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CONSUMER ATTITUDES AFFECTING THE USE OF FLUID MILK
PRODUCTS IN METROPOLITAN SALT LAKE CITY

by

Wayne N. Monson

A thesis submitted in partial fulfillment
of the requirements for the degree

of

MASTER OF SCIENCE

in

Agricultural Economics

UTAH STATE UNIVERSITY
Logan, Utah

1968

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Wayne N. Monson

TABLE OF CONTENTS

	Page
INTRODUCTION	1
OBJECTIVES	2
REVIEW OF LITERATURE	3
PROCEDURES	11
CONSUMER ATTITUDES CONCERNING FLUID MILK PRODUCTS	19
Regular Whole Milk	19
Age groups	19
Consumption level groups	27
Acquaintance with product	34
Two Percent Milk	36
Age groups	36
Consumption level groups	43
Acquaintance with product	50
Skim Milk	51
Age groups	51
Consumption level groups	58
Acquaintance with product	66
Powdered Milk	66
Age groups	66
Consumption level groups	74
Acquaintance with product	82
Comparison of Products	83
THE EFFECT OF CONSUMER ATTITUDES ON CONSUMPTION OF FLUID MILK PRODUCTS	86
Regular Whole Milk	86
All respondents	86
Age groups	89

TABLE OF CONTENTS (Continued)

	Page
Two Percent Milk	97
All respondents	97
Age groups	99
Skim Milk	108
All respondents	108
Age groups	110
Powdered Milk	117
Comparison of Products	119
All respondents	119
Age groups	120
SUMMARY AND CONCLUSIONS	123
Attitudes	123
Effects of Attitudes on Consumption	125
Conclusions	127
LITERATURE CITED	130
APPENDIXES	131
Appendix A. Average Intensities of Feeling by Acquaintance level.	132
Appendix B. Attitudes of the Aggregate Respondent Groups Four Fluid Milk Products	136
VITA	140

LIST OF TABLES

Table	Page
1. Consumer attitudes toward regular whole milk by age group, metropolitan Salt Lake City, 1967	20
2. Consumer attitudes toward regular whole milk for nonpolar variables, by age group, metropolitan Salt Lake City, 1967	22
3. Consumer attitudes toward regular whole milk by consumption level, metropolitan Salt Lake City, 1967	28
4. Consumer attitudes toward regular whole milk for nonpolar variables, by consumption level, metropolitan Salt Lake City, 1967	30
5. Consumer attitudes toward two percent milk, by age group, metropolitan Salt Lake City, 1967	37
6. Consumer attitudes toward two percent milk for nonpolar variables, by age group, metropolitan Salt Lake City, 1967	39
7. Consumer attitudes toward regular whole milk, by consumption level, metropolitan Salt Lake City, 1967	44
8. Consumer attitudes toward two percent milk for nonpolar variables, by consumption level, metropolitan Salt Lake City, 1967	46
9. Consumer attitudes toward skim milk, by age group, metropolitan Salt Lake City, 1967	52
10. Consumer attitudes toward skim milk for nonpolar variables, by age group, metropolitan Salt Lake City, 1967	54
11. Consumer attitudes toward skim milk, by consumption level, metropolitan Salt Lake City, 1967	59
12. Consumer attitudes toward skim milk for nonpolar variables, by consumption level, metropolitan Salt Lake City, 1967	61
13. Consumer attitudes toward nonfat dry (powdered) milk, by age group, metropolitan Salt Lake City, 1967	67
14. Consumer attitudes toward nonfat dry (powdered) milk for nonpolar variables, by age group, metropolitan Salt Lake City, 1967	69

LIST OF TABLES (Continued)

Table	Page
15. Consumer attitudes toward nonfat dry (powdered) milk, by consumption level, metropolitan Salt Lake City, 1967	75
16. Consumer attitudes toward nonfat dry (powdered) milk for nonpolar variables, by consumption level, metropolitan Salt Lake City, 1967	78
17. Consumption of regular whole milk by intensities of agreement with selected attitude parameters, all respondents, metropolitan Salt Lake City, 1967	87
18. Consumption of regular whole milk by intensities of agreement with selected attitude parameters, respondents age 15-19, metropolitan Salt Lake City, 1967	90
19. Consumption of regular whole milk by intensities of agreement with selected attitude parameters, respondents age 20-34, metropolitan Salt Lake City, 1967	92
20. Consumption of regular whole milk by intensities of agreement with selected attitude parameters, respondents age 35 and over, metropolitan Salt Lake City, 1967	94
21. Consumption of two percent milk by intensities of agreement with selected attitude parameters, all respondents, metropolitan Salt Lake City, 1967	98
22. Consumption of two percent milk by intensities of agreement with selected attitude parameters, respondents age 15-19, metropolitan Salt Lake City, 1967	100
23. Consumption of two percent milk by intensities of agreement with selected attitude parameters, respondents age 20-34, metropolitan Salt Lake City, 1967	102
24. Consumption of two percent milk by intensities of agreement with selected attitude parameters, respondents age 35 and over, metropolitan Salt Lake City, 1967	105
25. Consumption of skim milk by intensities of agreement with selected attitude parameters, all respondents, metropolitan Salt Lake City, 1967	109
26. Consumption of skim milk by intensities of agreement with selected attitude parameters, respondents age 15-19, metropolitan Salt Lake City, 1967	111

LIST OF TABLES (Continued)

Table	Page
27. Consumption of skim milk by intensities of agreement with selected attitude parameters, respondents age 20-34, metropolitan Salt Lake City, 1967	113
28. Consumption of skim milk by intensities of agreement with selected attitude parameters, respondents age 35 and over, metropolitan Salt Lake City, 1967	115
29. Consumption of powdered milk by intensities of agreement with selected attitude parameters, female respondents age 35 and over, metropolitan Salt Lake City, 1967	118
30. Average intensities of feeling by acquaintance group for regular whole milk, metropolitan Salt Lake City, 1967	132
31. Average intensities of feeling by acquaintance group for two percent (lowfat) milk for drinking, metropolitan Salt Lake City, 1967	133
32. Average intensities of feeling by acquaintance group for skim milk, metropolitan Salt Lake City, 1967	134
33. Average intensities of feeling by acquaintance group for nonfat dry (powdered) milk for drinking, metropolitan Salt Lake City, 1967	135
34. Consumer attitudes toward regular whole milk, all respondents and sex groups, metropolitan Salt Lake City, 1967	136
35. Consumer attitudes toward two percent milk, all respondents and sex groups, metropolitan Salt Lake City, 1967	137
36. Consumer attitudes toward skim milk, all respondents and sex groups, metropolitan Salt Lake City, 1967	138
37. Consumer attitudes toward nonfat dry (powdered) milk, all respondents and sex groups, metropolitan Salt Lake City, 1967	139

LIST OF FIGURES

Figure	Page
1. People profile contrasting the average intensities of feeling of the respondents in the three age groups for regular whole milk, metropolitan Salt Lake City, 1967	26
2. People profile contrasting the average intensities of feeling of respondents in the three consumption level groups for regular whole milk, metropolitan Salt Lake City, 1967	35
3. People profile contrasting the average intensities of feeling of the respondents in the three age groups for two percent milk, metropolitan Salt Lake City, 1967	42
4. People profile contrasting the average intensities of feeling of respondents in the three consumption level groups for two percent milk, metropolitan Salt Lake City, 1967	49
5. People profile contrasting the average intensities of feeling of the respondents in the three age groups for skim milk, metropolitan Salt Lake City, 1967	57
6. People profile contrasting the average intensities of feeling of the respondents in the three consumption level groups for skim milk, metropolitan Salt Lake City, 1967	65
7. People profile contrasting the average intensities of feeling of the three age groups for nonfat dry (powdered) milk, metropolitan Salt Lake City, 1967	73
8. People profile contrasting the average intensities of feeling of the three consumption level groups for nonfat dry (powdered) milk, metropolitan Salt Lake City, 1967	81

ABSTRACT

Consumer Attitudes Affecting the Use of Fluid Milk
Products in Metropolitan Salt Lake City

by

Wayne N. Monson, Master of Science

Utah State University, 1968

Major Professor: Dr. Rondo A. Christensen
Department: Agricultural Economics

A survey of 360 respondents in metropolitan Salt Lake City was made to determine their attitudes about fluid milk products and the affect of these attitudes on consumption levels. The fluid milk products studied were regular whole milk, two percent milk, skim milk, and nonfat dry (powdered) milk.

The respondents had the most positive attitudes about regular whole milk. Their attitudes about the other three products were highest for those which most nearly resembled regular whole milk. The consumption levels of the four products followed the same pattern.

The respondents' attitudes about four attitude parameters affected their consumption levels. Those respondents with positive attitudes about these parameters consumed more than those with neutral or negative attitudes. The four parameters were taste-refreshment, nutrition-vitality, appropriateness, and convenience.

(147 pages)

INTRODUCTION

In recent years advertising firms and other organizations interested in the promotion of food products have become increasingly aware of the psychological aspects of consumer behavior. The dairy industry, along with the rest of the food manufacturing industries, has become very concerned with how consumers view its products. More and more effort is being made to determine what consumers' attitudes are toward milk products. These include such attitudes as the appropriateness of milk as a beverage, the nutritional and other benefits or undesirable effects which accrue from use of the product, and all other attitudes which may affect consumption of the product.

Improved methods of study and interpretation of attitude data have evolved in recent years. An attempt has been made in this study to use some of these methods and to build upon some of the recent attitude studies on consumption of milk.

This study was designed to increase understanding of the frame of reference within which the consumer makes his or her decisions regarding purchase and consumption of milk. Realizing that consumer attitudes may differ for different forms of milk, four different milk products were studied.

OBJECTIVES

The objectives of this study were designed to be accomplished in succession, each successive one being based somewhat upon the results of the previous one.

The objectives were to:

1. Identify and describe consumer attitudes about the nutrition vitality, taste-refreshment, appropriateness, price-value, calorie level, and convenience of four fluid milk products. They were regular whole milk, two percent milk, skim milk, and powdered milk.

2. Relate consumer attitudes as described in objective one to the consumption of the various fluid milk products and determine which attitudes are discriminatory.

3. Make general recommendations concerning the dairy industry's educational and advertising programs. Also to make general recommendations concerning the development of new products to satisfy consumer needs and desires.

REVIEW OF LITERATURE

There have been a multitude of dairy products studies conducted which have been labeled as attitude studies. These have, for the most part, merely concerned themselves with the reasons why people did or did not drink milk. The results of these studies, presented in tabular form, showed the percentages of people who gave the various reasons for either consuming or not consuming the various milk products.

There have been some studies conducted with orientation toward special problems, such as diet-heart disease problems. These have dealt with consumer awareness of the problem and how the consumers felt milk products related to it.

These types of studies have very little similarity to this attitude study. The studies dealing with special problems have the most similarity, but even they are of little value as background for this project.

While other publications have been scanned for ideas, only those dealing with the same type of study as this one--the identification and measurement of consumer attitudes and their affect on milk consumption--have been included in this review of literature.

Bayton, Head of the Department of Psychology, Howard University, is one of the pioneers in this type of attitude study toward milk. He has been involved in most of the research in this area and has made perhaps the most significant contributions.

Universal Marketing Research, under the direction of Bayton, conducted a study for the American Dairy Association in which they did a factor analysis of the image of milk (4). The results of this study have been presented by Bayton as a basis for several speeches.

The respondents in this study scaled their opinions on 104 questions on a true-untrue scale. There were 10 degrees of feeling between the completely true and completely untrue ends of the scale.

They found that the degree of agreement with many statements varied between population segments. For instance, the belief that milk is fattening was greater among females than males and also increased with age.

Higher volume users marked more closely to the true side those questions dealing with milk as a good beverage for a meal or snack than did the low volume users. This was also true for those questions which reflected something good about the personality of a milk drinker.

Those items which made reference to milk as the cause of a fat problem were judged less true by high volume users than by low volume users.

The items, "milk is needed for a balanced diet," "milk is a good source of protein," and "milk gives you vitality," were all accepted by both high and low-volume users.

Six basic factors,¹ around which people organize their perception of and their use or non-use of milk, were discovered through the use of factor analysis. They were:

- | | |
|-------------------------|------------------|
| 1. Vitality-strength | 4. Beverage use |
| 2. Body building growth | 5. Age of user |
| 3. Personableness | 6. Health threat |

¹Factors as they were referred to in this factor analysis of the image of milk are the same thing as parameters, and the two terms are used interchangeably.

The strongest or most important parameters or factors were those which associated milk with vitality-strength, body building growth, and personableness.

The occurrence of the factors was to some extent a function of the population segment. Vitality-strength was considered important by males but not by females. Body building growth and personableness appeared to be a more important consideration to females than males.

Beverage use was the one factor which proved to be of universal concern to all groups. Apparently all people considered milk in terms of when it might be used and which beverages compete with it.

The identification of health threat as a consideration indicated that the publicity concerning fat and heart trouble has had some affect on peoples' beliefs. The key items included in this factor concerned fat, cholesterol, and heart trouble. Of the parameters isolated by the factor analysis, however, this one had the least importance.

This study was admittedly limited to the identification of the basic parameters or factors in beliefs concerning milk. It could not determine the role that these factors played in determining the person's behavior with respect to consumption of the product.

Bayton recently accepted a special assignment from the American Dairy Association to review all of the research available on attitudes toward milk. He was asked to define those appeals which appeared to be most vital in promoting increased milk consumption.

In the introduction to an article written by Bayton, which appeared in the summer issue of Dairy Promotion Topics, he made the following statement (1). "This search of the research literature on attitudes, opinions, and beliefs about milk leads to the conclusion that the critical appeals

for promoting milk are in the areas of nutrition and refreshment." He went on to say that the nutrition appeal stresses the vitality and energy concepts with emphasis on the idea that milk provides vitality and energy for a substantial period of time after consumption. Also that the refreshment concept should deal with milk in terms of cold-refreshing-relaxing.

Another result of this review was the conclusion that people who have a positive attitude toward the values of milk consume more milk than people whose feelings are negative.

Bayton says consumers have 22 basic parameters available to be brought to bear on their food choices and food rejections. The 22 parameters were grouped into seven basic categories as follows:

1. Nutrition Parameters
 - a. Body growth needs
 - b. General health (rather than specific health needs)
 - c. Vitality-energy
 - d. Energy carry through (concern for long lasting energy)
2. Economic Parameters
 - a. Price, per se
 - b. Value (what you get for your money)
3. Sensory-Aesthetic Parameters
 - a. Taste-aroma-appearance complex
 - b. Refreshment (especially coolness, relief of thirst)
4. Personableness Parameters
 - a. Personableness in general (lively, good complexion, bright and sparkling eyes, general attractiveness)
 - b. Sex personableness. Males (vigorous, athletic, masculinity)
Females (lovely complexion, nice figure, femininity)

5. Appropriateness Parameters (suitability to my kind of person or to a given situation)
 - a. Age group appropriateness (milk for children, coffee for adults)
 - b. Status group appropriateness (class relatedness of some foods)
 - c. Social setting appropriateness (family privacy, intimate friends, special guests, restaurants)
6. Convenience Parameters
 - a. Convenience in purchasing, availability
 - b. Convenience in storing
 - c. Convenience in preparation
 - d. Convenience in serving
 - e. Convenience in consumption
7. Health Apprehension Parameters
 - a. Weight apprehension
 - b. Cardiac apprehension
 - c. Contamination apprehension (pesticides, bacterial, animal medications, atomic fallout)
 - d. Allergies

Bayton considered quality to be a subsidiary consideration connected with the parameters which were of primary concern to the individual consumer.

As a method of showing how these parameters are applied by consumers in their purchasing decisions, Bayton introduced people profiles and product profiles. A people profile is a bar graph which demonstrates the intensities of feeling of several groups of people toward selected attitude parameters for one product. A product profile is a bar graph

which relates intensities of feeling toward selected attitude parameters, for a group of products, by a given population group.

Bayton also makes the point that to know what the parameters are is not enough, but we must also know which of them have a discriminating influence. By this was meant those that affect consumption. For example, a parameter is discriminating if people who agree with it consume significantly more than those who disagree with the parameter.

Also introduced were several parameters which operate upon the homemaker in her role as the "gatekeeper." These were in addition to the 22 parameters which operate on her as a consumer. They were:

1. Health and nutrition--sensitivity to meeting the health and nutritional needs of the family; concern over the nutrition value of specific foods.
2. Sensory--aesthetic-providing food and meals that satisfy the taste, aroma, appearance complex.
3. Economic--how to save money on food purchasing; how to compare prices; determining how much food actually costs; how to keep within the food budget.
4. Market knowledge--how to tell quality or grade of foods wanted; how to get grade or quality for money available to spend.
5. Family wishes--how to accommodate the demands of various family members.
6. Time pressures--how to save time in shopping and meal planning.
7. Preparation pressures--avoiding a lot of "mess and fuss" in preparing meals.
8. Prestige; achievement--obtaining achievement satisfactions in demonstrating how smart a shopper she is; how good a cook she is; how different and unique her meals can be.

Another consideration was those parameters which were in operation to prevent the homemaker from making use of the product in feeding her family. The following parameters seemed to be in operation to prevent homemakers from using particular foods.

1. Price too high.
2. Inability to tell quality or grade.
3. The quality of the product wanted is not available.
4. Sensory-aesthetic (product does not satisfy sensory aesthetic criteria).
5. Objections of family members.
6. Lack of familiarity with product.
7. Trouble and fuss of preparation.
8. Possibility of social stigma (friends and neighbors looking down on the homemaker and her family because she serves this particular food).

In another speech presented at the World Food and Agricultural Exposition at the University of Wisconsin on September 18, 1967, Bayton covered the same points as in the paper just reviewed (2). He made no additions to the ideal concerning the consumer attitude area.

The Economic Research Department of the Florida Citrus Commission issued a report titled, Twenty-one "Orange" Beverages as Mothers Think of Them (3). The methodology used in this study was reviewed because it had considerable application to this thesis problem.

The data about the attitudes of mothers toward various orange beverages were obtained by use of a rating scale. Positive statements appeared on one side of the questionnaire and the opposite (negative) statements appeared on the other side. Five spaces appeared between the statements,

and the housewife was asked to show her opinion by putting an X in one of the five spaces between the opposing terms.

The results of the study were shown by first tabulating the mean ratings. This was accomplished by multiplying a predetermined rating score for each space times the percentage of respondents who marked that space. The statements were then grouped according to the characteristics of orange juice to which they applied and listed vertically down the side of a page. A scale from 0 to 6 was placed at the bottom of the page. This was used as a guide to plot the mean rating for each statement listed down the page. By connecting the points together, a solid line, vertical profile was formed for the attitudes of consumers concerning the product.

This method gave a very good visual interpretation of the positive and negative attitudes of consumers concerning the various orange beverages.

By superimposing the attitude profile of two products on the same page, an easy comparison of the differences and similarities in consumer attitudes toward the two orange drinks was achieved.

As an added indication of which considerations mothers thought were important, they were asked to respond to the statement, "very important to me," for each variable. The percentage of respondents who considered each statement to be an important consideration was indicated in the report.

In addition to the information discussed above, this study included data concerning such things as the respondents' attitudes concerning the quality of orange juice products as they receive them, preferred types of containers, and information printed on container labels. These data were gathered by personal interview.

PROCEDURES

The study was based on a personal interview survey of 360 households in metropolitan Salt Lake City.

In constructing the survey sample, metropolitan Salt Lake City was divided into 90 geographic tracts, each with approximately the same population. The 90 tracts were then grouped into 30 districts, each district having three adjacent tracts. Using a table of random numbers, one tract was drawn from each district for inclusion in the sample. Three blocks were then randomly selected from each sample tract from which individual households were to be selected and interviewed.

The survey was accomplished by personal interview. The enumerator took with her two questionnaires. The first dealt with the consumption of milk products by the family. The information from this questionnaire was used in a companion study. One family member, 15 years or older, was randomly selected to respond to the second questionnaire which dealt with his or her attitudes toward selected fluid milk products. Respondents indicated their intensity of agreement or disagreement, on a scale of 7, concerning 30 attitude statements for each of four fluid milk products. They included regular whole milk, two percent (low fat) milk, skim milk, and non-fat dry (powdered) milk for drinking.

As the completed questionnaires were received, they were audited, coded, and the information was punched on data cards for machine processing.

In an effort to determine which of the attitude parameters could be grouped together according to a central idea or connotation, the attitude data were subjected to factor analysis. The results of the factor analysis

were compared with Bayton's basic set of attitude parameters for milk. The groupings which were arrived at through the factor analysis were so similar to Bayton's that it was decided to use his groupings insofar as the data permitted. The ones used were listed in objective one.

The attitude questions included in the questionnaire were stated in the form of semantic statements--two polar or opposite statements. They appeared on opposite sides of the page with a series of seven blanks in between. The more positively or negatively respondents felt about the statement, the closer they marked it to the appropriate side.

Following is an explanation of each of the parameters, as well as other semantic statements not included as a part of a parameter, which were used in this study.

The semantic statements used to make up the nutrition-vitality parameter were as follows:

Has no vitamins; full of vitamins

Not nutritious; very nutritious

Low in protein; high in protein

Low in calcium; high in calcium

Doesn't give energy for hours; gives energy for hours

Gives no vitality; gives lots of vitality

This parameter was intended to reflect consumers' attitudes concerning the nutritional value of milk, especially as it related to the long lasting effects of milk.

The semantic statements included in the taste-refreshment parameter were the following:

Not liked by children; liked by children

Tastes bad; tastes good

Watery; rich

Not liked by adults; liked by adults

Disliked by entire family; liked by entire family

Not refreshing; refreshing

The appropriateness parameter was comprised of the following questions:

Not a good restaurant drink; good restaurant drink

Not for company; for company

Few uses; many uses

Not for me; for me

This parameter was intended to reflect when, for whom, and how extensively consumers felt milk may appropriately be used.

In the original analysis the statement--"Plain drink; stylish drink"--was included in this parameter. The average intensities of feeling for this statement were so different from the others in the parameter that it was decided that people do not associate stylishness with appropriateness considerations and the question was dropped from the parameter.

The statements included in the price-value parameter were the following:

High priced; low priced

Poor value for the money; good value for the money

This parameter was intended to reflect consumers' attitudes about the price of and value received for money spent on milk products.

Only one statement was used to find the intensities of feeling for the calorie level parameter. It was:

High in calories, low in calories

One other statement on the questionnaire was originally designed to

deal with this parameter--"For weight watchers; for thin people." This statement was discovered to be nonpolar, and for this reason could not be grouped with polar statements in calculating average intensities of feeling and consumption. It will be used, however, where applicable in conjunction with the other statement to explain peoples' feelings about the relationship between milk drinking and weight problems.

Only one statement was used to determine the intensities of feeling regarding the convenience parameter, namely:

Inconvenient; convenient.

No other statements of this nature were included in the questionnaire. It is recognized that other statements regarding convenience in purchasing, storage, serving, etc., would have been valuable additions to this parameter. However, when the data were compiled, it was felt that this one statement regarding convenience contributed enough significant information to warrant the use of it as a convenience parameter.

In addition to the statements grouped into factors or parameters, there were a few other statements which contributed information regarding peoples' attitudes toward milk. They were:

Plain drink; stylish drink

Quality varies; quality uniform

Doesn't contribute to attractiveness; contributes to attractiveness

Goes with food; best by itself

For rich people; for poor people

Woman's drink; man's drink

Girl's drink; boy's drink

Never heard of it; know product very well

Never have it; have it very often

In the questionnaire, the statements were arranged so as to avoid having all positive statements on one side and all negative statements on the other side. The possible result of this would have been for the respondent to pick a column and mark all questions the same without actually considering each statement.

The statements were also arranged in such a way that the statements in a particular parameter did not appear together.

Average intensities of feeling and average consumption levels associated with the various parameters were calculated by finding the averages for each semantic statement in the parameter and averaging these values together to find the average value for the parameter. In the case of average consumption levels, a weighted average was found. Weighting was by the number of respondents who expressed the particular intensity of feeling about each statement in the parameter.

The object of the section titled "Consumer Attitudes Affecting the Use of Fluid Milk Products" was to describe consumers' attitudes concerning the various attitude parameters and other attitude statements for each of the four milk products.

