 2.0 .1 .3

Continued

See footnotes at end of table.

Table 18--Preparation time and cost of active preparation time for home-prepared and convenience products--Continued

Product	Size of sample		Preparation time 1/				Cost of active preparation time				
	Amount prepared	Servings 1/	Active	Total	Hours	Minutes	Hours	Minutes	Total 1/	Minimum:Market wage : rate 3/ : rate 4/	Per serving 2/
	Number		Hours	Minutes	Hours	Minutes	Hours	Minutes			Cents
FRUITS--Continued											
Cranberry sauce, whole:											
Fresh 7/	16.6		0	12	0	27			41.0	94.6	2.5 5.7
Canned 7/	6.8		0	1/4	0	1/4			.9	2.0	.1 .3
Grapefruit sections:											
Fresh 7/	2.8		0	8	0	8			27.4	63.0	9.8 22.5
Canned 7/	2.9		0	1/4	0	1/4			.9	2.0	.3 .7
Lemon juice:											
Fresh, home-prepared 7/	1.3		0	1-1/4	0	1-1/4			4.3	9.8	3.3 7.6
In plastic container 7/	2.6		0	3-1/4	0	3-1/4			11.1	25.6	4.3 9.8
In bottle 7/	8.0		0	1/4	0	1/4			.9	2.0	.1 .2
Orange juice:											
Fresh, home-prepared 5/	8.9		0	11-1/2	0	11-1/2			39.3	90.6	4.4 10.2
Bottled, pasteurized 5/	8.0		0	<1/4	0	<1/4			.9	2.0	.1 .2
Canned 5/	4.6		0	1/4	0	1/4			.9	2.0	.2 .4
Frozen concentrate 5/	6.5		0	1-3/4	0	1-3/4			6.0	13.8	.9 2.1
Orange drink (synthetic):											
Frozen concentrate 5/ 6/	12.2		0	2-1/2	0	2-1/2			8.6	19.7	.7 1.6
Crystals 5/ 6/	8.7		0	1-1/4	0	1-1/4			4.3	9.8	.5 1.1

See footnotes at end of table.

Table 18--Preparation time and cost of active preparation time for home-prepared and convenience products--Continued

Product	Size of sample	Preparation time 1/		Cost of active preparation time						
		Amount prepared	Servings 1/	Active	Total	Minimum:Market wage : rate 3/	Market wage : rate 4/	Minimum:Market wage : rate 3/	Market wage : rate 4/	
		Number	Hours	Minutes	Hours	Minutes	Cent	Cent	Cent	Cent
FRUITS--Continued										
Peaches:										
Fresh 7/	15.7-oz.	3.6	0	9-3/4	0	9-3/4	33.3	76.8	9.3	21.3
Canned, halves 7/	30-oz. can	4.6	0	1/4	0	1/4	.9	2.0	.2	.4
Canned, diced, individual serving container 5/	5-oz. can (from 20-oz. carton containing 4 cans)	.8	0	1/4	0	1/4	.9	2.0	1.1	2.5
Frozen 7/	10-oz. package	1.6	0	3/4	0	15/ 50-3/4	2.6	5.9	1.6	3.7
Pineapple chunks:										
Fresh 7/	1 pineapple	5.3	0	8-1/4	0	8-1/4	28.2	65.0	5.3	12.3
Canned 7/	20.5-oz. can	4.3	0	1/4	0	1/4	.9	2.0	.2	.5
Raspberries, red:										
Fresh 7/	pint basket	4.3	0	7-1/4	0	7-1/4	24.8	57.1	5.8	13.3
Canned 7/	17-oz. can	2.6	0	1/4	0	1/4	.9	2.0	.3	.8
Strawberries, sweetened:										
Fresh 5/	1 quart fresh berries	6.4	0	10	1	15	34.2	78.8	5.3	12.2
Canned 5/	16-oz. can	1.6	0	1/4	0	1/4	.9	2.0	.5	1.2
Frozen, sliced 5/	10-oz. carton	1.4	0	1/4	0	15/ 30-1/4	.9	2.0	.6	1.4
Frozen, sliced, pouch 5/ 6/	10-oz. package	1.7	0	3/4	0	15/ 10-1/4	2.6	5.9	1.5	3.5
Frozen, whole 5/	16-oz. tub	2.3	0	1/4	0	15/ 60-1/4	.9	2.0	.4	.9
Frozen, whole, bulk bag (sugar added at home) 5/6/	20-oz. bag	5.0	0	1-1/4	0	15/ 61-1/2	4.3	9.8	.9	2.0

See footnotes at end of table.

Continued

Table 18--Preparation time and cost of active preparation time for home-prepared and convenience products--Continued

Product	Size of sample	Preparation time 1/		Cost of active preparation time					
		Amount prepared	Servings 1/	Active	Total	Minimum:Market wage : rate 3/	Minimum:Market wage : rate 4/	Per serving 2/	
	Number	Hours	Minutes	Hours	Minutes	-----Cents-----			
DAIRY AND EGGS									
Chesse fondue:									
Home-prepared 5/	6.0	0	13	0	13	44.5	102.4	7.4	17.1
Chilled 5/ 6/	4.9	0	6-1/2	0	6-1/2	22.2	51.2	4.5	10.5
Whipped cream:									
Fresh, home-prepared 5/	16.3	0	2-1/2	0	2-1/2	8.6	19.7	.5	1.2
Ready whipped, aerosol can 5/	6.8	0	1/2	0	1/2	1.7	3.9	.3	.6
Eggs, scrambled:									
Home-prepared, fresh eggs 5/	3.0	0	5	0	5	17.1	39.4	5.7	13.1
Frozen cholesterol-free substitute 5/ 6/	3.9	0	8-1/4	0	16/ 8-1/4	28.2	65.0	7.2	16.5
BAKED GOODS AND DESSERTS									
Baking powder biscuits:									
Home-prepared 5/	9.7	0	8-1/2	0	22-1/2	29.1	67.0	3.0	6.9
Complete mix 5/	9.2	0	6-3/4	0	18-1/2	23.1	53.2	2.5	5.8
Chilled 5/	5.5	0	1	0	11-3/4	3.4	7.9	.6	1.4
Bread stuffing:									
Home-prepared 5/	3.8	0	15-1/2	1	21-3/4	53.0	122.1	14.1	32.6
Incomplete range-top mix 5/ 6/	9.9	0	7	0	18	23.9	55.2	2.4	5.6

See footnotes at end of table.

Table 18--Preparation time and cost of active preparation time for home-prepared and convenience products--Continued

Product	Size of sample		Preparation time 1/		Cost of active preparation time	
	Amount prepared	Servings 1/	Active	Total	Total 1/	Per serving 2/
	Number	Hours	Minutes	Hours	Minutes	Cents
BAKED GOODS AND DESSERTS--Cont.						
Bundt cake, fudge:						
Home-prepared 5/	12.0	0	26-1/4	1	57-1/4	89.8 206.8 7.5 17.2
Incomplete mix 5/ 6/	9.8	0	14	1	56-3/4	47.9 110.3 4.9 11.3
Sugar cookies:						
Home-prepared 5/	32.5	0	23-1/4	2	55-3/4	79.5 183.2 2.4 5.6
Chilled in roll 5/	32.5	0	4-1/2	0	40-3/4	15.4 35.5 .5 1.1
Ready-to-serve 5/	27.8	0	1/4	0	1/4	.9 2.0 0 .1
White frosting, fluffy:						
Home-prepared 5/	24.1	0	9-3/4	0	9-3/4	33.3 76.8 1.4 3.2
Complete mix 5/	17.1	0	7-3/4	0	7-3/4	26.5 61.1 1.5 3.6
Pancakes:						
Home-prepared 5/	2.9	0	9	0	19-1/2	30.8 70.9 10.6 24.5
Incomplete mix 5/	2.4	0	6-1/4	0	17	21.4 49.2 8.9 20.5
Complete mix 5/	1.7	0	4-1/4	0	10-1/2	14.5 33.5 8.6 19.7
Frozen 5/ 6/	1.7	0	1/2	0	8-1/2	1.7 3.9 1.0 2.3
Pudding, chocolate:						
Complete mix, cooked 5/	4.3	0	7	17/ 4	7	23.9 55.2 5.6 12.8
Complete mix, instant 5/	4.7	0	3-1/2	0	8-1/2	12.0 27.6 2.5 5.9
Canned, individual serving container 5/ 6/	1.1	0	1/4	0	1/4	.9 2.0 .8 1.8

See footnotes at end of table.

Table 18--Preparation time and cost of active preparation time for home-prepared and convenience products--Continued

Product	Size of sample	Preparation time 1/				Cost of active preparation time				
		Amount prepared		Active	Total	Total 1/	Per serving 2/			
		Servings	1/				Minimum:Market : wage : rate 3/	Minimum:Market : wage : rate 4/	Market : wage : rate 3/	Market : wage : rate 4/
Number	Hours	Minutes	Hours	Minutes	-----Cents-----					
BAKED GOODS AND DESSERTS--Cont.										
Yeast rolls:										
Home-prepared 5/	1 recipe	24.7	0	38	3	5	130.0	299.4	5.3	12.1
Complete mix 5/	14.25-oz. package	16.7	0	12-3/4	1	58-3/4	43.6	100.5	2.6	6.0
Frozen 5/	24-oz. package	18.0	0	1-3/4	1	47-1/4	6.0	13.8	.3	.8
Brown-and-serve 5/										
	12-oz. package	9.3	0	3/4	0	10	2.6	5.9	.3	.6
Heat-and-serve 5/										
	8-oz. package	6.9	0	1/4	0	4-1/4	.9	2.0	.1	.3
SOUP										
Split-pea, with ham:										
Canned, condensed 5/	11.5-oz. can	2.5	0	5-1/2	0	11-1/2	18.8	43.3	7.5	17.2
Canned, single strength 5/										
6/	14.75-oz. can	1.7	0	2-3/4	0	7-3/4	9.4	21.7	5.6	13.0
Frozen, pouch 5/ 6/										
	8.25-oz. package	1.0	0	1-3/4	0	28-1/2	6.0	13.8	6.0	13.9
Dried, individually pack-										
aged serving (green pea)										
5/ 6/	1-oz. packet (from 4-oz. box containing 4 packets)	.9	0	2	0	4	6.8	15.8	7.8	17.9

See footnotes at end of table.

Table 18--Preparation time and cost of active preparation time for home-prepared and convenience products--Continued

Product	Size of sample		Preparation time 1/		Cost of active preparation time	
	Amount prepared	Servings 1/	Active	Total	Minimum:Market wage : rate 3/:rate 4/	Total 1/ : Per serving 2/
	Number	Hours	Minutes	Hours	Minutes	Cents
BABY FOODS						
Beef liver:						
Home-prepared 5/	1.0	0	18/ 7-3/4	0	18/ 12-3/4	26.5 61.1 26.5 61.1
Commercially processed 5/	1.1	0	19/ 4-1/2	0	19/ 4-1/2	15.4 35.5 15.4 35.5
			1/2	0	4-1/4	1.7 3.9 1.6 3.7
Peaches:						
Home-prepared from cooked fresh peaches 5/	1.0	0	18/ 7	0	18/ 17	23.9 55.2 23.9 55.2
Home-prepared from canned peaches 5/	1.4	0	19/ 1-3/4	0	19/ 1-3/4	6.0 13.8 6.0 13.8
Commercially processed 5/	1.7	0	19/ 2-1/4	0	19/ 2-1/4	7.7 17.7 5.6 12.9
			<1/4	0	<1/4	.9 2.0 .5 1.2
Peas:						
Home-prepared from fresh peas 5/	1.0	0	18/ 15-1/4	0	18/ 25-1/4	52.2 120.2 52.2 120.2
Home-prepared from frozen peas 5/	1.0	0	19/ 3-1/2	0	19/ 3-1/2	12.0 27.6 12.0 27.6
Home-prepared from canned peas 5/	1.3	0	18/ 6-1/4	0	18/ 11-1/4	21.4 49.2 20.8 47.8
			19/ 3	0	19/ 3	10.3 23.6 10.0 23.0
Home-prepared from canned peas 5/	1.0	0	18/ 5-1/4	0	18/ 8-1/4	18.0 41.4 17.3 39.8
Commercially processed 5/	1.3	0	19/ 3-1/4	0	19/ 3-1/4	11.1 25.6 10.7 24.6
			1/2	0	4-1/2	1.7 3.9 1.3 3.1

1/ Rounded figures.
 2/ Obtained by dividing unrounded total cost by unrounded number of servings.
 3/ \$2.05 per hour or 3.42 cents per minute.
 4/ \$4.73 per hour or 7.88 cents per minute.
 5/ Data based on USDA laboratory analyses, 1974.
 6/ New generation convenience food.
 7/ Data based on results of laboratory analyses previously reported (6, 9, 14, 15, 21).

Table 18--Preparation time and cost of active preparation time for home-prepared and convenience products--Footnotes continued

8/	Does not include time for cooking chicken.								
9/	Includes time for cooking chicken.								
10/	Does not include time for roasting turkey.								
11/	Includes time for boiling and peeling potatoes.								
12/	Assumes that preparation begins with boiled, peeled potatoes.								
13/	Includes time for paring, boiling, and mashing potatoes.								
14/	Assumes that preparation begins with mashed potatoes.								
15/	Includes time for thawing.								
16/	Does not include time for thawing.								
17/	Includes time for chilling.								
18/	Includes time for cooking and pureeing.								
19/	Assumes that food has already been prepared for the family and that baby's portion need only be pureed.								

broccoli. Frozen peaches took longer to prepare than fresh peaches due to the time required for thawing.

When frozen and canned forms of a food could be compared, the canned item usually cost less to prepare and required less total preparation time. This was particularly true for vegetables. Split-pea soup frozen in a pouch was less expensive to prepare than canned condensed split-pea soup but total time for its preparation was nearly three times greater than that for the canned product.

Using a cook's wage, the labor cost of preparing biscuits and pancakes from a mix was about 16 to 20 percent lower per serving compared with making them from a home recipe. Preparing bundt cake from a mix cost about 24 percent less and yeast rolls from a mix about 50 percent less than preparing their home counterparts.

When two or more convenience forms of a food could be compared, those with the highest level of convenience usually had the lowest labor cost for preparation. For example, the labor cost for preparing sweet and sour pork frozen in a pouch was considerably less than when pork was purchased as a separate ingredient and browned before adding it to the sauce and glaze mix. Biscuits, pancakes, pizza, fried shrimp, tuna noodle casserole, and yeast rolls are other foods available in several forms with various levels of convenience. For each of these foods, the labor costs were lowest for the food forms that provided the most convenience.

The three commercially processed baby foods included in this study--liver, peaches, and peas--cost considerably less to prepare than their corresponding home-prepared versions, especially when the baby's portion of the home-prepared food was cooked separately. For example, the labor for preparing a serving of baby food from fresh, frozen, or canned peas cost \$1.20, \$0.48, and \$0.40, respectively, based on a cook's wage, compared with \$0.03 for heating the commercially processed baby food.

COMPOSITE COST: FOOD, FUEL, AND PREPARATION TIME

In deciding whether to buy a convenience product or to prepare its counterpart from scratch, one should consider not only the cost of the food, but also the costs of fuel and preparation time. These costs were aggregated for 94 foods of which 59 were convenience products and 35 were home-prepared or fresh foods. Forty-one of the 59 convenience products had a home-prepared counterpart.

Four composite costs were computed for each food to reflect differences in the opportunity cost of time (1974-75 minimum wage rate or a cook's market wage rate) and the type of fuel used (gas or electricity).

Assuming the opportunity cost of time to be the minimum wage rate (\$2.05 per hour), and using either gas or electricity, the composite cost of about half of the 41 convenience food products was at least 1 cent less than their home-prepared or fresh counterparts (table 19). By contrast, when only the cost of the food for these 41 convenience products was considered, fewer than one-fifth were less expensive than their home versions.

Of the 12 meat and fish convenience products analyzed, 9 had a higher composite cost than their home-prepared version. Most of the convenience vegetable products cost the same as or less than their home-prepared or fresh versions. Because the labor cost was high for home preparation of baked goods and desserts, 13 of 14 convenience products had a lower composite cost than their counterpart prepared from scratch.

When assuming one's opportunity cost to be the cook's wage rate (\$4.73 per hour), 24 of the 41 convenience food products prepared with gas and 25 prepared using electricity had a lower cost per serving than their home-prepared or fresh counterparts.

Table 19—Ingredient, fuel, and preparation cost per serving for 94 foods, 1974-75

Product	Ingre- dient		Gas		Electri- city		Preparation		Total	
	(A)	(B)	1/2/	(B)	2/	(C)	Minimum wage 3/	Market wage 4/		(A+B+D) :(A+C+D) :(A+B+E) :(A+C+E)
				(D)		(E)				
BEEF										
Lasagna:										
Home-prepared 5/	44.9	3.6	8.8	9.6	22.1	58.1	63.3	70.6	75.8	
Home-prepared 6/	52.3	3.6	8.8	9.6	22.1	65.5	70.7	78.0	83.2	
Frozen	86.8	1.9	4.6	2.9	6.7	94.3	91.6	95.4	98.1	
Patties, all beef:										
Home-prepared	21.1	.3	.7	4.1	9.5	25.5	25.9	30.9	31.3	
Patties, soy protein added to ground beef:										
Added at home	16.9	.3	.7	3.7	8.4	20.9	21.3	25.6	26.0	
Added at store	15.0	.3	.6	4.1	9.4	19.4	19.7	24.7	25.0	
Sloppy Joe sandwich sauce:										
Home-prepared 5/	10.3	.3	.8	2.2	5.1	12.8	13.3	15.7	16.2	
Home-prepared 6/	14.4	.3	.8	2.2	5.1	16.9	17.4	19.8	20.3	
Canned	17.0	.1	.2	1.7	4.0	18.8	18.9	21.1	21.2	
PORK										
Ham, cured:										
Fully cooked	29.7	3.5	8.6	.1	.2	33.3	38.4	33.4	38.5	
Canned	29.0	2.6	6.5	.1	.3	31.7	35.6	31.9	35.8	
Sweet and sour pork:										
Home-prepared 5/	32.2	.7	1.6	18.3	42.1	51.2	52.1	75.0	75.9	
Home-prepared 6/	44.8	.7	1.6	18.3	42.1	63.8	64.7	87.6	88.5	
Frozen, pouch	52.3	1.4	3.5	1.8	4.2	55.5	57.6	57.9	60.0	
Sauce and glaze mix 5/	59.0	.4	1.1	17.4	40.1	76.8	77.5	99.5	100.2	
Sauce and glaze mix 6/	62.1	.4	1.1	17.4	40.1	79.9	80.6	102.6	100.3	
POULTRY										
Chicken a la king:										
Home-prepared 5/ 7/	22.9	.5	1.1	8.4	19.3	31.8	32.4	42.7	43.3	
Home-prepared 5/ 8/	22.9	2.0	4.9	10.5	24.3	35.4	38.3	49.2	52.1	
Home-prepared 6/ 7/	21.9	.5	1.1	8.4	19.3	30.8	31.4	41.7	42.3	
Home-prepared 6/ 8/	21.9	2.0	4.9	10.5	24.3	34.4	37.3	48.2	51.1	
Frozen, pouch	36.4	1.0	2.4	11.2	25.7	48.6	50.0	63.1	64.5	

Continued

See footnotes at end of table.