As a means of analyzing the respondents' attitudes and the affect of their attitudes on milk consumption and of organizing the discussion, the respondents were divided into several groups. The main divisions were sex, age, and consumption level. Three age groups were used: 15-19, 20-34, and 35 and over. Consumption level groups were based on the amount of fluid milk that the respondent drank the day before being surveyed. There were three groups: high consumers--three or more glasses; medium consumers--less than three but more than one; and low consumers--one glass or less (including non-consumers).

Following are the age and consumption level group breakdowns and the number of respondents in each.

<u>Age groups</u>	<u>All</u>	<u>Males</u>	<u>Females</u>
Age 15-19	24	14	10
Age 20-34	115	43	72
Age 35 and over	<u>221</u>	<u>75</u>	<u>146</u>
Total	360	132	228
<u>Consumption level groups</u>			
High consumers	94	54	40
Medium consumers	93	26	67
Low consumers	<u>173</u>	<u>52</u>	<u>121</u>
Total	360	132	228

Analysis relating consumers' intensities of feeling to their acquaintance with the product was also made. In the few cases where acquaintance had an effect on attitude, this has been included in the discussion. Tables showing the average intensities of feeling of each acquaintance level group are contained in Appendix One.

The second section, "The Effect of Consumer Attitudes on Consumption of Fluid Milk Products," was devoted to the achievement of objective two. This was to relate the attitudes described in section one to the actual consumption levels of the respondents and to determine which attitudes were discriminatory.

As a means of identifying the consumption patterns of the various consumers and to facilitate organization of the descriptive material, the respondents were divided into age and sex groups.

For each of the semantic statements the respondents were divided into three groups according to their average intensities of feeling about the particular statement. The three divisions were: negative attitudes--

average intensity of feeling one, two, or three; neutral attitudes--average intensity of feeling four; and positive attitudes--average intensity of feeling five, six, or seven.

Weighted average consumption levels were calculated for each of the three divisions of respondents for each semantic statement. The appropriate semantic statements were then grouped and a weighted average consumption figure was calculated for the negative, neutral, and positive divisions of each parameter.

Attitudes about only two of the variables, which were not considered to be part of a parameter, affected consumption level slightly. Because of this, the discussion in this section is devoted exclusively to the effects of attitudes about the six parameters on consumption level.

To facilitate relating attitudes to consumption, the parameters were divided into three classifications. The first group was those that were non-discriminatory and had a universal intensity of feeling. This meant that the respondents all had practically the same intensity of feeling, hence consumption was not affected by a different attitude about that parameter.

The second group was also non-discriminatory, but there was a difference in the intensity of agreement. This meant that even though there were differences in the attitudes of the group members concerning the parameter, there was no real difference in their consumption. This indicated that a difference in attitude about this parameter did not affect consumption of the product.

The last group was the discriminatory parameters. These were those for which the group members had varying attitudes, and their consumption varied with their attitude.

Further value could have been added to the study by performing statistical tests on the data to determine the levels at which the average intensities of feeling and average consumption levels were significantly different for the various groups of respondents. This was not done because of lack of funds.

CONSUMER ATTITUDES CONCERNING FLUID MILK PRODUCTS

This section has been devoted to the description of the attitude parameters as they relate to each of the four fluid milk products which were studied.

Regular Whole Milk

Age groups

Age 15-19. It is readily observable from Table 1 that the respondents aged 15-19 had a generally good attitude about regular whole milk. They felt positive about the nutrition-vitality parameter, the taste-refreshment parameter, and the convenience parameter. This was indicated by average intensities of feeling of six or higher for these three parameters.

The value for the appropriateness parameter was also high with respondents giving an especially favorable response to the statement indicating that regular whole milk was "for me."

The price-value parameter exhibited an interesting trait which held true for all consumer groups. The 15-19 year olds gave a low value of 3.2 for the component statement of the parameter dealing with price, indicating that they felt that regular whole milk was relatively high priced, and a high value of 5.6 for the statement dealing with the value the product was for the money paid. This indicated that while they considered regular whole milk to be high priced, they still thought it was a good value for the money. The respondents leaned toward a positive feeling for the price-value consideration. The positive feeling about

Table 1. Consumer attitudes toward regular whole milk by age group, metropolitan Salt Lake City, 1967

Attitude parameters and statements	Age 15-19			Age 20-34			Age 35 & over		
	All	Male	Female	All	Male	Female	All	Male	Female
	<u>Average intensity of feeling^a</u>								
Nutrition-vitality parameter	6.1	6.2	6.0	5.9	5.7	6.1	6.0	5.7	6.1
Full of vitamins	6.3	6.5	6.0	6.2	5.9	6.4	6.2	5.9	6.4
Very nutritious	6.4	6.4	6.5	6.2	6.0	6.3	6.4	6.1	6.5
High in protein	6.5	6.6	6.3	5.9	5.7	6.1	6.1	5.7	6.2
High in calcium	6.0	5.9	6.3	6.4	6.2	6.6	6.2	6.0	6.3
Gives energy for hours	5.7	6.1	5.0	5.4	5.2	5.5	5.7	5.4	5.8
Gives lots of vitality	5.9	5.7	6.1	5.6	5.5	5.6	5.4	5.1	5.6
Taste-refreshment parameter	6.0	6.1	5.9	6.0	5.8	6.2	6.2	5.9	6.3
Liked by children	6.4	6.0	6.9	6.3	5.9	6.4	6.4	6.1	6.6
Tastes good	6.5	6.7	6.1	6.2	6.1	6.2	6.6	6.4	6.6
Tastes rich	5.1	5.4	4.7	5.9	5.7	6.0	5.7	5.4	5.9
Liked by adults	5.8	6.1	5.4	5.7	5.3	5.9	5.8	5.5	6.0
Liked by entire family	6.0	6.2	5.7	6.0	5.6	6.3	6.1	5.7	6.3
Refreshing	6.5	6.4	6.5	6.1	6.1	6.2	6.3	6.2	6.3
Appropriateness parameter	5.6	5.9	5.2	5.1	5.1	5.1	5.0	4.8	5.1
Good restaurant drink	5.7	5.9	5.4	5.1	5.1	5.0	5.3	5.0	5.5
For company	4.8	5.4	4.0	4.6	4.5	4.7	4.7	4.3	4.9
Many uses	5.4	5.5	5.3	5.0	4.9	5.1	4.9	4.4	5.1
For me	6.7	7.0	6.3	5.7	5.8	5.6	5.1	5.4	5.0
Price-value parameter	4.4	4.6	4.1	4.5	4.0	4.7	4.5	4.4	4.6
Low priced	3.2	3.4	3.0	3.3	2.9	3.5	3.2	3.2	3.2
Good value for the money	5.6	5.8	5.3	5.6	5.2	5.9	5.8	5.6	6.0
Calorie level parameter	5.4	5.6	5.0	5.6	5.6	5.6	5.9	5.8	6.0
Convenience parameter	6.3	6.4	6.0	6.2	5.7	6.5	6.5	6.1	6.7
Others									
Stylish drink	2.3	2.4	2.2	3.1	2.6	3.4	2.4	2.6	2.2
Quality uniform	5.4	5.1	5.2	4.7	5.8	4.4	5.2	5.0	5.3
Contributes to attractiveness	5.4	5.5	5.3	5.0	4.9	5.1	4.9	4.4	5.1
Know products very well	6.6	6.9	6.3	6.5	6.5	6.5	6.8	6.7	6.9
Have it very often	6.0	6.4	5.3	5.1	5.0	5.1	5.1	5.0	5.1

^aComplete agreement with statement would be indicated by a value of seven. Complete disagreement with the statement would be indicated by a value of one.

value for the money outweighed the negative feelings about price.²

The calorie level parameter had a relatively high value of 5.4, indicating that they felt that regular whole milk was fairly high in calories.

This group also had a very positive attitude concerning the convenience parameter for regular whole milk.

Males and females had practically the same intensities of feeling about the nutrition-vitality parameter. The only major difference was that males felt that regular whole milk gave more long-lasting energy than did females.

The taste-refreshment parameter showed practically the same results for the males and females. Some of the questions which made up the parameter showed quite different results, however. Females felt more strongly than males that regular whole milk was liked by children. Males felt more strongly that regular whole milk tastes good, is rich, is liked by adults, and is liked by the entire family.

Males also felt more strongly about the appropriateness of regular whole milk and that it was a good restaurant drink. Females had a neutral feeling about regular whole milk for company, while males felt fairly strongly that it was a good drink to serve to company. Males had an average value of seven for the statement "for me," indicating 100 percent acceptance of the product.

Males felt more positive about the price-value parameter than females. This was caused by a combination of a less negative feeling about the price, and a more positive feeling about the value for the money.

²Values above four indicate positive feelings, while values below four indicate negative feelings.

Males also felt more positive that regular whole milk was high in calories and that it was convenient.

The other variables exhibited very few noteworthy results. All 15-19 year olds gave low values to the stylishness of regular whole milk. They all felt slightly that regular whole milk was of uniform quality and that it contributes to attractiveness. Males marked that they were better acquainted with and consume more regular whole milk than did females, although both were positive.

For the nonpolar variables there were no real differences between males and females. The one important aspect of these variables was that 15-19 year olds felt that regular whole milk goes better with foods than by itself. The intensities of feeling of all age groups about the nonpolar variables for regular whole milk are found in Table 2.

Table 2. Consumer attitudes toward regular whole milk for nonpolar variables, by age group, metropolitan Salt Lake City, 1967

Attitude statements	Age 15-19			Age 20-34			Age 35 & over		
	All	Male	Female	All	Male	Female	All	Male	Female
	<u>Average intensity of feeling^a</u>								
For thin people- For weight watchers	4.2	4.1	4.4	4.7	4.7	4.7	4.6	4.4	4.7
Best by itself- Goes with foods	2.2	2.2	2.3	2.2	2.3	2.3	2.5	2.5	2.5
For poor people- For rich people	3.8	3.9	3.8	4.0	3.7	4.1	4.0	4.1	3.9
Man's drink- Woman's drink	4.1	4.2	4.0	4.1	4.1	4.1	4.0	4.1	3.9
Girl's drink- Boy's drink	4.0	3.9	4.0	3.8	3.8	3.8	3.9	3.9	4.0

^aComplete agreement with the first statement would be indicated by a value of seven. Complete agreement with the second statement would be indicated by a value of one. A value of four could mean equal agreement or disagreement with both.

Age 20-34. The respondents aged 20-34 had fairly positive attitudes about regular whole milk. The highest values were for the nutrition-vitality, taste-refreshment, and convenience parameters, all of which were close to six.

They seemed to feel quite positive about the appropriateness of regular whole milk as shown by their average intensity of feeling of 5.1.

As with the 15-19 year olds, the 20-34 year olds indicated that they thought of regular whole milk as being high priced but also that it was a good value for the money.

This group felt that regular whole milk was a high calorie food; this coincided with their feeling that it was a drink for thin people.

Females aged 20-34 had a slightly more positive attitude about the nutrition-vitality value of regular whole milk than did males. This was indicated by a higher value for the parameter and also an almost uniform higher intensity of feeling for each question within the parameter. This same finding also held true for the taste-refreshment parameter.

Males and females had exactly the same intensity of feeling for the appropriateness parameter of regular whole milk.

Females in this age group exhibited a higher average intensity of feeling for the price-value parameter than males. This came about because males felt much more negatively about the price and much less positively about the value for the money of regular whole milk.

Both males and females exhibited the same feelings about the calorie level parameter. Females, however, felt more positive than males about the convenience parameter.

All 20-34 year olds had a negative attitude concerning the stylishness of regular whole milk. Females, however, had a less negative attitude

than did males. While respondents all had a positive feeling about the uniform quality of regular whole milk, males were more positive. Both males and females had practically the same value and felt positive about regular whole milk contributing to attractiveness and their acquaintance and use of it.

With the exceptions of feeling slightly that regular whole milk was for thin people and quite strongly that it goes with foods, the values for the nonpolar variables were close to four. This indicates that they felt regular whole milk was equally for both rich and poor, men and women, and boys and girls.

Age 35 and over. Consumers 35 years and over had strong positive feelings about the nutrition-vitality, taste-refreshment, and convenience parameters. Each of these parameters exhibited an average intensity of feeling of six or above.

This group demonstrated that they had quite a high level of calorie apprehension connected with this product. While feeling that regular whole milk was fairly high in calories, they also leaned toward the attitude that it was for thin people.

The respondents 35 and over exhibited positive intensities of feeling for both the appropriateness and the price-value parameters.

For both the nutrition-vitality and the taste-refreshment parameters, females had higher average intensities of feeling. This was caused by higher values for each statement within the parameters.

Females had a higher value for the appropriateness parameter. This came about in an interesting fashion. Males felt more strongly than females that regular whole milk was "for me." Females, however, felt

more strongly that it was a "good restaurant drink," "for company," and had "many uses."

Although the females' attitudes were more positive, there was little difference between the male and the female average intensity of feeling about the price-value parameter. This was also true for the calorie-level parameter.

Females had a considerably more positive attitude than males about the convenience of regular whole milk.

These consumers as a group exhibited a low value for the stylishness of regular whole milk, with little difference between males and females. They felt fairly positive about the uniform quality of regular whole milk, with females slightly higher than the males. Both felt that the product contributes to attractiveness, but the females felt much more so. Acquaintance with the product was marked very high, and frequently of consumption moderately high by both sexes.

The average intensities of feeling for nonpolar variables was about the same for this age group as for the other age groups.

Comparison of age groups. Attitudes of the various age groups are contrasted in Figure 1 and in Tables 1 and 2. There were no noteworthy differences between age groups in their average intensities of feeling.

There was an interesting relationship between male and female age groups' attitudes about taste refreshment. The younger males had high intensity of feeling about this parameter; the intensity of feeling decreased among the older males. Females, on the other hand, exhibited the opposite pattern.

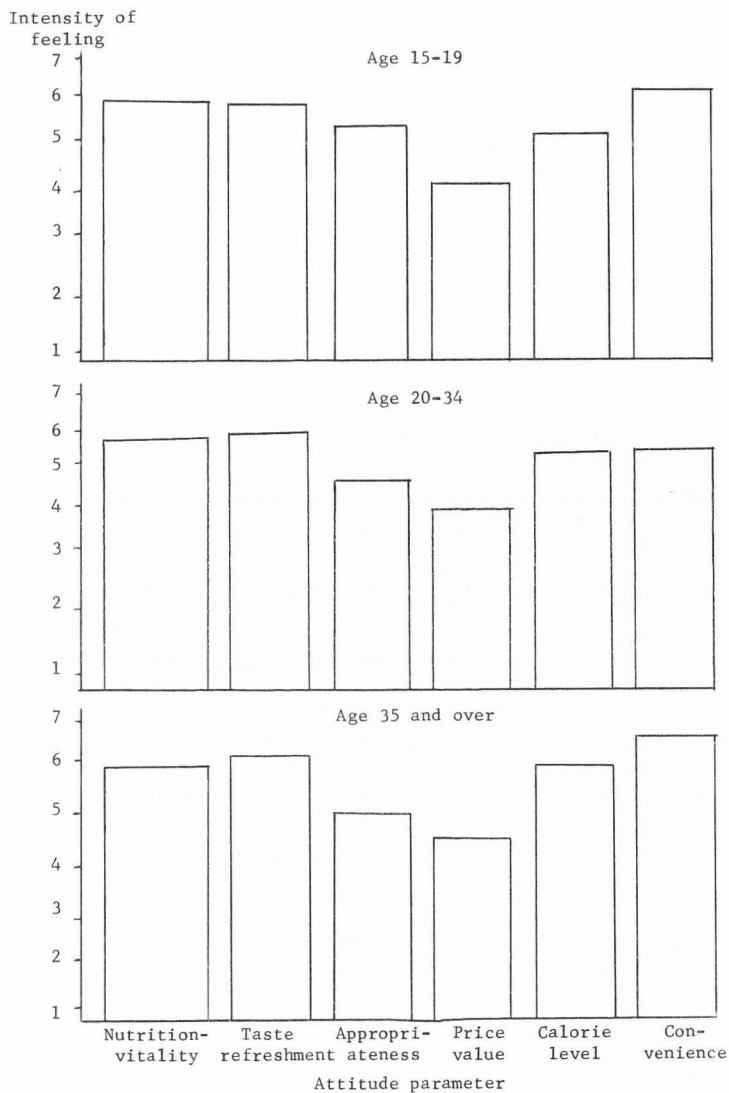


Figure 1. People profile contrasting the average intensities of feeling of the respondents in the three age groups for regular whole milk, metropolitan Salt Lake City, 1967

The intensity of feeling about the appropriateness of regular whole milk decreased slightly with age, particularly between the 20-34 and 15-19 year old male respondents.

For the price-value parameter, the only significant differences among age groups were the following: the males age 20-34 had a considerably lower intensity of feeling than the males of either of the other age groups. Also, the females of the 15-19 age group had a considerably lower intensity of feeling than the females of either of the other age groups.

The older female respondents seemed more convinced that regular whole milk was high in calories.

The older females were more satisfied with the convenience of regular whole milk.

Consumption level groups

High consumers. Those persons who had consumed three or more glasses of milk the day previous to the survey expressed high average intensities of feeling for the nutrition-vitality, the taste-refreshment, and the convenience parameters. The fact that all of these values were over six indicates that this group had positive attitudes about regular whole milk regarding these parameters.

The respondents in this group also had very positive attitudes concerning the appropriateness parameter. They felt especially strong about the statement indicating that regular whole milk was "for me." Table 3 exhibits the average intensities of feeling of each consumption level group.

This group felt that regular whole milk was quite high in calories.

Table 3. Consumer attitudes toward regular whole milk, by consumption level, metropolitan Salt Lake City, 1967

Attitude parameters and statements	High		Medium			Low			
	All	Male	Female	All	Male	Female	All	Male	Female
	<u>Average intensity of feeling^a</u>								
Nutrition-vitality parameter	6.1	6.0	6.1	6.0	5.7	6.1	5.9	5.5	6.1
Full of vitamins	6.3	6.2	6.3	6.3	6.1	6.4	6.2	5.6	6.4
Very nutritious	6.3	6.3	6.3	6.5	6.3	6.5	6.2	5.7	6.4
High in protein	6.1	5.9	6.3	6.0	5.7	6.1	6.1	5.7	6.2
High in calcium	6.3	6.3	6.4	6.3	6.0	6.4	6.2	5.8	6.3
Gives energy for hours	5.7	5.7	5.7	5.5	5.2	5.6	5.5	5.1	5.7
Gives lots of vitality	5.7	5.6	5.8	5.5	4.9	5.7	5.5	5.2	5.6
Taste-refreshment parameter	6.2	6.0	6.4	6.3	6.1	6.3	6.0	5.6	6.1
Liked by children	6.5	6.2	6.8	6.4	6.0	6.5	6.3	5.9	6.5
Tastes good	6.6	6.5	6.7	6.6	6.5	6.7	6.3	6.2	6.3
Tastes rich	5.6	5.6	5.7	6.1	5.9	6.2	5.6	5.1	5.7
Liked by adults	5.9	5.6	6.3	5.9	5.8	6.0	5.6	5.2	5.8
Liked by entire family	6.1	5.9	6.4	6.3	6.2	6.3	6.0	5.4	6.2
Refreshing	6.5	6.4	6.5	6.3	6.2	6.3	6.1	5.9	6.1
Appropriateness parameter	5.5	5.4	5.7	5.2	5.1	5.3	4.8	4.5	4.9
Good restaurant drink	5.6	5.5	5.6	5.3	5.3	5.3	5.1	4.6	5.3
For company	5.0	4.9	5.1	4.8	4.8	4.8	4.5	4.0	4.7
Many uses	5.2	4.9	5.6	5.0	4.5	5.3	4.8	4.5	4.9
For me	6.3	6.4	6.3	5.8	6.0	5.7	4.7	4.8	4.7
Price-value parameter	4.4	4.1	4.7	4.4	4.4	4.4	4.6	4.4	4.7
Low priced	3.0	2.8	3.4	3.1	3.2	3.0	3.4	3.5	3.3
Good value for the money	5.7	5.5	6.1	5.7	5.5	5.7	5.8	5.4	6.0
Calorie level parameter	5.7	5.9	5.5	5.7	5.2	5.8	5.8	5.8	5.9
Convenience parameter	6.3	6.1	6.4	6.4	6.0	6.6	6.4	6.0	6.7
Others									
Stylish drink	2.8	2.5	3.0	2.7	2.5	2.7	2.5	2.6	2.4
Quality uniform	5.1	5.1	5.1	5.2	5.2	5.2	4.9	5.0	4.8
Contributes to attractiveness	5.2	4.9	5.6	5.0	4.5	5.3	4.8	4.5	4.9
Know product very well	6.8	6.8	6.8	6.8	7.0	6.7	6.7	6.3	6.8
Have it very often	5.7	5.8	5.7	5.5	5.7	5.5	4.6	4.3	4.7

^aComplete agreement with statement would be indicated by a value of seven. Complete disagreement with the statement would be indicated by a value of one.

The price-value parameter was characterized by the usual negative attitude about the price of regular whole milk; this attitude was outweighed, however, by the more positive attitude concerning its good value for the money.

There was essentially no difference between the males and females in the high consumer group regarding their attitude toward the nutrition-vitality value of regular whole milk.

In the taste-refreshment parameter, the average intensity of feeling was significantly higher for females than for males. This was because of a higher value for their attitudes concerning all statements in the parameter.

Females of this group also had a higher average intensity of feeling regarding the appropriateness of regular whole milk. This was chiefly because of their higher intensity of feeling for the statement "many uses."

Females had a considerably more positive attitude for the price-value parameter of regular whole milk. This was the result of a less negative attitude concerning the price of regular whole milk and a more positive attitude about the value for the money.

Males felt more positive that regular whole milk was high in calories. However, both sexes had fairly high intensities of feeling for this parameter.

Both sexes also agreed that regular whole milk had convenience features. Females, however, felt so more strongly.

The reactions to the variables not included in parameters were as follows: high consumers were quite negative in their feeling concerning stylishness; males were more negative than females; both males and females had the same value of 5.1 for "quality uniform" indicating agreement with

the statement; females felt strongly that regular whole milk contributes to attractiveness; males were also in agreement.

As would be expected, this group responded to the questionnaire with high values for acquaintance with and consumption of regular whole milk.

Intensities of feeling concerning the nonpolar variables of all consumption groups are found in Table 4. The values for high consumers indicated a slight feeling that it was for thin people and a quite strong feeling that it goes with foods better than by itself. The others were essentially neutral.

Table 4. Consumer attitudes toward regular whole milk for nonpolar variables, by consumption level, metropolitan Salt Lake City, 1967

Attitude statements	High		Medium			Low			
	All	Male	Female	All	Male	Female	All	Male	Female
	<u>Average intensity of feeling^a</u>								
For thin people- For weight watchers	4.4	4.5	4.2	4.6	4.5	4.6	4.8	4.4	4.9
Best by itself- Goes with food	2.3	2.2	2.5	2.2	1.9	2.3	2.5	2.8	2.4
For poor people- For rich people	3.9	3.9	4.0	4.0	4.1	4.0	4.0	3.9	4.0
Man's drink- Woman's drink	4.2	4.1	4.2	3.9	4.1	3.9	4.0	4.1	4.0
Girl's drink- Boy's drink	3.9	3.8	4.0	3.9	3.9	3.9	3.9	3.9	3.9

^aComplete agreement with the first statement would be indicated by a value of seven. Complete agreement with the second statement would be indicated by a value of one. A value of four could mean either complete agreement or disagreement with both.

Medium consumers. Consumers who had consumed less than three, but more than one glass of milk the day previous to being surveyed, had high intensities of feeling (six or more) for the nutrition-vitality, taste-refreshment and convenience parameters.

The calorie level parameter had a value of 5.7, indicating that the medium consumers believed that regular whole milk was quite high in calories.

Medium consumers had a fairly positive attitude about the appropriateness of regular whole milk. The most favorable response was to the statement that regular whole milk was "for me."

These consumers leaned toward the positive side of the price-value parameter.

Females in this group felt more positive about the nutrition-vitality parameter than did males. Their attitude toward each question included in the parameter was fairly uniform.

The females' attitude toward the taste-refreshment parameter was slightly more positive than the males. Their response to each statement in the parameter was more positive.

Both males and females had a fairly positive attitude concerning the appropriateness of regular whole milk.

Both sexes were in agreement as to their positive attitude regarding the price-value parameter.

Females were more convinced than males that regular whole milk was high in calories.

Both sexes had high intensities of feeling about the convenience parameter. Females were considerably higher, however.

The negative feeling regarding the stylishness of regular whole milk was the same for both males and females. Both males and females had a positive attitude that regular whole milk was of uniform quality. Males had a slightly positive attitude that regular whole milk contributes to attractiveness. Females, however, had a considerably higher intensity of feeling for this variable.

As would be expected, this group gave a high value for acquaintance with the product and a fairly high value for frequency of consumption.

For the nonpolar variables, the analysis was as follows: the medium consumers leaned toward the opinion that regular whole milk was for thin people. They also felt that it goes best with foods rather than by itself. The values given for the other three variables grouped around four which probably indicates that they felt that regular whole milk was equally for rich and poor, men and women, boys and girls.

Low consumers. Similar to the other consumption groups, consumers who had consumed one or less glasses of milk the previous day exhibited high intensities of feeling for the nutrition-vitality, taste-refreshment, and convenience parameters. The values for the former two were not quite as high for low consumers as for high and medium consumers--5.9 and 6.0 respectively.

The low consumer group had a fairly positive attitude about the appropriateness of regular whole milk.

A fairly positive feeling about the price-value parameter was exhibited by this group.

They also felt quite strongly that regular whole milk was high in calories. At the same time, they leaned toward the attitude that it was for thin people.

The females in this consumer group had a considerably more positive attitude about the nutrition-vitality, taste-refreshment, and convenience parameters than did the males. For the nutrition-vitality and taste-refreshment parameters, the females indicated a generally more positive feeling.

In the appropriateness parameter, the females also exhibited a more positive attitude than males, although neither one was especially high. The females had higher intensities of feeling regarding the appropriateness of regular whole milk as a restaurant drink and as a beverage to be served to company.

Females had a higher intensity of feeling for the price-value parameter. While there was very little difference between males and females in their opinions about the high price of milk, the females felt much more strongly that it was a good value for the money.

Females felt more strongly that regular whole milk was for thin people.

The other variables showed results as follows: both sexes agreed that regular whole milk was not stylish, but that it was fairly uniform in quality. Females had a higher belief than males that regular whole milk contributes to attractiveness but neither one was exceedingly positive in this belief. These people exhibited a high value for acquaintance with this product. As would be expected, low consumers expressed a low value for frequency of consumption.

For the nonpolar variables, the results were as follows: both sexes expressed the feeling that regular whole milk was a drink for thin people. Both expressed the attitude that it goes best with foods. For the rest, the values grouped around four as with the other grouped previously discussed.

Comparison of consumption level groups. A numerical comparison of intensities of feeling of the three consumer groups may be made by referring to Tables 3 and 4. Visual comparison is contained in Figure 2. There was a tendency for intensity of feeling regarding the nutrition-vitality, taste-refreshment, and appropriateness parameters to decrease as consumption level decreased. The decrease for the nutrition-vitality parameter was caused entirely by the males. Their intensity of feeling decreased substantially with each decrease in consumption level, while females of all three groups responded with the same intensity of feeling.

For the taste-refreshment parameter, the intensities of feeling of both high and medium consumers tended to remain close together and high. The intensities of feeling of the low consumers were somewhat lower. Females in all three groups tended to have higher average intensities of feeling about this parameter than did males.

There were no large differences between the consumption groups as far as their attitudes toward the price-value parameter were concerned.

There was very little variation between the consumption groups in their attitudes about the calorie content or convenience of regular whole milk.

Acquaintance with product

An analysis was made to find if the respondents' intensities of feeling about the various parameters were affected by their acquaintance with the product. For regular whole milk there was not any effect. The results of the analysis are found in Appendix A, Table 30.

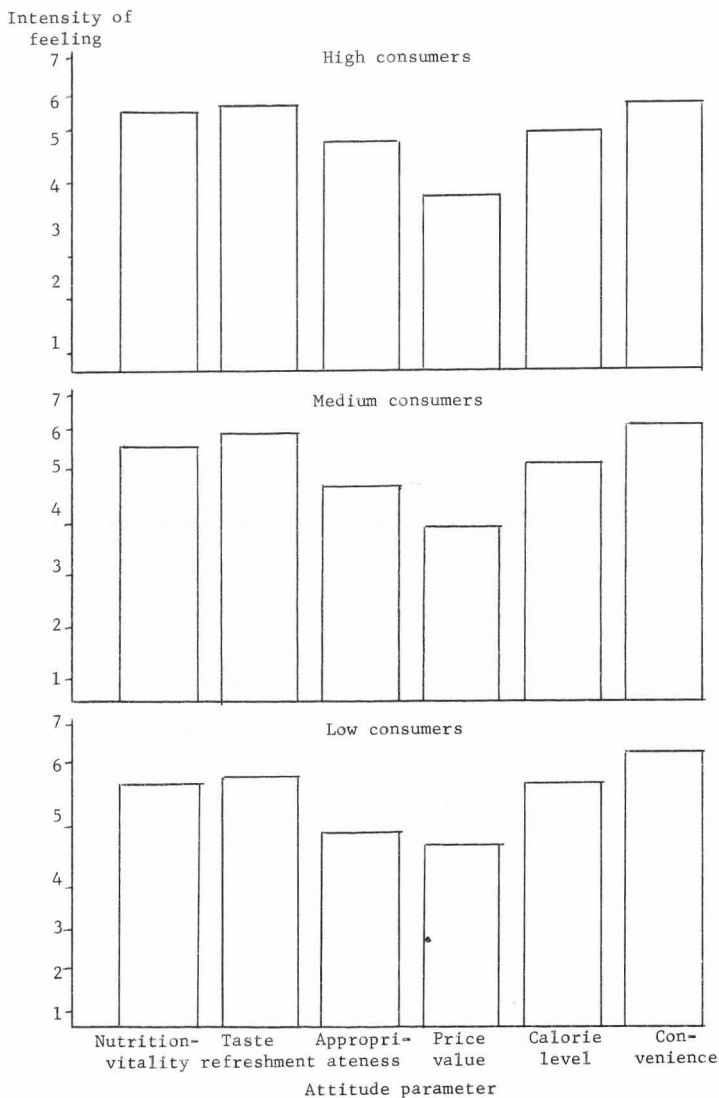


Figure 2. People profile contrasting the average intensities of feeling of respondents in the three consumption level groups for regular whole milk, metropolitan Salt Lake City, 1967

Two Percent MilkAge groups

Age 15-19. Intensities of feeling for the parameters and statements of the three age groups are contained in Table 5.

This age group had a generally positive feeling about two percent milk. They did not, however, exhibit any extremely positive attitudes as they did in connection with regular whole milk.

These respondents felt fairly positive about the nutrition-vitality and the taste-refreshment parameters.

These consumers felt slightly negative about the appropriateness parameter for two percent milk. They had either neutral or negative feelings about all of the statements in the parameter except one; they agreed fairly strongly that two percent milk had many uses.

The average intensities of feeling for the price-value parameter was quite positive for this group of respondents. They had the attitude that it was both low priced and a good value for the money.

The 15-19 year olds exhibited quite a strong attitude that two percent milk was low in calories. This coincided with their strong opinion that it was for weight watchers.

Females in the 15-19 year age group exhibited a higher average intensity of feeling for the nutrition-vitality parameter. Their attitudes were more positive for most of the statements in this parameter, but especially so for the semantic statement "gives lots of vitality."

The two sexes had the same intensity of feeling for the taste-refreshment parameter.

Females had a slightly higher intensity of feeling for the appropriateness parameter than males. Females felt more negatively than males that

Table 5. Consumer attitudes toward two percent milk, by age group, metropolitan Salt Lake City, 1967

Attitude parameters and statements	Age 15-19		Age 20-34			Age 35 & over			
	All	Male	Female	All	Male	Female	All	Male	Female
	Average intensity of feeling ^a								
Nutrition-vitality parameter	4.9	4.8	5.1	4.7	4.5	5.0	4.7	4.5	4.9
Full of vitamins	5.5	5.4	5.7	4.9	4.8	5.2	4.8	4.4	5.0
Very nutritious	5.1	5.1	5.2	4.8	4.5	5.1	4.9	4.8	5.0
High in protein	4.9	4.9	4.8	4.8	4.5	5.1	4.7	4.4	4.9
High in calcium	4.5	4.4	4.7	4.8	4.5	5.2	4.9	4.7	5.0
Energy for hours	4.8	4.7	5.0	4.2	3.9	4.5	4.5	4.3	4.7
Lots of vitality	4.7	4.4	5.3	4.8	4.5	4.9	4.5	4.3	4.5
Taste-refreshment parameter	4.7	4.7	4.7	4.4	4.4	4.7	4.5	4.5	4.5
Liked by children	4.3	4.5	4.1	4.4	4.2	4.7	4.7	4.8	4.7
Tastes good	4.9	4.7	5.1	4.7	4.6	5.1	4.8	4.9	4.8
Tastes rich	3.8	3.9	3.7	3.4	3.0	3.7	3.2	3.2	3.2
Liked by adults	4.9	5.1	4.6	5.0	5.0	5.1	4.8	4.9	4.7
Liked by entire family	4.8	4.5	5.3	4.2	4.2	4.5	4.3	4.3	4.3
Refreshing	5.2	5.2	5.3	4.9	5.3	5.2	5.2	5.2	5.2
Appropriateness parameter	3.9	3.8	4.0	3.8	3.8	4.0	3.7	3.6	3.7
Good restaurant drink	3.5	3.6	3.4	3.5	3.5	3.8	3.6	3.8	3.4
For company	3.3	3.6	2.9	3.3	3.6	3.5	3.5	3.3	3.5
Many uses	4.8	4.4	5.4	4.8	4.3	4.8	4.7	4.3	4.9
For me	4.0	3.6	4.5	3.7	3.8	4.0	3.2	3.1	3.2
Price-value parameter	5.2	5.2	5.1	4.9	4.5	5.3	4.7	4.6	4.8
Low priced	4.9	4.7	5.2	4.6	4.3	4.9	4.4	4.3	4.5
Good value for the money	5.5	5.8	5.1	5.2	4.7	5.6	5.1	4.9	5.2
Calorie level parameter	2.9	3.0	2.8	2.7	2.8	2.4	2.8	3.2	2.7
Convenience parameter	5.9	6.0	5.8	5.6	5.8	5.7	6.1	6.1	6.1
Others									
Stylish drink	2.5	2.6	2.3	2.5	2.2	2.5	2.0	1.9	2.0
Quality uniform	4.8	4.5	5.1	4.5	4.8	4.3	4.8	4.9	4.8
Contributes to attractiveness	4.8	4.4	5.4	4.8	4.3	4.8	4.7	4.3	4.9
Know product very well	5.4	5.4	5.3	5.6	5.5	5.9	5.0	5.1	4.9
Have it very often	3.2	2.6	4.0	3.6	3.3	3.9	2.8	3.2	2.6

^aComplete agreement with statement would be indicated by a value of seven. Complete disagreement with the statement would be indicated by a value of one.

two percent milk was for company and that it was a good restaurant drink. Males, however, had a considerably lower intensity of feeling than females about statements indicating that two percent milk had many uses and was "for me."

There was essentially no difference between the average intensities of feeling of the males and females about the price-value parameter, the calorie level parameter, and the convenience parameter.

The attitudes about statements not included in the parameters were as follows: the 15-19 year olds exhibited low intensities of feeling about the stylishness of two percent milk. They had fairly positive attitudes that the quality was uniform, females being slightly more positive than males. This was also true for the statement "contributes to attractiveness." They all indicated that they were quite well acquainted with the product. However, males indicated that they consume very little of the product and females only slightly more.

For the nonpolar variables, both sexes agreed that two percent milk was for weight watchers, goes with foods, and that it was for poor people. They felt that it was a woman's drink more than a man's, but were almost neutral regarding whether it was for boys or girls. The intensities of feeling of this and the other age groups for the nonpolar variables are shown in Table 6.

Age 20-34. The 20-34 year old respondents were fairly positive about the nutrition-vitality parameter for two percent milk. They had a generally uniform attitude about all of the statements in this parameter.

While this group of respondents felt fairly positive that two percent milk was liked by adults, that it was refreshing, and that it tasted good,

they also felt that it was watery. This reduced their average intensity of feeling about the taste-refreshment parameter.

They had a slightly negative feeling about the appropriateness of two percent milk. They had negative feelings about all the statements in the parameter except for "many uses," which was fairly positive. They also had quite positive attitudes for the price-value parameter.

Average intensities of feeling for the calorie level parameter indicated that two percent milk was considered by them to be low in calories and for thin people. Two percent milk was considered by this group to be very convenient.

Table 6. Consumer attitudes toward two percent milk for nonpolar variables, by age group, metropolitan Salt Lake City, 1967

Attitude statements	Age 15-19			Age 20-34			Age 35 & over		
	All Male	Female		All Male	Female		All Male	Female	
	Average intensity of feeling ^a								
For thin people- For weight watchers	2.2	2.2	2.2	2.2	2.6	2.0	2.3	2.4	2.3
Best by itself- Goes with foods	2.6	2.7	2.4	2.7	3.0	2.5	2.5	2.3	2.7
For poor people- For rich people	4.5	4.7	4.3	4.4	4.3	4.5	4.2	4.3	4.2
Man's drink- Woman's drink	3.6	3.6	3.6	3.8	3.7	3.8	3.8	3.7	3.8
Girl's drink- Boy's drink	4.2	4.1	4.2	4.0	4.0	4.1	4.0	4.1	4.0

^aComplete agreement with the first statement would be indicated by a value of seven. Complete agreement with the second statement would be indicated by a value of one. A value of four could mean equal agreement or disagreement with both.

Average intensities of feeling about the nutrition-vitality and taste-refreshment parameters were much higher for females than for males. This was because of considerably higher intensities of feeling for all statements in the parameters.

Females had a higher average intensity of feeling about the appropriateness parameter. Males had more negative feelings regarding two percent milk as a restaurant drink, for company, and "for me." Both were equally positive about the high number of uses for this milk product.

Males in this group had only a slightly positive attitude about the price-value parameter, but females' attitudes were much more positive.

Females in this group were more convinced than males that two percent milk was low in calories and for thin people. Females also thought a little more highly of the convenience of two percent milk than did males.

Description of the "other" variables follows: there was a mutually low intensity of feeling regarding the stylishness of two percent milk and a slightly positive attitude that the quality was uniform. There was also a fairly positive attitude among both sexes that it contributes to attractiveness. Males indicated that they were quite well acquainted with the product, and females that they were very well acquainted. Males and females indicated practically the same consumption levels as 15-19 year old males and females.

Nonpolar variables indicated the following results: both sexes felt that two percent milk was for weight watchers. Both felt that it goes best with foods, although the females were stronger in this belief. The group leaned slightly toward the belief that it was for poor people and that it was a woman's drink. They were neutral about whether it was a boy's or a girl's drink.

Age 35 and over. The people 35 and over had a fairly positive attitude about the nutrition-vitality and taste-refreshment parameters for two percent milk.

The average intensities of feeling of this group about the appropriateness parameter were slightly negative. They agreed that two percent milk had many uses which was the only statement in the parameter about which they felt positive.

They had a fairly positive attitude concerning the price-value parameter. They also felt that it was low in calories, a good drink for weight watchers, and that it was convenient.

Females age 35 and over had the most positive attitude about the nutrition-vitality parameter.

Females were more certain than males that two percent milk was low in calories and that it was for weight watchers.

Discussion of variables not included in the parameters follows: all respondents in this age group had low opinions of the stylishness of two percent milk. They felt fairly positive that the quality was uniform. Females were more positive that it contributed to attractiveness but neither sex was very positive of this. Both indicated fairly high acquaintance with and fairly low consumption of two percent milk.

The nonpolar variables indicated common belief that two percent milk was for weight watchers, goes best with foods, was more for poor people than for rich people, was more a woman's drink than a man's, and was not limited to either sex of children.

Comparison of age groups. With the exception of the following differences, which were only slight, the attitudes of the three age groups were essentially the same. This may be seen by referring to Figure 3.

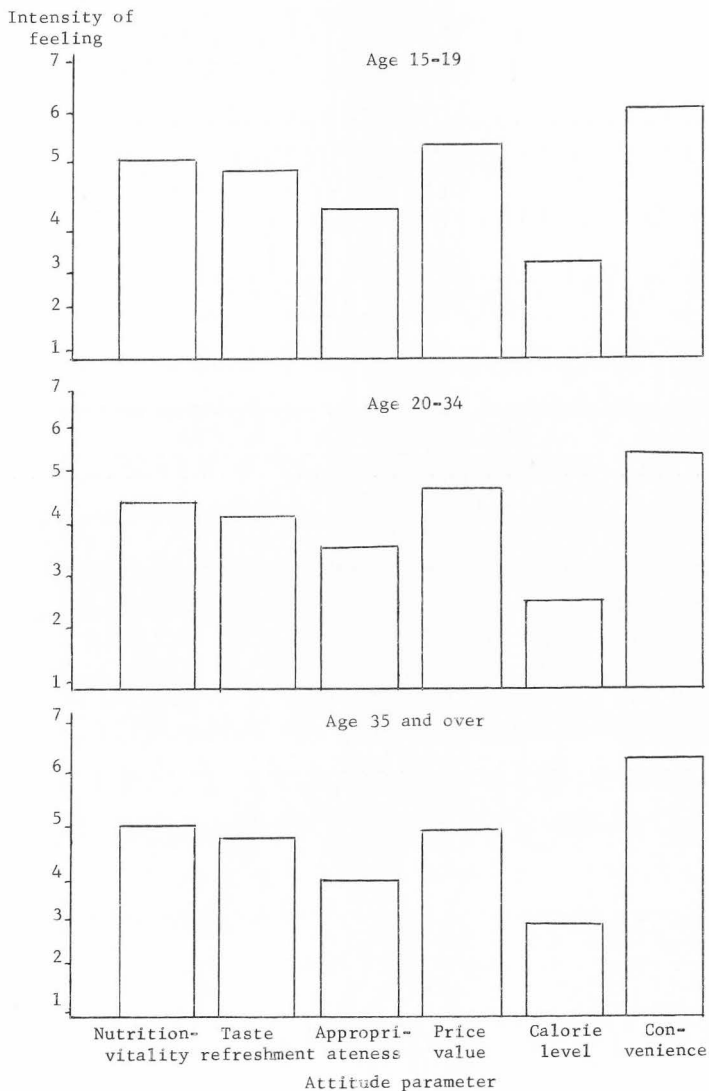


Figure 3. People profile contrasting the average intensities of feeling of the respondents in the three age groups for two percent milk, metropolitan Salt Lake City, 1967

There was an inverse relationship between the age of the consumer and his or her average intensity of feeling about the nutrition-vitality parameter for two percent milk. Males were the main cause of this deviation.

Teenagers had the most positive attitude regarding the taste-refreshment parameter. Males' attitudes fluctuated the most with intensities of feeling of 20-34 year olds being considerably below those of the 15-19 and 35 and over age groups.

Attitude values for the appropriateness parameter were low for all respondents, especially the adult males.

The average intensity of feeling about the price-value parameter was lower among the older respondents. Among males the biggest change was between 15-19 year olds and 20-34 year olds; among females it was between 20-34 year olds and those 35 and over.

Respondents aged 20-34 felt less positive than the other groups that two percent milk was convenient.

Consumption level groups

High consumers. High consumers of milk products had fairly high average intensities of feeling for the nutrition-vitality and the taste-refreshment parameters. These respondents exhibited quite positive intensities of feeling about each statement in the two parameters with the exception that they felt two percent milk was watery. The lack of richness did not seem to detract from attitudes about taste, etc. Intensities of feeling of the three consumer groups concerning each statement and parameter are shown in Table 7.

Table 7. Consumer attitudes toward regular whole milk, by consumption level, metropolitan Salt Lake City, 1967

Attitude parameters and statements	High			Medium			Low		
	All	Male	Female	All	Male	Female	All	Male	Female
	Average intensity of feeling ^a								
Nutrition-vitality parameter	4.7	4.6	4.9	4.8	4.5	5.0	4.7	4.3	4.9
Full of vitamins	5.0	5.0	5.5	5.0	4.8	5.1	4.7	4.0	5.0
Very nutritious	4.9	4.9	5.1	5.0	4.5	5.3	4.8	4.5	5.0
High in protein	4.4	4.2	4.9	5.0	4.5	5.1	4.9	4.5	5.1
High in calcium	4.9	4.7	4.5	4.9	4.5	5.1	4.8	4.3	5.0
Gives energy for hours	4.4	4.2	4.8	4.4	3.9	4.6	4.5	4.2	4.7
Gives lots of vitality	4.7	4.5	4.7	4.7	4.5	4.8	4.4	4.3	4.5
Taste-refreshment parameter	4.6	4.6	4.7	4.6	4.4	4.6	4.4	4.2	4.5
Liked by children	4.6	4.6	4.3	4.7	4.2	4.9	4.5	4.6	4.5
Tastes good	5.0	5.0	4.9	4.9	4.6	5.0	4.6	4.3	4.8
Tastes rich	3.4	3.3	3.8	3.2	3.0	3.2	3.3	3.1	3.4
Liked by adults	4.9	5.0	4.9	4.9	5.0	4.9	4.8	4.8	4.8
Liked by entire family	4.6	4.6	4.8	4.5	4.2	4.6	4.0	3.7	4.2
Refreshing	5.2	5.0	5.2	5.2	5.3	5.1	5.1	4.7	5.2
Appropriateness parameter	3.8	3.8	3.9	3.9	3.8	3.9	3.7	3.3	3.9
Good restaurant drink	3.3	3.6	3.5	3.6	3.5	3.7	3.6	3.4	3.8
For company	3.5	3.4	3.3	3.5	3.6	3.4	3.3	2.9	3.5
Many uses	4.8	4.6	4.8	4.6	4.3	4.7	4.8	4.4	4.9
For me	3.7	3.6	4.0	3.8	3.8	3.8	3.1	2.5	3.3
Price-value parameter	4.7	4.5	5.2	4.9	4.5	5.1	4.9	4.7	4.9
Low priced	4.3	4.1	4.9	4.5	4.3	4.6	4.6	4.6	4.7
Good value for the money	5.0	4.9	5.5	5.3	4.7	5.5	5.1	4.8	5.2
Calorie level parameter	3.1	3.3	2.9	2.8	2.8	2.8	2.6	5.0	2.4
Convenience parameter	5.7	5.6	5.9	6.1	5.8	6.1	6.0	6.0	5.9
Other									
Stylish drink	2.5	2.4	2.5	2.1	2.2	2.1	2.0	1.8	2.1
Quality uniform	4.7	4.5	4.8	4.9	4.8	5.0	4.6	5.0	4.5
Contributes to attractiveness	4.8	4.6	4.8	4.6	4.3	4.7	4.8	4.4	4.9
Know product very well	5.4	5.4	5.4	5.3	5.5	5.2	5.1	4.8	5.2
Have it very often	3.5	3.3	3.2	3.4	3.3	3.4	2.7	2.7	2.6

^aComplete agreement with statement would be indicated by a value of seven. Complete disagreement with the statement would be indicated by a value of one.

This group of respondents had negative feelings about the appropriateness of two percent milk. With the exception of "many uses," the statements in the parameter were all given negative values.

The high consumers had fairly high intensities of feeling for the price-value parameter.

They had a low level of apprehensiveness about calorie content as indicated by their attitude that two percent milk was low in calories and that it was a good drink for weight watchers.

These respondents were convinced that two percent milk was convenient.

Females of the group exhibited a higher average intensity of feeling regarding nutrition-vitality for two percent milk than did males.

Average intensities of feeling about the appropriateness parameter were practically the same for both sexes. However, there was considerable variation of attitude among the statements which make-up the parameter.

Females exhibited the most positive attitude regarding the price-value parameter.