Table 19--Ingredient, fuel, and preparation cost per serving for 94 foods, 1974-75--Continued

Product	Ingredient		Preparation		Total	
	(A)	(B)	(C)	(D)	(E)	(A+B+C+D+E)
POULTRY--Continued						
Chicken salad sandwich spread:						
Home-prepared 5/7/	18.8	--	--	5.7	13.1	31.9
Home-prepared 5/8/	18.8	0.8	1.9	7.8	18.0	38.7
Home-prepared 6/7/	18.8	--	--	5.7	13.1	31.9
Home-prepared 6/8/	18.8	.8	1.9	7.8	18.0	38.7
Canned	33.2	--	--	.3	.7	33.9
Turkey tetrazzini:						
Home-prepared 5/	41.4	2.8	6.9	11.0	25.4	73.7
Home-prepared 6/	41.5	2.8	6.9	11.0	25.4	73.8
Frozen	78.6	1.9	4.6	1.2	2.7	86.0
FINFISH AND SHELLFISH						
Pollack fishsticks:						
Home-prepared 5/	20.9	--	1.3	8.6	19.9	42.1
Home-prepared 6/	25.0	--	1.3	8.6	19.9	46.2
Frozen	22.4	1.3	3.1	.3	.7	26.2
Tuna noodle casserole:						
Home-prepared 5/	26.1	1.9	4.7	13.7	31.6	62.4
Home-prepared 6/	29.9	1.9	4.7	13.7	31.6	66.2
Frozen	67.3	1.9	4.6	1.8	4.2	76.1
Skillet main dish mix 5/	23.2	.3	.7	7.7	17.7	41.6
Skillet main dish mix 6/	24.2	.3	.7	7.7	17.7	42.6
Shrimp newburg:						
Home-prepared 5/	66.2	.7	1.7	8.6	19.7	87.6
Home-prepared 6/	74.7	.7	1.7	8.6	19.7	96.1
Frozen, pouch	112.8	.5	1.2	3.3	7.5	120.8
PIZZA						
Chilled						
Mix	58.4	1.4	3.3	.8	1.8	63.5
Frozen	37.8	1.5	3.7	9.0	20.7	62.2
Frozen, appetizer	61.9	1.5	3.6	1.1	2.5	68.0
Frozen, appetizer	124.3	1.3	3.1	3.0	6.9	134.3

See footnote at end of table

Table 19--Ingredient, fuel, and preparation cost per serving for 94 foods, 1974-75--Continued

Product	Ingre- dient (A)	Gas 1/2/ (B)	Electri- city 2/ (C)	Preparation			Total
				Minimum wage 3/ (D)	Market wage 4/ (E)	(A+B+D) : (A+C+D) : (A+B+E) : (A+C+E)	
RICE							
Regular, long grain	2.9	0.3	0.7	1.8	4.1	5.0	7.3
Parboiled (converted)	4.4	.4	.9	2.5	5.7	7.3	10.5
Precooked (instant)	5.1	.1	.4	1.8	4.2	7.0	9.4
VEGETABLES							
Broccoli spears au gratin:							
Home-prepared 5/	25.7	2.0	4.9	13.1	30.2	40.8	57.9
Home-prepared 6/	25.5	2.0	4.9	13.1	30.2	40.6	57.7
Frozen	36.1	1.8	4.5	1.3	3.1	39.2	41.0
Broccoli spears with hollandaise sauce:							
Home-prepared 5/	17.7	.6	1.6	19.9	45.9	38.2	64.2
Home-prepared 6/	17.8	.6	1.6	19.9	45.9	38.3	64.3
Frozen, with sauce packet	25.4	.2	.5	11.3	26.0	36.9	37.2
Butter beans:							
Home-prepared, drained solids	4.1	1.0	2.4	4.9	11.3	10.0	11.4
Home-prepared, solids and liquid	4.0	1.0	2.4	4.9	11.3	9.9	11.3
Canned, drained solids	13.8	.6	1.6	.8	1.9	15.2	16.2
Canned, solids and liquid	11.1	.6	1.6	.8	1.9	12.5	13.5
Green beans, cut:							
Frozen	8.6	.3	.7	2.6	5.9	11.5	11.9
Frozen, bulk bag	7.9	.4	.9	6.4	14.7	14.7	15.2
Canned	9.6	.4	.9	.1	.3	10.1	10.6
Green bean casserole:							
Home-prepared	21.0	1.9	4.7	7.5	17.3	30.4	33.2
Frozen	25.1	1.5	3.7	1.2	2.7	27.8	30.0
Hawaiian-style:							
Home-prepared	14.6	.1	.4	12.1	27.8	26.8	27.1
Frozen	20.5	.1	.3	5.3	12.1	25.9	26.1

Cents Per Serving

See footnotes at end of table.

Continued

Table 19--Ingredient, fuel, and preparation cost per serving for 94 foods, 1974-75--Continued

Product	Ingre- dient (A)	Gas 1/2/ (B)	Electri- city 2/ (C)	Preparation			Total		
				Minimum wage 3/ (D)	Market wage 4/ (E)	(A+B+D): (A+C+D): (A+B+E): A+C+E			
<u>Cents Per Serving</u>									
VEGETABLES--Continued									
Pork and beans:									
Home-prepared 5/	13.2	3.2	7.8	11.8	27.1	28.2	32.8	43.5	48.1
Home-prepared 6/	12.8	3.2	7.8	11.8	27.1	27.8	32.4	43.1	47.7
Canned	14.0	.1	.3	2.4	5.6	16.5	16.7	19.7	19.9
Potatoes, au gratin:									
Frozen	25.2	2.0	4.8	.3	.8	27.5	30.3	28.0	30.8
Dehydrated 9/	11.9	1.8	4.5	3.0	6.9	16.7	19.4	20.6	23.3
Dehydrated 10/	12.1	1.8	4.5	3.0	6.9	16.9	19.6	20.8	23.5
Potatoes, baked, stuffed, sour cream and chives:									
Home-prepared	11.5	3.1	7.5	8.8	20.4	23.4	27.8	35.0	39.4
Frozen	21.8	2.2	5.5	.8	1.8	24.8	28.1	25.8	29.1
DAIRY AND EGGS									
Cheese fondue:									
Home-prepared	28.6	.3	.8	7.4	17.1	36.3	36.8	46.0	46.5
Chilled	33.5	.2	.4	4.5	10.5	38.2	38.4	44.2	44.4
Cream, whipped:									
Fresh, home-prepared	6.6	--	11/	.5	1.2	7.1	7.1	7.8	7.8
Ready whipped, aerosol can	8.6	--	--	.3	.6	8.9	8.9	9.2	9.2
Eggs, scrambled:									
Home-prepared, fresh	13.6	11/	.1	5.7	13.1	19.3	19.4	26.7	26.8
Frozen cholesterol-free substitute	26.1	11/	.1	7.2	16.5	33.3	33.4	42.6	42.7
BAKED GOODS AND DESSERTS									
Baking powder biscuits:									
Home-prepared	2.7	1.5	3.7	3.0	6.9	7.2	9.4	11.1	13.3
Complete mix	3.1	1.4	3.5	2.5	5.8	7.0	9.1	10.3	12.4
Chilled	4.0	1.4	3.4	.6	1.4	6.0	8.0	6.8	8.8

See footnotes at end of table.

Continued

Table 19--Ingredient, fuel, and preparation cost per serving for 94 foods, 1974-75--Continued

Product	Ingre- dient (A)	Gas 1/2/ (B)	Electri- city 2/ (C)	Preparation		Total
				Minimum wage 3/ (D)	Market wage 4/ (E)	
Cents Per Serving						
BAKED GOODS AND DESSERTS--Continued						
Bread stuffing:						
Home-prepared	7.4	2.0	4.8	14.1	32.6	23.5 26.3 42.0 44.8
Incomplete range top mix	5.9	.3	.6	2.4	5.6	8.6 8.9 11.8 12.1
Cake, bundt, fudge:						
Home-prepared	15.1	1.8	4.5	7.5	17.2	24.4 27.1 34.1 36.8
Incomplete mix	15.6	1.6	4.0	4.9	11.3	22.1 24.5 28.5 30.9
Cookies, sugar:						
Home-prepared 9/	1.9	1.8	4.3	2.4	5.6	6.1 8.6 9.3 11.8
Home-prepared 10/	2.1	1.8	4.3	2.4	5.6	6.3 8.8 9.5 12.0
Chilled in roll	2.7	1.6	4.0	.5	1.1	4.8 7.2 5.4 7.8
Ready-to-serve	2.5	--	--	11/	.1	2.5 2.5 2.6 2.6
Frosting, white:						
Home-prepared 9/	2.0	.6	1.3	1.4	3.2	4.0 4.7 5.8 6.5
Home-prepared 10/	2.1	.6	1.3	1.4	3.2	4.1 4.8 5.9 6.6
Complete mix	2.6	.1	.2	1.5	3.6	4.2 4.3 6.3 6.4
Pancakes:						
Home-prepared	10.9	--	1.1	10.6	24.5	21.5 22.6 35.4 36.5
Incomplete mix	12.9	--	1.1	8.9	20.5	21.8 22.9 33.4 34.5
Complete mix	7.3	--	.9	8.6	19.7	15.9 16.8 27.0 27.9
Frozen	34.4	1.1	2.7	1.0	2.3	36.5 38.1 37.8 39.4
Pudding, chocolate fudge:						
Complete mix, cooked	9.9	.2	.5	5.6	12.8	15.7 16.0 22.9 23.2
Complete mix, instant	9.2	--	11/	2.5	5.9	11.7 11.7 15.1 15.1
Canned, individual serving container	17.1	--	--	.8	1.8	17.9 17.9 18.9 18.9
Yeast rolls:						
Home-prepared	2.3	1.3	3.3	5.3	12.1	8.9 10.9 15.7 17.7
Complete mix	3.6	1.3	3.3	2.6	6.0	7.5 9.5 10.9 12.9
Frozen	5.0	1.4	3.5	.3	.8	6.7 8.8 7.2 9.3
Brown-and-serve	6.9	1.3	3.3	.3	.6	8.5 10.5 8.8 10.8
Heat-and-serve	6.0	.8	2.0	.1	.3	6.9 8.1 7.1 8.3

See footnotes at end of table.

Continued

Table 19--Ingredient, fuel, and preparation cost per serving for 94 foods, 1974-75--Continued

Product	Ingre- dient (A)	Gas 1/ 2/ (B)	Electri- city 2/ (C)	Preparation				Total
				Minimum wage 3/ (D)	Market wage 4/ (E)	(A+B+D)	(A+B+E)	
Cents Per Serving								
SOUP								
Split-pea, with ham:								
Canned, condensed	10.9	0.2	0.4	7.5	17.2	18.6	28.3	28.5
Canned, single strength	27.6	.1	.2	5.6	13.0	33.3	40.7	40.8
Frozen, pouch	38.4	.6	1.6	6.0	13.9	45.0	52.9	53.9
Dried, individually packaged serving (green pea)	15.8	.1	.3	7.8	17.9	23.7	33.8	34.0
BABY FOODS								
Beef liver:								
Home-prepared 12/	22.0	.1	.2	26.5	61.1	48.6	83.2	83.3
Home-prepared 13/	22.0	.1	.2	15.4	35.5	37.5	57.6	57.7
Commercially processed	32.0	.1	.4	1.6	3.7	33.7	34.0	35.8
Peaches:								
Home-prepared from cooked fresh peaches 12/	18.5	.3	.8	23.9	55.2	42.7	74.0	74.5
Home-prepared from cooked fresh peaches 13/	18.5	.3	.9	6.0	13.8	24.8	32.6	33.2
Home-prepared from canned peaches 12/	13.7	--	11/	5.6	12.9	19.3	26.6	26.6
Home-prepared from canned peaches 13/	13.7	--	11/	5.0	11.5	18.7	25.2	25.2
Commercially processed	9.1	--	--	.5	1.2	9.6	10.3	10.3
Peas:								
Home-prepared from fresh peas 12/	19.7	.2	.5	52.2	120.2	72.1	140.1	140.4
Home-prepared from fresh peas 13/	19.7	.2	.5	12.0	27.6	31.9	47.5	47.8
Home-prepared from frozen peas 12/	11.7	.1	.3	20.8	47.8	32.6	59.6	59.8
Home-prepared from frozen peas 13/	11.7	.1	.3	10.0	23.0	21.8	34.8	35.0
Home-prepared from canned peas 12/	10.9	.1	.2	17.3	39.8	28.3	50.8	50.9
Home-prepared from canned peas 13/	10.9	.1	.2	10.7	24.6	21.7	35.6	35.7
Commercially processed	12.6	.1	.4	1.3	3.1	14.0	15.8	16.1

1/ For products in which both gas and electric appliances were used, e.g., gas range top or range oven and electric mixer, blender, or can opener, the cost of electricity for operation of the electric appliance is included in the cost of gas since these appliances have no gas-operated counterpart.

2/ Assumes the same amount of fuel to heat a single serving as it does to heat the entire quantity of a market unit or home recipe of the food.

3/ Preparation cost was computed at the 1974-75 average minimum wage rate: \$2.05 per hour.

4/ Preparation cost was computed at the 1974-75 average market wage rate for a cook: \$4.73 per hour.

Table 19--Ingredient, fuel, and preparation cost per serving for 94 foods, 1974-75--Footnotes continued

- 5/ Ingredients adjusted.
- 6/ Ingredients not adjusted.
- 7/ Fuel cost for cooking chicken not included.
- 8/ Fuel cost for cooking chicken included.
- 9/ With margarine.
- 10/ With butter.
- 11/ Less than 0.1 cent per serving.
- 12/ Includes time for cooking and pureeing.
- 13/ Assumes that food has already been prepared for the family and that the baby's portion need only be pureed.

-- = not applicable.

YIELD AND COMPOSITION

Information on yield or the total quantity of food provided by convenience products compared with typical home recipes was collected for the primary purpose of providing a basis for cost calculations. However, this information can also be helpful in selecting food forms that best meet one's needs. Composition data, i.e., ingredients or components and their relative proportion in a product, are of interest since convenience products may differ in composition from home-prepared foods. Moreover, because the nutrient content of multi-ingredient foods is largely dependent on their composition, these data can sometimes be used to make a general estimate of their nutritional value.

Procedure

Yield and composition were studied for 295 foods. Data for 123 foods were obtained from current laboratory tests. Data for the remaining 172 foods were based on results of previous USDA studies on convenience foods (6, 9, 14, 15, 21) and other published USDA data sources such as Agriculture Handbook 102 (16). Yield and composition data for all products are reported in appendix table 1.

Three replications were conducted for each of the 123 foods tested in the current laboratory study. Convenience products were prepared according to package directions. Recipes for counterparts to convenience foods were selected to be typical of foods prepared at home and were not altered to duplicate the amounts of ingredients found in the convenience product. 19/ When possible, however, the same ingredients were used in the home-prepared food as were contained in the convenience product. For example, when the ingredient label of a convenience food specified butter rather than margarine, butter was used in the home-prepared food.

All foods tested in the laboratory were purchased at a retail grocery store near Washington, D.C. For each convenience product, one market brand of a given container size was tested. In cases where more than one brand or size was available, a nationally advertised brand of medium container size was selected. All foods requiring refrigeration were stored at 3°C (37°F), frozen items at -18°C (0°F), and canned goods at ambient (room) temperature.

Ingredients and prepared food products (convenience or home-prepared) were weighed to the nearest gram and grams were then converted to ounces. For some food products, weights were taken at intermediate stages of preparation. The number of servings per recipe for home-prepared foods or per market unit for corresponding convenience products was calculated on the basis of equal weight servings. To permit comparison of the quantity of main ingredients in home-prepared and convenience foods, the components of prepared convenience products were weighed, except when small particle

19/ Adjusted recipes used in cost calculations were not prepared in the laboratory.

size or consistency of the food did not permit their separation. For example, tomato sauce and cheese were separated from the crust of a pizza but could not be separated accurately from each other.

When recipes specified use of ingredients requiring preliminary preparation steps such as cooking, boning, trimming, and paring, factors were applied to the amount of food specified to determine the amount required for purchase. For example, 2 cups of cooked diced chicken (9.88 ounces) required the purchase of approximately 31 ounces of raw chicken. These factors were based on percentage yields as reported in Agriculture Handbook 102 (16) which represent many samples and allow for differences due to variety, geographic location, season, container size, brand, etc. Use of these percentages permit a more reasonable estimate of the "as purchased" weight of ingredients than could be obtained using yields from only three replications.

The quantity of ingredients required for preparation of the home-prepared counterpart to each of the frozen plate dinners was determined in the following manner: each food item contained in the cooked frozen dinner, e.g., sliced beef, gravy, whipped potatoes, peas and carrots, was prepared according to standard home procedures. The total number of servings obtained for each food item was computed by dividing the total weight of the home-prepared item by the weight of each item contained in the cooked frozen dinner. The quantity of each ingredient required for a serving of the home-prepared item was obtained by dividing the "as purchased" weight of each ingredient in the recipe by the total number of servings.

Procedures specific to individual foods are shown in the footnotes to appendix table 1.

Results

A market unit of many of the convenience products included in this study provided less food than a recipe's worth of their home-prepared counterparts. For example, frozen entrees and foods in boil-in-the-bag pouches or single-serving containers provided fewer than three servings. In contrast, many of the home recipes served four or more.

More than half of U.S. households are made up of no more than two persons and one in five consists of only one person; the average family size is now under three (26). Therefore, many households would probably prepare only one market unit of many convenience products. In these households, many typical home recipes would provide more food than is likely to be consumed in one meal. Some individuals are willing to plan their eating schedule around the use of leftovers, reheating them for use on the following day or freezing them for consumption at a later date; others consider leftover food a nuisance. On the other hand, while some households may prepare more than one market unit of a convenience product, preparing enough units to serve a large family may be impractical. For example, eight market units of frozen lasagna or nine of chicken a la king frozen in a pouch would have to be prepared in order to obtain the same number of servings by weight as the home recipes used in the study.

Some home-prepared entrees contained a higher proportion of meat, poultry, fish, or cheese and a lower proportion of components such as pasta or sauce than their corresponding convenience product(s). In products where large differences in composition were apparent, differences in nutrient content would, of course, also occur. For example, compared with the home version of lasagna, a serving of the cooked frozen product had approximately twice the weight of noodles, which are mainly carbohydrate, and 25 percent fewer ounces of other ingredients such as ground beef, cheese, and eggs, which are good sources of protein. Chicken meat accounted for 38 percent of the weight of home-prepared chicken chow mein and only about 5 percent of

the weight of the frozen or canned product. Home-prepared turkey tetrazzini contained twice the weight of cooked turkey and about half the weight of breadcrumbs and cooked spaghetti as the frozen product. Cooked shrimp made up about 37 percent of the weight of shrimp newburg made from scratch and about 28 percent of the product frozen in a pouch.

Although home recipes and mixes for each of the skillet main dishes required a pound of fresh ground beef, the amount of beef per serving differed because of the difference in total number of servings provided. Chili-macaroni and lasagna from a mix contained slightly more ground beef per serving than their home-prepared versions and home-prepared beef stroganoff contained slightly more beef than stroganoff made from a mix.

Nonmeat ingredients in the home-prepared skillet main dishes may have contributed nutrients not found in the convenience product. For example, the green pepper in homemade chili-macaroni contributed vitamins A and C and the cottage cheese in homemade skillet lasagna provided additional protein, calcium, and other nutrients.

The amount of each food in plate dinners prepared at home was calculated to correspond to the amount contained in the frozen dinner. Although a similar nutrient content may be expected, some differences in composition were identified. For example, given an equal weight of lean meat, the amount of skin and coating on the chicken in the convenience dinner was greater than that for the home-prepared version.

Although nutrition labeling may be helpful in defining nutrient composition of convenience products, values given on labels sometimes refer to the food "as purchased" and do not take into account losses due to cooking or heating the product at home. A complete and accurate nutritional comparison between home-prepared and convenience food forms can be made only through a comprehensive laboratory analysis of each food as served. Results of such analyses are not yet available for many of the newer convenience products, although tables of food composition, such as USDA's Agriculture Handbook 8 (31), contain nutritional information for a number of fresh, home-prepared, and convenience foods.

Many of today's convenience products are enriched with vitamins or minerals. For example, many baked products--frozen, ready-to-eat, or made from a mix--either contained enriched flour or were fortified with several B vitamins. The range top mix for bread stuffing contained enriched bread crumbs; all forms of pizza contained enriched flour; skillet main dish mixes, frozen lasagna, tuna noodle casserole, and turkey tetrazzini contained enriched noodles; and both forms of orange drink were enriched with vitamin C. Iron, vitamin D, thiamin, and riboflavin were added to the frozen cholesterol-free egg substitute.

The use of other food additives such as artificial colors, monosodium glutamate (MSG), and sodium nitrite, is an issue of current concern. The majority of convenience products included in this study contained a number of additives. However, some of the single-ingredient established convenience foods such as canned and frozen vegetables contained few or no additives. Ingredients in a few of the new generation foods were almost identical to their homemade counterpart, e.g., frozen broccoli au gratin contained only broccoli, milk, cheese, margarine, flour, and salt.

Soy protein was listed on the label of several convenience products--frozen breaded diced extruded shrimp, chicken a la king frozen in a pouch, canned chicken salad sandwich spread, frozen appetizer pizza, bundt cake, and frozen meat loaf dinner. This is in keeping with the reported increasing use of soy protein as an ingredient in many convenience products (17).

EATING QUALITY

Taste panel evaluations give an indication of the eating quality of a food but not necessarily of consumer acceptability. Although some convenience products may be lower in quality than home-prepared foods, they may be satisfactory if only limited time is available for food preparation, if their cost is low enough, if they (like low cholesterol products) offer an advantage to individuals with dietary restrictions, or for other reasons.

Fifty-three foods--34 convenience products and 19 fresh or home-prepared items--were evaluated for eating quality by a trained taste panel. Twenty-four convenience products had a fresh or home-prepared counterpart. Twenty of the convenience foods tested were frozen products (including six items frozen in a pouch), six were canned, six were dried, and two were fresh or chilled. Thirty-three of the 34 convenience products tested were new generation convenience foods. Home-prepared foods were made from typical home recipes and convenience products were prepared according to package directions. Appearance, texture, flavor, and overall quality were rated on a 5-point scale. A score of 5 represented very good; 4, good; 3, fair; 2, poor; and 1, unsatisfactory (see score sheet in appendix).

All testing was conducted in a room designed for panel evaluation of foods. Convenience products and their home-prepared counterparts were served during different panel sessions with up to four foods tested at each session. Foods were not identified as convenience or home-prepared items.

Each food was evaluated three different times by five to seven trained panel members. The panel was instructed to compare each food against a standard and to describe the food's characteristics that differed from the standard. 20/ The panel did not make comparisons among the foods served.

All home-prepared foods were rated at least 4 (good) in all quality factors except for cheese fondue, which was rated lower in texture (table 20). Twenty-six of the 34 convenience products studied were rated at least 4 in all quality factors.

Of the 24 convenience products having a home counterpart, only 3--canned sloppy Joe sandwich sauce, strawberries frozen in a bulk bag, and frozen stuffed potatoes--were judged significantly lower than their home version in all quality factors. 21/ Judges thought that the sloppy Joe sauce was thin, runny, too soft, too smooth, and lacked meat flavor; the strawberries were soft, mushy, and weak in flavor; and the potatoes were dry and overdone with hard, overbrowned skins. Even before baking, the potato skins appeared very dry and overbrowned, suggesting that the potatoes had been overcooked before they were frozen.

20/ Judges' knowledge of optimum quality characteristics for each product was used as the standard.

21/ Student's t-test at the 1-percent level of probability was used to determine differences between forms for each food.

Table 20—Quality evaluation of home-prepared and convenience products

Product	Mean panel score $\frac{1}{2}$ / $\frac{2}{2}$				Summary of judges' comments $\frac{3}{3}$
	Appearance	Texture	Flavor	Overall quality	
BEEF					
Lasagna:					
Home-prepared	4.6	4.5	4.6	4.4	Dry
Frozen $\frac{4}{4}$	4.1	3.9*	3.8*	3.8*	Dry, tough top; bland--proportion of noodles too high for filling; needs more sauce, meat, and cheese
Patties, soy protein added to ground beef:					
Added at home	4.7	4.6	4.2	4.3	No meat flavor; off flavor--like cereal
Added at store $\frac{4}{4}$	4.4*	4.0*	3.8	3.8	Dry, dense, and mealy; slightly tough; weak meat flavor; off flavor
Sloppy Joe sandwich sauce:					
Home-prepared	4.8	4.7	4.7	4.7	None
Canned $\frac{4}{4}$	4.2*	3.8*	4.1*	3.9*	Thin and runny; too soft and smooth; not much meat flavor
PORK					
Sweet and sour pork:					
Home-prepared	4.9	4.9	4.8	4.8	None
Frozen, pouch $\frac{4}{4}$	4.9	4.8	4.6	4.6	Slightly too sweet; meat slightly chewy
Sauce and glaze mix $\frac{4}{4}$	4.6†	4.5*	4.1*	4.2*	Meat tough; flavor not characteristic of sweet and sour pork--more like barbecue sauce
POULTRY					
Chicken a la king:					
Home-prepared	4.6	4.7	4.2	4.3	Too highly seasoned

See footnotes at end of table.

Table 20--Quality evaluation of home-prepared and convenience products--Continued

Product	Mean panel score $\frac{1}{2}$ / $\frac{2}{1}$			Summary of judges' comments $\frac{3}{1}$
	Appearance	Texture	Flavor		Overall quality
POULTRY--Continued				
Chicken a la king--Continued:				
Frozen, pouch $\frac{4}{1}$	4.5	4.6	4.7	4.6
Chicken salad, sandwich spread:				
Home-prepared	4.9	4.5	4.6	4.6
Canned $\frac{4}{1}$	4.5*	4.2	4.5	4.3
Turkey tetrazzini:				
Home-prepared	4.7	4.4	4.5	4.5
Frozen $\frac{4}{1}$	4.7	4.6	4.5	4.5
FINFISH AND SHELLFISH				
Tuna noodle casserole:				
Home-prepared	4.7	4.7	4.6	4.6
Frozen $\frac{4}{1}$	4.7	4.5	4.6	4.5
Skillet main dish mix $\frac{4}{1}$..	4.5	4.4*	4.1	4.3
Shrimp, breaded, fried:				
Frozen, minced, extruded, breaded, prefried $\frac{4}{1}$	4.6	3.9	3.8	3.9
Shrimp newburg:				
Home-prepared	4.6	4.4	4.5	4.5
Frozen, pouch $\frac{4}{1}$	4.6	4.5	4.5	4.5

See footnotes at end of table.

Table 20--Quality evaluation of home-prepared and convenience products--Continued

Product	Mean panel score $\bar{1}/\bar{2}/$			Summary of judges' comments $\bar{3}/$	
	Appearance	Texture	Flavor		Overall quality
PIZZA					
Frozen, appetizer $\bar{4}/$	4.4	4.0	4.0	4.0	Crust too soft; doughy, limp texture; does not look or taste done; doughy flavor predominates--needs more sauce and cheese
VEGETABLES					
Broccoli spears au gratin:					
Home-prepared	4.7	4.6	4.7	4.6	Broccoli slightly overcooked; sauce slightly too thick
Frozen $\bar{4}/$	4.4	4.4	4.4	4.3	Broccoli stems underdone; cheese not completely melted
Broccoli spears in butter sauce:					
Frozen, pouch $\bar{4}/$	4.7	4.2	4.6	4.3	Stems too hard and tough--underdone; sauce thin and watery
Broccoli spears with hollandaise sauce:					
Home-prepared	4.8	4.7	4.5	4.6	Sauce too tart
Frozen, with sauce packet $\bar{4}/$	4.5	4.5	4.3	4.3	Sauce bland; has a starchy, salty flavor rather than egg and lemon; broccoli slightly overcooked
Green beans, cut:					
Frozen, bulk bag $\bar{4}/$	4.2	4.2	4.3	4.2	Slightly overdone; uneven in color; sloughed
Green bean casserole:					
Home-prepared	4.7	4.8	4.7	4.7	Slightly too salty; sauce too thick
Frozen $\bar{4}/$	4.5	4.1*	4.2*	4.2*	Beans underdone; too much sauce

See footnotes at end of table.

Continued

Table 20--Quality evaluation of home-prepared and convenience products--Continued

Product	Mean panel score $\bar{1}/ \bar{2}/$				Summary of judges' comments $\bar{3}/$
	Appearance	Texture	Flavor	Overall quality	
VEGETABLES--Continued					
Hawaiian-style:					
Home-prepared	5.0	4.8	4.7	4.7	None
Frozen $\bar{4}/$	4.8*	4.6	4.4	4.5	Green pepper flavor predominates
Potatoes, stuffed, sour cream and chives:					
Home-prepared	4.8	4.5	4.6	4.6	Potato skins tough
Frozen $\bar{4}/$	3.3*	3.3*	3.4*	3.3*	Very dry in appearance and texture; overdone; bland flavor--does not reflect sour cream and chives; greyish dull color; skin too hard and overbrowned
FRUITS					
Orange drink (synthetic)					
Frozen concentrate $\bar{4}/$	4.8	4.7	4.4	4.5	Bitter flavor; watery texture with floating pulp--lacks body
Crystals $\bar{4}/$	4.7	4.7	4.3	4.4	Watery texture--lacks body; too sweet; orange flavor not predominant enough
Peaches:					
Canned, diced, individual serving container $\bar{4}/$	4.8	4.8	4.7	4.7	Too soft
Strawberries, sweetened:					
Fresh	4.8	4.8	4.6	4.7	Too sweet
Frozen, sliced, pouch $\bar{4}/$..	4.0*	4.1*	4.2	4.1*	Dark appearance; mushy; too sweet
Frozen, whole, bulk bag (sugar added at home) $\bar{4}/$..	3.8*	3.5*	3.7*	3.5*	Soft and mushy; dark color; weak strawberry flavor; berries bitter; sirup too sweet

See footnotes at end of table.

Continued

Table 20--Quality evaluation of home-prepared and convenience products--Continued

Product	Mean panel score $\bar{1}/\bar{2}/$				Summary of judges' comments $\bar{3}/$
	Appearance	Texture	Flavor	Overall quality	
DAIRY AND EGGS					
Cheese fondue:					
Home-prepared	4.4	3.9	4.1	4.0	Wine flavor too strong; stringy texture
Chilled $\bar{4}/$	4.7	4.6*	4.1	4.3	Wine flavor too strong--cheese flavor masked; slightly too thin
Eggs, scrambled:					
Home-prepared, fresh eggs	4.6	4.7	4.8	4.7	None
Frozen cholesterol-free substitute $\bar{4}/$	4.3	4.3	3.7*	3.9*	Bland, sweet flavor; little egg flavor; grainy texture; artificial looking color--too bright yellow
BAKED GOODS AND DESSERTS					
Bread stuffing:					
Home-prepared	4.7	4.4	4.3	4.3	Dry; too highly seasoned
Incomplete range top mix $\bar{4}/$	4.5	4.1	4.3	4.2	Too wet and soft; bland; too salty
Bundt cake, fudge:					
Home-prepared	4.8	4.7	4.8	4.7	Slightly dry; slightly uneven color
Incomplete mix $\bar{4}/$	4.5	4.6	4.8	4.6	Uneven color; slightly wet texture and appearance
Pudding, chocolate:					
Canned, individual serving container $\bar{4}/$	5.0	5.0	4.5	4.8	Slightly bitter flavor; not enough chocolate flavor

See footnotes at end of table.

Continued

Table 20---Quality evaluation of home-prepared and convenience products---Continued

Product	Mean panel score $\frac{1}{2}$			Summary of judges' comments $\frac{3}{}$
	Appearance	Texture	Flavor		Overall quality
SOUP				
Split-pea, with ham:				
Canned, condensed	4.6†	4.4	4.1#	Too thin; little or no ham flavor; off flavor
Canned, single strength $\frac{4}{}$:	4.5	4.4	4.4	Dark appearance (brownish); slightly too thick
Frozen, pouch $\frac{4}{}$	4.8	4.7	4.6	Slightly too thick; not much ham
Dried, individually packaged serving (green pea) $\frac{4}{}$	3.9#	4.0#	4.1#	Thin and watery; poor color; mild flavor; slight off-flavor; slightly too salty

$\frac{1}{}$ Each mean score represents the judgments of five to seven trained panel members for three panel sessions. Total number of judgments for each food ranged from 17 to 21.
 $\frac{2}{}$ Scores were based on a 5-point rating scale in which 5 indicated "very good"; 4, "good"; 3, "fair"; 2, "poor"; and 1, "unsatisfactory" (see score sheet in appendix). Each item was judged in relation to the quality characteristics of a "standard" product.
 $\frac{3}{}$ Summary represents comments made by more than one judge but not necessarily the majority of judges.
 $\frac{4}{}$ New generation convenience food.

* Significantly different (1 percent) from home-prepared form.
+ Significantly different (1 percent) from sweet and sour pork frozen in a pouch.
† Significantly different (1 percent) from dried green pea soup in individually packaged servings.
Significantly different (1 percent) from split-pea soup frozen in a pouch.

Frozen lasagna, frozen green bean casserole, and sweet and sour pork from a mix were comparable to their home versions in appearance but were rated significantly lower in texture, flavor, and overall quality. Frozen Hawaiian vegetables and canned chicken salad sandwich spread were rated lower than their home versions in appearance only.

Among convenience products, split-pea soup with ham frozen in a pouch received significantly higher scores for flavor and overall quality than canned condensed soup and higher scores for all quality factors than dried green pea soup in individual serving packets. The dried product was found to be thin, watery, and poor both in color and in flavor. Sweet and sour pork frozen in a pouch was rated higher in appearance than sweet and sour pork from a mix.

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APPENDIX--Ingredients, Yield, Servings, and Food Cost of
Home-Prepared and Convenience Products

Ingredients used in preparation, yield of prepared foods, number of servings, cost of ingredients, and per serving food costs of all products included in the study are reported in the following table. The source of data, i.e., the present study or previous laboratory studies, is indicated for each food product in the footnotes at the end of the table.

Container sizes listed under "Product and ingredients" refer to the labeled weight of ingredients. The weight of each food as measured in the laboratory is given under "Quantity." When a food required partial preparation prior to use in a recipe, such as cooked broccoli for use in broccoli au gratin, the weight of the partially prepared food (cooked broccoli) as well as the weight of the purchased ingredient (raw broccoli) is given.

The major components of convenience foods are also shown in the table. For products such as skillet main dish mixes, which contain separate ingredients to be combined by the homemaker, the weight of each ingredient is listed under "Quantity." The quantity of separable components of prepared convenience products appears under "Mean weight."

The cost of each ingredient was based on the labeled weight of the purchased market unit unless only a portion of a market unit was used, e.g., 1 cup of tomatoes from a 16-ounce can, or unless the item was purchased by weight, such as apples. In these cases, the weight of food listed under "Quantity" was costed. The sum of ingredient costs for each food product appears under "Total cost per food item" in the same row as the form of food tested, i.e., home-prepared, frozen, etc.

The mean weight of prepared food was divided by the weight per serving to obtain the number of servings for each food. Cost per serving was obtained by dividing total cost for each food product by number of servings. Although cost per serving comparisons were made on an equal weight basis, an approximate size per serving is generally given so that volume comparisons can be made.

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products

Product and ingredients	Ingredients			Prepared food			Number	Cents
	Quantity	Total cost : per food item	Mean weight	Weight per : serving	Approximate : size per : serving	Servings per : market unit : or recipe			Cost per : serving
	Ounces	Dollars	Ounces	Ounces	Ounces	Ounces		
BEEF								
Chili-macaroni skillet main dish:								
Home-prepared $\frac{5}{16}$	16.00	1.67	55.25	9.2	1 cup	6.0	27.8	
Regular ground beef	3.60	.85					$\frac{7}{29.8}$	
Onions	3.28	.04						
Peeled, sliced	3.23	.13						
Green peppers	2.65	.35						
Seeded, chopped	15.91	.28						
Two 8-oz. cans tomato sauce	8.89	.03						
Elbow macaroni, uncooked .....	.88	$\frac{8}{0}$						
Sugar .....	.42	$\frac{9}{NC}$						
Salt	16.72							
Water								
Prepared from a mix $\frac{6}{10}$		1.48	46.03	9.2	1 cup	5.0	29.6	
Regular ground beef	16.00	.85						
8-oz. mix	8.50	.64						
Macaroni	5.29							
Sauce packet	3.21							
Water	33.44	NC						
Dinner:								
Home-prepared $\frac{11}{12}$ .....		.52	11.30	11.3	1 dinner	1.0	52.3	
Beef pot roast, bone in .....		.42						
Cooked, sliced	$\frac{13}{7.81}$							
Gravy		0						
Flour .....	.17							
Mashed potatoes	2.90	.02						
Potatoes .....	.08	0						
Margarine .....	.02	0						
Salt .....	.34	0						
Milk (fl. oz.)	1.94	.07						
Frozen peas		1.80						
Canned diced carrots .....		.01						

Continued

See footnotes at end of table.

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Number	Cents
	Quantity	Total cost	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit			Cost per serving
	Ounces	Dollars	Ounces	Ounces	Ounces			
BEEF--Continued								
Dinner--Continued								
Frozen: <u>11/</u>								
11-oz. package	11.80	.79	11.30	11.3	1 dinner	1.0	78.9	
Beef, sliced			3.60					
Gravy (by difference)			2.80					
Mashed potatoes			2.60					
Peas			1.80					
Sliced carrots .....			.50				
Lasagna:								
Home-prepared <u>6/</u>		5.23	98.00	9.8	1 cup	10.0	52.3	
Regular ground beef	16.00	.85					<u>7/</u> 44.9	
Garlic clove .....	.06	.01					
Peeled, minced .....	.05						
Basil leaves .....	.07	.08					
Oregano leaves .....	.03	.02					
Salt .....	.53	0					
16-oz. can tomatoes	16.48	.35						
Two 6-oz. cans tomato paste	12.17	.46						
Lasagna noodles	10.06	.43						
Cooked	24.02							
Cream-style cottage cheese	24.97	1.08						
Eggs	4.00	.12						
Parsley flakes .....	.10	.11					
Grated Parmesan cheese	1.76	.32						
Sliced mozzarella cheese	12.00	1.39						
Pepper .....	.04	.01					
Frozen: <u>6/ 10/</u>								
12-oz. package	12.25	1.02	11.50	9.8	1.1 cups	1.2	86.8	
Lasagna noodles			5.81					
Meat .....			.98				
Cheese			1.60					
Onion .....			.06				
Tomato .....			.52				
Sauce (by difference)			2.53					

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Number	Cents
	Quantity	Total cost per food item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe			Cost per serving
	Ounces	Dollars	Ounces	Ounces				
BEEF--Continued								
Lasagna, skillet main dish:								
Home-prepared 6/.....		2.12	52.15	8.7	1 cup	6.0	35.3	
Regular ground beef	16.00	.85					7/	31.6
Onions	3.30	.04						
Peeled, chopped	3.00							
Garlic clove .....	.06	.01						
Peeled, minced .....	.05							
16-oz. can tomatoes	16.38	.35						
6-oz. can tomato paste	5.83	.23						
Parsley flakes .....	.05	.06						
Oregano leaves .....	.04	.02						
Salt .....	.32	0						
Noodles, uncooked	3.35	.14						
Cream-style cottage cheese	6.24	.27						
Grated Parmesan cheese .....	.88	.16						
Prepared from a mix 6/ 10/		1.38	45.80	8.7	1 cup	5.3	26.2	
Regular ground beef	16.00	.85						
7.75-oz. mix	8.16	.53						
Noodles	4.60							
Sauce packet	3.56							
Water	32.56	NC						
Patties, all beef:								
Home-prepared 6/		1.27	16.00	2.7	2.6-in. patty	6.0	21.1	
Regular ground beef	23.21	1.23						
Salt .....	.21	0						
Pepper .....	.01	0						
Frying oil (fl. oz.) .....	.75	.04						
Drippings			4.34					
Frozen, raw: 1 1/2								
8-oz. package	8.00	.59	4.20	2.7	1 1/4	1.6	37.6	
Drippings			1.30					

See footnotes at end of table.