Females were more convinced than males that two percent milk was low in calories and that it was a weight watcher's drink.

The results shown by the other variables were as follows: all high consumers had a low intensity of feeling regarding the stylishness of two percent milk. They had a fairly positive attitude that the quality was uniform and that it contributes to attractiveness with females' attitudes somewhat more positive than males'. They exhibited a very high value for acquaintance with product, but fairly low frequency of consumption with females consuming more than males.

Both sexes indicated, with quite uniform intensities of feeling, that two percent milk was for weight watchers and goes best with foods. They

felt that it was for poor people and women. Also, that it was not specifically for either sex of children. These values for this as well as the other consumer groups are indicated in Table 8.

Table 8. Consumer attitudes toward two percent milk for nonpolar variables, by consumption level, metropolitan Salt Lake City, 1967

Attitude statements	High			Medium			Low		
	All	Male	Female	All	Male	Female	All	Male	Female
	<u>Average intensity of feeling^a</u>								
For thin people- For weight watchers	2.4	2.7	2.0	2.5	2.3	2.5	2.2	2.3	2.1
Best by itself- Goes with foods	2.6	2.6	2.5	2.7	2.4	2.8	2.6	2.7	2.5
For poor people- For rich people	4.4	4.5	4.3	4.4	4.5	4.4	4.2	4.2	4.3
Man's drink- Woman's drink	3.7	3.7	3.7	3.7	3.5	3.8	3.8	3.7	3.9
Girl's drink- Boy's drink	4.1	4.0	4.2	4.1	4.1	4.0	4.0	4.1	4.0

^aComplete agreement with the first statement would be indicated by a value of seven. Complete agreement with the second statement would be indicated by a value of one. A value of four could mean either complete agreement or disagreement with both statements.

Medium consumers. Medium consumers had essentially the same average intensities of feeling regarding the nutrition-vitality and taste-refreshment parameters as did the high consumers.

This group had slightly negative attitudes about the appropriateness parameter. They manifested a high intensity of feeling for the price value parameter. They also felt that two percent milk was low in calories

and that it was a good drink for weight watchers. They were also convinced that it was convenient.

Females were more positive than males about the nutrition-vitality, taste-refreshment, price-value, and convenience parameters.

The other variables showed results as follows: all respondents had equally negative attitudes about the stylishness of two percent milk. Both sexes were fairly well convinced that the quality was uniform. Females had a more positive attitude that two percent milk contributes to attractiveness, although neither had a positive intensity of feeling for that statement. Both indicated high degrees of acquaintance with the product and low levels of consumption.

The medium consumers had essentially the same attitudes about the nonpolar variables as the high consumers (Table 8).

Low consumers. Those consumers who had consumed one or less glasses of milk the day previous to their interview had a fairly positive attitude about the nutrition-vitality parameter for two percent milk. Their attitude about the taste-refreshment parameter was only slightly positive.

The average intensity of feeling of this group regarding the appropriateness parameter was negative. "Many uses!" was the only statement which drew a positive reaction.

This group had positive attitudes about the price-value, calorie level, and convenience parameters for two percent milk.

The average intensity of feeling of females about nutrition-vitality for two percent milk was more positive than that of the males in the group. This was true also of the taste-refreshment and price-value parameters.

Males in this group were less convinced than females that two percent milk was low in calories. Compared with males, females felt more strongly that it was lower in calories and that it was for weight watchers.

Discussion of the results of the analysis of the other variables follows: both sexes displayed low intensities of feeling for stylishness. Males displayed quite a high intensity of feeling for the uniform quality of two percent milk. Females also had a positive but considerably lower value for this statement. Females felt quite strongly that two percent milk contributes to attractiveness. Males had a positive but considerably lower intensity of feeling for this statement. Both sexes displayed a fairly high level of acquaintance with the product and low consumption level.

The description of the nonpolar variables is essentially the same for low consumers as it was for the other two consumer groups.

Comparison of consumer groups. Direct comparisons may be accomplished by referring to Figure 4 and Tables 7 and 8. Only small differences existed between the three consumption level groups. They were as follows:

The average intensity of feeling of the males concerning the nutrition-vitality parameter decreased slightly with each decrease in consumption level. The females' intensity of feeling which was higher than the males in all three cases did not change appreciably from one group to the other.

The average intensity of feeling about the taste-refreshment parameter decreased between consumer levels. The males in the group had constantly lowering intensities of feeling from high to low consumers. The females also displayed this characteristic, but the changes were less marked. There was no real difference between the attitudes of the three consumer groups regarding the appropriateness and the price-value

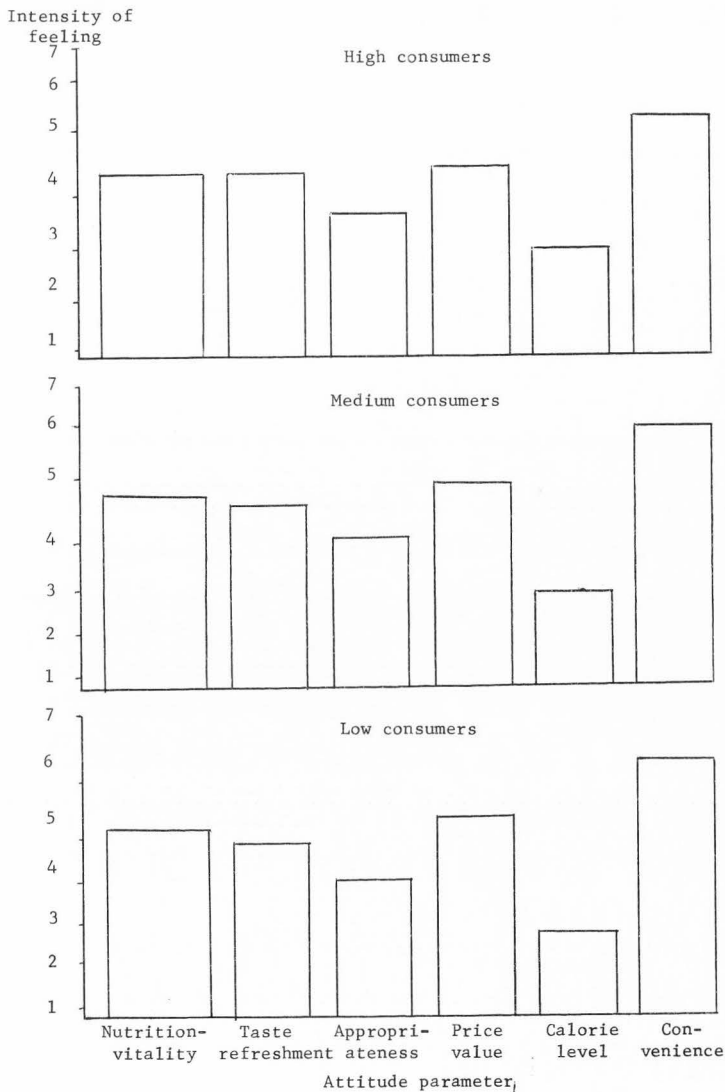


Figure 4. People profile contrasting the average intensities of feeling of respondents in the three consumption level groups for two percent milk, metropolitan Salt Lake City, 1967

parameters. All had slightly negative attitudes about the appropriateness parameter and fairly positive attitudes about the price-value parameter.

The general trend of the consumers was to feel more strongly that two percent milk was low in calories as consumption decreased.

Low and medium consumers were more convinced of the convenience factors of two percent milk than were the high consumers.

The only other attitude which was related to consumption level was stylishness. Average intensities of feeling about this statement decreased as consumption level decreased.

Acquaintance with product

The semantic statement, "Never heard of it; know product very well," was used as the basis for dividing the population into seven groups according to their intensity of feeling about that statement.³ Those consumers who were well acquainted with two percent milk had a much more positive attitude about the nutrition-vitality value of this product than did those not so well acquainted.

The same relationship existed for attitudes regarding the taste-refreshment parameter. The only difference was that none of their intensities of feeling were as strong regarding taste-refreshment as they were regarding nutrition-vitality.

This relationship was also made manifest, with still lower intensities of feeling, for the appropriateness parameter.

There was some evidence that those consumers who were well acquainted with the product had more positive attitudes about the price-value and the convenience parameters for two percent milk.

³See Appendix A (Table 31).

Skim MilkAge groups

Age 15-19. Average intensities of feeling of this as well as the other age groups for both the parameters and the individual statements are contained in Table 9.

Respondents age 15-19 had only a slightly positive attitude about the nutrition-vitality parameter for skim milk. They exhibited a fairly high intensity of feeling for the statement indicating that it was very nutritious, but quite low values for the other statements.

This group had negative attitudes about the taste-refreshment parameter. There was an unusually wide variation in intensities of feeling.

The average intensity of feeling of this group for the appropriateness parameter was negative. They had a slightly positive attitude about the many uses of skim milk, however.

This group of respondents had a slightly positive attitude regarding the price-value parameter for skim milk. These consumers felt very strongly that skim milk was low in calories and that it was a weight watcher's drink. They had quite a high intensity of feeling for the convenience of skim milk.

Males in this group had a much stronger intensity of feeling than females regarding the nutrition-vitality parameter. Males exhibited higher values for most of the statements in the parameter, especially for the statement "high in calcium."

Though both were negative, females had a somewhat better attitude regarding the taste-refreshment parameter, especially for the statements "liked by children," "tastes good," and "liked by entire family."

Table 9. Consumer attitudes toward skim milk, by age group, metropolitan Salt Lake City, 1967

Attitude parameters and statements	Age 15-19			Age 20-34			Age 35 & over		
	All Male	Female		All Male	Female		All Male	Female	
	<u>Average intensity of feeling^a</u>								
Nutrition-vitality parameter	4.2	4.4	3.9	4.3	3.8	4.6	4.4	4.1	4.5
Full of vitamins	4.1	4.2	4.0	4.6	4.1	4.9	4.3	3.9	4.5
Very nutritious	4.7	4.6	4.8	4.5	4.1	4.7	4.6	4.2	4.7
High in protein	4.4	4.6	4.1	4.2	3.6	4.6	4.2	4.0	4.4
High in calcium	3.8	4.4	3.0	4.4	3.8	4.8	4.6	4.3	4.8
Gives energy for hours	4.2	4.5	3.7	3.8	3.3	4.2	4.2	4.0	4.3
Gives lots of vitality	4.0	4.1	4.0	4.2	3.8	4.5	4.4	4.2	4.4
Taste-refreshment parameter	3.7	3.5	3.9	3.5	3.2	3.6	3.7	3.7	3.7
Liked by children	3.3	2.6	4.2	3.6	3.5	3.6	3.6	3.7	3.6
Tastes good	3.7	3.1	4.5	3.3	2.9	3.5	4.3	4.2	4.3
Tastes rich	2.5	2.8	2.0	2.3	2.2	2.3	2.2	2.5	2.0
Liked by adults	4.4	4.3	4.5	4.2	4.0	4.3	4.1	4.1	4.1
Liked by entire family	3.5	3.2	4.0	3.0	2.7	3.2	3.3	3.4	3.3
Refreshing	4.6	4.8	4.3	4.4	4.0	4.6	4.7	4.5	4.8
Appropriateness parameter	3.1	3.0	2.9	3.3	2.9	3.5	3.1	3.0	3.1
Good restaurant drink	2.7	2.6	3.0	3.1	2.7	3.2	2.8	3.1	2.7
For company	2.5	2.9	1.8	2.8	2.6	3.0	2.7	2.5	2.7
Many uses	4.3	4.5	4.1	4.8	4.6	4.9	4.3	3.8	4.5
For me	2.8	2.8	2.9	2.5	1.9	3.0	2.6	2.5	2.6
Price-value parameter	4.4	4.5	4.2	4.6	4.2	4.9	4.9	4.8	5.0
Low priced	4.6	4.7	4.5	4.6	4.1	4.8	4.9	4.9	4.9
Good value for the money	4.2	4.4	3.9	4.7	4.3	4.9	4.9	4.7	5.1
Calorie level parameter	1.8	1.6	2.1	2.0	2.2	2.0	2.1	2.4	2.0
Convenience parameter	5.5	5.9	5.1	5.3	4.9	5.6	5.9	5.9	5.8
Others									
Stylish drink	2.0	1.8	2.4	2.3	2.1	2.3	1.8	1.9	1.8
Quality uniform	4.5	4.4	4.7	4.0	4.1	3.9	4.6	4.7	4.6
Contributes to attractiveness	4.3	4.5	4.1	4.8	4.6	4.9	4.3	3.8	4.5
Know product very well	5.1	5.1	5.2	5.4	5.0	5.6	5.5	5.4	5.5
Have it very often	2.1	1.9	2.4	2.3	1.9	2.6	2.5	2.5	2.4

^aComplete agreement with statement would be indicated by a value of seven. Complete disagreement with the statement would be indicated by a value of one.

There was essentially no difference between the attitudes of males and females about appropriateness.

Males had a more positive attitude than females about the price-value parameter.

Males were somewhat more convinced that skim milk was low in calories, although the two sexes were equally convinced that it was a weight watcher's beverage.

Males had a more positive attitude for the convenience parameter.

The results of the other variable were these; males' attitudes were more negative than females' about the stylishness of skim milk. The attitude of this group regarding quality being uniform was fairly positive, with females' intensities of feeling being slightly higher than males'. They had positive attitudes about skim milk's contribution to attractiveness with males being somewhat higher. Both sexes were well acquainted with the product but consumed it infrequently.

Values of nonpolar variables for this and the other age groups are shown in Table 10. This group felt that skim milk goes best with foods. All of the groups thought that it was a drink for poor people. They also thought that it was for females.

Age 20-34. The respondents age 20-34 had only a slightly positive attitude about the nutrition-vitality qualities of skim milk. They had quite uniform intensities of feeling regarding each of the statements in this parameter.

The average intensities of feeling for this group indicated negative attitudes toward the taste-refreshment and appropriateness parameters.

They had a positive attitude about the price-value parameter.

Table 10. Consumer attitudes toward skim milk for nonpolar variables, by age group, metropolitan Salt Lake City, 1967

Attitude statements	Age 15-19			Age 20-34			Age 35 & over		
	All Male	Female		All Male	Female		All Male	Female	
	<u>Average intensity of feeling^a</u>								
For thin people- For weight watchers	1.2	1.2	1.2	1.7	2.0	1.4	1.7	1.9	1.6
Best by itself- Goes with foods	2.8	3.6	1.7	2.9	3.1	2.7	2.6	2.5	2.6
For poor people- For rich people	4.3	4.3	4.3	4.3	4.2	4.3	4.4	4.4	4.5
Man's drink- Woman's drink	3.3	3.4	3.2	3.5	3.4	3.5	3.4	3.5	3.4
Girl's drink- Boy's drink	4.2	4.2	4.1	4.0	4.1	4.0	4.1	4.1	4.1

^aComplete agreement with the first statement would be indicated by a value of seven. Complete agreement with the second statement would be indicated by a value of one. A value of four could mean equal agreement or disagreement with both.

As would be expected, they felt that skim milk was low in calories and that it was a good drink for weight watchers.

The 20-34 year old respondents had a positive average intensity of feeling for the convenience parameter, although it was lower than for the products discussed so far.

Females in the group had higher average intensities of feeling for the nutrition-vitality, taste-refreshment, appropriateness, price-value, and convenience parameters than did males. This was because of more positive attitudes about most of the statements within each of the parameters.

Males were slightly less convinced that skim milk was low in calories than were females. An interesting point about the calorie level parameter

was that the females were much more convinced that skim milk was a drink for weight watchers.

Intensities of feeling about the other variables follows: this group had the usual low intensity of feeling regarding stylishness. Their attitude about uniform quality was essentially neutral. They had a fairly positive attitude that it contributes to attractiveness. Females indicated better acquaintance with the product and also slightly more frequent consumption, although values were low for both males and females.

The results exhibited by the nonpolar variables were these: this group felt that skim milk was for weight watchers. They felt that it goes with foods rather than by itself. They also leaned slightly to the attitude that it was for poor people. Both males and females were fairly well convinced that it was a woman's drink and neutral as to which sex of children it was for.

Age 35 and over. This age group felt fairly positive about the nutrition-vitality parameter and slightly negative about the taste-refreshment parameter.

They had a quite negative attitude about the appropriateness parameter for skim milk, with only a slightly positive attitude for the statement, "many uses."

The respondents 20-34 years of age had a positive attitude about the price-value parameter for skim milk. They felt very strongly that it was low in calories and was a good drink for weight watchers. This group also had a very high intensity of feeling for the convenience parameter for skim milk.

Females had more positive attitudes concerning each statement in the nutrition-vitality parameter.

Males and females both had negative attitudes concerning the taste-refreshment and convenience parameters. They had practically the same negative intensities of feeling about the appropriateness parameter with some variation in their intensities of feeling about each statement.

Females had a more positive attitude about the price-value parameter. Males were less convinced that it was low in calories and also that it was a drink for weight watchers.

Results of the analysis of the other variables were as follows: this group had the usual negative intensity of feeling about the stylishness of skim milk. They also had a fairly positive attitude that the quality was uniform. Males had a slightly negative and females a fairly positive attitude that it contributes to attractiveness. Both males and females indicated that they are very well acquainted with skim milk and yet that they consumed very little of it.

For the nonpolar variables, the results were these: females were slightly more convinced than males that skim milk was a drink for weight watchers. Both sexes felt that it goes with foods better than by itself. They felt that it was a drink for poor people. They leaned to the attitudes that it was a woman's drink and that among children it was for girls.

Comparison of age groups. Direct comparisons are possible by referring to Figure 5 and Tables 9 and 10.

Average intensities of feeling about the nutrition-vitality, price-value, and convenience parameters were found to be higher for each succeeding age group. In the case of nutrition-vitality, the change was mainly due to females.

Males age 20-34 had a positive but surprisingly low intensity of feeling regarding the convenience parameter. The other two groups of males

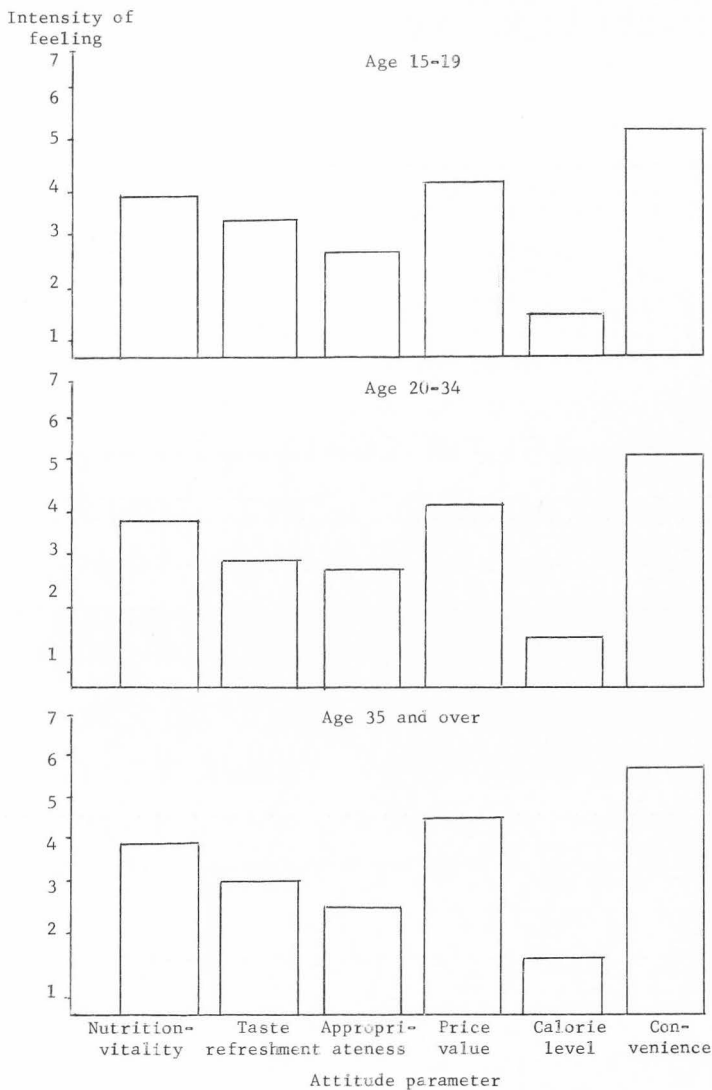


Figure 5. People profile contrasting the average intensities of feeling of the respondents in the three age groups for skim milk, metropolitan Salt Lake City, 1967

had a very high intensity of feeling for this parameter. The females' intensities of feeling increased among older respondents.

For the taste-refreshment parameter, the respondents age 20-34 had the most negative attitudes. The other two groups had slightly higher intensities of feeling.

The respondents age 20-34 felt the most positive about the appropriateness of skim milk. This was mainly because of the higher intensity of feeling of females regarding this parameter.

Among the other variables there were only a few pertinent variations between age groups. The 20-34 year olds felt the least positive that the quality was uniform. This same group had a more positive belief that skim milk contributes to attractiveness.

The 15-19 year olds were more certain than the other two groups that skim milk was for weight watchers.

Consumption level groups

High consumers. The intensities of feeling of all three consumption groups are shown in Table 11.

As evidenced by their attitudes, those respondents who were classified as high consumers of milk products were probably not high consumers of skim milk. The high consumers felt only slightly positive about the nutrition-vitality parameter for skim milk. They exhibited a negative attitude about the taste-refreshment parameter with a wide fluctuation in intensities of feeling. This group had negative attitudes about appropriateness with the usual positive attitudes about the statement, "many uses."

This group had the attitude that skim milk was low in calories and that it was a good drink for weight watchers. They had a very positive attitude about the convenience parameter.

Table 11. Consumer attitudes toward skim milk, by consumption level, metropolitan Salt Lake City, 1967

Attitude parameters and statements	High			Medium			Low		
	All	Male	Female	All	Male	Female	All	Male	Female
	<u>Average intensity of feeling^a</u>								
Nutrition-vitality parameter	4.2	4.1	4.4	4.5	4.1	4.7	4.3	3.9	4.5
Full of vitamins	4.5	4.2	4.7	4.5	4.0	4.7	4.3	3.7	4.5
Very nutritious	4.4	4.3	4.6	4.7	4.2	5.0	4.4	4.1	4.6
High in protein	4.3	4.1	4.5	4.4	3.9	4.6	4.1	3.8	4.3
High in calcium	4.3	4.2	4.4	4.7	4.2	4.9	4.5	4.0	4.8
Gives energy for hours	3.9	3.8	4.0	4.2	4.0	4.3	4.1	3.7	4.3
Gives lots of vitality	4.1	3.9	4.3	4.5	4.2	4.6	4.3	4.2	4.4
Taste-refreshment parameter	3.6	3.6	3.7	3.8	3.7	3.9	3.5	3.4	3.6
Liked by children	3.6	3.5	3.9	3.8	3.2	4.0	3.4	3.7	3.3
Tastes good	3.7	3.8	3.6	4.1	3.7	4.3	4.0	3.6	4.1
Tastes rich	2.2	2.4	1.8	2.2	2.2	2.1	2.3	2.5	2.2
Liked by adults	4.2	4.2	4.2	4.3	4.6	4.2	4.1	3.8	4.2
Liked by entire family	3.4	3.1	3.8	3.6	3.5	3.7	3.0	3.0	3.0
Refreshing	4.7	4.6	4.8	4.8	4.7	4.8	4.4	4.0	4.6
Appropriateness parameter	3.0	2.9	3.1	3.2	3.2	3.2	3.1	2.9	3.3
Good restaurant drink	2.7	2.9	2.5	2.7	3.1	2.5	3.1	2.9	3.1
For company	2.4	2.4	2.4	2.7	3.0	2.6	2.8	2.5	3.0
Many uses	4.6	4.3	4.9	4.5	4.1	4.7	4.3	4.0	4.5
For me	2.4	2.2	2.7	3.0	2.9	3.0	2.4	2.1	2.6
Price-value parameter	4.5	4.3	4.9	4.8	4.7	4.8	4.9	4.8	5.0
Low priced	4.7	4.4	5.0	4.6	4.6	4.7	4.9	4.8	4.9
Good value for the money	4.4	4.1	4.7	4.9	4.8	4.9	5.0	4.9	5.0
Calorie level parameter	2.0	2.1	1.8	2.1	2.1	2.1	2.1	2.4	2.0
Convenience parameter	5.9	5.8	6.0	5.5	5.2	5.6	5.6	5.5	5.7
Others									
Stylish drink	2.0	2.0	2.0	2.0	2.2	2.0	1.9	1.7	2.0
Quality uniform	4.3	4.2	4.6	4.3	4.4	4.2	4.6	4.8	4.5
Contributes to attractiveness	4.6	4.3	4.9	4.5	4.1	4.7	4.3	4.0	4.5
Know product very well	5.5	5.3	5.8	5.4	5.3	5.5	5.3	5.2	5.4
Have it very often	2.4	2.3	2.6	2.8	2.2	3.0	2.2	2.2	2.1

^aComplete agreement with statement would be indicated by a value of seven. Complete disagreement with the statement would be indicated by a value of one.