Continued

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Cost per serving
	Quantity	Total cost per item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe	
	Ounces	Dollars	Ounces	Ounces		Number	Cents
BEEF--Continued							
Patties, soy protein added to ground beef:							
Added at home 6/		1.11	17.50	2.7	.9 patty, 2.8 in.	6.6	16.9
One pouch soy protein from a 6.6-oz. package containing 4 pouches	1.80	.21					
Water	5.50	NC					
Regular ground beef	16.00	.86					
Salt	.21	0					
Pepper	.01	0					
Frying oil (fl. oz.)	.75	.04					
Drippings			2.66				
Added at store 6/ 10/		1.04	18.55	2.7	.9 patty, 2.9 in.	7.0	15.0
Soy-ground beef blend	23.21	1.00					
Salt	.21	0					
Pepper	.01	0					
Frying oil (fl. oz.)	.75	.04					
Drippings			2.03				
Pie:							
Home-prepared 11/		.84	22.40	7.4	1/3 pie	3.0	27.6 7/ 19.7
Filling:							
Carrots	3.08	.05					
Onions	.42	0					
Potatoes	2.46	.02					
Frozen peas	1.78	.06					
Chuck roast, blade, bone in	10.85	.58					
Gravy:							
Fat	1.31	NC					
Flour	.77	.01					
Broth and vegetable liquid	12.34	NC					

See footnotes at end of table

Continued

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Cents
	Quantity	Total cost per food item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe		Cost per serving
	Ounces	Dollars	Ounces	Ounces	Number		
BEEF--Continued							
Pie--Continued							
Home-prepared 11/--Continued							
Pastry:							
Flour	3.35	.04					
Salt .....	.07	0					
Shortening	1.76	.07					
Water	1.19	NC					
Frozen: 6/							
8-oz. package, 5-in. pie	8.00	.36	7.37	7.4	1 pie	1.0	35.7
Beef			1.19				
Carrot .....			.15				
Onion and potato .....			.42				
Peas .....			.07				
Gravy (by difference)			3.19				
Pastry			2.35				
Sloppy Joe sandwich sauce:							
Home-prepared 6/		1.10	21.15	2.8	.3 cup	7.7	14.4 7/ 10.3
Regular ground beef	16.00	.85					
Onions	3.30	.04					
Peeled, chopped	3.00	0					
Salt .....	.16	.19					
Catsup	7.23	.01					
Prepared mustard .....	.18	.01					
Vinegar (fl. oz.) .....	.50	.01					
Sugar .....	.42	.01					
Canned: 6/ 10/							
15.25-oz. can	15.38	.92	14.96	2.8	.3 cup	5.4	17.0
Meat			3.28				
Pickle .....			.25				
Sauce (by difference)			11.43				

See footnotes at end of table.

Continued

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients		Prepared food		Number	Cents
	Quantity	Total cost	Weight per serving	Approximate size per serving		
	: per food item	: per food item	: serving	: size per serving		
	: 1/2/	: 1/2/	: 1/3/	: 3/	: 1/4/	: 1/5/
	Ounces	Dollars	Ounces			
BEEF--Continued						
Stew:						
Home-prepared 1 1/2/		1.83	53.90	1 cup	6.3	29.0 7/ 25.6
Beef	16.00	1.26				
Flour	.76	.01				
Shortening	.40	.02				
Pepper	.02	0				
Salt	.30	0				
Water	25.29	NC				
Carrots	10.36	.18				
Onions	6.20	.07				
Potatoes	16.92	.12				
Frozen peas	4.92	.17				
Canned: 1 1/2/						
24-oz. can	24.80	.94		1 cup	2.8	33.7
Beef		3.70				
Carrot		1.90				
Onion		15/ 0				
Potato		5.30				
Gravy (by difference)		13.60				
Stroganoff, skillet main dish:						
Home-prepared 6/		1.78	35.33	.8 cup stroganoff over	4.4	40.0 7/ 39.5
Stroganoff			29.42	.3 cup noodles		
Regular ground beef	16.00	.85				
Onions	2.21	.03				
Peeled, chopped	2.01					
4-oz. can mushroom stems and pieces, drained	3.60	.38				
10.5-oz. can condensed cream of mushroom soup	10.25	.21				
Sour cream (fl. oz.)	4.00	.21				
Water	2.08	NC				
Noodles	2.40	.10				

See footnotes at end of table.

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients		Prepared food		Number	Cents
	Quantity	Total cost per food item	Weight per serving	Approximate size per serving			Cost per serving
	Ounces	Dollars	Ounces			
BEEF--Continued						
Meat loaf dinner--Continued						
Home-prepared 6/ 12/--Continued						
Tomato sauce--Continued						
Salt .....	.01	0				
Margarine .....	.05	0				
Mashed potatoes			2.67			
Potatoes	2.98	.02				
Pared, boiled	2.38					
Margarine .....	.09	0				
Salt .....	.02	0				
Milk (fl. oz.) .....	.35	0				
Frozen peas .....	.89	.03				.83
Canned diced carrots	1.33	.02				.89
Frozen: 6/						
11-oz. package	10.92	.70				9.07
Meat loaf					1.0	70.2
Tomato sauce						3.03
Mashed potatoes						1.65
Peas and carrots, drained						2.67
						1.72
PORK						
Ham, cured:						
Fully cooked: 6/						
Shank half, bone in	108.78	7.10				91.91
Lean meat						47.76
Bone						11.40
Fat						25.04
Skin						3.77
Handling loss						3.94
Drippings						16/ 7.82
						2.0
						NA
						23.9
						29.7

See footnotes at end of table.

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Cost per serving
	Quantity	Total cost per food item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe	
	Ounces	Dollars	Ounces	Ounces	Number	Cents	
PORK--Continued							
Ham, cured--Continued							
Canned: <u>6/</u>							
5-lb. can, boneless, with broth..	81.45	8.24	64.21	2.0	NA	28.4	29.0
Lean meat			56.87				
Fat			5.26				
Handling loss			2.08				
Drippings			16/ .87				
Broth and gelatin			16/ 7.81				
Sweet and sour pork:							
Home-prepared <u>6/</u>		2.60	34.69	6.0	.7 cup	5.8	44.8 7/ 32.2
Pork shoulder	30.21	1.90					
Trimmed, cut in strips	16.00						
Frying oil (fl. oz.) .....	.50	.02					
Water	2.08	NC					
Vinegar (fl. oz.)	2.67	.05					
Brown sugar	1.94	.07					
Salt .....	.11	0					
Soy sauce (fl. oz.) .....	.50	.03					
15.25-oz. can pineapple chunks ..	15.66	.40					
Pineapple	9.24						
Juice	6.42						
Cornstarch .....	.56	.01					
Water	4.16	NC					
Green peppers	2.07	.08					
Seeded, chopped	1.70						
Onions	3.25	.04					
Peeled, chopped	3.00						
Frozen, pouch: <u>6/ 10/</u>							
14-oz. pouch	14.39	1.23	14.13	6.0	.7 cup	2.4	52.3
Pork			2.22				
Onion .....			.40				
Green pepper			1.19				

See footnotes at end of table.

Continued

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Cents
	Quantity	Total cost per food item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe		Cost per serving
	Ounces	Dollars	Ounces	Ounces	Ounces	Number	
PORK--Continued							
Sweet and sour pork--Continued							
Frozen, pouch 6/ 10/--Continued							
14-oz. pouch--Continued							
Pineapple .....			.83				
Peach .....			.29				
Sweet red pepper .....			.43				
Carrot .....			.63				
Sauce (by difference)			8.14				
Prepared from a sauce and							
glaze mix 6/ 10/		3.02	29.07	6.0	.7 cup	4.9	62.1 7/ 59.0
19-oz. mix	19.08	1.08					
Sauce	17.01						
Pineapple	1.61						
Green pepper .....	.61						
Carrot .....	.93						
Onion .....	.39						
Sweet red pepper .....	.07						
Sauce (by difference)	13.40						
Glaze packet	2.07						
Water	2.08	NC					
Pork shoulder	30.21	1.92					
Trimmed, cut in strips	16.00						
Frying oil (fl. oz.) .....	.50	.02					
Sausage:							
Fresh, bulk, patties 17/	8.03	.57	18/ 4.10	2.0	NA	2.1	26.9
	6.40	.45	19/ 4.10	2.0	NA	2.1	21.5
Fresh, link 17/	8.03	.71	20/ 4.10	2.0	NA	2.1	33.6
	6.40	.56	21/ 4.10	2.0	NA	2.1	26.8
Frozen, link, precooked: 11/							
8-oz. package	7.90	.91	20/ 6.40	2.0	3.3 links	3.2	28.3

See footnotes at end of table.

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products---Continued

Product and ingredients	Ingredients			Prepared food			Cost per serving
	Quantity	Total cost per item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe	
	Ounces	Dollars	Ounces	Ounces	Number	Cents	
POULTRY							
Chicken:							
A la king:							
Home-prepared $\frac{6}{10}$:							
Chicken	30.64	1.83	47.84	5.7	.7 cup	8.4	21.9
Cooked, diced	9.88	.99					$\frac{7}{22.9}$
4-oz. can mushroom stems and pieces, drained	4.36	.38					
Canned pimientos	.60	.08					
Drained, chopped	.49						
Frozen peas	5.11	.17					
Green peppers	1.63	.07					
Seeded, chopped	1.34						
Water	2.68	NC					
Flour	2.93	.04					
Milk (fl. oz.)	8.00	.09					
Chicken broth	16.72	NC					
Salt	.42	0					
Pepper	.01	0					
Poultry seasoning	.02	.01					
Frozen, pouch: $\frac{6}{10}$:							
5-oz. pouch	5.49	.34	5.28	5.7	.7 cup	.9	36.4
Chicken			1.28				
Peas			.15				
Mushrooms			.04				
Sweet red pepper			.04				
Sauce (by difference)			3.77				
Braised, whole:							
Home-prepared: $\frac{17}{10}$:							
Chicken with neck and giblets	42.28	1.36	28.00	2.0	NA	7.0	19.4
Without neck and giblets	36.36		14.00				
Lean meat			3.08				
Skin			9.52				
Bone			.56				
Excess fat			.84				
Handling loss							

See footnotes at end of table.

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients		Prepared food				Number	Cents
	Quantity	Total cost	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe			Cost per serving
	Ounces	Dollars	Ounces	Ounces	Ounces			
POULTRY--Continued								
Chicken--Continued								
Braised, whole--Continued								
Canned, without giblets: <u>11/</u>								
52-oz. can	53.90	1.80	14.10	2.0	NA	7.0	25.7	
Lean meat			6.20					
Bone			5.00					
Skin			27.60					
Broth			1.00					
Handling loss								
Chow mein:								
Home-prepared <u>11/</u>		1.58	25.50	22/ 6.6	.6 cup chow mein over	3.9	40.5	
Chow mein			21.02		.7 cup noodles		7/ 33.4	
Chicken	24.62	.79						
Cooked, diced	7.94							
Corn oil (fl. oz.) .....	.47	.02					
Onions	1.54	.02						
Peeled, chopped	1.40							
Celery	3.26	.05						
Trimmed, chopped	2.38							
Canned mushrooms	1.55	.15						
Canned bean sprouts	4.35	.08						
Chicken broth	6.03	NC						
Cornstarch .....	.09	0					
Water .....	.23	NC					
Soy sauce (fl. oz.) .....	.44	.02					
Sugar .....	.16	0					
Salt .....	.06	0					
Chow mein noodles	4.48	.44						

See footnotes at end of table.

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients		Prepared food				Cents
	Quantity	Total cost	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe		Cost per serving
	Ounces	Dollars	Ounces	Ounces	Ounces	Number	
POULTRY--Continued							
Chicken--Continued							
Chow mein--Continued							
Canned 6/							
16-oz. can chow mein	16.20	.64	19.10	22/ 6.6	.6 cup chow mein over .7 cup noodles	2.9	33.2
Chicken			15.76				
Celery			.83				
Sweet red pepper			2.27				
Onion, bean sprouts, water chestnuts, bamboo shoots			.07				
Sauce (by difference)			5.75				
Chow mein noodles 23/	3.34	.32	6.84				
Frozen 11/			3.34				
20-oz. package chow mein	20.00	1.55	23.88	22/ 6.6	.6 cup chow mein over .7 cup noodles	3.6	54.3
Chicken			19.70				
Vegetables and sauce			.80				
Chow mein noodles 23/	4.18	.41	18.90				
Fried, flour coated:			4.18				
Home-prepared 11/			35.30				
Frying chicken with neck and giblets	41.82	24/ 1.35 25/ 1.51	15.10	2.0	NA	7.6	24/ 23.1 25/ 25.3
Lean meat							
Skin, fat, coating			7.90				
Bone			8.90				
Neck and giblets			1.40				
Handling loss			2.00				
Flour	2.07	.02					
Salt	.24	0					
Frying oil (fl. oz.)	8.00	.38					

Continued

See footnotes at end of table.

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Cost per serving
	Quantity	per food item	Total cost	Weight per serving	Approximate size per serving	Servings per market unit or recipe	
	1/2/	1/2/	Dollars	1/3/	3/	1/4/	1/5/
	-----Ounces	-----Ounces	-----Dollars	-----Ounces	-----Ounces	-----Number	-----Cents
POULTRY--Continued							
Chicken--Continued							
Fried, batter dipped:							
Home-prepared 6/	42.22	2.12		34.76			
Frying chicken with neck and giblets		1.52					
Cut up, without neck and giblets	34.94			17.34	2.0	8.7	24.4
Lean meat				9.37			
Skin and coating				7.91			
Bone				.14			
Handling loss							
Flour	3.03	.04					
Salt	.07	0					
Pepper	.02	0					
Egg	2.00	.06					
Milk (fl. oz.)	4.33	.05					
Frying oil (fl. oz.)	26/ 9.50	.45					
Frozen, prefried: 11/							
20-oz. package	20.60	1.65		19.90			
Lean meat				8.40	2.0	4.2	39.4
Bone				4.60			
Skin, fat, coating				6.10			
Handling loss				.80			
Fried, dinner:							
Home-prepared 6/ 12/		.34		27/ 9.34	27/ 9.3	1 dinner	33.6
Batter-dipped fried chicken				4.17			
Chicken with neck and giblets	13/ 5.06	.16					
Cut up, without neck and giblets	4.19			2.08			
Lean meat				1.12			
Skin and coating				.95			
Bone				.02			
Handling loss							

See footnotes at end of table.

Continued

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients		Prepared food				Cents
	Quantity	Total cost per item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe		Cost per serving
	Ounces	Dollars	Ounces	Ounces	Number	Number	
POULTRY--Continued							
Chicken--Continued							
Fried, dinner--Continued							
Home-prepared 6/ 12/--Continued							
Batter-dipped fried chicken--Continued							
Flour	.36	0					
Salt	.01	0					
Pepper	.01	0					
Egg	.24	.01					
Milk (fl. oz.)	.52	.01					
Frying oil (fl. oz.)	1.14	.05					
Mashed potatoes			3.26				
Potatoes	3.64	.03					
Pared, boiled	2.91						
Margarine	.10	0					
Salt	.02	0					
Milk (fl. oz.)	.42	0					
Mixed vegetables			1.91				
Frozen peas	.69	.02					
Canned, diced carrots	.96	.02					
Frozen corn	.67	.02					
Frozen: 6/ 28/							
11-oz. package	11.39	.63					
Chicken			10.07	10.1	1 dinner	1.0	62.7
Lean meat			4.90				
Skin and coating			2.08				
Bone			1.96				
Mashed potatoes			.86				
Mixed vegetables, drained			3.26				
			1.91				

Continued

See footnotes at end of table.

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients		Prepared food				Cents
	Quantity	Total cost per item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe		Cost per serving
	Ounces	Dollars	Ounces	Ounces	Ounces	Number	
POULTRY--Continued							
Chicken--Continued							
Meat:							
Home-prepared: <u>17/</u>							
Chicken with neck and giblets	9.30	.30	6.00	1.5	.3 cup	2.0	15.0
Without neck and giblets	8.00		3.00				
Lean meat, chopped			.90				
Skin			1.62				
Bone			.48				
Handling loss							
Canned, boned, in broth: <u>11/</u>							
5-oz. can	4.80	.63	2.60	1.5	.3 cup	1.7	36.9
Meat			.40				
Skin			1.70				
Broth			.10				
Handling loss							
Pie:							
Home-prepared <u>11/</u>		.90	23.70	7.8	1/3 pie	3.1	30.0
Filling:							
Chicken	14.26	.46					
Cooked, diced	4.60						
Chicken fat	.60	NC					
Chicken broth	9.55	NC					
Carrots	4.79	.09					
Frozen peas	2.68	.09					
Onions	.13	0					
Flour	.69	.01					
Cream (fl. oz.)	2.74	.15					
Salt	.08	0					
Crust:							
Flour	3.20	.04					
Salt	.08	0					
Shortening	1.66	.07					
Water	1.15	NC					
							<u>7/ 28.7</u>

See footnotes at end of table.

Continued

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Cents
	Quantity	Total cost per food item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe		Cost per serving
	Ounces	Dollars	Ounces	Ounces	Number	Number	Cents
POULTRY--Continued							
Chicken--Continued							
Pie--Continued							
Frozen: <u>11/</u>							
8-oz. package, 5-in. pie	7.90	.36	7.80	7.8	1 pie	1.0	35.6
Chicken .....			.90				
Carrot .....			.30				
Peas .....			.30				
Gravy (by difference)			4.10				
Crust			2.20				
Salad, sandwich spread:							
Home-prepared <u>6/</u>		1.87	25.09	2.5	.3 cup	10.0	18.8
Chicken	45.92	1.48					7/ 18.8
Cooked, chopped	14.81						
Celery	5.79	.09					
Trimmed, chopped	4.23						
Sweet gherkins (fl. oz.)	1.92	.08					
Drained, chopped	1.41						
Salad dressing	4.23	.21					
Lemon juice (fl. oz.) .....	.50	.01					
Salt .....	.11	0					
Pepper (dash)	--	0					
Canned: <u>6/ 10/</u>							
7.5-oz. can	7.50	.99	7.50	2.5	.3 cup	3.0	33.2
Chicken			3.72				
Pickle .....			.33				
Dressing (by difference)			3.45				
Turkey:							
Dinner:							
Home-prepared <u>11/ 12/</u> .....		.35	12.50	12.5	1 dinner	1.0	35.5
Turkey	<u>13/</u>	.21	2.30				
Roasted, sliced	5.63						

See footnotes at end of table. Continued

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients		Prepared food		Cents	
	Quantity	Total cost per food item	Weight per serving	Approximate size per serving		Servings per market unit or recipe	Cost per serving
	Ounces	Dollars	Ounces	Number		
POULTRY--Continued						
Turkey--Continued						
Dinner--Continued						
Home-prepared 11/ 12/--Continued						
Dressing .....	.99	.02	3.20		
Bread for cubes .....	.73	.01			
Celery .....	.03	0			
Parsley .....	.01	0			
Poultry seasoning .....	.12	0			
Onions .....	.01	0			
Salt .....	.31	.01	2.80		
Gravy .....	.16	0			
Vegetable shortening	3.12	.02				
Flour						
Potatoes						
Pared, cooked, drained	1.83	.06	2.50			
Frozen peas			1.70			
Cooked, drained						
Frozen: 11/						
12-oz. package	12.80	.71	12.50	1 dinner	71.3	
Turkey, roasted, sliced			2.30			
Dressing			3.20			
Gravy (by difference)			2.80			
Potatoes, boiled			2.50			
Peas			1.70			
Tetrazzini:						
Home-prepared 6/		2.77	53.74	8.1	6.7	41.5
Turkey	36.28	1.38		1 cup		7/ 41.4
Cooked, diced	14.81					
Thin spaghetti	3.99	.13				
Cooked	9.51					
4-oz. can mushroom stems and pieces, drained	3.99	.38				

See footnotes at end of table.

Continued

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Cost per serving
	Quantity	Total cost per item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe	
	Ounces	Dollars	Ounces	Ounces	Ounces	Number	Cents
POULTRY--Continued							
Turkey--Continued							
Tetrazzini--Continued							
Home-prepared 6/--Continued							
Celery	5.79	.09					
Trimmed, diced	4.23						
Margarine	3.00	.13					
Flour .....	.92	.01					
Salt .....	.11	0					
Pepper .....	.01	0					
Chicken bouillon cube .....	.14	.02					
Water	4.20	NC					
Half and half (fl. oz.)	16.00	.47					
Sherry (fl. oz.)	1.00	.06					
Bread for breadcrumbs .....	.78	.02					
Grated Parmesan cheese .....	.42	.08					
Frozen: 6/ 10/							
12-oz. package	12.40	1.13		11.65	8.1	1 cup	1.4
Turkey				1.54			
Spaghetti and breadcrumbs				4.28			
Celery .....				.35			
Mushrooms .....				.34			
Sauce (by difference)				5.14			
FINFISH AND SHELLFISH							
Finfish:							
Pollack fish sticks:							
Home-prepared 6/.....							
16-oz. package frozen							
skinless pollack fillets	15.71	1.68		17.50	2.6	3 fish sticks	6.7
Salt .....	.21	0					
Egg	2.00	.06					
Milk (fl. oz.) .....	.50	.01					
Bread for breadcrumbs	3.56	.09					
Frying oil (fl. oz.)	26/ 9.50	.47					
				11.72			7/ 20.9
							25.0

See footnotes at end of table.

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Cost per serving
	Quantity	Total cost per food item	Weight per serving	Approximate size per serving	Servings per market unit	Cost per serving	
	Ounces	Dollars	Ounces		Number	Cents	
FINFISH AND SHELLFISH--Continued							
Finfish--Continued							
Pollack fish sticks--Continued							
Frozen: 6/							
16-oz. package, 20 sticks	15.97	1.35	15.73	2.6	3.3 fish sticks	6.0	22.4
Fish			5.76				
Breading			9.36				
Handling loss			.61				
Haddock, dinner:							
Home-prepared 11/ 12/			11.20	11.2	1 dinner	1.0	29/ 58.5
Frozen skinless haddock fillets	4.71	29/ .58	3.60				30/ 59.1
Sauce		30/ .59	2.50				
Onions	.11	0					
Margarine	.21	.01					
(Butter 31/)	(.21)	(.01)					
Flour	.13	0					
Salt	.05	0					
Milk (fl. oz.)	2.06	.02					
Lemon juice (fl. oz.)	.19	0					
Egg yolk	.18	32/ .01					
Vegetables:							
Frozen peas	2.08	.07	1.90				
Margarine	.08	0					
(Butter)	(.08)	(0)					
Mashed potatoes	3.58	.03	3.20				
Potatoes	.10	0					
Margarine	(.10)	(.01)					
(Butter)	.02	0					
Salt	.02	0					
Milk (fl. oz.)	.42	0					

See footnotes at end of table.

Continued

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Cents
	Quantity	Total cost per item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe		Cost per serving
	Ounces	Dollars	Ounces	Ounces	Ounces	Number	
FINFISH AND SHELLFISH--Continued							
Finfish--Continued							
Haddock, dinner--Continued							
Frozen: 11/							
12-oz. package	12.30	1.00	33/ 11.50	11.5	1 dinner	1.0	99.9
Haddock fillets			3.60				
Sauce			2.50				
Peas			1.90				
Mashed potatoes			3.20				
Handling loss			.30				
Tuna noodle casserole:							
Home-prepared 6/		1.34	34.96	7.8	1 cup	4.5	29.9
							7/ 26.1
4-oz. can mushroom stems and pieces, drained	3.99	.38					
Mushroom liquid	2.66	.09					
Milk (fl. oz.)	8.00	.08					
Margarine	2.01	.02					
Celery	1.45	.01					
Trimmed, sliced	1.06	0					
Flour	.60	0					
Salt	.11	0					
Pepper	.01	.57					
6.5-oz. can tuna, drained	5.80	.17					
Noodles	4.00	.02					
Cooked	12.26						
Bread for breadcrumbs	.80						
Frozen: 6/ 10/							
11.5-oz. package	11.83	.96	11.05	7.8	.9 cup	1.4	67.3
Noodles			4.21				
Tuna			1.23				
Mushrooms			.22				
Breadcrumbs			.99				
Celery			.29				
Sauce (by difference)			4.11				

Continued

See footnotes at end of table.

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients		Prepared food		Number	Cents
	Quantity	Total cost per food item	Weight per serving	Approximate size per serving			Cost per market unit or recipe
	Ounces	Dollars	Ounces			
FINFISH AND SHELLFISH--Continued						
Finfish--Continued						
Tuna noodle casserole--Continued						
Prepared from a skillet main dish mix 6/ 10/		1.23	39.76	7.8	.9 cup	5.1
8.75-oz. mix	9.32	.67				24.2
Noodles	6.13					7/ 23.2
Sauce packet	3.20					
6.5-oz. can tuna, drained	5.58	.58				
Water	30.65	NC				
Shellfish:						
Crabcakes:						
Home-prepared 11/		29/ 5.28	17.40	2.8	1 crabcake	6.2
		30/ 5.29				29/ 84.9
						7/29/ 53.4
						30/ 85.0
						7/30/ 53.8
16-oz. container cooked crab meat, regular	15.10	4.93				
Margarine	.62	.03				
(Butter)	(.62)					
Onions	.55	.01				
Egg	2.00	.06				
Salt	.04	0				
Cayenne	.02	.01				
Pepper	.02	0				
Dry mustard	.04	.01				
Bread for breadcrumbs	2.45	.06				
Frying oil (fl. oz.)	3.68	.17				

See footnotes at end of table.

Continued

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients		Prepared food		Number	Cents
	Quantity	Total cost per food item	Weight per serving	Approximate size per serving			Servings per market unit or recipe	Cost per serving
	Ounces	Dollars	Ounces			
FINFISH AND SHELLFISH--Continued						
Shellfish--Continued						
Crabcakes--Continued						
Frozen <u>11/</u>	17.70	2.09	16.80	2.8	1	34.9
Three 6-oz. packages		1.92			6.0	
Crab meat			7.70			
Parsley .....			.30			
Coating (by difference)			8.80			
Frying oil (fl. oz.)	3.68	.18				
Crab, deviled:						
Home-prepared <u>11/</u>		29/ 5.29	26.30	3.1	8.5	29/ 62.4 7/29/ 30.7
		30/ 5.33				30/ 62.8 7/30/ 31.3
16-oz. container cooked crab meat, regular	15.50	4.93				
Onions .....	.82	.01				
Margarine	2.00	.08				
(Butter)	(2.00)	(.12)				
Flour .....	.62	.01				
Milk (fl. oz.)	5.69	.07				
Egg	2.00	.06				
Parsley .....	.13	.01				
Worcestershire sauce (fl. oz.) .....	.41	.03				
Lemon juice (fl. oz.) .....	.58	.02				
Salt .....	.12	0				
Dry mustard .....	.04	.01				
Sage .....	.04	.03				
Bread for breadcrumbs	1.33	.03				
Frozen: <u>11/</u>						
Three 6-oz. packages	19.60	2.37	18.70	3.1	1	39.6
Crab meat			4.20		6.0	
Breading			7.40			
Sauce (by difference)			7.10			

See footnotes at end of table. Continued

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Cost per serving
	Quantity	Total cost per food item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe	
	Ounces	Dollars	Ounces	Ounces		Number	Cents
FINFISH AND SHELLFISH--Continued							
Shellfish--Continued							
Crab meat:							
Fresh, cooked, chilled: 6/12-oz. container, regular	11.56	3.70	11.19	1.8	.3 cup	6.2	59.7
Crab meat			.13				
Cartilage			.24				
Handling loss							
Canned: 6/							
Two 6.5-oz cans	12.33	3.26	8.42	1.8	.3 cup	4.6	70.8
Crab meat			.09				
Cartilage			3.82				
Brine							
Shrimp, cooked:							
Home-prepared 11/							
1 lb. fresh raw shrimp in shell	15.60	3.08	13.40	2.1	NA	4.4	70.3
Shrimp meat			9.40				
Shells and veins			4.00				
Salt	2.62	.02					
Canned: 11/							
Two 4.5-oz. cans	14.40	2.00	8.60	2.1	NA	4.0	50.1
Shrimp meat			5.40				
Brine			.40				
Veins							
Frozen, partly prepared 11/							
Two 7-oz. packages frozen raw shrimp, peeled, deveined	14.00	2.03	8.70	2.1	NA	4.1	50.4
Salt	2.62	.02					

See footnotes at end of table.

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Number	Cents
	Quantity	Total cost per food item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe			Cost per serving
	Ounces	Dollars	Ounces	Ounces	Ounces			
FINFISH AND SHELLFISH--Continued								
Shellfish--Continued								
Shrimp, breaded, fried:								
Home-prepared <u>11/</u>		3.74	13.40	2.6	NA	5.2	71.6	<u>7/</u> 45.7
1 lb. raw shrimp in shell	14.92	3.08						
Shrimp meat			7.40					
Coating			3.80					
Tails			2.00					
Handling loss			.20					
Eggs	4.00	.12						
Flour	2.25	.03						
Salt	.25	0						
Bread for breadcrumbs	2.45	.06						
Frying oil (fl. oz.)	<u>26/</u> 9.50	.45						
Prepared from frozen, raw, partly prepared, unbreaded shrimp <u>11/</u>		3.82	13.20	2.6	NA	5.2	73.7	
Two 7-oz. packages frozen raw shrimp, peeled, deveined	13.21	3.15						
Shrimp meat			7.20					
Coating			5.80					
Handling loss			.20					
Eggs	4.00	.12						
Flour	2.25	.03						
Salt	.25	0						
Bread for breadcrumbs	3.02	.07						
Frying oil (fl. oz.)	<u>26/</u> 9.50	.44						

See footnotes at end of table.

Continued

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Cents
	Quantity	Total cost per food item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe		Cost per serving
	Ounces	Dollars	Ounces	Ounces	Ounces	Number	
FINFISH AND SHELLFISH--Continued							
Shellfish--Continued							
Shrimp, breaded, fried--Continued							
Prepared from frozen, partly prepared, breaded shrimp <u>11/</u>		2.62	13.80	2.6	NA	5.4	48.8
16-oz. package frozen, raw, breaded shrimp	16.00	2.17	4.10				
Shrimp meat			7.40				
Coating			2.10				
Tails . . . . .			.20				
Handling loss							
Frying oil (fl. oz.)	<u>26/</u> 9.50	.45					
Frozen, breaded, prefried: <u>11/</u>							
Two 6-oz. packages	12.00	1.76	10.20	2.6	NA	4.0	44.1
Shrimp meat			3.90				
Coating			4.70				
Tails			1.50				
Handling loss . . . . .			.10				
Frozen, minced and extruded, breaded, prefried: <u>6/</u> <u>10/</u>							
16-oz. package	15.33	1.92	14.74	2.6	5 shrimp	5.8	33.3
Breading			5.93				
Diced shrimp and inseparable ingredients (instant rice and other starches)			8.25				
Handling loss . . . . .			.56				
Shrimp creole:							
Home-prepared <u>11/</u>	<u>29/</u> 5.38		49.30	7.5	NA	6.6	29/ 81.6
	<u>30/</u> 5.41						<u>7/29/</u> 57.0
							<u>30/</u> 82.0
							<u>7/30/</u> 57.6

See footnotes at end of table.

Continued

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food				Cents
	Quantity	Total cost : per food item	Mean weight	Weight per : serving	Approximate : size per : serving	Servings per : market unit : or recipe :	Cost per serving	
	Ounces	Dollars	-----	Ounces	-----	Number		
FINFISH AND SHELLFISH--Continued								
Shellfish--Continued								
Shrimp creole--Continued								
Home-prepared 11/--Continued								
24 oz. fresh, raw shrimp in shell	23.00	4.62				3/	1/5/	
Onions	1.65	.02						
Green pepper	1.83	.08						
Garlic	.08	.01						
Margarine	2.00	.09						
(Butter)	(2.00)	(.12)						
Flour	.87	.01						
Chili powder	.13	.03						
Salt	.13	0						
Canned tomatoes	17.88	.39						
Rice	4.38	.13						
Cooked	12.12							
Frozen: 11/								
8-oz. package	8.20	.58		7.5	NA	1.0	57.8	
Shrimp								
Onion								
Sweet pepper								
Celery								
Bean sprouts								
Tomato (by difference)								
Rice								
Shrimp newburg:								
Home-prepared 6/								
16-oz. package frozen, raw shrimp, peeled, deveined	17.37	3.60		4.2	.5 cup	6.0	74.7	
Cooked	9.37						7/ 66.2	
Butter	2.01	.12						
Flour	.60	.01						

See footnotes at end of table.

Continued

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products---Continued

Product and ingredients	Ingredients			Prepared food			Cents
	Quantity	Total cost : per food item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit : or recipe		Cost per serving
	Ounces	Dollars	Ounces	Ounces		Number	
FINFISH AND SHELLFISH--Continued							
Shellfish--Continued							
Shrimp newburg--Continued							
Home-prepared 6/--Continued							
Salt .....	.32	0					
Light cream (fl. oz.)	12.00	.64					
Egg yolks	1.68	32/ .05					
Sherry (fl. oz.)	1.00	.06					
Cayenne (few grains)	--	NC					
Nutmeg (few grains)	--	NC					
Frozen, pouch: 6/ 10/							
6.5-oz. pouch	6.74	1.77	6.60	4.2	.6 cup	1.6	112.8
Shrimp			1.88				
Sauce (by difference)			4.72				
PIZZA, RICE, AND SPAGHETTI							
Pizza:							
Home-prepared: 11/							
14-in. pizza .....		.97	21.20	8.3	3/8 pizza	2.6	37.9
Dough:							7/ 29.4
Dry yeast .....	.14	.04					
Water	4.42	NC					
Vegetable shortening .....	.38	.02					
Sugar .....	.07	0					
Salt .....	.14	0					
Flour	6.35	.08					
Sauce:							
Canned tomatoes	4.24	.09					
Canned tomato puree	4.20	.09					
Onions .....	.77	.01					
Salt .....	.10	0					
Pepper .....	.01	0					
Oregano leaves .....	.01	.01					
Garlic (1/2 clove) .....	.03	0					
Olive oil (fl. oz.) .....	.23	.03					
Grated Parmesan cheese	3.36	.61					

See footnotes at end of table.

Continued

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Cost per serving
	Quantity	Total cost per food item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe	
	Ounces	Dollars	Ounces	Ounces		Number	Cents
PIZZA, RICE, AND SPAGHETTI--Continued							
Pizza--Continued							
Chilled: 6/							
9-oz. package, 8.5-in. pizza	10.32	.64	9.46	8.3	7/8 pizza	1.1	58.4
Crust			6.18				
Sauce and cheese (by difference)			3.28				
Prepared from a mix: 6/							
14-in. pizza		.72	16.06	8.3	1/2 pizza	1.9	37.8
Crust			10.64				
Sauce and cheese (by difference)			5.42				
15.38-oz. mix	15.94	.72					
Flour mix	6.26						
Grated cheese	1.54						
Tomato sauce	8.15						
Water	4.16	NC					
Shortening	.04	0					
Frozen: 6/							
13.5-oz. package, 10.5-in. pizza	13.84	.99	13.00	8.3	2/3 pizza	1.6	61.9
Crust			7.83				
Sauce and cheese (by difference)			5.17				
Shortening	.04	0					
Frozen, appetizer: 6/ 10/							
7.25-oz. package, 15 pizzas, 2 in. each	7.68	1.07	7.18	8.3	17 pizzas	.9	124.3
Crust			4.23				
Sausage and pepperoni			.88				
Sauce and cheese (by difference)			2.07				

See footnotes at end of table.

Continued

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Cost per serving
	Quantity	Total cost per item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe	
PIZZA, RICE, AND SPAGHETTI--Continued							
Rice:							
Regular, long grain <u>6/</u>							
Rice (1 cup)	6.47	.18	20.61	3.4	.5 cup	6.2	2.9
Salt	.21	0					
Water	16.72	NC					
Parboiled (converted) <u>6/</u>							
Rice (1 cup)	6.54	.27	20.68	3.4	.5 cup	6.2	4.4
Salt	.21	0					
Water	20.88	NC					
Precooked (instant) <u>6/</u>							
7-oz. package rice	7.49	.35	23.50	3.4	.6 cup	7.0	5.1
Salt	.16	0					
Water	16.72	NC					
Fried rice:							
Home-prepared <u>11/</u>							
Pork shoulder	7.44	.95	16.52	2.8	.5 cup	5.9	16.2
Green onions	3.92	.47					7/ 13.3
Soy sauce (fl. oz.)	.83	.18					
Long grain rice	3.68	.04					
Egg	2.00	.10					
Celery	3.19	.05					
Frying oil (fl. oz.)	.90	.04					
Salt	.06	0					
Frozen, pouch: <u>6/ 10/</u>							
10-oz. pouch	10.65	.90	10.56	2.8	.4 cup	3.7	24.3
Rice and parsley			8.68				
Pork			.68				
Egg			.47				
Handling loss			.73				

See footnotes at end of table.

Continued

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Cents
	Quantity	Total cost per food item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe		Cost per serving
	Ounces	Dollars	Ounces	Ounces	Ounces	Number	
PIZZA, RICE, AND SPAGHETTI--Continued							
Spanish rice:							
Home-prepared <u>1 1/2</u> /							
Canned tomatoes	16.43	.55	25.20	4.5	.5 cup	5.6	9.9
Long grain rice	2.85	.36					
Green peppers	1.49	.08					
Celery	1.39	.06					
Onions	1.29	.02					
Frying oil (fl. oz.)	.41	.02					
Sugar	.13	0					
Salt	.09	0					
Canned: <u>1 1/2</u> /							
15.5-oz. can	15.16	.37	15.30	4.5	.5 cup	3.4	11.0
Prepared from a mix <u>1 1/2</u> /							
6-oz. mix	6.00	.36					
16-oz. can tomatoes	16.15	.35	33.75	4.5	.5 cup	7.5	29/ 10.1
Margarine	.97	.04					30/ 10.3
(Butter)	(.97)	(.06)					
Spaghetti with cheese in tomato sauce:							
Home-prepared <u>1 1/2</u> /							
Spaghetti	7.91	1.42	56.96	8.9	1 cup	6.4	22.2
Cooked	22.80	.26					
Olive oil (fl. oz.)	1.94	.22					
Canned tomatoes	20.76	.45					
Canned tomato paste	3.96	.15					
Water	11.67	NC					
Garlic	.12	.01					
Onion	3.02	.04					
Sugar	.42	.01					
Salt	.14	0					
Pepper	.04	.01					
Grated Parmesan cheese	1.54	.28					

Continued

See footnotes at end of table.

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Cents
	Quantity	Total cost per food item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe		Cost per serving
	Ounces	Dollars	Ounces	Ounces	Ounces	Number	
PIZZA, RICE, AND SPAGHETTI--Continued							
Spaghetti with cheese in tomato sauce--Continued							
Canned: <u>11/</u>							
15.25-oz. can	15.20	.26	14.80	8.9	1 cup	1.7	15.3
Prepared from a mix <u>11/</u>		<u>29/</u> .67	37.20	8.9	1 cup	4.2	<u>29/</u> 16.0
		<u>30/</u> .69					<u>30/</u> 16.4
		.40					
8-oz. mix	8.50						
Spaghetti	7.00						
Sauce mix .....	.90						
Grated Parmesan cheese .....	.60						
6-oz. can tomato paste	6.00	.23					
Water	11.80	NC					
Margarine	1.00	.04					
(Butter)	(1.00)	(.06)					
Salt .....	.25	0					
VEGETABLES							
Asparagus spears:							
Fresh <u>11/</u>	16.00	.83					
Washed, tough ends of stalks trimmed	7.52		7.52	2.1	2.3 large spears	3.6	23.1
Frozen: <u>11/</u>							
10-oz. package	10.10	.91	9.39	2.1	6 small spears	4.5	20.3
Canned: <u>11/</u>							
14.5-oz. can	14.80	.86	9.32	2.1	4 medium spears	4.4	19.5
Beets:							
Fresh <u>11/</u>	16.00	.34					
Washed, tops and stem ends removed, cooked, peeled, sliced			8.64	3.2	.5 cup	2.7	12.5
Canned, diced, plain: <u>11/</u>							
16-oz. jar	16.80	.29	10.42	3.2	.6 cup	3.3	8.9

Continued

See footnotes at end of table.

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients		Prepared food				Number	Cents
	Quantity	Total cost per food item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe			Cost per serving
	Ounces	Dollars	Ounces	Ounces	Ounces			
VEGETABLES--Continued								
Beets--Continued								
Canned, diced, Harvard: <u>1 1/2</u> / 16-oz. jar	17.20	.41	17.20	3.2 (beets in sauce)	.4 cup	5.4	7.5	
Broccoli spears:								
Fresh <u>1 1/2</u> / Washed, tough stalk ends and leaves removed, stalks pared, cut in spears	16.00	.45						
Frozen: <u>1 1/2</u> / 10-oz. package	10.30	.43	11.04	3.3	2 medium spears	3.4	13.3	
Frozen, pouch, butter sauce: <u>6</u> / <u>10</u> / 10-oz. pouch	10.29	.53	10.10	4.2 (3.3 oz. broccoli)	2 medium spears	2.4	22.1	
Broccoli			7.89					
Butter sauce (by difference) ..			2.21					
Broccoli spears au gratin: Home-prepared <u>6</u> / <u>10</u> /		1.53	30.43	5.1	3 small spears with about 2 fl. oz. cheese sauce	6.0	25.5 7/ 25.7	
Two 10-oz. packages frozen								
broccoli spears	22.89	.87						
Cooked, drained	19.79							
Shredded cheddar cheese	3.99	.52						
Milk (fl. oz.)	8.00	.09						
Margarine .....	.99	.04					
Flour .....	.60	.01					
Salt .....	.16	0					

See footnotes at end of table.