Females had more positive attitudes than males concerning all of the statements in the nutrition-vitality parameter. Females were also slightly more positive about the appropriateness parameter, mainly because they could conceive more uses for skim milk.

Females in the group had higher average intensities of feeling concerning the price-value and convenience parameters of skim milk. They were also more convinced that skim milk was low in calories and was a drink for weight watchers.

Analysis of the other variables was as follows: both sexes had the attitude that skim milk was a plain rather than a stylish drink. Females had a fairly positive belief that the quality of skim milk was uniform; males had only a slightly positive belief about this. Although both were positive, females were more convinced that skim milk contributes to attractiveness. Females indicated a high degree of acquaintance with the product; males had a positive but lower degree of acquaintance. Females indicated that they consumed slightly more than males, but both were low.

For the nonpolar variables, the results of the analysis follow: the entire group felt that skim milk was for weight watchers. Both sexes also felt quite strongly that it goes with foods better than by itself. They felt only slightly that it is a drink for poor people. Their attitudes were fairly strong that it is a drink for poor people. Their attitudes were fairly strong that it was a woman's drink rather than a man's, but made no distinction as to a particular sex of children. The intensities of feeling of the three consumer groups concerning the nonpolar variables are indicated in Table 12.

Table 12. Consumer attitudes toward skim milk for nonpolar variables, by consumption level, metropolitan Salt Lake City, 1967

Attitude statements	High			Medium			Low		
	All	Male	Female	All	Male	Female	All	Male	Female
	<u>Average intensity of feeling^a</u>								
For thin people- For weight watchers	1.6	1.8	1.3	1.7	1.7	1.7	1.7	2.1	1.5
Best by itself- Goes with foods	2.6	2.8	2.4	2.7	2.8	2.7	2.7	2.9	2.7
For poor people- For rich people	4.2	4.2	4.1	4.4	4.3	4.4	4.5	4.4	4.5
Man's drink- Woman's drink	3.4	3.5	3.3	3.3	3.1	3.4	3.5	3.6	3.5
Girl's drink- Boy's drink	4.0	4.1	4.0	4.0	4.1	4.0	4.1	4.1	4.1

^aComplete agreement with the first statement would be indicated by a value of seven. Complete agreement with the second statement would be indicated by a value of one. A value of four could mean equal agreement or disagreement with both.

Medium consumers. The medium consumers of milk products felt fairly positive about the nutrition-vitality parameter.

They had a negative attitude about the taste-refreshment parameter with widely ranging intensities of feeling about the statements in the parameter. The consensus of opinion of this group seemed to be that it was a drink which was liked more by adults than by children. The average intensity of feeling of this group seemed to be that skim milk was a drink which was liked more by adults than by children.

The average intensity of feeling of this group for the parameter dealing with appropriateness was quite negative, with the usual response to "many uses."

These respondents had a positive attitude for the price-value parameter. They had low average intensities of feeling for the calorie level parameter. They also felt that it was a good drink for weight watchers. This group also had a very positive attitude concerning the convenience parameter for skim milk.

Females in the medium-consumption group had more positive attitudes concerning the nutrition-vitality parameter than did males.

Both sexes had negative attitudes concerning the taste-refreshment parameter for skim milk. Both sexes exhibited the same intensity of feeling for the appropriateness parameter.

The intensities of feeling of males and females were essentially the same, and positive for the price-value parameter. Males and females also had exactly the same feelings regarding the calorie level parameter.

Females were somewhat more positive than males that skim milk was convenient.

The other variables are discussed in this paragraph. This group had negative feelings about stylishness and positive feelings about uniform quality for skim milk. Females felt fairly positive that skim milk contributes to attractiveness, but males felt so only very slightly. Both sexes indicated that they are very well acquainted with the product and that they consumed very little, although females consumed more than males.

The nonpolar variables exhibited the following results: as indicated previously, males and females had equally strong feelings that skim milk was for weight watchers. Both also felt quite strongly that it goes best with foods and fairly strongly that it was for poor people. Females felt that it was a woman's drink, and males felt so even more. They expressed no feeling that it was more for one sex of children than another.

Low consumers. Those consumers who had consumed one or less glasses of milk the previous day had a slightly positive attitude about the nutrition-vitality parameter for this product.

They had fairly negative attitudes concerning the taste-refreshment parameter. As with the other groups, this group also had a wide range of intensities of feeling about the statements in this parameter. They also seemed to feel that it was a drink that was liked more by adults than by children.

Concerning the appropriateness of skim milk, this group had a negative attitude with the usual attitude about the number of uses. Their average intensity of feeling for the price-value parameter was quite high.

The low consumers had very strong attitudes that skim milk was low in calories and that it was a good drink for weight watchers. This group also had a very positive attitude about the convenience parameter for skim milk.

There was considerable difference between the attitudes of the males and females in the group concerning the nutrition-vitality parameter for this product. Females had higher intensities of feeling for each statement in the parameter.

Females had slightly higher average intensities of feeling for the taste-refreshment parameter with some variation among the statements in the parameter.

Females had a less negative attitude for the appropriateness parameter than did males.

Females were more convinced than males about the positive nature of the price-value parameter for skim milk.

Males were considerably less convinced than females that skim milk was low in calories and a good drink for weight watchers.

Females' attitudes were more positive than males' concerning the convenience parameter.

Analysis of variables not included in the parameters was as follows: both sexes had very negative attitudes concerning the statement about stylishness. This group had fairly positive attitudes about the statement "quality uniform." Females had a positive attitude that skim milk contributes to attractiveness. Males were neutral on this subject. Both sexes indicated a high degree of acquaintance with the product but a low level of consumption.

Analysis of nonpolar variables is included in this paragraph. This group felt very strongly that skim milk was a drink for weight watchers. Both sexes felt quite strongly that it goes with foods rather than by itself. Both sexes felt that it was for poor people and also that it was a woman's drink. They showed no preference as to whether skim milk was more for either sex of children.

Comparison of consumption level groups. Comparison of the attitudes of the three groups may be implemented by reference to Tables 11 and 12 and Figure 6.

The medium consumers had slightly higher average intensities of feeling for the nutrition-vitality, taste-refreshment, and appropriateness parameters. All three groups tended to have slightly positive attitudes about the nutrition-vitality parameter, slightly negative attitudes about the taste-refreshment parameter, and quite negative attitudes about the appropriateness parameter for skim milk.

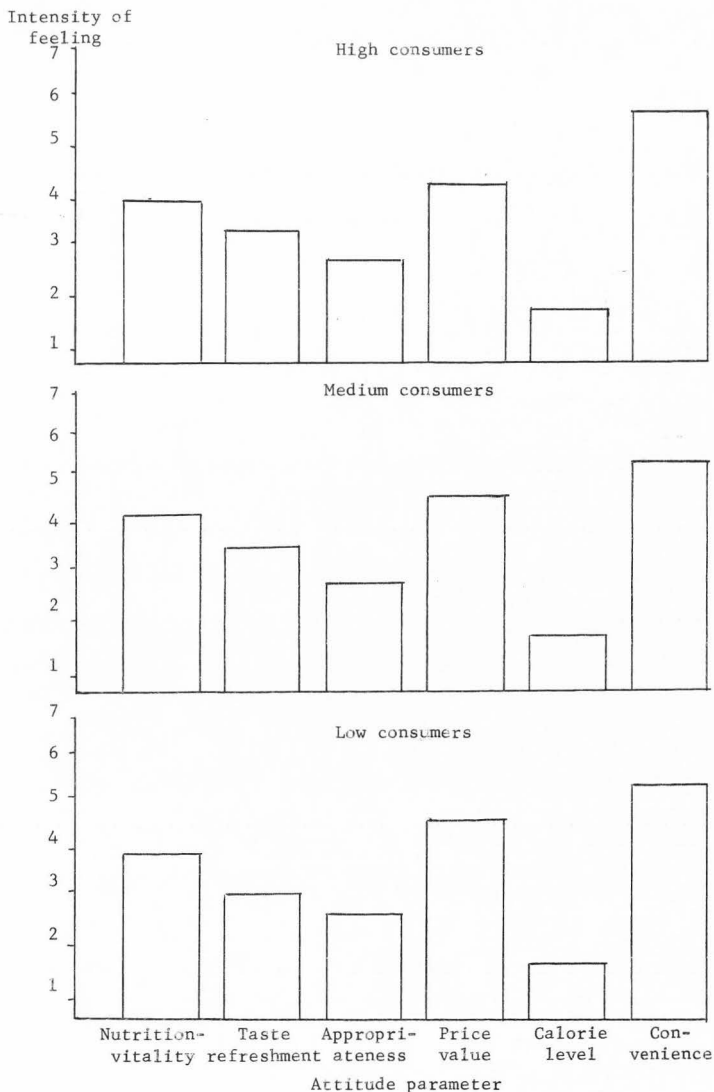


Figure 6. People profile contrasting the average intensities of feeling of the respondents in the three consumption level groups for skim milk, metropolitan Salt Lake City, 1967

There was an inverse relationship between intensity of feeling about the price-value parameter and the level of consumption.

The only difference between the attitudes of the three groups concerning the calorie level parameter was that males in the low consumer group were less convinced that skim milk was low in calories and a good drink for weight watchers.

The high consumers were somewhat more convinced than the other two groups that skim milk was convenient.

Acquaintance with product

The only parameter which showed a definite relationship between intensity of feeling and acquaintance with skim milk was the taste-refreshment parameter.⁴ In this parameter, the average intensity of feeling increased with each succeeding level of acquaintance. None of these values were positive, however.

Powdered Milk

Age groups

Age 15-19. Average intensities of feeling for this as well as the other two age groups are shown in Table 13.

The respondents age 15-19 had a fairly positive attitude concerning the nutrition-vitality parameter for powdered milk. The intensities of feeling for the statements in the parameter were fairly uniform.

This group of respondents had quite a negative feeling concerning the taste-refreshment parameter. They seemed to feel that this was a drink

⁴See Appendix A (Table 32).

Table 13. Consumer attitudes toward nonfat dry (powdered) milk, by age group, metropolitan Salt Lake City, 1967

Attitude parameters and statements	Age 15-19		Age 20-34		Age 35 & over				
	All Male	Female	All Male	Female	All Male	Female			
	<u>Average intensity of feeling^a</u>								
Nutrition-vitality parameter	4.6	4.4	5.0	4.6	4.2	4.9	4.7	4.5	4.8
Full of vitamins	5.0	4.7	5.5	5.0	4.6	5.2	4.7	4.1	5.0
Very nutritious	4.6	4.6	4.6	4.8	4.3	5.2	5.1	4.8	5.2
High in protein	4.9	4.9	5.0	4.8	4.3	5.1	4.9	4.8	5.0
High in calcium	4.6	4.4	4.9	4.6	4.2	4.9	4.8	4.6	4.9
Gives energy for hours	4.2	3.9	4.5	4.1	3.7	4.4	4.1	4.1	4.2
Gives lots of vitality	4.5	3.9	5.3	4.4	3.9	4.7	4.4	4.4	4.4
Taste-refreshment parameter	3.1	2.9	3.3	3.0	2.9	3.0	3.2	3.2	3.3
Liked by children	2.8	2.6	3.1	2.9	3.0	2.9	3.1	3.4	3.0
Tastes good	3.3	2.9	3.8	2.9	2.7	3.1	3.4	3.3	3.4
Tastes rich	2.5	2.0	3.2	2.3	2.4	2.3	2.7	2.5	2.8
Liked by adults	3.3	3.0	3.8	3.3	3.2	3.3	3.2	3.1	3.2
Liked by entire family	2.7	2.7	2.8	2.8	2.9	2.8	3.2	3.2	3.2
Refreshing	3.7	4.0	3.2	3.5	3.3	3.6	3.8	3.5	4.0
Appropriateness parameter	2.8	2.7	2.8	2.8	2.8	2.9	2.8	2.7	2.8
Good restaurant drink	2.0	2.0	1.9	2.2	2.5	2.0	2.1	2.3	2.0
For company	1.8	2.0	1.5	2.3	2.4	2.2	2.2	2.2	2.2
Many uses	4.3	4.3	4.3	4.1	4.0	4.2	4.0	3.5	4.3
For me	3.0	2.7	3.5	2.8	2.3	3.1	2.8	2.6	2.9
Price-value parameter	5.7	5.7	5.7	5.6	5.2	5.8	5.6	5.3	5.8
Low priced	5.8	5.7	6.0	5.7	5.5	5.8	5.5	5.4	5.6
Good value for the money	5.6	5.8	5.4	5.4	4.8	5.8	5.7	5.2	5.9
Calorie level parameter	2.4	1.9	3.1	3.9	3.0	2.5	2.9	3.2	2.8
Convenience parameter	4.4	4.3	4.6	4.4	4.3	4.4	4.3	4.1	4.5
Others									
Stylish drink	1.8	1.6	2.1	2.1	2.1	2.1	2.0	1.9	2.0
Quality uniform	3.5	3.7	3.3	3.9	3.9	3.9	4.5	4.7	4.4
Contributes to attractiveness	4.3	4.3	4.3	4.1	4.0	4.2	4.0	3.5	4.3
Know product very well	5.5	5.4	5.6	5.4	5.1	5.6	5.3	5.3	5.4
Have it very often	2.8	2.4	3.4	2.9	2.4	3.2	2.6	2.4	2.6

^aComplete agreement with statement would be indicated by a value of seven. Complete disagreement with the statement would be indicated by a value of one.

more suitable to the palates of adults than to those of children and young people.

The attitude of 15-19 year olds was very negative concerning the appropriateness parameter for powdered milk. They felt especially strong that powdered milk was not a good restaurant drink and was not for children.

These respondents had positive attitudes concerning the price-value and convenience parameter. They had a very strong attitude that powdered milk was low in calories and also felt that it was a good drink for weight watchers.

The females had more positive attitudes concerning the nutrition-vitality parameter than males. They were especially convinced that powdered milk gave lots of vitality and energy for hours. Females were also less negative than males in their attitudes concerning the taste-refreshment parameter.

The intensity of feeling for the price-value parameter was very positive for both males and females. Females felt more strongly that powdered milk was low priced, but males were more convinced that it was a good value for the money.

Males were more sure that this product was low in calories and a drink for weight watchers.

Females were somewhat more convinced that powdered milk was convenient, although neither sex displayed very high intensities of feeling.

Analysis of other variables is included in this paragraph. Both sexes were convinced that powdered milk was a plain drink. Both sexes also leaned to the attitude that the quality varies. They were slightly positive in their thinking that it contributes to attractiveness. They

also indicated a high degree of acquaintance, but very low consumption. Consumptiously males were considerably lower than by females.

Values for the nonpolar variables for all three age groups are included in Table 14. This group felt quite strongly that powdered milk was for weight watchers. Males had fairly strong and females very strong attitudes that this product is "best with foods" rather than "by itself." They felt fairly positive that it is a drink for poor people and had no attitudes favoring either sex of adults or children.

Table 14. Consumer attitudes toward nonfat dry (powdered) milk for nonpolar variables, by age group, metropolitan Salt Lake City, 1967

Attitude statements	Age 15-19			Age 20-34			Age 35 & over		
	All	Male	Female	All	Male	Female	All	Male	Female
	<u>Average intensity of feeling^a</u>								
For thin people- For weight watchers	3.0	2.9	3.1	2.5	2.8	2.4	2.5	2.7	2.4
Best by itself- Goes with foods	3.2	3.6	2.7	3.1	3.3	3.0	2.8	2.8	2.8
For poor people- For rich people	4.5	4.4	4.6	4.7	5.0	4.6	4.7	4.6	4.7
Man's drink- Woman's drink	4.0	3.9	4.0	4.0	4.0	3.9	3.8	3.9	3.8
Girl's drink- Boy's drink	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

^aComplete agreement with the first statement would be indicated by a value of seven. Complete agreement with the second statement would be indicated by a value of one. A value of four could mean equal agreement or disagreement with both.

Age 20-34. This age group had a fairly positive attitude for the nutrition-vitality parameter of powdered milk. Their average intensities of feeling for the statements in the parameter were quite uniform.

The respondents age 20-34 had a quite negative feeling about the taste-refreshment parameter for this product. They seemed to think that it was liked better by themselves as adults than by children. It was not even considered very well suited for adults, however.

This group also had a negative attitude concerning the appropriateness of powdered milk, especially as a restaurant drink and for company.

This group of respondents had a very positive attitude concerning the price-value parameter. They indicated quite strong attitudes that powdered milk was low in calories and that it was a good drink for weight watchers.

Females in the group had a considerably more positive attitude for each statement in the nutrition-vitality parameter than did males.

The attitudes of males and females concerning the taste-refreshment, appropriateness, and convenience parameters were essentially the same.

Females had a much higher average intensity of feeling concerning the price-value parameter. Males were less convinced than females that this product was low in calories and that it was a drink for weight watchers.

Results of the analysis of other variables were as follows: males and females in the group had the same low intensity of feeling for the stylishness of powdered milk; also, the same negative attitude concerning "quality uniform." Males had neutral and females slightly positive attitudes that powdered milk contributes to attractiveness. They indicated high levels of acquaintance with the product and low frequency of consumption.

Results for the nonpolar variables indicated the following results: both sexes felt that powdered milk was for weight watchers. Both thought

that it goes with foods better than by itself. Males felt quite strongly and females fairly strongly that it was a drink for poor people. No feeling was demonstrated to indicate that it was more for one sex than the other of either adults or children.

Age 35 and over. The respondents in this age group had a fairly positive attitude about the nutrition-vitality parameter for powdered milk. They had fairly uniform intensities of feeling for the various statements in the parameter.

They had a fairly negative attitude concerning the taste-refreshment parameter with fairly uniform intensities of feeling.

These respondents had quite a negative attitude about the appropriateness parameter, especially concerning powdered milk as a restaurant drink and for company.

This group of consumers had very high average intensities of feeling for the price-value parameter. They felt that powdered milk was low in calories and that it was for weight watchers. They also had a fairly positive attitude concerning the convenience parameter.

Females' attitudes concerning the nutrition-vitality parameter was somewhat more positive than males'. They had especially stronger beliefs that powdered milk had lots of vitamins and was very nutritious.

There was essentially no difference between the males' and females' negative attitudes about the taste-refreshment parameter.

While the average intensities of feeling of males and females were practically the same for the appropriateness parameter, there were some interesting variations among the statements in the parameter. Females had more negative attitudes concerning powdered milk as a restaurant drink and were less inclined to say that it was not for them. Females had a fairly

positive belief about the many uses of powdered milk, while males had a fairly negative attitude concerning that statement.

Females had a more positive attitude concerning the price-value parameter. Males were somewhat less convinced than females that powdered milk was low in calories and was a drink for thin people. Females had a considerably more positive attitude than males about the convenience parameter.

Evaluation of other variables yielded the following results: they had negative attitudes concerning the stylishness of powdered milk. They were fairly positive that the quality was uniform. Females had a fairly positive and males a fairly negative attitude that powdered milk contributes to attractiveness. They indicated quite high degrees of acquaintance with the product and very low levels of consumption.

The nonpolar variables exhibited these results: females were slightly more convinced than males that powdered milk was for weight watchers. Both sexes were quite sure that it goes best with foods and fairly sure that it was for poor people. They showed a slight belief that it was a woman's drink, but leaned to neither sex of children.

Comparison of age groups. Comparison may be aided by reference to Tables 13 and 14 and Figure 7.

The respondents age 20-34 had higher intensities of feeling about the calorie level parameter than the other two groups. Intensities of feeling about the other parameters were practically the same for the three age groups.

Males age 20-34 had a less positive attitude about nutrition-vitality than the other two groups. The intensities of feeling of the females fell slightly among the older groups.

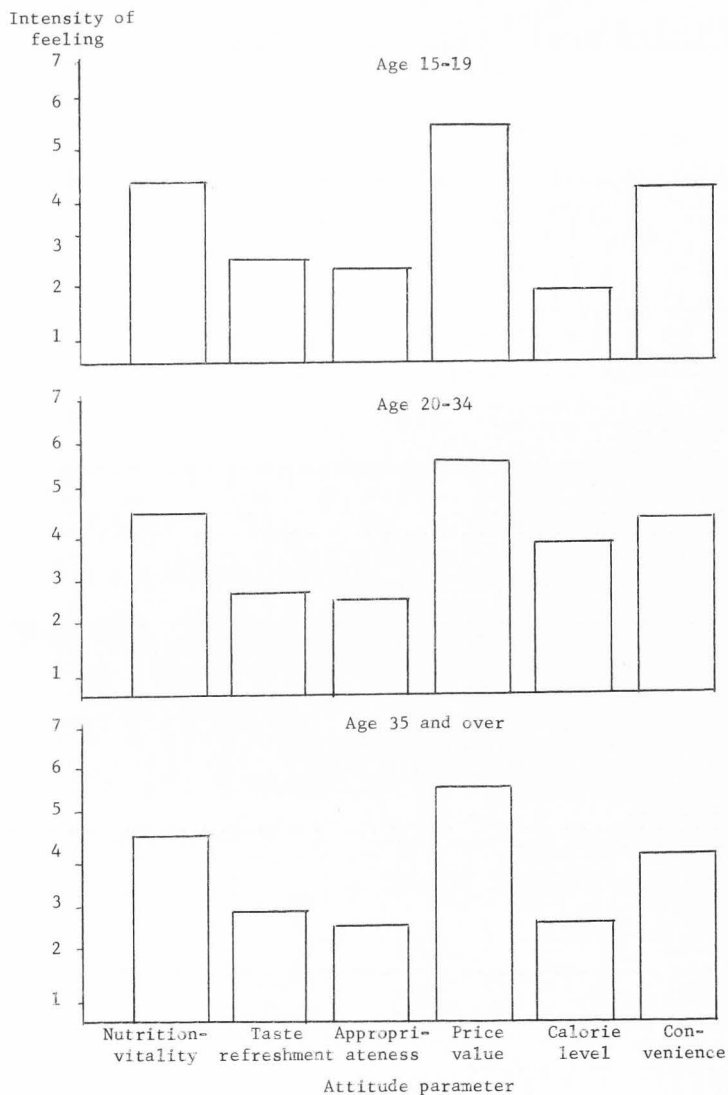


Figure 7. People profile contrasting the average intensities of feeling of the three age groups for nonfat dry (powdered) milk, metropolitan Salt Lake City, 1967

In general the 20-34 age group had a slightly more negative attitude concerning the taste-refreshment parameter than the other two groups. The only exception was males age 15-19 who had intensities of feeling equally as low as the 20-34 age group.

The 15-19 year old males had a considerably more positive attitude than the other two groups of males concerning the price-value parameter. This was due mainly to a stronger belief that powdered milk was a good value for the money.

Response to the other variables indicated that the older respondents were more convinced that the quality was uniform. They were less convinced that it contributes to attractiveness, especially the males. In general the older respondents felt that it goes with foods better than by itself. This was true also for their attitude that it was a drink for poor people.

Consumption level groups

High consumers. Average intensities of feeling of all three consumer groups for both statements and parameters are shown in Table 15.

The respondents who were classified as high consumers of milk products had a positive attitude about the nutrition-vitality parameter for powdered milk with fairly uniform intensities of feeling about each statement in the parameter. They had a quite negative feeling about the taste-refreshment parameter.

This group also had negative attitudes concerning the appropriateness parameter. They were particularly convinced that it was not a good restaurant drink and not for company. The indication was that despite the fact that they were high consumers of milk products, very little of their consumption was powdered milk.

Table 15. Consumer attitudes toward nonfat dry (powdered) milk, by consumption level, metropolitan Salt Lake City, 1967

Attitude parameters and statements	High			Medium			Low		
	All	Male	Female	All	Male	Female	All	Male	Female
	<u>Average intensity of feeling^a</u>								
Nutrition-vitality parameter	4.5	4.3	4.8	4.9	4.7	4.9	4.6	4.2	4.8
Full of vitamins	4.7	4.4	5.0	5.0	4.7	5.2	4.7	3.9	5.1
Very nutritious	4.9	4.6	5.1	5.2	5.1	5.3	4.9	4.4	5.1
High in protein	4.8	4.8	4.7	5.1	5.0	5.1	4.8	4.3	5.0
High in calcium	4.5	4.2	4.9	4.9	5.0	4.9	4.8	4.5	4.9
Gives energy for hours	4.1	3.8	4.4	4.4	4.0	4.6	4.0	4.1	4.0
Gives lots of vitality	4.1	4.0	4.4	4.6	4.3	4.7	4.5	4.3	4.6
Taste-refreshment parameter	3.0	2.9	3.3	3.3	3.2	3.3	3.1	3.2	3.1
Liked by children	3.1	2.9	3.4	3.1	2.9	3.2	3.0	3.6	2.7
Tastes good	3.2	3.0	3.5	3.3	3.0	3.4	3.2	3.2	3.2
Tastes rich	2.4	2.2	2.5	2.4	2.4	2.4	2.7	2.6	2.8
Liked by adults	3.1	3.0	3.3	3.5	3.7	3.4	3.1	3.0	3.2
Liked by entire family	3.0	2.9	3.0	3.2	3.2	3.3	3.0	3.1	2.9
Refreshing	3.4	3.1	3.8	4.0	3.9	4.1	3.7	3.7	3.7
Appropriateness parameter	2.7	2.5	2.9	2.9	3.0	2.9	2.8	2.7	2.8
Good restaurant drink	2.0	2.1	1.9	2.2	2.2	2.2	2.2	2.7	2.0
For company	2.1	2.1	2.0	2.2	2.6	2.0	2.3	2.2	2.3
Many uses	4.1	3.7	4.6	4.2	4.0	4.4	4.0	3.7	4.1
For me	2.7	2.2	3.3	3.1	3.1	3.1	2.7	2.4	2.8
Price-value parameter	5.4	5.3	5.7	5.9	5.8	5.9	5.6	5.1	5.7
Low priced	5.6	5.5	5.7	5.7	5.7	5.7	5.6	5.3	5.7
Good value for the money	5.3	5.0	5.6	6.1	5.9	6.1	5.5	4.9	5.8
Calorie level parameter	2.9	2.9	2.9	2.7	3.2	2.5	2.8	3.1	2.7
Convenience parameter	4.1	4.0	4.3	4.8	4.6	4.9	4.2	4.1	4.3
Others									
Stylish drink	1.9	1.8	2.0	2.0	1.9	2.0	2.1	2.1	2.0
Quality uniform	4.0	3.9	4.1	4.4	4.3	4.4	4.3	4.8	4.1
Contributes to attractiveness	4.1	3.7	4.6	4.2	4.0	4.4	4.0	3.7	4.1
Know product very well	5.4	5.2	5.6	5.6	5.5	5.7	5.3	5.1	5.3
Have it very often	2.7	2.5	2.9	3.0	2.7	3.1	2.5	2.2	2.7

^aComplete agreement with statement would be indicated by a value of seven. Complete disagreement with the statement would be indicated by a value of one.

These respondents had a very positive attitude concerning the price-value parameter.

This group exhibited a low intensity of feeling about the calorie level parameter. They were quite well convinced that powdered milk was low in calories and that it was a good weight watcher's drink. The group was slightly convinced that powdered milk was convenient.

The females in this group had the most positive attitude concerning the nutrition-vitality parameter. Although both were quite negative, males' attitudes were somewhat more so for the taste-refreshment parameter.

Males' intensities of feeling were considerably more negative for the appropriateness parameter than were those of the females. This was the result of much lower intensities of feeling concerning the statements, "many uses" and "for me."

Females' attitudes concerning the price-value parameter were somewhat more positive than males'. They had slightly higher intensities of feeling that it was low priced and considerably more positive attitudes that it was a good value for the money.

Males and females had the same low intensity of feeling for the calorie level parameter.

Females were slightly more convinced than males that powdered milk was convenient.

Results of evaluation of the other variables is discussed in this paragraph. Males and females had essentially the same negative attitude concerning stylishness. Their attitudes concerning quality were neutral. Males' attitudes were slightly negative and females' fairly positive concerning the statement, "contributes to attractiveness." Both sexes indicated a high level of acquaintance with the product. Although females

indicated a higher level of consumption than males, both were very low.

Analysis of nonpolar variables showed the following results: both sexes were convinced that powdered milk was for weight watchers, but females held this belief much more strongly than males. This was also true for their attitude that this product goes with foods better than by itself. These respondents were quite well convinced that this drink was for poor people. They had no opinion that it was more for one sex than another.

Values for the nonpolar variables are included in Table 16 for all three consumption groups.

Medium consumers. This group had a quite positive attitude for the nutrition-vitality parameter. The intensities of feeling for most of the statements in the parameter fell in a narrow range.

These respondents had a fairly negative attitude concerning the taste-refreshment parameter. They also had a quite negative attitude concerning the appropriateness parameter for powdered milk. They were only slightly convinced that it had a number of uses.

This group had a very high average intensity of feeling for the price-value parameter. They had quite strong attitudes that this product was low in calories and that it was a good drink for weight watchers. They also had a positive attitude concerning the convenience parameter for powdered milk.

Females in the group had attitudes slightly more positive than the males for the nutrition-vitality parameter.

The intensities of feeling of males and females were essentially the same for the taste-refreshment, appropriateness, and price-value parameters.

Table 16. Consumer attitudes toward nonfat dry (powdered) milk for non-polar variables, by consumption level, metropolitan Salt Lake City, 1967

Attitude statements	High		Medium			Low			
	All	Male	Female	All	Male	Female	All	Male	Female
	Average intensity of feeling ^a								
For thin people- For weight watchers	2.7	3.1	2.3	2.6	2.7	2.5	2.4	2.4	2.4
Best by itself- Goes with foods	3.0	3.2	2.6	3.0	2.9	3.0	2.9	2.9	2.9
For poor people- For rich people	4.7	4.7	4.8	4.7	5.0	4.6	4.6	4.6	4.6
Man's drink- Woman's drink	3.9	3.9	4.0	3.8	3.9	3.8	3.8	4.0	3.8
Girl's drink- Boy's drink	4.1	4.1	4.0	4.0	4.0	4.0	4.0	4.0	4.0

^aComplete agreement with the first statement would be indicated by a value of seven. Complete agreement with the second statement would be indicated by a value of one. A value of four could mean equal agreement or disagreement with both.

Females were somewhat more convinced than males that this product was low in calories and a good drink for weight watchers. Females were also somewhat more positive than males that this product was convenient.

Evaluation of other variables follows: males and females had essentially the same negative attitude concerning the stylishness and the same positive attitude concerning the uniform quality of powdered milk. The males were neutral and the females positive that it contributes to attractiveness. They displayed very high degrees of acquaintance and very low levels of consumption of the product. Females indicated somewhat higher consumption levels than did males.

The results for the nonpolar variables were the following: this group felt very strongly that powdered milk was for weight watchers and that it goes with foods better than by itself. They also felt that it was a drink for poor people. The group indicated a slight feeling that among adults this was a woman's drink, but they didn't feel that it was particularly for either sex of children.

Low consumers. The respondents who were included in this group had fairly positive attitudes for the nutrition-vitality parameter of powdered milk. With the exception of a somewhat lower value for the statement, "gives energy for hours," the intensities of feeling for the statements in the parameter were very uniform.

The group had a quite negative attitude for the taste-refreshment parameter. This group also had a very positive attitude concerning the appropriateness of powdered milk. They were not convinced that powdered milk had many uses or that it did not. They had very negative attitudes concerning all of the other statements in the parameter.

Their attitude for the price-value parameter was very positive. This group felt that this product was low in calories and that it was for weight watchers. They also felt that it was convenient. Females in the group had a more positive attitude for the nutrition-vitality parameter than males with considerably higher intensities of feeling for most statements in the parameter.

Males' intensities of feeling for the taste-refreshment parameter were slightly higher than females', mainly because males had a less negative attitude concerning "liked by children."

The intensities of feeling of males and females for the appropriateness parameter were practically the same. There was considerable variation

of opinion between males and females about the statements within the parameter, however.

Females also felt much more positive about the price-value parameter.

Although males were less convinced that this product was low in calories, their apprehensions, or lack of them, concerning weight problems were probably the same, as both had the same intensity of feeling that it was a weight watcher's drink.

Females were slightly more convinced that it was convenient.

Analysis of other variables yielded the following results: this group had the usual negative attitude concerning the stylishness of this product. Males were fairly well convinced and females slightly convinced that the quality was uniform. Males had slightly negative and females slightly positive attitudes that powdered milk contributes to attractiveness. This group had quite high degrees of acquaintance with the product and very low consumption levels. Males indicated considerably lower consumption levels than females.

The nonpolar variables exhibited these results: males and females in the group exhibited the same feelings that powdered milk was for weight watchers, for poor people, and goes with foods. Females leaned to the attitude that it was a woman's drink, but males didn't favor either sex. Neither males nor females had any feelings that it was more for one sex of children than another.

Comparison of consumption groups. Direct comparison may be facilitated by referring to Tables 15 and 16 and Figure 8.

The respondents in the medium-consumer group had more positive attitudes about powdered milk than either the high or low consumers. This was especially true of the price-value and convenience parameters.

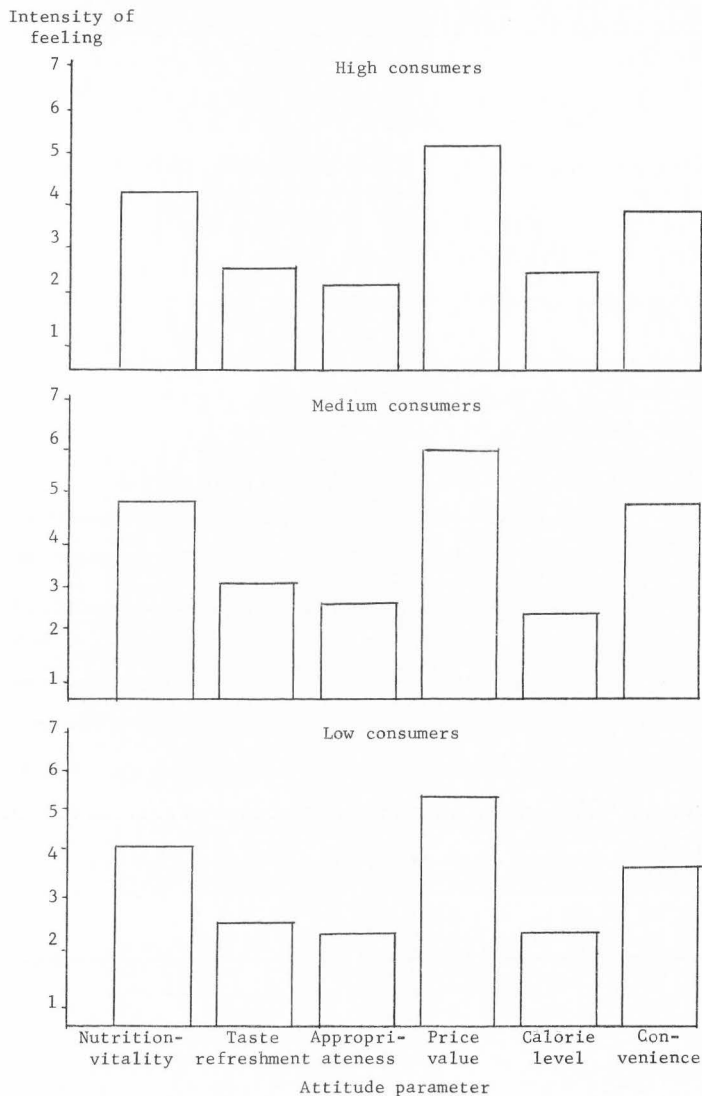


Figure 8. People profile contrasting the average intensities of feeling of the three consumption level groups for nonfat dry (powdered) milk, metropolitan Salt Lake City, 1967

Concerning the nutrition-vitality parameter, the average intensities of feeling of the medium consumer group were quite positive. The intensities of feeling of the high and low consumers were somewhat lower. This same trend followed for both males and females in the group.

With the exceptions of the males in the high consumer group and the females in the low consumer group, each sex had essentially the same intensity of feeling about the taste-refreshment parameter.

The medium consumers also had the least negative attitude concerning the appropriateness parameter. This was almost entirely because of attitudes of the males in the group.

The attitudes concerning the calorie level parameter were not characterized by the same pattern of response as the other attitude parameters. For this parameter the high consumers were the least convinced that powdered milk was low in calories, and they were also the least convinced that it was a good drink for weight watchers. The medium consumer males were the least convinced that it was low in calories, but the high consumers were the most doubtful about it being a good drink for weight watchers. The low consumers were the most certain that powdered milk was for weight watchers.

The high and low consumer groups had almost identical intensities of feeling about convenience.

Acquaintance with product

Three parameters exhibited a direct relationship between the respondents' degree of acquaintance with the product and their average intensity of feeling.⁵ These were the nutrition-vitality, appropriateness,

⁵See Appendix A (Table 33).

and price-value parameters.

Also, as degree of acquaintance with the product increased, the respondents became more convinced that powdered milk was for weight watchers.

Comparison of Products

This part of the section is devoted exclusively to the differences between the general patterns of attitude which existed for each product.

The average intensities of feeling for the nutrition-vitality parameter were highest for regular whole milk. The respondents' attitudes concerning this parameter were very positive for this product.

The product which exhibited the next most positive attitude for this parameter was two percent milk. In general, the intensities of feeling concerning the nutrition-vitality parameter for this product were quite high.

The respondents placed powdered milk third in rank for intensities of feeling about nutrition-vitality. In general they had fairly positive attitudes concerning this parameter.

The lowest intensity of feeling about this parameter was for skim milk. The respondents' attitudes concerning the nutrition-vitality parameter for this product were only slightly positive with some being negative.

Regular whole milk was also first in taste-refreshment. Intensities of feeling for this parameter indicated that the respondents had very positive attitudes concerning it.

There was considerable difference between the intensities of feeling regarding taste-refreshment for regular whole milk and the next product, which was two percent milk. Consumers had only a fairly positive attitude about the taste-refreshment parameter of this product.

Another large drop in intensities of feeling took place between two percent milk and skim milk, which was next on the list. Attitudes concerning taste-refreshment for this product were fairly negative.

The attitudes of the respondents regarding the taste-refreshment parameter for powdered milk were quite negative. The intensities of feeling for this product were, in general, somewhat lower than the intensities of feeling for skim milk.

The respondents indicated the highest appropriateness value for the appropriateness of regular whole milk. The average intensity of feeling in this case was high. The average intensities of feeling of the respondents for the appropriateness parameter of two percent milk was considerably lower.

The appropriateness parameter for skim milk, which was next in line, showed an even lower intensity of feeling. While the respondents were fairly positive that two percent milk and skim milk have many uses, they were not so sure that they were good drinks to have at restaurants, to serve to company, or to drink themselves.

The respondents had very negative attitudes about the appropriateness parameter for powdered milk.

For the price-value parameter an interesting reversal of position took place, as powdered milk exhibited the highest intensities of feeling. The respondents were highly convinced that it is both low priced and a good value for the money.

Next in line was two percent milk. The respondents had quite high average intensities of feeling for the price-value parameter of this product. Most respondents felt that it was a good value for the money.

The average intensities of feeling of the respondents for the price-value parameter was just a little lower for skim milk than for two percent milk and just a little lower yet for regular whole milk. The average intensities of feeling for the latter three products were very close to being the same.

The respondents had the most positive attitudes concerning the calorie level parameter for regular whole milk. They also felt that it was for thin people.

The respondents had no apprehensions that any of the other three products would be the cause of overweight. However, they were the most convinced that skim milk was low in calories and a good drink for weight watchers. They had practically the same intensities of feeling for the calorie level parameters of two percent milk and powdered milk.

These consumers had very positive attitudes concerning the convenience parameter for regular whole milk, two percent milk, and skim milk. Their attitudes for regular whole milk and two percent milk were essentially the same. Their intensity of feeling for skim milk was slightly lower.

As would be expected, due to the problems of preparation, the general attitude of the respondents for the convenience parameter of powdered milk was less positive than their attitudes concerning the convenience of other products. Their attitude regarding convenience was still fairly positive, however.

THE EFFECT OF CONSUMER ATTITUDES ON CONSUMPTION
OF FLUID MILK PRODUCTS

The purpose of this section is to relate variations in intensity of agreement with the attitude parameters to consumption of each of the four fluid milk products studied.

Regular Whole Milk

All respondents

For the respondents as a whole, two of the parameters proved to be discriminatory. These were the taste-refreshment and appropriateness parameters (Table 17). It was clearly evident for these two parameters that there was a positive relationship between the intensity of feeling and average consumption.

Another parameter which seemed to be discriminatory was the calorie level parameter. Response to this parameter indicated that higher consumption was associated with an attitude that regular whole milk was low in calories.

The nutrition-vitality and the price-value parameters proved to be non-discriminatory with a cognitive difference in intensity of feeling for the group as a whole.

The convenience parameter could be classified as non-discriminatory with a universal intensity of feeling, since only 13.6 percent of the respondents did not feel positive that regular whole milk was convenient. Only 4.16 percent could be classified as having negative feelings about convenience.

Table 17. Consumption of regular whole milk by intensities of agreement with selected attitude parameters, all respondents, metropolitan Salt Lake City, 1967

Parameter & intensity of agreement	<u>All respondents (360)</u>		<u>All males (132)</u>		<u>All females (228)</u>	
	Percent of respondents	Ave. consumption	Percent of respondents	Ave. consumption	Percent of respondents	Ave. consumption
		Glasses previous day		Glasses previous day		Glasses previous day
Nutrition-vitality						
1-3	6.16	1.158	7.07	1.205 ^a	5.63	1.123
4	16.20	1.138	20.83	1.444	13.52	.865
5-7	77.64	1.318	72.09	1.815	80.85	1.061
Taste-refreshment						
1-3	6.16	.908 ^a	6.82	1.176 ^a	5.77	.724
4	13.38	1.231	19.57	1.529	9.79	.886
5-7	80.46	1.316	73.61	1.787	84.43	1.077
Appropriateness						
1-3	15.70	.810 ^a	30.68	1.006 ^a	15.79	.698 ^a
4	17.64	1.049	18.56	1.255	17.10	.920
5-7	66.67	1.450	65.91	1.981	67.10	1.148
Price-value						
1-3	28.47	1.166	36.74	1.442	25.88	.962 ^a
4	29.86	1.337	29.92	1.848	29.82	1.040
5-7	41.66	1.150	37.12	1.622	44.30	1.082
Calorie level						
1-3	3.88	1.500 ^a	3.79	2.600	3.95	.889
4	23.33	1.289	25.00	1.303	22.37	1.279
5-7	72.77	1.264	71.21	1.785	73.68	.972
Convenience						
1-3	4.16	1.000	6.06	1.125	3.07	.857 ^a
4	9.44	1.618	17.42	1.924	4.82	.977
5-7	86.38	1.255	76.51	1.688	92.10	1.047

^aIndicated that the levels of consumption associated with intensities of feeling about the parameter indicated discriminatory attitude.

The taste-refreshment and the appropriateness parameters proved to be discriminatory among both males and females.

Only about 6 percent of the respondents had negative attitudes about the taste-refreshment parameter, and approximately twice that many were neutral. While this seems to be a small percent, it is a considerable number of respondents and may be an important consideration for the dairy industry in advertising regular whole milk.

In addition to these two, the nutrition-vitality parameter proved to be discriminatory for males.

Females were discriminatory in their consumption according to their attitudes about the price-value and convenience parameters. Only a small percent felt that regular whole milk was not convenient, but there was a definite difference in consumption levels.

For the males, the price-value, calorie level, and convenience parameters all proved to be non-discriminatory with a cognitive difference in intensity of feeling. There were several respondents in each intensity-of-feeling group, but with the exception of a slight difference among males, no pattern of consumption levels were manifest in accordance with attitudes.

For females, the nutrition-vitality and calorie level parameters were non-discriminatory with a cognitive difference in intensity of feeling. While the females had varied opinions about these parameters, their consumption did not vary.

Contrary to what one might expect, males had discriminatory attitudes about the nutrition-vitality parameter, but females did not. On the other hand, females who usually purchase and serve milk had discriminatory attitudes about the price-value and convenience parameters, but males did not.

Age groups

Age 15-19. As a whole this group was influenced in a discriminatory manner by the taste-refreshment and appropriateness parameters. They showed a positive relationship between average intensities of feeling about these parameters and level of consumption (Table 18).

The respondents were dispersed fairly evenly in each intensity-of-feeling group for the price-value parameter. This indicated that there was a cognitive difference in intensity of feeling for this parameter; it was non-discriminatory, however. While the other three parameters proved to be non-discriminatory, their classification between universal intensity and cognitive difference was not so clear cut. They tended to show a universal intensity of feeling with at least 83 percent of the respondents being in either the top or the top two intensity-of-feeling categories.

Females exhibited that they were definitely influenced in a discriminatory manner by their attitudes about the taste-refreshment parameter. Males showed a trend that way in that those with negative attitudes drank much less than the other two groups whose consumption levels were practically identical.

Both males and females who had negative feelings about the appropriateness parameter consumed considerably less than the other members of their sex.

Although a somewhat discriminatory attitude was witnessed among males for the taste-refreshment and appropriateness parameters, only a small percent of the respondents were in other than positive attitude groups. Females in the group exhibited a discriminatory attitude in the calorie level parameter. Those with a very low intensity of feeling consumed more than those who were more convinced that regular whole milk was high in

Table 18. Consumption of regular whole milk by intensities of agreement with selected attitude parameters, respondents age 15-19, metropolitan Salt Lake City, 1967

Parameter & intensity of agreement	All respondents age 15-19 (24)		Males age 15-19 (14)		Females age 15-19 (10)	
	Percent of respondents	Ave. consumption	Percent of respondents	Ave. consumption	Percent of respondents	Ave. consumption
		Glasses previous day		Glasses previous day		Glasses previous day
Nutrition-vitality						
1-3	6.96	2.800	4.78	3.500	10.00	1.278
4	9.71	2.571	13.07	2.455	5.00	3.000
5-7	83.33	3.516	82.14	4.623	85.00	2.020
Taste-refreshment						
1-3	9.04	1.846 ^a	7.14	2.667	11.70	.310 ^a
4	9.71	3.429	9.50	4.500	10.00	2.000
5-7	81.25	3.538	83.36	4.400	78.30	2.255
Appropriateness						
1-3	11.46	1.727 ^a	7.14	2.500	17.50	.333
4	6.25	3.167	3.57	4.500	10.00	2.500
5-7	82.29	3.734	89.28	4.420	72.50	2.242
Price-value						
1-3	25.00	2.958	21.43	4.167	30.00	.833
4	39.58	3.763	39.28	4.818	40.00	2.312
5-7	35.42	3.235	39.28	3.818	30.00	2.167
Calorie level						
1-3	12.50	2.667	14.28	3.000	10.00	2.000 ^a
4	20.83	1.700	14.28	1.500	30.00	1.833
5-7	66.67	4.031	71.43	5.100	60.00	1.639
Convenience						
1-3	4.17	1.000	.00	.000	10.00	1.000
4	12.50	5.333	14.28	7.000	10.00	2.000
5-7	83.33	3.200	85.71	3.834	80.00	1.562

^aIndicates that the levels of consumption associated with intensities of feeling about the parameter indicated discriminatory attitude.

calories. Males in the group expressed no such concern. This parameter was classified as non-discriminatory with a cognitive difference in intensity of feeling for them.