Continued

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared vegetable soups

Product and ingredients	Ingredients			Prepared food			Cents
	Quantity	Total cost	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit		Cost per serving
	Ounces	Dollars	Ounces	Ounces	Number	Number	
VEGETABLES--Continued							
Broccoli spears au gratin--Continued							
Frozen: $\frac{6}{10}$ / 10-oz. package	10.63	.70	9.81	5.1	3 small spears with about 1.5 fl. oz. cheese sauce	1.9	36.1
Broccoli			5.17				
Cheese sauce (by difference)			4.64				
Broccoli spears with hollandaise sauce:							
Home-prepared $\frac{6}{10}$ / Two 10-oz. packages frozen		1.01	22.66	4.0	2 medium spears with about .8 fl. oz. sauce	5.7	17.8
Sauce	21.69	.87	18.54	(3.3 oz. broccoli)			7/ 17.7
Margarine	2.01	.08	4.12				
Water	1.41	NC					
Egg yolk	1.68	$\frac{32}{.05}$					
Lemon juice (fl. oz.)	.50	.01					
Salt	.13	0					
Red pepper (dash)	--	NC					
Frozen, with sauce packet: $\frac{6}{10}$ / 10-oz. package	9.77	.56	8.88	4.0	3 small spears with about .9 fl. oz. sauce	2.2	25.4
Broccoli	7.84		6.95				
Sauce	1.93		1.93				
Brussels sprouts:							
Fresh $\frac{11}{10}$ / Washed, trimmed, outer leaves removed	16.00	.65	12.64	2.7	.5 cup	4.7	13.8
	12.16						

See footnotes at end of table.

Continued

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Cents
	Quantity	Total cost per food item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe		Cost per serving
	Unounces	Dollars	-----Ounces-----			Number	
VEGETABLES--Continued							
Brussels sprouts--Continued							
Frozen: <u>11/</u>							
10-oz. package	10.20	.43	9.79	2.7	.5 cup	3.6	11.8
Butter beans:							
Home-prepared <u>6/</u> .....		.20					
Dried lima beans	6.35	.20					
Cooked:							
Drained solids		16.17	16.17	3.3	.5 cup	4.9	4.1
Solids and liquid		19.06	19.06	3.8	.5 cup	5.0	4.0
Salt .....	.21	0					
Canned: <u>6/</u>							
15-oz. can	15.08	.34	8.43	3.3	.4 cup	2.5	13.8
Drained solids			11.62	3.8	.4 cup	3.0	11.1
Solids and liquid							
Carrots:							
Fresh <u>11/</u>	16.00	.28					
Washed, ends removed, pared, sliced	12.64		11.84	2.8	.5 cup	4.2	6.8
Canned, sliced: <u>11/</u>							
16-oz. can	16.60	.37	10.46	2.8	.5 cup	3.8	9.7
Canned, diced: <u>11/</u>							
16-oz. jar	16.40	.28	11.15	2.8	.5 cup	4.0	7.1
Corn, cut:							
Fresh: <u>11/</u>							
Corn on cob	8.20	.13	6.07				
Husks and silks removed, trimmed, washed	5.74						
Corn cut off cob			3.61	2.9	.6 cup	1.2	11.0
Frozen: <u>11/</u>							
10-oz. package	9.90	.37	9.60	2.9	.5 cup	3.3	11.1

See footnotes at end of table.

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Cost per serving
	Quantity	Total cost per item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe	
	Ounces	Dollars	Ounces	Ounces	Number	Cents	
VEGETABLES--Continued							
Corn, cut--Continued							
Canned: <u>11/</u>							
16-oz. can	17.10	.42	10.43	2.9	.5 cup	3.6	11.6
Corn-on-the-cob:							
Fresh <u>11/</u>	8.20	.13					
Husks and silks removed, trimmed, washed	5.74		6.07	6.1	1 ear	1.0	13.2
Frozen: <u>11/</u>							
16-oz. package	15.30	.33	15.45	6.1	1 ear	2.5	13.4
Green beans, cut:							
Fresh <u>11/</u>	16.00	.53					
Washed, ends snapped, trimmed, cut	14.88		15.04	2.3	.5 cup	6.5	8.1
Frozen: <u>6/</u>							
9-oz. package	9.36	.35	9.17	2.3	.5 cup	4.0	8.6
Frozen, bulk bag: <u>6/</u> <u>10/</u>							
20-oz. package	20.47	.68	19.80	2.3	.5 cup	8.6	7.9
Canned: <u>6/</u>							
16-oz. can	16.35	.34	7.96	2.3	.5 cup	3.5	9.6
Green bean casserole:							
Home-prepared <u>6/</u>							
Two 9-oz. packages, frozen							
Green beans	18.75	.69					
Cooked, drained	15.24						
10.75-oz. can condensed cream-of-mushroom soup	10.72	.22					
4-oz. can mushroom stems and pieces, drained	3.66	.38					
Salt .....	.21	0					
Canned French fried onion rings ..	1.06	.15					

See footnotes at end of table.

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Cents
	Quantity	Total cost per item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe		Cost per serving
	Ounces	Dollars	Ounces	Ounces	Number		
VEGETABLES--Continued							
Green bean casserole--Continued							
Frozen: <u>6/ 10/</u>							
9.5-oz. package	9.86	.54	9.31	4.3	.5 cup	2.2	25.1
Green beans			3.59				
Mushrooms			.33				
French fried onion rings			.69				
Sauce (by difference)			4.70				
Green peas:							
Fresh <u>11/</u>	16.00	.57					
Shelled, washed, imperfect peas removed	6.40		6.08	2.8	.5 cup	2.1	27.3
Frozen: <u>11/</u>	10.10	.34	8.58	2.8	.5 cup	3.1	11.0
10-oz. package							
Canned: <u>11/</u>	16.80	.39	9.74	2.8	.5 cup	3.5	11.2
16-oz. can							
Hawaiian-style:							
Home-prepared <u>6/</u>							
Margarine	.49		.72				
Carrots	7.88	.14	18.89	3.8	.5 cup	5.0	14.6
Ends removed, pared, cut in strips	6.46						
Onions	.81	.01					
Peeled, chopped	.74						
Green peppers	3.85	.15					
Seeded, cut in squares	3.16						
8-oz. can pineapple chunks	7.98	.21					
Drained solids	5.03						
Juice	2.95						
Canned water chestnuts	2.34	.15					
Drained solids	1.43						
Water	4.16	NC					
Light brown sugar	.99	.04					

See footnotes at end of table.

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Number	Cents
	Quantity	Total cost per food item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe			Cost per serving
	Ounces	Dollars	Ounces	Ounces	Ounces	Ounces		
VEGETABLES--Continued								
Hawaiian-style--Continued								
Home-prepared 6/--Continued								
Cornstarch	.14	0						
Salt	.11	0						
Pepper (dash)	--	NC						
Frozen: 6/ 10/								
10-oz. package	10.05	.57		3.8	.4 cup	2.8	20.5	
Water	1.55	NC						
Carrot			3.36					
Green pepper			1.94					
Pineapple			.69					
Onion			.88					
Water chestnuts			.78					
Sauce (by difference)			2.86					
Lima beans:								
Fresh 11/	16.00	.57						
Shelled, washed, imperfect beans removed	6.08		5.92	2.9	.5 cup	2.0	28.7	
Frozen: 11/								
10-oz. package	10.20	.39	10.20	2.9	.5 cup	3.5	11.2	
Canned: 11/								
17-oz. can	16.90	.50	10.14	2.9	.5 cup	3.5	14.4	
Pork and beans:								
Home-prepared 6/								
Dry navy beans	8.82	.59	31.43	6.9	.8 cup	4.6	12.8	
Cooked	22.43	.26					7/ 13.2	
Salt	.11	0						
Salt pork	2.01	.12						
Red pepper (few grains)	--	NC						
Dry mustard	.03	.01						

See footnotes at end of table.

Continued

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Cost per serving
	Quantity	Total cost per item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe	
	Ounces	Dollars	Ounces	Ounces	Ounces	Number	Cents
VEGETABLES--Continued							
Pork and beans--Continued							
Home-prepared $\frac{6}{}$ --Continued							
Light molasses (fl. oz.)	1.00	.07					
Light brown sugar	.99	.04					
Canned tomato puree	4.41	.09					
Bean liquid	6.60	NC					
Canned: $\frac{6}{}$							
16-oz. can	16.05	.32	15.72	6.9	.8 cup	2.3	14.0
Pork			.04				
Beans			8.76				
Tomato sauce (by difference)			6.92				
Potatoes au gratin:							
Home-prepared $\frac{11}{}$							
Potatoes	16.00	$\frac{29}{30}$.59	31.50	4.5	.5 cup	7.0	$\frac{29}{30}$ 8.4
American cheese	3.20	.11					$\frac{30}{}$ 8.7
Milk (fl. oz.)	12.00	.26					
Margarine	1.50	.14					
(Butter)	(1.50)	.06					
Flour	.40	(.09)					
Salt	.10	0					
Frozen: $\frac{6}{}$ $\frac{10}{}$							
11.5-oz. package	11.82	.63	11.10	4.5	.5 cup	2.5	25.2
Dehydrated $\frac{6}{}$							
5.5-oz. mix	5.89	$\frac{29}{30}$.68	25.87	4.5	.5 cup	5.7	$\frac{29}{30}$ 11.9
Milk (fl. oz.)	5.35	.69					$\frac{30}{}$ 12.1
Margarine	.49	.60					
(Butter)	(.49)	.06					
		.02					
		(.03)					

See footnotes at end of table.

Continued

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Cost per serving
	Quantity	Total cost : per food item	Mean weight	Weight per : serving	Approximate size per : serving	Servings per : market unit : or recipe		Cost per serving
	Ounces	Dollars	Ounces	Ounces		Number	Cents
Fresh <u>11/</u>	16.00	.11	13.60	4.0	1.5 to 2 small potatoes	3.4	3.3
Canned: <u>11/</u> 15-oz. can	15.10	.30	9.60	4.0	4 small potatoes	2.4	12.7
Potatoes, french fried: Home-prepared <u>11/</u>	16.00	.38	7.60	2.0	.5 cup	3.8	10.1
Potatoes	16.00	.11					
Vegetable shortening	<u>.34/</u> 6.40	.27					
Frozen: <u>11/</u> 9-oz. package	8.90	.22	6.40	2.0	.5 cup	3.2	6.9
Potatoes, hash browned: Home-prepared <u>11/</u>							
Potatoes	16.00		14.00	3.9	.6 cup	3.6	<u>29/</u> 4.8 <u>30/</u> 5.1
Onions	1.00	.01					
Milk (fl. oz.)	1.12	.01					
Margarine .....	.70	.03					
(Butter)	(.70)	(.04)					
Flour .....	.40	0					
Salt .....	.30	0					
Dehydrated <u>11/</u>		<u>29/</u> 1.02 <u>30/</u> 1.08	32.80	3.9	.5 cup	8.4	<u>29/</u> 12.2 <u>30/</u> 12.9
9-oz. mix	8.70	.86					
Margarine	3.80	.16					
(Butter)	(3.80)	(.22)					
Salt .....	.40	0					

See footnotes at end of table.

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Cents
	Quantity	Total cost per food item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe		Cost per serving
	Ounces	Dollars	Ounces	Ounces	Ounces	Number	
VEGETABLES--Continued							
Potatoes, mashed:							
Home-prepared 11/							
Potatoes	34.34	.33	30.76	3.5	.5 cup	8.8	3.8
Washed, pared	27.13	.24					
Milk (fl. oz.)	4.00	.05					
Margarine .....	.99	.04					
Salt .....	.21	0					
Dehydrated 11/ .....		.54	38.85	3.5	.4 cup	11.1	4.9
7-oz. mix	7.20	.45					
Milk (fl. oz.)	7.63	.09					
Potatoes, patties:							
Home-prepared 11/ .....		.17	12.70	3.1	3-in. patty	4.1	4.0
Potatoes	16.00	.11					
Parsley .....	.20	.01					
Onions .....	.50	.01					
Flour .....	.40	0					
Salt .....	.10	0					
Vegetable shortening .....	.80	.03					
Frozen 11/ .....		.43	11.50	3.1	3.5-in. patty	3.7	11.5
12-oz. package	12.40	.37					
Vegetable shortening	1.40	.06					
Potatoes, puffs:							
Home-prepared 11/ .....		.57	17.50	2.5	.5 cup	7.0	8.1
Potatoes	16.00	.11					
Onions .....	.10	0					
Eggs	4.00	.12					
Milk (fl. oz.) .....	.19	0					
Salt .....	.10	0					
Bread for breadcrumbs	2.60	.06					
Vegetable shortening	6.40	.27					

See footnotes at end of table.

Continued

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Number	Cents
	Quantity	Total cost per food item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe			Cost per serving
	Ounces	Dollars	Ounces	Ounces	Ounces			
VEGETABLES--Continued								
Potatoes, puffs--Continued								
Frozen: 11/								
8-oz. package	8.10	.21	7.80	2.5	.5 cup	3.1	6.9	
Potatoes, scalloped:								
Home-prepared 11/								
Potatoes	16.00	.24	20.60	4.3	.5 cup	4.8	29/ 5.0	
Onions .....	.80	.25					30/ 5.2
Milk (fl. oz.)	8.00	.09						
Margarine .....	.50	.02					
(Butter)	(.50)	(.03)						
Flour .....	.30	0					
Salt .....	.20	0					
Dehydrated 11/								
4.5-oz. mix	4.60	.61	24.50	4.3	.5 cup	5.7	29/ 10.7	
Milk (fl. oz.)	7.91	.62					30/ 10.9	
Margarine .....	.70	.03					
(Butter)	(.70)	(.04)						
Potatoes, stuffed, sour cream and chives:								
Home-prepared 6/								
Potatoes (6)	38.58	.69	33.84	5.6	1 medium stuffed potato	6.0	11.5	
Baked	31.02	.27						
Potato removed from skins	20.19	.32						
Sour cream (fl. oz.)	6.00	.04						
Margarine .....	.99	0					
Salt .....	.21	0					
Chopped, freeze-dried chives .....	.01	.06					

See footnotes at end of table.

Continued

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Cost per serving
	Quantity	Total cost per food item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe	
	Ounces	Dollars	Ounces	Ounces		Number	Cents
VEGETABLES--Continued							
Potatoes, stuffed, sour cream and chives--Continued							
Frozen: 6/ 10/							
19-oz. package, 4 halves	20.08	.73	18.79	5.6	1.2 halves	3.4	21.8
Potatoes with sour cream and chives			16.04				
Potato skins			2.35				
Handling loss			.40				
Spinach:							
Fresh 11/	16.00	.69					
Washed, stem ends and damaged leaves removed	12.64		9.60	3.4	.5 cup	2.8	24.7
Frozen: 11/	10.30	.26	7.93	3.4	.5 cup	2.3	11.2
10-oz. package							
Canned: 11/	15.40	.30	7.85	3.4	.4 cup	2.3	13.1
15-oz. can							
FRUITS							
Cherries, red sour, pitted:							
Fresh: 11/							
Quart basket	22.20	1.00					
Spoiled cherries, stems and pits removed			17.92	3.9	.7 cup	4.6	21.8
Canned: 11/							
16-oz. can, pitted, water pack	17.00	.65	11.58	3.9	.5 cup	3.0	21.7
Drained solids			17.00	4.4	.5 cup	3.9	16.7
Solids and liquid							
Coconut, shredded:							
Fresh 11/	24.80	.68	12.00	.3	1.5 tablespoons	40.0	1.7
Coconut meat							

Continued

See footnotes at end of table.

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Cost per serving
	Quantity	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit	or recipe	
	Ounces	Dollars	Ounces	Ounces	Number	Cents	
FRUITS--Continued							
Coconut, shredded--Continued							
Plastic bag: <u>11/</u>							
4-oz. bag	4.50	.45	4.50	.3	1.5 tablespoons	15.0	3.0
Cranberry sauce, strained:							
Fresh <u>11/</u> .....		.85	30.21	2.4	.2 cup	12.6	6.8
16-oz. cellophane package		.38					
cranberries	16.60						
Spoiled berries removed	16.53						
Sugar	14.10	.48					
Canned: <u>11/</u>		.40	16.20	2.4	.2 cup	6.8	5.9
16-oz. can	16.20						
Cranberry sauce, whole:							
Fresh <u>11/</u> .....		.85	39.84	2.4	.2 cup	16.6	5.2
16-oz. cellophane package		.38					
cranberries	16.60						
Spoiled berries removed	16.53						
Sugar	14.10	.48					
Canned: <u>11/</u>		.40	16.40	2.4	.2 cup	6.8	5.8
16-oz. can	16.40						
Grapefruit, sections:							
Fresh: <u>11/</u>		.34	9.38	3.4	.5 cup	2.8	12.1
One whole grapefruit	23.00						
Drained solids			11.36	4.3	.5 cup	2.6	13.1
Solids and liquid							
Canned: <u>11/</u>		.41	10.06	3.4	.5 cup	2.9	14.1
16-oz. can	16.80						
Drained solids			16.80	4.3	.5 cup	3.9	10.5
Solids and liquid							

See footnotes at end of table.

Continued

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients		Prepared food				Number	Cents
	Quantity	Total cost per food item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe			Cost per serving
	Ounces	Dollars	Ounces	Ounces	Ounces			
FRUITS--Continued								
Lemon juice:								
Fresh, home-prepared: $\frac{11}{1}$	3.20	.10	1.39	1.1	2 tablespoons	1.3	8.0	
One lemon								
In plastic container: $\frac{11}{1}$	2.90	.15	2.90	1.1	2 tablespoons	2.6	5.6	
2.5-fl. oz. container								
In bottle: $\frac{11}{1}$	8.80	.21	8.80	1.1	2.2 tablespoons	8.0	2.6	
8-fl. oz. bottle								
Orange juice:								
Fresh, home-prepared: $\frac{6}{1}$	81.75	1.06	39.09	4.4	.5 cup	8.9	11.9	
One dozen juice oranges								
Bottled, pasteurized: $\frac{6}{1}$	35.10	.55	35.10	4.4	.5 cup	8.0	6.9	
Quart bottle								
Canned: $\frac{6}{1}$	20.02	.30	20.02	4.4	.5 cup	4.6	6.6	
18-fl. oz. can, unsweetened								
Prepared from frozen concentrate $\frac{6}{1}$	7.51	.28	28.55	4.4	.5 cup	6.5	4.3	
6-fl. oz. can	20.98	NC						
Water								
Orange drink (synthetic):								
Prepared from frozen concentrate $\frac{6}{10}$	14.81	.41	53.84	4.4	.5 cup	12.2	3.3	
12-fl. oz. can	39.15	NC						
Water								
Prepared from crystals $\frac{6}{10}$	17.87	1.25	139.67	4.4	.5 cup	31.7	3.9	
18-oz. jar	122.06	NC						
Water								
Peaches:								
Fresh $\frac{11}{1}$	15.70	.53	13.34	3.7	.6 cup	3.6	14.6	
Pits removed; trimmed and pared								

See footnotes at end of table.

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Cents
	Quantity	Total cost per food item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe		Cost per serving
	Ounces	Dollars	Ounces	Ounces	Ounces	Number	
FRUITS--Continued							
Peaches--Continued							
Canned: <u>11/</u>							
30-oz. can, halves, heavy sirup	29.80	.80	17.02	3.7	.5 cup	4.6	17.4
Drained solids			29.80	4.4	.5 cup	6.8	11.8
Solids and liquid							
Canned, individual serving container: <u>6/ 10/</u>							
20-oz. carton, diced, heavy sirup--4 cans	20.14	.75	11.60	3.7	.5 cup	3.1	24.1
Drained solids			20.14	4.4	.5 cup	4.6	16.5
Solids and liquid							
Frozen: <u>11/</u>							
10-oz. package, sliced	9.90	.42	5.81	3.7	.5 cup	1.6	26.2
Drained solids			9.90	4.4	.5 cup	2.2	19.0
Solids and liquid							
Pineapple chunks:							
Fresh: <u>11/</u>							
One pineapple	38.70	.61	16.95	3.2	.6 cup	5.3	11.6
Crown and core removed, pared, trimmed, and cut in chunks ...							
Canned: <u>11/</u>							
20.5-oz. can	21.20	.54	13.86	3.2	.4 cup	4.3	12.5
Drained solids			20.50	4.2	.5 cup	5.0	10.8
Solids and liquid							
Raspberries, red:							
Fresh: <u>11/</u>							
Pint basket	11.80	1.00	11.27	2.6	.5 cup	4.3	23.3
Spoiled berries removed; washed and hulled							

See footnotes at end of table.

Continued

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients		Prepared food			Cost per serving
	Quantity	Total cost per food item	Mean weight	Weight per serving	Approximate size per serving		Servings per market unit or recipe
	Ounces	Dollars	Ounces	Ounces	Number	Cents
FRUITS--Continued						
Raspberries, red--Continued						
Canned: 11/						
17-oz. can	17.50	.94	6.93	2.6	.4 cup	36.1
Drained solids			17.50	4.5	.5 cup	24.1
Solids and liquid						
Frozen: 11/						
10-oz. package	10.20	.62	4.80	2.6	.4 cup	34.3
Drained solids			10.20	4.5	.5 cup	26.9
Solids and liquid						
Strawberries, sweetened:						
Fresh 6/		1.33				
Two pint baskets berries	25.19	1.23				
Spoiled berries removed;						
washed and hulled	23.07	.10				
Sugar	3.53		22.59	3.5	.6 cup	20.6
Drained solids			26.28	4.6	.6 cup	23.3
Solids and liquid						
Canned: 6/						
16-oz. can, heavy sirup	17.08	.71				
Drained solids			5.50	3.5	.4 cup	44.6
Solids and liquid			17.08	4.6	.5 cup	19.3
Frozen, sliced: 6/						
10-oz. carton	9.96	.46	4.86	3.5	.4 cup	33.2
Drained solids			9.96	4.6	.5 cup	21.1
Solids and liquid						
Frozen, sliced, pouch: 6/ 10/						
10-oz. quick-thaw pouch	10.26	.55	5.90	3.5	.4 cup	32.5
Drained solids			10.03	4.6	.5 cup	25.2
Solids and liquid						

See footnotes at end of table. Continued

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients		Prepared food				Cost per serving
	Quantity	Total cost per food item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe	
	Ounces	Dollars	Ounces	Ounces	Ounces	Number	Cents
FRUITS--Continued							
Strawberries, sweetened--Continued							
Frozen, whole: $\frac{6}{16}$ -oz. plastic tub, heavy sirup	16.27	.76	7.90	3.5	.4 cup	2.3	33.0
Drained solids			16.27	4.6	.5 cup	3.5	21.7
Solids and liquid							
Frozen, whole, bulk bag $\frac{6}{20}$ -oz. bag, unsweetened	20.60	1.09					
Sugar	3.53	.98					
Drained solids		.10	17.57	3.5	.4 cup	5.0	21.7
Solids and liquid			24.20	4.6	.5 cup	5.3	20.7
DAIRY AND EGGS							
American process cheese:							
Loaf: $\frac{35}{16}$ -oz. package	16.00	1.32	16.00	2.0	.5 cup shredded	8.0	16.5
Sliced: $\frac{35}{16}$ -oz. package	16.00	1.35	16.00	2.0	2 slices	8.0	16.8
Singles (individually wrapped): $\frac{10}{35}$ / $\frac{10}{35}$ -oz. package	16.00	1.34	16.00	2.0	2 slices	8.0	16.7
American cheese food:							
Loaf: $\frac{35}{16}$ -oz. package	16.00	.95	16.00	2.0	.5 cup shredded	8.0	11.9
Aerosol can: $\frac{10}{35}$ / $\frac{10}{35}$ -oz. can	4.75	.90	4.75	2.0	NA	2.4	37.7

Continued

See footnotes at end of table.

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Cost per serving
	Quantity	Total cost per food item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe	
	Ounces	Dollars	Ounces	Ounces	Number	Cents	
DAIRY AND EGGS--Continued							
Cheese fondue:							
Home-prepared $\frac{6}{1}$		1.71	16.33	2.7	.3 cup	6.0	28.6
Garlic	.06	.01					
White wine (fl. oz.)	8.00	.44					
Natural Swiss cheese	9.00	1.12					
Flour	.32	0					
Kirsch (fl. oz.)	.50	.14					
Chilled: $\frac{6}{10}$		1.64	13.34	2.7	.3 cup	4.9	33.5
14-oz. package	14.19						
Butter:							
Bulk: $\frac{35}{16}$	16.00	.89	16.00	.3	2 teaspoons	48.0	1.9
16-oz. package	16.00						
Quarters: $\frac{35}{16}$	16.00	.93	16.00	.3	2 teaspoons	48.0	1.9
16-oz. package	16.00						
Margarine:							
Quarters: $\frac{35}{16}$	16.00	.67	16.00	.3	2 teaspoons	48.0	1.4
16-oz. package	16.00						
Soft, tub: $\frac{10}{35}$	16.00	.79	16.00	.3	2 teaspoons	48.0	1.7
16-oz. tub	16.00						
Liquid, squeeze bottle: $\frac{10}{35}$	16.00	.81	16.00	.3	NA	48.0	1.7
16-oz. bottle	16.00						
Milk, nonfat:							
Fluid, skim: $\frac{35}{10}$	32.00	.36	34.40	8.5	1 cup	4.0	9.2
One quart carton (fl. oz.)	32.00						
Prepared from instant dry powder: $\frac{10}{35}$		.22	34.55	8.5	1 cup	4.1	5.5
Instant dry powder	3.20	.22					
Water	31.35	NC					

Continued

See footnotes at end of table.

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Cost per serving
	Quantity	Total cost per food item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe	
	Ounces	Dollars	Ounces	Ounces	Number	Cents	
DAIRY AND EGGS--Continued							
Whipped cream:							
Fresh, home-prepared: $\frac{6}{16}$ -fl. oz. whipping cream	16.45	1.08	16.26	1.0	.3 cup	16.3	6.6
Ready whipped, aerosol can: $\frac{6}{7}$ -oz. can	6.80	.58	6.80	1.0	.5 cup	6.8	8.6
Eggs, scrambled:							
Home-prepared $\frac{6}{10}$		.41	12.29	4.1	.6 cup (2 large eggs, scrambled)	3.0	13.6
Eggs	12.00	.36					
Milk (fl. oz.)	2.00	.02					
Margarine	.49	.02					
Prepared from frozen cholesterol-free substitute $\frac{6}{10}$		1.02	16.12	4.1	.6 cup	3.9	21.1
16-fl. oz. package	17.10	.99					
Corn oil (fl. oz.)	.67	.03					
BAKED GOODS AND DESSERTS							
Baking powder biscuits:							
Home-prepared $\frac{6}{10}$		.26	36/ 13.59	1.4	1.5 biscuits	9.7	2.7
Flour	8.01	.10					
Milk (fl. oz.)	4.94	.06					
Vegetable shortening	2.22	.09					
Baking powder	.32	.01					
Salt	.11	0					
Prepared from a complete mix $\frac{6}{37}$		.28	38/ 12.92	1.4	1.7 biscuits	9.2	3.1
Mix (1 cup)	9.34	.22					
Milk (fl. oz.)	5.35	.06					
Vegetable shortening	.04	0					

See footnotes at end of table.

Continued

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Number	Cents
	Quantity	Total cost per food item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe			Cost per serving
	Ounces	Dollars	Ounces	Ounces	Ounces	Ounces		
BAKED GOODS AND DESSERTS--Continued								
Baking powder biscuits--Continued								
Chilled <u>6/</u>								
8-oz. can	8.22	.22	39/	7.76	1.4	1.8 biscuits	5.5	4.0
Vegetable shortening .....	.04	0						
Bread stuffing:								
Home-prepared <u>6/</u>	9.35	.28		7.95	2.1	.5 cup	3.8	7.4
Margarine	1.52	.06						
Celery	4.34	.07						
Trimmed, chopped	3.17							
Parsley .....	.22	.01						
Trimmed, chopped .....	.21							
Onions .....	.81	.01						
Trimmed, chopped .....	.74							
Chicken bouillon .....	.03	.01						
Water	2.08	NC						
Bread for bread cubes	4.23	.10						
Ground savory .....	.03	.02						
Salt .....	.05	0						
Pepper .....	.01	0						
Prepared from an incomplete range top mix <u>6/ 10/ 40/</u>								
6-oz. mix	6.13	.59		20.98	2.1	.3 cup	9.9	5.9
Breadcrumbs	5.43	.50						
Vegetable seasoning packet .....	.69							
Margarine	2.01	.08						
Water	14.64	NC						
Brownies:								
Home-prepared <u>11/</u>		1.38		41/	19.90	2.3 cu. in.	28.4	4.9
Shelled walnuts	4.20	.54						
Unsweetened baking chocolate	2.00	.23						
Vegetable shortening	4.00	.17						
Eggs	4.00	.12						

See footnotes at end of table.

Continued

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Number	Cents
	Quantity	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit	Cost per serving		
	Ounces	Dollars	Ounces	Ounces				
BAKED GOODS AND DESSERTS--Continued								
Brownies--Continued								
Home-prepared 1 1/2--Continued								
Vanilla extract (fl. oz.)	.24	.08						
Sugar	7.00	.21						
Flour	3.00	.04						
Baking powder	.10	0						
Salt	.10	0						
Prepared from an incomplete mix 1 1/2/ 42/								
16-oz. mix	16.00	1.05	43/ 19.15	.7	1.8 cu. in.	27.4	3.8	
Shelled walnuts (optional)	2.10	.27						
Egg	2.00	.06						
Water	2.00	NC						
Prepared from a complete mix 1 1/2/								
10.5-oz. mix	10.50	.74	44/ 13.60	.7	2.5 cu. in.	19.4	3.8	
Shelled walnuts (optional)	2.10	.27						
Water	2.60	NC						
Frozen: 1 1/2/								
14-oz. package, 1 pan,								
6.8 in. x 5.8 in. x 0.8 in.	14.00	45/ .98	46/ 10.90	.7	2.0 cu. in.	45/ 15.6	45/ 6.3	
Ready-to-serve: 1 1/2/								
7-oz. package, 1 pan,								
6.0 in. x 3.0 in. x 0.9 in.	6.00	.59	6.00	.7	1.9 cu. in.	8.6	6.8	
Angel food cake:								
Home-prepared 1 1/2/								
Egg white	16.80	47/ 1.12	48/ 27.40	1.7	16.1 cu. in.	16.1	47/ 6.9	
Sugar	13.10	49/ 1.33					49/ 8.3	
Cake flour	5.00	47/ .51						
		49/ .73						
		.39						
		.11						

See footnotes at end of table.

Continued

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Servings per: market unit: or recipe :	Cost per serving :
	Quantity :	Total cost per food item :	Mean weight :	Weight per serving :	Approximate size per serving :	Number			Cents
	Ounces	Dollars	Ounces	Ounces				
BAKED GOODS AND DESSERTS--Continued								
Angel food cake--Continued								
Home-prepared 11/--Continued								
Cream of tartar .....	.20	.07						
Almond flavoring (fl. oz.) .....	.12	.04						
Salt .....	.10	0						
Prepared from a complete mix 11/ 42/	16.00	1.07	50/ 22.40	1.7	20.0 cu. in.	13.2	8.1	
16-oz. mix .....	.12	.04						
Vanilla extract (fl. oz.) .....	.12	.04						
Almond flavoring (fl. oz.)	9.90	NC						
Water								
Ready-to-serve: 11/ 6.5-in. cake, 2.4 in. high	10.30	.77	10.30	1.7	12.5 cu. in.	6.1	12.7	
Bundt cake, fudge: Home-prepared 6/		1.81	49.16	4.1	1 slice, 1/12 cake	12.0	15.1	
			41.59					
Cake	7.62	.17						
Cake flour	12.35	.37						
Sugar .....	.14	0						
Baking soda .....	.06	0						
Baking powder .....	.32	0						
Salt	3.00	.34						
Unsweetened baking chocolate ..	4.90	.21						
Vegetable shortening .....	.33	.10						
Vanilla extract (fl. oz.)	5.33	.07						
Buttermilk (fl. oz.)	8.00	.24						
Eggs .....	.18	0						
Flour			7.75					
Glaze	4.23	.15						
Confectioner's sugar .....	.78	.07						
Cocoa								

Continued

See footnotes at end of table.

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Cost per serving
	Quantity	Total cost per item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe	
	Ounces	Dollars	Ounces	Ounces	Number	Cents	
BAKED GOODS AND DESSERTS--Continued							
Bundt cake, fudge--Continued							
Home-prepared 6/--Continued							
Glaze--Continued							
Margarine	2.01	.08					
Water	1.06	NC					
Prepared from an incomplete mix 6/ 10/		1.53	40.20	4.1	9.8	15.6	
23.5-oz. mix	24.30	1.21			1 slice, 1/10 cake		
Cake packet	17.28						
Fudge packet	2.27						
Glaze packet	4.75						
Vegetable shortening .....	.42	.02					
Flour .....	.24	0					
Margarine	2.68	.11					
Eggs	6.00	.18					
Water	10.44	NC					
Devil's food cake:							
Home-prepared 11/		1.28	51/ 27.80	1.7	16.4	7.8	
Unsweetened baking chocolate	3.00	.34					
Vegetable shortening	4.00	.17					
Sugar	10.50	.31					
Eggs	4.00	.12					
Cake flour	6.70	.15					
Buttermilk (fl. oz.)	8.09	.10					
Vanilla extract (fl. oz.) .....	.24	.08					
Baking powder .....	.20	.01					
Baking soda .....	.10	0					
Salt .....	.10	0					
Prepared from an incomplete mix 11/ 42/ .....		.87	52/ 27.40	1.7	16.1	5.4	
19.5-oz. mix	19.45	.75					
Eggs	4.00	.12					
Water	8.95	NC					

See footnotes at end of table.

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Cost per serving
	Quantity	Total cost per food item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe	
	Ounces	Dollars	Ounces	Ounces		Number	Cents
BAKED GOODS AND DESSERTS--Continued							
Devil's food cake--Continued							
Frozen: <u>11/</u>							
18-oz. package	18.00	<u>45/</u> .79	<u>46/53/</u> 10.20	1.7	9.7 cu. in.	<u>45/</u> 6.0	<u>45/</u> 13.1
Ready-to-serve: <u>11/ 42/</u>							
14-oz. package, 2-layer cake, 7.0 in. x 4.3 in. x 2.2 in.	14.00	<u>45/</u> .82	<u>46/</u> 11.50	1.7	9.7 cu. in.	<u>45/</u> 6.8	<u>45/</u> 12.2
Pound cake:							
Home-prepared <u>11/</u>		<u>29/</u> 1.39	<u>54/</u> 36.90	1.1	5.3 cu. in.	33.5	<u>29/</u> 4.2 <u>30/</u> 4.6
Margarine	10.00	.42					
(Butter)	(10.00)	(.58)					
Eggs	12.00	.36					
Cake flour	10.00	.22					
Sugar	10.50	.31					
Vanilla extract (fl. oz.) .....	.24	.08					
Salt .....	.05	0					
Prepared from an incomplete							
mix <u>11/ 42/</u> .....		.87	<u>55/</u> 23.10	1.1	5.7 cu. in.	21.0	4.1
17-oz. mix	17.45	.71					
Eggs	4.00	.12					
Water	2.00	NC					
Milk (fl. oz.)	3.00	.04					
Frozen: <u>11/</u>							
12.2-oz. package, 1 loaf, 8.0 in. x 3.1 in. x 2.2 in.	12.20	1.20	12.20	1.1	4.9 cu. in.	11.0	10.9

Continued

See footnotes at end of table.

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Cost per serving
	Quantity	Total cost per item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe	
	Ounces	Dollars	Ounces	Ounces	in.	Number	Cents
BAKED GOODS AND DESSERTS--Continued							
Pound cake--Continued							
Ready-to-serve: <u>11/ 42/</u>							
15-oz. package, 1 loaf,							
6.4 in. x 3.7 in. x 2.8 in.	14.50	1.01	14.50	1.1	5.0 cu. in.	13.1	7.7
Yellow cake:							
Home-prepared <u>11/</u>							
Eggs	4.00	29/ .70					
Cake flour	6.70	<u>30/ .72</u>	56/ 17.50	1.2	11.0 cu. in.	14.6	29/ 4.8
Margarine	1.30	.15					<u>30/ 4.9</u>
(Butter)	(1.30)	.05					
Sugar	7.00	(.08)					
Milk (fl. oz.)	5.39	.21					
Vanilla extract (fl. oz.) .....	.12	.06					
Vegetable shortening	1.10	.04					
Baking powder .....	.40	.05					
Salt .....	.10	.02					
		0					
Prepared from an incomplete mix <u>11/ 42/</u>							
18.5-oz. mix	18.50	.81	57/ 23.30	1.2	8.9 cu. in.	19.4	4.2
Eggs	4.00	.69					
Water	9.20	.12					
		NC					
Ready-to-serve: <u>11/</u>							
19-oz. package, two 6.2-in. layers, 1.8 in. high	19.00	<u>45/ .82</u>	46/ 11.10	1.2	5.9 cu. in.	45/ 9.2	45/ 8.9

See footnotes at end of table.

Continued

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients		Prepared food				Cost per serving
	Quantity	Total cost per food item	Mean weight	Weight per serving	Approximate size per serving	Approximate servings per market unit or recipe	
	Ounces	Dollars	Ounces	Ounces	Number	Cents	
BAKED GOODS AND DESSERTS--Continued							
Sugar cookies:							
Home-prepared 6/		29/ .63 30/ .70	58/ 16.27	.5	1.8 cookies	32.5	29/ 1.9 30/ 2.2
Margarine	4.02	.17					
(Butter)	(4.02)	(.23)					
Cake flour	7.51	.16					
Vanilla extract (fl. oz.)	.25	.08					
Sugar	5.29	.16					
Egg	2.00	.06					
Baking powder	.21	.01					
Salt	.05	0					
Chilled in roll: 6/							
18-oz. roll	18.27	.87	59/ 16.24	.5	1.3 cookies	32.5	2.7
Ready-to-serve: 6/							
13.5-oz. package, 27 cookies,							
3.0 in. x 0.3 in.	13.89	.71	13.89	.5	1.0 cookie	27.8	2.5
Chocolate frosting:							
Home-prepared 11/							
Unsweetened baking chocolate	2.00	.23					
Margarine	2.00	.08					
(Butter)	(2.00)	(.12)					
Confectioner's sugar	9.00	.32					
Milk (fl. oz.)	.28	0					
Prepared from an incomplete mix 11/							
13-oz. mix	13.00	.73	62/ 16.80	1.1	1.5 tablespoons	15.9	29/ 5.1 30/ 5.3
Margarine	2.00	.08					
(Butter)	(2.00)	(.12)					
Water	2.00	NC					

See footnotes at end of table.

Continued

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Cents
	Quantity	Total cost per food item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe		Cost per serving
	Ounces	Dollars	Ounces	Ounces	Ounces	Number	
BAKED GOODS AND DESSERTS--Continued							
White frosting, fluffy:							
Home-prepared $\frac{6}{}$							
Sugar	10.58	$\frac{47}{49}$.48	$\frac{63}{15.34}$	.6	$\frac{61}{}$ 3.2 tablespoons	24.1	$\frac{47}{49}$ / 2.0
EGG whites	2.80	.31					$\frac{49}{}$ / 2.1
		$\frac{47}{49}$.09					
Vanilla extract (fl. oz.)	.25	.08					
Corn sirup (fl. oz.)	.18	.01					
Salt	.05	0					
Prepared from a complete mix $\frac{6}{}$							
7.2-oz. mix	7.27	.45	$\frac{64}{10.89}$	.6	3.0 tablespoons	17.1	2.6
Water	4.16	NC					
Corn muffins:							
Home-prepared $\frac{11}{}$							
Milk (fl. oz.)	8.09	.48					
Yellow cornmeal	6.70	.09					
Egg	2.00	.17					
Vegetable shortening	1.70	.06					
Flour	2.70	.07					
Baking powder	.40	.03					
Sugar	.90	.02					
Salt	.10	.03					
Prepared from an incomplete mix $\frac{11}{}$							
8.5-oz. mix	8.50	.31	$\frac{66}{11.70}$	1.5	1 muffin	7.8	4.0
Egg	2.00	.22					
Milk (fl. oz.)	2.70	.06					
Pancakes:							
Home-prepared $\frac{6}{}$							
Milk (fl. oz.)	8.00	.32	$\frac{67}{15.63}$	5.3	2.8 pancakes	2.9	10.9
Flour	5.89	.09					
EGG	2.00	.07					
Corn oil (fl. oz.)	1.34	.06					
		.07					

See footnotes at end of table.