The description of the other three parameters for each sex would be the same as it was for the entire group. The price-value parameter was non-discriminatory with a cognitive difference in intensity of feeling, and the nutrition-vitality and convenience parameters were non-discriminatory with a universal intensity of feeling for both sexes.

Age 20-34. Two parameters proved to be definitely discriminatory for the 20-34 year olds as a group. One of these parameters showed that the more positive they felt about price of the product and the value received for their money, the more they consumed. The other indicated a positive relationship between the attitude that regular whole milk was low in calories and consumption level. These relationships are shown in Table 19. There was also an indication that their attitudes about the taste-refreshment, appropriateness, and nutrition-vitality parameters influenced consumption. They were not strictly discriminatory, however. It was clearly evident that those who had negative attitudes about these parameters consumed considerably less than those with neutral or positive attitudes. However, for all three parameters the respondents with neutral attitudes consumed slightly more than the respondents with positive attitudes.

The convenience parameter was non-discriminatory for this group with a fairly universal intensity of feeling. Only 18.21 percent of the consumers did not have positive attitudes about the convenience parameter. Those who did not, consumed essentially the same amount as those who did.

Table 19. Consumption of regular whole milk by intensities of agreement with selected attitude parameters, respondents age 20-34, metropolitan Salt Lake City, 1967

Parameter & intensity of agreement	All respondents age 20-34 (115)		Males age 20-34 (43)		Females age 20-34 (72)	
	Percent of respondents	Ave. consumption	Percent of respondents	Ave. consumption	Percent of respondents	Ave. consumption
		Glasses previous day		Glasses previous day		Glasses previous day
Nutrition-vitality						
1-3	5.94	.768	6.21	.814	5.79	.740 ^a
4	17.09	1.311	21.70	1.857	14.34	.819
5-7	76.96	1.206	72.09	1.323	79.86	1.142
Taste-refreshment						
1-3	7.10	.796	8.14	.857	6.49	.750 ^a
4	13.04	1.511	20.53	1.906	8.57	.946
5-7	79.85	1.182	71.32	1.326	84.96	1.111
Appropriateness						
1-3	14.56	.772	14.53	.560	14.58	.899 ^a
4	18.91	1.305	19.19	1.803	18.75	1.000
5-7	66.52	1.260	66.28	1.478	66.67	1.131
Price-value						
1-3	30.87	1.162 ^a	40.70	1.243 ^a	25.00	1.083
4	26.96	1.181	25.58	1.500	27.78	1.006
5-7	42.17	1.235	33.72	1.534	47.22	1.107
Calorie level						
1-3	5.21	1.571 ^a	2.32	5.000 ^a	8.33	1.000
4	24.35	1.446	27.91	1.667	22.22	1.281
5-7	69.56	1.078	69.77	1.183	69.44	1.015
Convenience						
1-3	4.35	1.200	9.30	1.000	1.39	1.000
4	13.91	1.422	20.93	1.667	9.72	1.107
5-7	81.74	1.160	69.77	1.350	88.88	1.071

^aIndicates that the levels of consumption associated with intensities of feeling about the parameter indicated discriminatory attitude.

The males and females in this age group were influenced quite differently by the various parameters.

The three parameters--nutrition-vitality, taste-refreshment, and appropriateness--were definitely discriminatory for females. Males indicated that these parameters were influential in that those who had negative attitudes consumed considerably less than those who did not. However, in all three cases the respondents who indicated neutrality in their attitudes consumed approximately a half glass more than those who indicated positive attitudes.

For males, the price-value and the calorie-level parameters were discriminatory. Consumption showed a positive relationship with positive attitudes about the good price and value for the money of regular whole milk and that this product was low in calories.

For females, the price-value and calorie-level parameters were non-discriminatory with a non-cognitive difference in intensity of feeling.

Although both sexes indicated that the convenience parameter was non-discriminatory for them, males had a cognitive difference in intensity of feeling. Only 11.11 percent of the females did not have positive attitudes for this parameter and only 1.39 percent had negative attitudes.

Age 35 and over. As can be seen in Table 20, several of the parameters were discriminatory for this group. Four of the parameters were discriminatory for the group as a whole--taste-refreshment, appropriateness, price-value, and convenience.

The calorie level parameter was non-discriminatory.

The only parameter that was discriminatory for both sexes was the price-value parameter.

Table 20. Consumption of regular whole milk by intensities of agreement with selected attitude parameters, respondents age 35 and over, metropolitan Salt Lake City, 1967

Parameter & intensity of agreement	All respondents <u>age 35 & over (221)</u>		Males <u>age 35 & over (75)</u>		Females <u>age 35 & over (72)</u>	
	Percent of respondents	Ave. consumption	Percent of respondents	Ave. consumption	Percent of respondents	Ave. consumption
		Glasses previous day		Glasses previous day		Glasses previous day
Nutrition-vitality						
1-3	6.18	1.152	8.00	1.125	5.25	1.174
4	16.44	.952	21.77	1.094	13.70	.835
5-7	77.37	1.119	70.22	1.493	81.05	.952
Taste-refreshment						
1-3	5.35	.813 ^a	6.00	1.092	5.02	.642 ^a
4	13.95	.928	20.89	1.064	10.39	.788
5-7	80.69	1.141	73.11	1.489	84.59	.986
Appropriateness						
1-3	16.74	.758 ^a	17.67	1.104	16.27	.565 ^a
4	18.21	.832	21.00	.865	16.78	.811
5-7	65.04	1.253	61.33	1.630	66.95	1.075
Price-value						
1-3	27.60	.991 ^a	30.66	1.239 ^a	26.03	.841 ^a
4	30.32	1.065	30.66	1.304	30.14	.940
5-7	42.08	1.182	38.67	1.543	43.83	.977
Calorie level						
1-3	1.81	.500	2.67	1.000 ^a	1.37	.000
4	23.08	1.162	25.33	1.053	21.92	1.227
5-7	75.11	1.087	72.00	1.505	76.71	.886
Convenience						
1-3	4.07	.889 ^a	5.33	1.000 ^a	3.42	.800
4	6.79	1.083	16.00	1.271	2.05	.333
5-7	89.14	1.104	78.67	1.423	94.52	.967

^aIndicates that the levels of consumption associated with intensities of feeling about the parameter indicated discriminatory attitude.

For females, the taste-refreshment and the appropriateness parameters were discriminatory. Apparently these considerations were of no consequence to the males age 35 and over, as these two parameters proved to be non-discriminatory for them with a cognitive difference in intensity of feeling.

The considerations which did influence the males in a discriminatory manner concerned whether they felt that regular whole milk had an ample supply of calories and if they felt that it was convenient. These two parameters were discriminatory for males but not for females.

For females, the calorie level parameter was non-discriminatory with a cognitive difference in intensity of feeling. It could almost be classified as exhibiting a universal intensity of feeling, since only 1.37 percent of the female respondents felt that regular whole milk was low in calories.

The convenience parameter proved to be non-discriminatory with a universal intensity of feeling for females. Only 5.47 percent of them did not have a positive attitude about this parameter.

The nutrition-vitality parameter was non-discriminatory with a cognitive difference in intensity of feeling for both the male and female respondents age 35 and over.

Comparison of age groups. Only two attitudes had a discriminatory effect on the level of consumption of 15-19 year olds. These two were the taste-refreshment and appropriateness consideration. Price-value and calorie level proved to be the discriminatory parameters for them.

The respondents 35 years old and over were influenced in their consumption levels by the four parameters mentioned above and also the convenience parameter.

For the parameters which were non-discriminatory, there was very little difference between the groups in the percent of respondents with positive, neutral, and negative attitudes. This meant that there was little difference between the groups as to which non-discriminatory parameters had a cognitive difference in intensity of feeling and which had universal intensities of feeling.

Males in the 15-19 and 20-34 age groups were influenced by their attitudes about the taste-refreshment and appropriateness parameters, but these parameters could not be termed as strictly discriminatory. Males age 35 and over were not influenced at all by these considerations.

Consumption levels of males age 20-34 were influenced somewhat by attitudes about the nutrition-vitality parameter. Neither of the other age groups were influenced by this parameter.

Attitudes about price-value and calorie level parameters had discriminatory effects on the 20-34 and 35 and over age groups but did not influence consumption by the 15-19 year old males at all.

The attitudes of respondents about the convenience parameter had a discriminatory effect on the consumption of the males age 35 and over but not on the other two groups.

For the females, attitudes about taste-refreshment and appropriateness parameters had a very definite influence on the level of consumption. With the exception of the appropriateness parameter for 15-19 year olds, all females reacted in a discriminatory manner to these parameters.

The attitudes of 20-34 year old females about the nutrition-vitality parameter were discriminatory, while those of the older age groups were not. This was probably because females in this age group were concerned

with feeding their family and were naturally more aware of nutrition and vitality considerations.

Attitudes about the price-value parameter were discriminatory for the 35 and over age group, many of whom were living on a pension. This consideration did not influence consumption of the other two groups.

The respondents' attitudes about the calorie level parameter were discriminatory for the 15-19 year old females, but not for the other age groups.

Attitudes about the convenience parameter had no effect on the consumption of any of the age groups. Practically all of the females in each age group had positive attitudes about this parameter.

Two Percent Milk

All respondents

For the respondents as a whole, four of the parameters had a discriminatory effect on consumption. As can be seen by referring to Table 21, these were the nutrition-vitality, taste-refreshment, appropriateness, and convenience parameters. In all four of these parameters, higher consumption of two percent milk was associated with more positive intensities of feeling.

High intensity of feeling about the calorie level parameter was associated with higher consumption of two percent milk. The respondents with negative attitudes about this parameter consumed slightly more than those with neutral attitudes, and both consumed considerably less than those with positive attitudes. While this parameter could not be strictly classified as discriminatory, it was evident that higher consumption was associated with positive attitudes.

Table 21. Consumption of two percent milk by intensities of agreement with selected attitude parameters, all respondents, metropolitan Salt Lake City, 1967

Parameter & intensity	All respondents (360)		All males (132)		All females (228)	
	Percent of respondents	Ave. consumption	Percent of respondents	Ave. consumption	Percent of respondents	Ave. consumption
		Glasses previous day		Glasses previous day		Glasses previous day
Nutrition-vitality						
1-3	18.89	.156 ^a	22.98	.112 ^a	16.52	.193
4	34.40	.204	35.73	.239	33.63	.182
5-7	46.71	.443	41.29	.618	49.85	.359
Taste-refreshment						
1-3	26.48	.113 ^a	28.79	.128 ^a	25.14	.103
4	30.46	.145	29.29	.244	31.14	.092
5-7	43.05	.540	41.92	.616	43.71	.498
Appropriateness						
1-3	39.37	.169 ^a	41.48	.178 ^a	38.16	.164
4	24.24	.195	25.19	.316	23.68	.120
5-7	36.39	.529	33.33	.638	38.16	.474
Price-value						
1-3	15.55	.296	21.21	.254	12.28	.339
4	34.30	.253	31.44	.476	35.96	.140
5-7	50.14	.346	47.35	.344	51.75	.348
Calorie level						
1-3	58.61	.287	48.48	.398	64.47	.238
4	30.83	.217	33.33	.230	29.38	.209
5-7	10.55	.677	18.18	.531	6.14	.928
Convenience						
1-3	4.72	.118 ^a	6.82	.000 ^a	3.51	.400
4	22.50	.238	21.67	.284	22.81	.212
5-7	72.78	.340	71.21	.427	73.68	.292

^aIndicates that the levels of consumption associated with intensities of feeling about the parameter indicate a discriminatory attitude.

The price-value parameter was non-discriminatory with a cognitive difference in intensity of feeling.

Purchases of two percent milk by male respondents were affected in a discriminatory manner by their attitudes about the nutrition-vitality, taste-refreshment, appropriateness, and convenience parameters.

The convenience parameter was non-discriminatory with a cognitive difference in intensity of feeling for females. Only a small percent of the females had negative attitudes about this parameter.

The price-value and calorie level parameters both proved to be non-discriminatory with a cognitive difference in intensity of feeling for both males and females. The majority of both sexes, especially the females, were of the opinion that two percent milk was low in calories.

Age groups

Age 15-19. The results of the analysis of consumption of two percent milk by the 15-19 year olds may have been affected by an insufficient sample size.

It appeared that attitudes about two of the parameters had an effect on the consumption level of this group. These were the nutrition-vitality and taste-refreshment parameters (Table 22).

The appropriateness, price-value, and calorie level parameters were non-discriminatory with a cognitive difference in intensity of feeling. The price-value parameter could almost be classified as having a universal intensity of feeling, since only a small percent of the respondents had negative attitudes about this parameter.

The convenience parameter for the whole group was discriminatory, although all of the respondents were in the top two intensity of feeling groups.

Table 22. Consumption of two percent milk by intensities of agreement with selected attitude parameters, respondents age 15-19, metropolitan Salt Lake City, 1967

Parameters & intensity of agreement	All respondents age 15-19 (24)		Males age 15-19 (14)		Females age 15-19 (10)	
	Percent of respondents	Ave. con- sumption	Percent of respondents	Ave. con- sumption	Percent of respondents	Ave. con- sumption
		Glasses previous day		Glasses previous day		Glasses previous day
Nutrition- vitality						
1-3	7.62	.000 ^a	10.71	.000 ^a	3.30	.000 ^a
4	43.75	.302	40.50	.559	48.30	.000
5-7	48.62	.672	48.78	.707	48.30	.621
Taste- refreshment						
1-3	21.54	.226 ^a	22.64	.010	20.00	.411
4	31.96	.370	26.21	.773	40.00	.000
5-7	46.54	.627	51.21	.674	40.00	.542
Appropriateness						
1-3	40.62	.436	42.86	.500	37.50	.333
4	22.92	.182	19.64	.182	27.50	.182
5-7	36.46	.657	37.50	.857	35.00	.357
Price-value						
1-3	6.25	.000	3.57	.000	10.00	.000 ^a
4	33.33	.562	39.28	.727	25.00	.200
5-7	60.42	.448	57.14	.500	65.00	.385
Calorie level						
1-3	58.33	.571	57.14	.125	60.00	.500 ^a
4	29.17	.000	21.43	.000	40.00	.000
5-7	12.50	1.000	21.43	1.000	.00	.000
Convenience						
1-3	.00	.000 ^a	.00	.000 ^a	.00	.000 ^a
4	29.17	.000	28.57	.000	30.00	.000
5-7	70.83	.647	71.43	.800	70.00	.428

^aIndicates that the levels of consumption associated with intensities of feeling about the parameter indicate a discriminatory attitude.

The males in the group were influenced positively in their consumption of two percent milk by high intensities of feeling for the nutrition-vitality and taste-refreshment parameters. The former was actually discriminatory, and the latter showed that those with high intensities of feeling consumed more.

For the females, the nutrition-vitality parameter was also discriminatory, but the taste-refreshment parameter was non-discriminatory with a cognitive difference in intensity of feeling.

In addition the price-value parameter was discriminatory for the females.

Both males and females exhibited the same tendencies for the other parameters as were described for the group as a whole.

Age 20-34. As Table 23 indicates, three parameters had discriminatory effects on consumption of two percent milk by respondents age 20-34. These were the nutrition-vitality, taste-refreshment, and convenience parameters. Intensity of feeling about each of these parameters had a profound effect on consumption level. This was especially true of the taste-refreshment and nutrition-vitality parameters.

In addition attitudes about the appropriateness parameter seemed to have an effect on consumption. This was evidenced by the fact that those respondents with positive attitudes about this parameter consumed a considerably higher amount of two percent milk than the respondents with neutral or negative attitudes.

This was also true of the calorie level parameter. Contrary to what one might expect for this age group, the respondents who felt that two percent milk was high in calories consumed practically a full glass per day more than the respondents who either had negative or neutral attitudes.

Table 23. Consumption of two percent milk by intensities of agreement with selected attitude parameters, respondents age 20-34, metropolitan Salt Lake City, 1967

Parameters & intensity of agreement	All respondents age 20-34 (115)		Males age 20-34 (43)		Females age 20-34 (72)	
	Percent of respondents	Ave. consumption	Percent of respondents	Ave. consumption	Percent of respondents	Ave. consumption
		Glasses previous day		Glasses previous day		Glasses previous day
Nutrition-vitality						
1-3	21.30	.275 ^a	27.51	.085 ^a	17.60	.454
4	30.72	.309	32.16	.205	29.86	.376
5-7	47.97	.640	40.30	.932	52.54	.507
Taste-refreshment						
1-3	28.26	.156 ^a	35.65	.163 ^a	23.85	.150 ^a
4	28.55	.223	29.84	.260	27.78	.200
5-7	43.19	.817	34.49	.955	48.37	.758
Appropriateness						
1-3	39.13	.294	44.19	.237 ^a	36.11	.336
4	24.13	.252	25.58	.364	23.26	.179
5-7	36.74	.775	11.30	.885	40.62	.726
Price-value						
1-3	16.09	.540	29.07	.320	8.33	1.000
4	29.56	.426	30.23	.731	29.17	.238
5-7	54.35	.456	40.70	.371	62.50	.489
Calorie level						
1-3	66.09	.421	55.81	.542	72.22	.365
4	24.35	.214	30.23	.308	20.83	.133
5-7	9.56	1.364	13.95	.500	6.94	2.400
Convenience						
1-3	7.83	.222 ^a	11.63	.000 ^a	5.55	.500
4	26.09	.467	27.91	.333	25.00	.556
5-7	66.09	.487	60.46	.616	69.44	.420

^aIndicates that the levels of consumption associated with intensities of feeling about the parameter indicate a discriminatory attitude.

The price-value parameter for the entire group was classified as non-discriminatory with a cognitive difference in intensity of feeling.

Consumption of two percent milk by males in the group was affected in a discriminatory manner by their attitudes about four of the parameters. These were the nutrition-vitality, taste-refreshment, appropriateness, and convenience parameters. In each the difference in consumption between the three intensity of feeling levels was very distinct.

For the females in the group, only the taste-refreshment parameter was discriminatory. The other three parameters, which were discriminatory for the males, were non-discriminatory with a cognitive difference in intensity of feeling for the females.

The price-value parameter was non-discriminatory with a cognitive difference in intensity of feeling for both males and females.

For the males, the calorie level parameter was also non-discriminatory with a cognitive difference in intensity of feeling. Consumption by females was affected somewhat by their attitudes about this parameter, as those with positive attitudes consumed considerably more than those with either neutral or negative attitudes. Only a small percent of the female respondents had positive attitudes about this parameter, however. This small percentage could easily have been affected by an extremely high level of consumption for one of the respondents.

The respondents in this age group had varied intensities of feeling about all of the parameters. Thus, there were no parameters classified as non-discriminatory with a universal intensity of feeling.

Age 35 and over. The attitudes of this group about five of the parameters had a discriminatory effect on consumption. These were the nutrition-vitality, taste-refreshment, appropriateness, calorie level,

and convenience parameters. Each one exhibited a positive relationship between intensity of feeling and level of consumption. Contrary to what one might expect for two percent milk, respondents in this age group who felt that this product was high in calories consumed more than those who felt that it was low in calories.

The price value parameter was non-discriminatory with a cognitive difference in intensity of feeling for this group. These relationships may all be seen in Table 24.

The consumption of the males in the group was affected in a discriminatory manner by four of the parameters. These were the nutrition-vitality, taste-refreshment, appropriateness, and price-value parameters. Attitudes about the first three had a marked effect on consumption. While the price-value parameter was discriminatory, the respondents who felt that two percent milk was low-priced and a good value for the money consumed very little more than those with negative attitudes.

Consumption by females was affected in a discriminatory manner by their attitudes about two of the same parameters. These were the nutrition-vitality and appropriateness parameters. Also, the female respondents who had positive intensities of feeling for the taste-refreshment parameter consumed considerably more two percent milk than those with negative or neutral attitudes.

In addition, the convenience parameter proved to be discriminatory for females age 35 and over. For the males, this parameter was non-discriminatory with a cognitive difference in intensity of feeling. Only a few of the males and females had negative attitudes about the convenience parameter.

Table 24. Consumption of two percent milk by intensities of agreement with selected attitude parameters, respondents age 35 and over, metropolitan Salt Lake City, 1967

Parameter & intensity of agreement	All respondents age 35 & over (221)		Males age 35 & over (75)		Females age 35 & over (146)	
	Percent of respondents	Ave. consumption	Percent of respondents	Ave. consumption	Percent of respondents	Ave. consumption
		<u>Glasses previous day</u>		<u>Glasses previous day</u>		<u>Glasses previous day</u>
Nutrition-vitality						
1-3	18.85	.093 ^a	22.67	.140 ^a	16.90	.061 ^a
4	35.29	.143	36.89	.191	34.47	.116
5-7	45.85	.309	40.44	.417	48.63	.263
Taste-refreshment						
1-3	26.09	.078 ^a	26.00	.103 ^a	26.14	.065
4	31.30	.083	28.23	.147	32.19	.053
5-7	42.61	.383	44.44	.452	41.66	.345
Appropriateness						
1-3	39.37	.075 ^a	39.67	.076 ^a	39.21	.074 ^a
4	24.43	.167	26.00	.308	23.63	.087
5-7	36.20	.385	34.33	.470	37.16	.345
Price-value						
1-3	16.29	.183	20.00	.207 ^a	14.38	.167
4	36.88	.150	30.67	.272	40.07	.103
5-7	46.83	.265	49.33	.297	45.55	.248
Calorie level						
1-3	54.75	.169 ^a	42.67	.234	60.96	.146
4	34.39	.238	37.33	.218	32.88	.250
5-7	10.86	.323	20.00	.450	6.16	.111
Convenience						
1-3	3.62	.000 ^a	5.33	.000	2.74	.000 ^a
4	19.91	.119	17.33	.375	21.23	.032
5-7	76.47	.243	77.33	.278	76.03	.225

^aIndicates that the levels of consumption associated with intensities of feeling about the parameter indicate a discriminatory attitude.

Although the price-value parameter was slightly discriminatory for males, it could best be classified as non-discriminatory with a cognitive difference in intensity of feeling for the females.

Although the respondents age 35 and over indicated as a whole that the price-value parameter was discriminatory, when they were broken into male and female groups, this was not so. Rather, this parameter was non-discriminatory with a cognitive difference in intensity of feeling for both males and females. The males with positive attitudes consumed considerably more two percent milk than either the other males or the females.

As with the 20-34 year olds, the respondents in this group were divided in their attitudes about all of the parameters. This was indicated by the fact that none of the parameters were classified as non-discriminatory with a universal intensity of feeling.

Comparison of age groups. As a whole, the respondents in all three age groups had discriminatory attitudes about the taste-refreshment and nutrition-vitality parameters.

In addition, the respondents age 20-34 and 35 and over exhibited discriminatory attitudes about the convenience parameter. The consumption of respondents 35 and over was affected in a discriminatory fashion by their attitudes about the most parameters. In addition to the previous list, they had discriminatory attitudes about the appropriateness and calorie level parameters.

These observations would seem to indicate that older people take more variables into consideration in their decisions regarding consumption of two percent milk.

The only parameter which did not have a discriminatory effect on the consumption of any of the age groups was the price-value parameter.

Among the 20-34 and the 35 and over age groups, the males' consumption of two percent milk was affected in a discriminatory manner by more of the parameters than was the females'.

Consumption of two percent milk by males in all three age groups was affected in a discriminatory manner by their attitudes about the nutrition-vitality parameter. The females in all three age groups indicated that their intensity of feeling about the nutrition-vitality parameter had an effect on their level of consumption of two percent milk.

With the exceptions of the females age 15-19, the males and females in all three age groups indicated that their level of consumption of two percent milk was affected by their attitudes about its taste-refreshment qualities.

The appropriateness of the product was a more important consideration among the older respondents than the young ones. This parameter was not discriminatory for either sex of 15-19 year olds. Among the 20-34 year olds it was discriminatory for males only; among the respondents age 35 and over, it was discriminatory for both males and females.

The only group whose consumption was affected in a discriminatory manner by the price-value parameter was the males 35 and over.

The calorie level parameter did not have a discriminatory effect on the consumption levels of any of the age groups.