Continued

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Cents
	Quantity	Total cost per food item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe		Cost per serving
	Ounces	Dollars	Ounces	Ounces	Ounces	Number	
BAKED GOODS AND DESSERTS--Continued							
Apple pie--Continued							
Home-prepared 11/--Continued							
Filling--Continued							
Lemon juice (fl. oz.)	.46	.01					
Nutmeg	.02	.01					
Flour	.20	0					
Salt	.01	0					
Frozen: 11/ 42/							
23-oz. package, 8-in. pie	23.00	.96	22.10	4.7	1/5 pie	4.7	20.5
Crust			9.50				
Filling			12.60				
Ready-to-serve: 11/ 42/							
36-oz. package, 9-in. pie	36.00	1.82	35.60	4.7	1/8 pie	7.6	24.0
Crust			23.14				
Filling			12.46				
Cherry pie:							
Home-prepared 11/							
Crust			29/ 1.00	70/ 27.10	1/6 pie	6.0	29/ 16.6
Vegetable shortening	2.56	.10					
Flour	3.84	.04					
Salt	.13	0					
Water	1.28	NC					
Filling							
Red sour cherries	16.00	.72					
Margarine	.90	.03					
(Butter)	(.90)	(.05)					
Sugar	3.50	.08					
Cornstarch	.60	.01					
Salt	.03	0					
			30/ 1.01				30/ 16.9

See footnotes at end of table.

Continued

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Cost per serving
	Quantity	Total cost per food item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe	
	Ounces	Dollars	Ounces	Ounces	Number	Cents	
BAKED GOODS AND DESSERTS--Continued							
Cherry pie--Continued							
Prepared from a complete mix <u>11/ 42/</u>		1.12	<u>70/ 29.35</u> 11.39	4.5	1/7 pie	6.6	17.2
Crust	7.42	.30					
Crust mix	1.52	NC					
Water	22.00	.82	17.81				
22-oz. can cherry pie filling ..							
Frozen: <u>11/ 42/</u>							
24.5-oz. package, 7.5-in. pie ...	24.50	1.12	22.80	4.5	1/5 pie	5.0	22.0
Crust			9.80				
Filling			13.00				
Ready-to-serve: <u>11/ 42/</u>							
32-oz. package, 9-in. pie	31.80	1.70	31.80	4.5	1/7 pie	7.0	23.9
Crust			15.74				
Filling			16.06				
Coconut cream pie:							
Home-prepared <u>11/</u> .....		.78	<u>70/ 30.40</u> 7.60	5.0	1/6 pie	6.0	13.1
Crust	1.26	.05					
Vegetable shortening	2.12	.03					
Flour .....	.10	0					
Salt .....	.91	NC					
Water			22.80				
Filling	18.14	.21					
Milk (fl. oz.)	6.00	.18					
Eggs	1.70	.19					
Shredded coconut in plastic bag	.12	.04					
Vanilla extract (fl. oz.)	2.60	.08					
Sugar		0					
Salt							

Continued

See footnotes at end of table.

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients		Prepared food				Cents
	Quantity	Total cost per item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe	
	Ounces	Dollars	Ounces	Ounces	Ounces	Number	
BAKED GOODS AND DESSERTS--Continued							
Coconut cream pie--Continued							
Prepared from an incomplete mix 11/							
Crust .....		.73	70/	19.10	5.0	1/4 pie	3.8
Mix .....		.18		5.35			
Water	4.44	NC					
Filling	1.06						
Instant coconut pie filling mix	2.20	.15		13.75			
Milk (fl. oz.)	18.23	.21					
Shredded coconut in plastic bag	1.70	.19					
Frozen: 11/ 42/							
25-oz. package, 7.5-in. pie	25.00	.95		22.50	5.0	2/9 pie	4.5
Crust				5.96			
Filling				16.54			
Ready-to-serve: 11/							
38-oz. package, 9-in. pie	37.30	1.83		37.30	5.0	2/15 pie	7.5
Crust				8.58			
Filling				28.72			
Pudding, chocolate:							
Home-prepared 11/ .....		.58		23.00	4.6	.5 cup	5.0
Milk (fl. oz.)	16.18	.19					
Unsweetened baking chocolate	2.00	.23					
Vanilla extract (fl. oz.) .....	.12	.04					
Sugar	3.50	.10					
Cornstarch	1.10	.02					
Salt .....	.01	0					
Prepared from a complete mix							
(cooked) 6/ .....		.42		19.74	4.6	.5 cup	4.3
4-oz. mix	4.01	.24					
Milk (fl. oz.)	16.00	.19					

See footnotes at end of table.

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Cents
	Quantity	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit	Cost per serving	
	Ounces	Dollars	Ounces	Number			
BAKED GOODS AND DESSERTS--Continued							
Pudding, chocolate--Continued							
Prepared from a complete mix (instant) 6/							
4.5-oz. mix	4.60	.43	21.47	4.6	.5 cup	4.7	9.2
Milk (fl. oz.)	16.00	.19					
Canned, individual serving container: 6/ 10/							
20-oz. carton, 4 cans	20.13	.75	20.13	4.6	.5 cup	4.4	17.1
Sherbet, orange:							
Home-prepared 11/		1.02					
Milk (fl. oz.)	32.27	.38	52.16	3.2	NA	16.3	6.3
Frozen orange juice concentrate (fl. oz.)	4.00	.19					
Sugar	14.00	.41					
Lemon juice (fl. oz.)	1.77	.05					
Salt	.01	0					
Ready-to-serve: 11/		.32					
Pint carton	11.75		10.24	3.2	.6 cup	3.2	10.1
Waffles:							
Home-prepared 11/		.35					
Eggs	4.00	.12	71/ 18.20	3.3	1 waffle	5.5	6.4
Milk (fl. oz.)	8.09	.09					
Flour	6.00	.07					
Corn oil (fl. oz.)	1.09	.06					
Baking powder	.20	.01					
Salt	.10	0					
Prepared from an incomplete mix 11/ 72/		.48	73/ 21.30	3.3	.8 waffle	6.5	7.4
Mix	7.50	.19					
Milk (fl. oz.)	11.27	.13					

Continued

See footnotes at end of table.

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food				Cents
	Quantity	Total cost per food item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit	Cost per serving	
	Ounces	Dollars	-----Ounces-----			Number		
BAKED GOODS AND DESSERTS--Continued								
Waffles--Continued								
Prepared from an incomplete mix 11/ 72/--Continued								
Egg	2.95	.09						
Corn oil (fl. oz.)	1.36	.07						
Prepared from a complete mix 11/ ..								
Mix	14.00	.35	74/ 29.20	3.3	.9 waffle	8.8	4.0	
Water	16.00	NC						
Frozen: 11/ 42/								
5.8-oz. package, 6 waffles,								
3.1 in. x 3.8 in.	5.80	.30	5.20	3.3	3.8 waffles	1.6	18.5	
Yeast rolls:								
Home-prepared 6/								
Flour	18.91	.58	75/ 32.11	1.3	1 roll	24.7	2.3	
Sugar	1.76	.05						
Milk (fl. oz.)	8.00	.09						
Vegetable shortening	1.69	.07						
Egg	2.00	.06						
Dry yeast .....	.26	.07						
Salt .....	.21	0						
Prepared from a complete mix 6/								
14.25-oz. mix	14.83	.59	76/ 21.72	1.3	1 roll	16.7	3.6	
Flour .....	.45	.01						
Water	8.36	NC						
Vegetable shortening .....	.05	0						
Frozen: 6/								
24-oz. package, 24 rolls	24.97	.89	23.43	1.3	1.3 rolls	18.0	5.0	
Vegetable shortening .....	.05	0						
Brown-and-serve: 6/								
12-oz. package, 12 rolls	13.13	.64	12.13	1.3	1.3 rolls	9.3	6.9	

See footnotes at end of table.

Continued

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Cost per serving
	Quantity	Total cost per food item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit or recipe	
	Ounces	Dollars	Ounces	Ounces	Number	Cents	
BAKED GOODS AND DESSERTS--Continued							
Yeast rolls--Continued							
Heat-and-serve: $\frac{6}{8}$ -oz. package, 12 rolls	9.16	.42	9.03	1.3	1.7 rolls	6.9	6.0
SOUP							
Split-pea, with ham:							
Prepared from canned, condensed soup $\frac{6}{11.5}$ -oz. can	11.93	.28	21.38	8.5	1 cup	2.5	10.9
Water	10.93	NC	21.29	.09			
Split peas and puree							
Ham							
Canned, single strength: $\frac{6}{14.75}$ -oz. can	14.81	.46	14.16	8.5	1 cup	1.7	27.6
Puree			13.26				
Canned peas			.59				
Carrot			.05				
Smoked ham			.26				
Frozen, pouch: $\frac{6}{8.25}$ -oz. pouch	8.71	.38	8.40	8.5	1 cup	1.0	38.4
Split peas and puree			8.21				
Ham			.19				
Prepared from dried, individually packaged serving (green pea) $\frac{6}{4}$ -oz. package, 4 packets	5.17	.56	29.88	8.5	1 cup	3.5	15.8
Water	25.12	NC					

Continued

See footnotes at end of table.

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Cost per serving
	Quantity	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit	or recipe	
	Ounces	Dollars	Ounces	Ounces	Number	Cents	
BABY FOOD							
Beef liver:							
Home-prepared <u>6/</u>							
Beef liver	3.81	.22	3.26	3.3	.4 cup	1.0	22.0
Skin, veins, and blood removed	3.54	.22					
Cooked	2.38						
Beef liver broth <u>77/</u>	1.43	NC					
Commercially processed: <u>6/</u>							
3.5-oz. jar, strained beef							
liver with beef liver broth	3.50	.34	3.50	3.3	.4 cup	1.1	32.0
Peaches:							
Home-prepared from cooked fresh							
peaches <u>6/</u> .....		.18	2.84	2.8	.4 cup	1.0	18.5
Peach	5.43	.18					
Peeled, pitted	4.13						
Cooked	3.23						
Sugar .....	.11	0					
Home-prepared from canned							
peaches <u>6/</u> .....		.19	3.89	2.8	.4 cup	1.4	13.7
Cling peach halves in heavy sirup		.19					
Drained	7.00						
	4.27						
Commercially processed: <u>11/</u>		.15	4.75	2.8	.3 cup	1.7	9.1
4.75-oz. jar, strained	4.75						
Peas:							
Home-prepared from fresh peas <u>6/</u> ..		.20	3.72	3.7	.5 cup	1.0	19.7
Peas	5.51	.20					
Shelled	3.42						
Cooked	3.24						
Cooking liquid <u>77/</u>	1.55	NC					

See footnotes at end of table.

Continued

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Cents
	Quantity	Total cost per item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit		Cost per serving
	Ounces	Dollars	Ounces	Ounces	Ounces	Number	
BABY FOOD--Continued							
Peas--Continued							
Home-prepared from frozen peas <u>6/</u>							
Peas	3.19	.11	3.83	3.7	.4 cup	1.0	10.9
Cooked	2.96	.11					
Cooking liquid <u>77/</u>	1.55	NC					
Home-prepared from canned peas <u>6/</u>							
Peas	4.99	.12	3.87	3.7	.5 cup	1.0	11.7
Heated, drained	3.00	.12					
Cooking liquid <u>77/</u>	1.55	NC					
Commercially processed: <u>11/</u>							
4.75-oz. jar, strained	4.75	.16	4.75	3.7	.4 cup	1.3	12.6
COFFEE AND TEA							
Coffee:							
Roasted, regular grind: <u>11/</u>							
16-oz. can	16.00	1.19	NA	NA	78/ 6 fl. oz.	79/ 51.0	2.3
Instant, granules: <u>80/</u>							
6-oz. jar	6.00	1.42	NA	NA	81/ 6 fl. oz.	90.0	1.6
Instant, freeze-dried: <u>10/ 80/</u>							
4-oz. jar	4.00	1.44	NA	NA	82/ 6 fl. oz.	90.5	1.6
Tea:							
Leaves: <u>11/</u>							
4-oz. package	4.00	.54	NA	NA	83/ 6 fl. oz.	79/ 74.6	.7
Bags: <u>11/</u>							
1.25-oz. package, 16 bags	1.25	.25	NA	NA	6 fl. oz.	79/ 16.0	1.6
Instant, in jar: <u>11/</u>							
1.5-oz. jar	1.50	.75	NA	NA	84/ 6 fl. oz.	79/ 62.1	1.2

See footnotes at end of table.

Continued

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Continued

Product and ingredients	Ingredients			Prepared food			Number	Cents
	Quantity	Total cost per food item	Mean weight	Weight per serving	Approximate size per serving	Servings per market unit			Cost per serving
	Ounces	Dollars	Ounces	Ounces	Ounces			
COFFEE AND TEA--Continued								
Tea--Continued								
Instant, lemon-flavored, in jar: 10/ 85/ 4-oz. jar	4.00	1.23	NA	NA	84/ 6 fl. oz.	106.0	1.2	
Ready-to-drink, lemon-flavored, canned: 10/ 35/ 12-fl. oz. can	12.00	.23	NA	NA	6 fl. oz.	2.0	11.3	

1/ Rounded figures.
2/ Total cost per food item is the 12-month, 4-city average for each food ingredient rounded to the nearest cent. The total cost for each food product is the rounded sum of unrounded costs of ingredients.
3/ Serving weight and size were based on subjective judgment as to what constitutes a reasonable size serving for each product tested and do not necessarily represent a recommended amount.
4/ Number of servings obtained by dividing mean weight of the prepared food by unrounded weight per serving.
5/ Cost per serving is the 12-month, 4-city average for each food product obtained by dividing unrounded total cost per product by unrounded number of servings per market unit or recipe.
6/ Yields based on 1974 USDA laboratory analyses.
7/ Cost adjusted to reflect the same quantity of the more expensive ingredients as contained in the convenience product.
8/ A value of 0 indicates that the rounded cost of an ingredient for the quantity used is less than one cent. Unrounded ingredient costs are reflected in the total cost of each food product.
9/ NC = not costed.
10/ New generation convenience food.
11/ Yields based on results of laboratory analyses conducted in previous USDA studies on convenience foods.
12/ Ingredients in the home-prepared dinner calculated to give the same amounts of food as in the frozen dinner.
13/ Quantity purchased to yield the same amount of cooked lean meat as contained in the frozen dinner.
14/ NA = not available.
15/ A mean weight of 0 indicates that the weight of the component was too small to be measured accurately by methods used in the study.
16/ Not included in mean weight for prepared food product.
17/ Yields calculated from Agr. Handbook 102, "Food Yields Summarized by Different Stages of Preparation," 1975.
18/ Patties cooked without water.
19/ Patties cooked with water.
20/ Links cooked without water.
21/ Links cooked with water.

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Footnotes continued

- 22/ 5.45 ounces chow mein and 1.16 ounces noodles.
23/ Calculated to give the same proportion by weight of chow mein to noodles as the home-prepared version.
24/ Whole fryer.
25/ Cut-up fryer.
26/ A 38-fluid ounce bottle of oil was used for frying. Assignment of 9.5 fluid ounces of oil allows for oil to be used 4 times.
27/ Mean weight and weight per serving of home-prepared dinner differ from weight of frozen dinner because lean meat content rather than total weight of the chicken was used for comparison.
28/ Mean of six dinners. Two dinners contained a back section and wing, two contained a breast section and thigh section, and two contained a breast section and drumstick.
29/ Margarine used as an ingredient.
30/ Butter used as an ingredient.
31/ Data are given for both margarine and butter for most products tested in the laboratory prior to 1974. For new generation foods tested in 1974, butter was used as an ingredient in a home-prepared product only if butter was specified on the product ingredient label of its convenience food counterpart.
32/ Cost of egg white not included.
33/ Weight includes a .30-ounce handling loss. Therefore, weight of the prepared frozen dinner is greater than the weight of the home-prepared version.
34/ Two pounds of fat were used to prepare five 1-pound lots of french fries. Therefore, the cost of 6.4 ounces of fat was assigned to each pound of fresh potatoes.
35/ Data obtained by calculation using the labeled weight of the market unit.
36/ 14.3 biscuits, 2-inch diameter, 1.2 inches high.
37/ A complete mix requires only milk or water, sometimes a minor flavoring ingredient such as vanilla extract, and sometimes a small amount of shortening or oil to grease baking utensils.
38/ 15.3 biscuits, 1.9-inch diameter, 1.1 inches high.
39/ 10 biscuits, 2.5-inch diameter, 1 inch high.
40/ An incomplete mix requires eggs, butter or margarine, or other ingredients in addition to the water or milk needed for every dry mix.
41/ 9 inches square, 0.8 inch thick.
42/ Figures represent a mean of 2 brands.
43/ 8.5 inches square, 0.7 inch thick.
44/ 6 inches x 8 inches, 1 inch thick.
45/ Cost and number of servings based on weight of product without frosting.
46/ Weight without frosting.
47/ Cost of egg yolk not included.
48/ 9-inch cake, 4.5 inches high.
49/ Cost of egg yolk included.
50/ 9-inch cake, 4.6 inches high.
51/ 2, 9-inch layers, 3 inches high.
52/ 2, 9-inch layers, 2.6 inches high.
53/ Mean of 2 brands--2, 7-inch layers, 1.6 inches high and a 7.5-inch layer, 1.2 inches high.
54/ 2 loaves, 8.5 inches x 3.5 inches x 3.5 inches.
55/ 1 loaf, 8.5 inches x 4 inches x 3.5 inches.
56/ 2, 8-inch layers, 3.2 inches high.
57/ 2, 8-inch layers, 3.4 inches high.
58/ 59.3 cookies, 2 inches x 0.2 inch.

Appendix table 1--Ingredients, yield, servings, and food cost of home-prepared and convenience products--Footnotes continue

- 59/ 41 cookies, 2.5 inches x 0.2 inch.
60/ 1 cup.
61/ Amount of frosting on 1/14 of an 8-inch, 2-layer cake.
62/ 1.5 cups.
63/ 4.9 cups.
64/ 3.3 cups.
65/ 13 muffins.
66/ 8 muffins.
67/ 8 pancakes, 4.2-inch diameter.
68/ 10.3 pancakes, 4.2-inch diameter.
69/ 6 pancakes, 4.2-inch diameter.
70/ 8-inch pie.
71/ 5.5, 7-inch waffles.
72/ Figures represent a mean of four brands.
73/ 5.1, 7-inch waffles.
74/ 8, 7-inch waffles.
75/ 24 rolls.
76/ 16 rolls.
77/ Added during pureeing the food to obtain consistency suitable for infants.
78/ 2 level tablespoons roasted coffee per serving.
79/ Obtained by dividing labeled weight of market unit by weight required to make 6 fluid ounces of beverage.
80/ Data from Home Econ. Res. Rpt. 42, "Buying Food: A Guide for Calculating Amounts to Buy and Comparing Costs in Household Quantities," 1978.
81/ 1 rounded teaspoon instant granules per serving.
82/ 1 level or 1 rounded teaspoon freeze-dried crystals per serving, as directed by manufacturer.
83/ 1 level teaspoon tea leaves per serving.
84/ 1 level teaspoon instant tea per serving.
85/ Data obtained from industry.

Score Sheet Used for Evaluation of Eating Quality

SCORE SHEET Convenience Foods Study	Date	Name of panel member
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DIRECTIONS: Place in the proper column the number corresponding to the term which best describes the quality of the food in relation to a standard product. (Half points may be used.) Describe the characteristics of this product which differ from the standard product. Judge each product on its own merit. Do not make comparisons between products.

QUALITY FACTOR	Name of Food			
APPEARANCE (color or shape) 5 Very good 4 Good 3 Fair 2 Poor 1 Unsatisfactory				
TEXTURE OR CONSISTENCY 5 Very good 4 Good 3 Fair 2 Poor 1 Unsatisfactory				
FLAVOR 5 Very good 4 Good 3 Fair 2 Poor 1 Unsatisfactory				
OVERALL QUALITY 5 Very good -- Needs no improvement in quality 4 Good -- Needs minor improvement in quality 3 Fair -- Needs considerable improvement in quality 2 Poor -- Needs major improvement in quality 1 Unsatisfactory -- Not acceptable in quality				

COMMENTS

ED STATES DEPARTMENT OF AGRICULTURE
WASHINGTON, D.C. 20250

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