The 15-19 year olds who did not have positive attitudes that two percent milk was convenient did not drink any. This parameter was discriminatory in its effect on consumption among the males age 20-34 and the females age 35 and over.

Skim MilkAll respondents

For the respondents as a whole, three of the parameters were discriminatory in their effect on consumption of skim milk (Table 25). These were the nutrition-vitality, taste-refreshment, and convenience parameters. In each case the respondents at each increasing intensity of feeling level consumed more than the respondents at the previous level. The respondents with positive attitudes about each parameter consumed considerably more skim milk than those with neutral or negative attitudes.

The appropriateness and price-value parameters were non-discriminatory with a cognitive difference in intensity of feeling. This indicated that the respondents were divided in their attitudes about these two parameters, but their consumption of skim milk was not affected thereby.

The calorie level parameter was also non-discriminatory, and it also appeared to have a cognitive difference in intensity of feeling. The majority of the respondents felt that skim milk was low in calories, but a large percentage also felt that it was either high in calories or somewhere in between low and high.

The nutrition-vitality, taste-refreshment, and convenience parameters proved to be definitely discriminatory for the female group. Males' consumption levels were also affected by their attitudes about these parameters, although not in a strictly linear fashion. Males with positive attitudes consumed more skim milk than those with neutral or negative attitudes. For the convenience parameter, the only males who drank any skim milk were those with positive attitudes.

Table 25. Consumption of skim milk by intensities of agreement with selected attitude parameters, all respondents, metropolitan Salt Lake City, 1967

Parameter & intensity	All respondents (360)		All males (132)		All females (228)	
	Percent of respondents	Ave. consumption	Percent of respondents	Ave. consumption	Percent of respondents	Ave. consumption
		Glasses previous day		Glasses previous day		Glasses previous day
Nutrition-vitality						
1-3	25.92	.036 ^a	31.82	.056	22.51	.020 ^a
4	36.94	.078	37.25	.054	36.77	.091
5-7	37.13	.140	30.93	.184	40.71	.122
Taste-refreshment						
1-3	43.24	.063 ^a	45.83	.062	41.74	.064 ^a
4	29.86	.069	29.42	.056	30.12	.076
5-7	26.90	.158	24.75	.202	28.14	.135
Appropriateness						
1-3	53.26	.081	57.39	.102	50.88	.066
4	24.44	.044	23.11	.033	25.22	.050
5-7	22.29	.164	19.51	.146	23.90	.172
Price-value						
1-3	15.97	.096	19.70	.058 ^a	13.82	.127
4	33.33	.071	31.82	.071	34.21	.071
5-7	50.69	.101	48.48	.125	51.97	.089
Calorie level						
1-3	78.61	.104	73.48	.123	81.58	.094
4	14.44	.019	18.18	.000	12.28	.036
5-7	6.94	.080	8.33	.045	66.14	.107
Convenience						
1-3	8.33	.000 ^a	10.61	.000 ^a	7.02	.000 ^a
4	25.00	.017	25.76	.000	24.56	.027
5-7	66.67	.029	63.64	.149	68.42	.118

^aIndicates that the levels of consumption associated with intensities of feeling about the parameter indicate a discriminatory attitude.

The male group was affected in a discriminatory fashion by the price-value parameter. For the females, this parameter was non-discriminatory with a cognitive difference in intensity of feeling.

The appropriateness and the calorie level parameters were non-discriminatory with a cognitive difference in intensity of feeling for both males and females. The majority of the respondents, both male and female, felt that skim milk was low in calories.

The respondents were well divided in their attitudes about all of the parameters regarding skim milk. This was evidenced by the fact that none of them exhibited a universal intensity of feeling.

Age groups

Age 15-19. For the 15-19 year olds two parameters were discriminatory in their effect on consumption of skim milk. These were the nutrition- vitality and convenience parameters. Respondents who had less than positive attitudes about the convenience parameter did not drink any skim milk (Table 26).

All of the other parameters appeared to be discriminatory in reverse for this group. That is, those respondents with low intensities of feeling consumed more than those with high or medium intensities of feeling. This could well be a valid analysis for the calorie level parameter. Because of the results obtained in the other parts of this study, it is suspected that the unusual results referred to came about because of insufficient sample size.

For the males age 15-19, the results of the analysis showed the same results as were found for the entire group.

Table 26. Consumption of skim milk by intensities of agreement with selected attitude parameters, respondents age 15-19, metropolitan Salt Lake City, 1967

Parameters & intensity of agreement	All respondents age 15-19 (24)		Males age 15-19 (14)		Females age 15-19 (10)	
	Percent of respondents	Ave. consumption	Percent of respondents	Ave. consumption	Percent of respondents	Ave. consumption
		Glasses previous day		Glasses previous day		Glasses previous day
Nutrition-vitality						
1-3	25.71	.000 ^a	19.07	.000 ^a	35.00	.000
4	41.67	.050	45.21	.079	36.70	.000
5-7	32.62	.319	35.71	.500	28.30	.000
Taste-refreshment						
1-3	41.67	.250	48.79	.366	31.70	.000
4	34.04	.061	29.78	.120	40.00	.000
5-7	24.29	.000	21.43	.000	28.30	.000
Appropriateness						
1-3	56.25	.222	55.36	.387 ₁	57.50	.000
4	25.00	.000	25.00	.000	25.00	.000
5-7	18.75	.000	19.64	.000	17.50	.000
Price-value						
1-3	25.00	.250	21.43	.500	30.00	.000
4	29.17	.214	32.14	.333	25.00	.000
5-7	45.83	.000	46.43	.000	45.00	.000
Calorie level						
1-3	83.33	.150	85.71	.250	80.00	.000
4	8.33	.000	7.14	.000	10.00	.000
5-7	8.33	.000	7.14	.000	10.00	.000
Convenience						
1-3	8.33	.000 ^a	7.14	.000 ^a	10.00	.000
4	25.00	.000	21.43	.000	30.00	.000
5-7	66.67	.188	71.43	.300	60.00	.000

^aIndicates that the levels of consumption associated with intensities of feeling about the parameter indicate a discriminatory attitude.

None of the females in this age group consumed any skim milk. They had cognitive differences in intensity of feeling for all parameters, but regardless of their attitude, they didn't consume any skim milk.

Age 20-34. Consumption of skim milk by this group as a total was affected by all of the parameters. This is shown in Table 27.

The nutrition-vitality parameter was discriminatory.

The calorie level and convenience parameters affected consumption of skim milk in the following way: all those who consumed skim milk had the attitude that it was low in calories and that it was convenient.

The taste-refreshment, appropriateness, and price-value parameters had an effect on consumption in that the respondents with positive attitudes consumed considerably more skim milk than those with neutral or negative attitudes.

Both males and females were affected in the same way by calorie level and convenience parameters as was explained for the aggregate group.

Both males and females were affected in their consumption of skim milk by the price-value parameter. The males who consumed any skim milk all had positive attitudes. The females who consumed the most had positive attitudes.

Both males' and females' consumption was affected by their attitudes about the taste-refreshment parameter. For the females, this parameter was definitely discriminatory, and for the males, those with positive attitudes consumed more than those with neutral and negative attitudes.

The females' attitudes about the appropriateness parameter had a discriminatory effect on their consumption. Males had non-discriminatory attitudes with a cognitive difference in intensity of feeling.

Table 27. Consumption of skim milk by intensities of agreement with selected attitude parameters, respondents age 20-34, metropolitan Salt Lake City, 1967

Parameter & intensity of agreement	All respondents age 20-34 (115)		Males age 20-34 (43)		Females age 20-34 (72)	
	Percent of respondents	Ave. con- sumption	Percent of respondents	Ave. con- sumption	Percent of respondents	Ave. con- sumption
		<u>Glasses previous day</u>		<u>Glasses previous day</u>		<u>Glasses previous day</u>
Nutrition- vitality						
1-3	28.84	.060 ^a	41.47	.103	21.29	.011
4	33.63	.086	27.51	.056	37.26	.099
5-7	37.54	.120	31.00	.188	41.43	.090
Taste- refreshment						
1-3	45.50	.043	53.49	.051	40.74	.037 ^a
4	22.61	.042	25.58	.045	34.72	.040
5-7	23.19	.253	20.93	.370	24.54	.194
Appropriateness						
1-3	52.61	.091	59.88	.155	48.26	.043 ^a
4	24.13	.041	21.51	.000	25.69	.061
5-7	23.26	.145	18.60	.125	26.04	.153
Price-value						
1-3	17.83	.024	24.42	.000 ^a	13.88	.050
4	36.96	.000	38.37	.000	36.11	.000
5-7	45.22	.192	37.21	.313	50.00	.139
Calorie level						
1-3	82.61	.111 ^a	79.07	.147 ^a	84.72	.090 ^a
4	11.30	.000	13.95	.000	9.72	.000
5-7	6.09	.000	6.98	.000	5.56	.000
Convenience						
1-3	8.69	.000 ^a	16.28	.000 ^a	4.17	.000 ^a
4	33.91	.000	37.21	.000	31.94	.000
5-7	57.39	.159	46.51	.250	63.89	.120

^aIndicates that the levels of consumption associated with intensities of feeling about the parameter indicate a discriminatory attitude.

The female respondents with low intensities of feeling about the nutrition-vitality parameter consumed considerably less skim milk than those in the medium and high intensity groups. For the males, this parameter was non-discriminatory with a cognitive difference in intensity of feeling.

There were no parameters for which the respondents exhibited a universal intensity of feeling.

Age 35 and over. The level of consumption of this group was affected in a discriminatory manner by their attitudes about three of the parameters. These were the nutrition-vitality, taste-refreshment, and convenience parameters. These relationships are shown in Table 28.

Attitudes about the appropriateness parameter also had an effect on consumption of skim milk, although they were not strictly discriminatory.

The price-value and calorie level parameters were non-discriminatory with a cognitive difference in intensity of feeling. Only a small percentage of the respondents felt that skim milk was high in calories, however.

For the males in the group, five of the parameters were discriminatory. These were the nutrition-vitality, taste-refreshment, appropriateness, price-value, and convenience parameters. The only males who drank any skim milk were those who felt that it was convenient.

Three of the same parameters--nutrition-vitality, taste-refreshment, and convenience--were also discriminatory for females.

Females who had positive attitudes about the appropriateness parameter consumed considerably more than those with neutral or negative attitudes. Those who had neutral intensities of feeling consumed less than those with negative intensities, however.

Table 28. Consumption of skim milk by intensities of agreement with selected attitude parameters, respondents age 35 and over, metropolitan Salt Lake City, 1967

Parameter & intensity of agreement	All respondents age 35 & over (221)		Males age 35 & over (75)		Females age 35 & over (146)	
	Percent of respondents	Ave. consumption	Percent of respondents	Ave. consumption	Percent of respondents	Ave. consumption
		Glasses previous day		Glasses previous day		Glasses previous day
Nutrition-vitality						
1-3	24.43	.025 ^a	28.67	.023 ^a	22.26	.026 ^a
4	38.16	.077	41.33	.048	36.53	.094
5-7	37.41	.135	30.00	.111	41.21	.144
Taste-refreshment						
1-3	42.23	.054 ^a	40.89	.003 ^a	42.92	.080 ^a
4	28.66	.086	31.56	.049	27.17	.107
5-7	29.11	.132	27.56	.157	29.91	.120
Appropriateness						
1-3	53.28	.059	56.33	.018 ^a	51.71	.083
4	24.55	.051	23.67	.056	25.00	.048
5-7	22.17	.189	20.00	.183	23.29	.191
Price-value						
1-3	14.03	.113 ^a	16.67	.000 ^a	12.67	.189 ^a
4	31.90	.099	28.00	.071	33.90	.111
5-7	54.07	.071	55.33	.072	53.42	.070
Calorie level						
1-3	76.02	.095	68.00	.079	80.14	.102
4	16.74	.027	22.67	.000	13.70	.050
5-7	7.24	.125	9.33	.072	6.16	.166
Convenience						
1-3	81.45	.000 ^a	8.00	.000 ^a	8.22	.000 ^a
4	20.36	.033	20.00	.000	20.55	.050
5-7	71.49	.110	72.00	.083	71.23	.125

^aIndicates that the levels of consumption associated with intensities of feeling about the parameter indicate a discriminatory attitude.

The calorie level parameter was non-discriminatory with a cognitive difference in intensity of feeling for both males and females. No parameters for this age group exhibited a universal intensity of feeling.

Comparison of age groups. Consumption by the respondents as aggregate groups was affected in a discriminatory manner by the nutrition-vitality parameter. With the exceptions of the females age 15-19 and the males age 20-34, attitudes about this parameter had an effect on the consumption level of all age and sex groups.

Attitudes about the taste-refreshment parameter affected consumption levels of the respondents age 20-34 and 35 and over. These attitudes had no effect on the consumption of 15-19 year olds.

Appropriateness was a more important consideration among each succeeding age group. This parameter did not affect the consumption of skim milk by 15-19 year olds. The 20-34 year old respondents with positive attitudes consumed more than those with neutral or negative attitudes. The females age 20-34 reacted to this parameter in a discriminatory fashion. Attitudes about this parameter affected the consumption level of both sex groups age 35 and over.

The price-value parameter was discriminatory for the females over 19 years old but did not affect the consumption levels of other groups.

For the 15-19 and 20-34 age groups, the calorie level parameter was discriminatory. Respondents who felt that skim milk was low in calories were the highest consumers. For the respondents age 35 and over, calorie level was less of a consideration, and this parameter was non-discriminatory with a cognitive difference in intensity of feeling.

The convenience parameter was discriminatory among all three age groups. With the exception of the females age 15-19, who didn't consume

any skim milk, both sexes of each age group reacted to this parameter in a discriminatory manner. Among the 15-19 and 20-34 year olds, the respondents with high intensities of feeling were the only ones who consumed any skim milk.

Powdered Milk

Very little powdered milk was consumed by the respondents surveyed for this study. Those who did consume powdered milk the day previous to being surveyed were all females age 35 or over. As can be seen in Table 29, even they consumed very little.

As indicated in the first section of the thesis, the attitudes of the respondents about powdered milk were generally poor.

Since the females age 35 and over were the only respondents who drank any powdered milk, they are the only respondents included in this analysis.

Attitudes about three of the parameters had a discriminatory effect on the consumption of powdered milk by this group. They were the nutrition-
vitality, appropriateness, and calorie level parameters.

The calorie level parameter was discriminatory in that the respondents who felt that powdered milk was low in calories consumed more than those who did not.

The taste-refreshment parameter showed some indication of being discriminatory. Those respondents with positive attitudes consumed more powdered milk than those with neutral or negative attitudes, but there was little difference between them.

Table 29. Consumption of powdered milk by intensities of agreement with selected attitude parameters, female respondents age 35 and over, metropolitan Salt Lake City, 1967

Parameter & intensity of agreement	Females age 35 and over (146)	
	Percent of respondents	Average consumption
		Classes previous day
Nutrition-vitality		
1-3	16.90	.004 ^a
4	36.87	.006
5-7	46.23	.046
Taste-refreshment		
1-3	47.38	.008
4	33.90	.003
5-7	18.72	.100
Appropriateness		
1-3	53.94	.011 ^a
4	20.03	.030
5-7	26.03	.046
Price-value		
1-3	6.51	.158
4	22.26	.000
5-7	71.23	.019
Calorie level		
1-3	56.85	.036 ^a
4	31.51	.011
5-7	11.64	.000
Convenience		
1-3	35.62	.057
4	15.07	.023
5-7	49.31	.000

^aIndicates that the level of consumption associated with intensities of feeling about the parameter indicate a discriminatory attitude.

Comparison of Products

In general, smaller amounts of fluid milk products, which had been altered by the removal of butterfat, etc., were consumed than regular whole milk.

All respondents

Because of the fact that females age 35 and over were the only respondents who drank powdered milk, it is not included in this general comparison of products for all respondents.

The taste-refreshment parameter had an effect on the consumption of regular whole milk, two percent milk, and skim milk by all respondents. It affected the consumption of all three products by the entire group and also by the female and male segments. In seven out of the nine cases, it was discriminatory.

The respondents' attitudes about the nutrition-vitality parameter were a deciding factor in the consumption of two percent milk and skim milk. While attitudes about this parameter influenced the consumption of these two products by both males and females, they were found to affect the consumption of regular whole milk by males only.

The average intensities of feeling about the appropriateness parameter affected the consumption by both males and females of both regular whole milk and two percent milk. Attitudes about this parameter had no effect on the consumption of skim milk.

One other parameter had a fairly general effect on consumption of the three products. This was the convenience parameter. With the exception of the males' consumption of regular whole milk and the females' consumption of two percent milk, attitudes about this parameter had a discriminatory

effect on consumption.

Attitudes about the price-value and calorie level parameters had very little effect on the consumption levels of any of the products. The females' consumption of regular whole milk and the males' consumption of skim milk were the only consumption levels affected by the price-value parameter. Neither males nor females responded in a discriminatory manner to their attitudes about the calorie level parameter.

Age groups

Age 15-19. These respondents did not consume any powdered milk, and the females of the group did not consume any skim milk. In these cases none of the parameters were discriminatory, as the respondents were not induced to any level of consumption regardless of their intensity of feeling.

The respondents' attitudes about two parameters had a quite general effect on the consumption of the three milk products by this age group. Attitudes about the nutrition-vitality parameter had a discriminatory effect on their consumption of two percent milk and skim milk but not regular whole milk. Their attitudes about the taste-refreshment parameter affected their consumption of regular whole milk and two percent milk but not skim milk.

The respondents' attitudes about the appropriateness parameter had an effect on their consumption of regular whole milk but not of the other products.

The calorie level parameter affected only the females' consumption of regular whole milk, as the attitude that it was low in calories was associated with higher consumption. The females' consumption of two

percent milk was the only consumption level affected by attitudes about the price-value parameter.

Age 20-34. The consumption of this group was affected in a more general way by the attitude parameters. This indicated by the fact that intensities of feeling about every parameter had an effect on the consumption of at least one product.

None of this group consumed any powdered milk, hence none of the parameters had a discriminatory effect on that product.

The taste-refreshment parameter reflected the most general positive relationship between intensity of feeling and level of consumption. The only exception was that males were not influenced by their attitudes about this parameter.

Attitudes about the nutrition-vitality and appropriateness parameters had quite general effects on the consumption of two percent milk by this group. The only effect on consumption of regular whole milk and skim milk was in the case of females.

Attitudes about price-value had no effect on the consumption of two percent milk. With the exception of the females' consumption of regular whole milk, attitudes about this parameter had a definite effect on consumption of the other two products. This was also true for the calorie level parameter. Those who consumed the most felt that the product was low in calories.

Attitudes about the convenience parameter affected the consumption of two percent milk and skim milk but not regular whole milk.

Age 35 and over. The males in this age group did not consume any powdered milk. The two attitude parameters which had the most effect on the consumption of all four products were the taste-refreshment and

appropriateness parameters, although attitudes about them did not affect the consumption of regular whole milk by males.

The consumption of regular whole milk by this group was not affected by their attitudes about nutrition-vitality. Their consumption of the other three products was so affected.

The price-value parameter was an important consideration to the males in the group. They reacted to this parameter in a discriminatory way for all three products that they consumed. The females were affected by this parameter only in their consumption of regular whole milk.

Males and females had a different conception of what was good as far as the calorie level was concerned. Males who felt that regular whole milk and two percent milk were high in calories consumed more than those who did not. Females who felt that powdered milk was low in calories consumed the most. The trend throughout was the same for regular whole milk, two percent milk, and powdered milk. Consumption of skim milk was not affected by the respondents' attitudes about this parameter.

The convenience parameter was discriminatory for males' but not for females' consumption of regular whole milk. The opposite was true for two percent milk and skim milk. Curiously enough, the females who felt that powdered milk was inconvenient consumed the most.

SUMMARY AND CONCLUSIONS

The purposes of this study were to identify consumer attitudes about the four fluid milk products and find which of them had an effect on the consumption levels of the various groups of respondents. These findings were to be used to make recommendations to the dairy industry regarding their advertising and product development activities. This has been accomplished in this section.

This study extended Bayton's type of analysis to Salt Lake City and to three other products. Additions to his findings are indicated in the text of this section.

Attitudes

The respondents had generally good attitudes about regular whole milk. All these age groups had high intensities of feeling for the nutrition-vitality, taste-refreshment, and convenience parameters.

When the respondents were divided into high, medium, and low consumer groups, it was found that higher consumption levels were associated with higher intensities of feeling about the nutrition-vitality, taste-refreshment, and appropriateness parameters.

The respondents felt that regular whole milk was high priced. They also felt that it was a good value for the money. The latter--positive attitude--outweighed the former--negative attitude.

Respondents' attitudes concerning two percent milk were less positive than their attitudes concerning regular whole milk.

The highest average intensities of feeling for two percent milk were also for the nutrition-vitality, taste-refreshment, and convenience parameters.

Of the three age groups, 15-19 year olds had the most positive attitudes about most of the parameters.

When respondents were divided into consumption level groups, it was found that higher intensities of feeling about the calorie level parameter were associated with higher consumption.

Respondents' attitudes about skim milk were even less positive than about two percent milk.

They displayed positive attitudes about the nutrition-vitality, price-value, and convenience parameters. For these parameters the more positive attitudes were among the older respondents.

The differences between attitude patterns for the first three products were quite general. Average intensities of feeling about all parameters were generally lower for each succeeding product. Powdered milk deviated somewhat from this pattern.

Intensities of feeling about the nutrition-vitality parameter for powdered milk were somewhat higher than for skim milk but lower than for two percent milk.

They felt that powdered milk had about the same calorie content as two percent milk.

They had very positive intensities of feeling about the price-value parameter for this product.

Their intensities of feeling about the taste-refreshment, appropriateness, and convenience parameters were very low.

Effects of Attitudes on Consumption

An analysis of all respondents revealed that three parameters had a discriminatory effect on their consumption of regular whole milk. These were the taste-refreshment, appropriateness, and calorie level. Those who felt that regular whole milk was low in calories consumed the most.

The males' consumption was also affected by the nutrition-vitality and the females' by the price-value and convenience parameters. The attitudes of 15-19 year olds concerning the taste-refreshment and appropriateness parameters affected their consumption of regular whole milk. In addition the females of the group consumed more if they felt that regular whole milk was low in calories.

The consumption level of males age 20-34 was affected in a discriminatory manner by the price-value and calorie level parameters. Those who felt that it was low in calories consumed the most. Females in this age group were more concerned with nutrition-vitality, taste-refreshment, and appropriateness regarding consumption of regular whole milk.

The consumption level of respondents age 35 and over was affected by most of the attitude parameters. Both males' and females' consumption of regular whole milk was affected in a discriminatory manner by the price-value parameter.

Males' consumption was also affected in a discriminatory manner by their attitudes about the calorie level and convenience parameters. Those who felt that regular whole milk was high in calories consumed the most.

Females' consumption was also affected by their attitudes about taste-refreshment and appropriateness.

Four parameters had a discriminatory effect on the consumption of two percent milk by the aggregate respondent group. These were the nutrition-vitality, taste-refreshment, appropriateness, and convenience parameters.

The consumption of two percent milk by 15-19 year olds was affected by their attitudes about the nutrition-vitality, taste-refreshment, and convenience parameters.

In addition the consumption of two percent milk by females in this age group was affected by their attitudes about the price-value parameter.

The consumption level of 20-34 year olds was affected by their attitudes about the same parameters as mentioned above for the aggregate group.

With the exception of females' attitudes about the calorie level parameter, the consumption by respondents age 35 and over was affected to some extent by their attitudes about all of the parameters. Attitudes about the nutrition-vitality, taste-refreshment, and appropriateness parameters had the most distinct effect.

Analysis of all respondents revealed that their consumption of skim milk was affected by their attitudes about the nutrition-vitality, taste-refreshment, appropriateness, and convenience parameters. All except the appropriateness parameter were actually discriminatory.

The price-value parameter was also discriminatory for the males.

None of the females age 15-19 drank any skim milk. For the males, the nutrition-vitality and convenience parameters were discriminatory.

The other parameters appeared to be discriminatory in reverse. It was concluded that these unusual results were caused by one or two unusual observations in the small sample.

The consumption of skim milk by 20-34 year olds was influenced to some extent by their attitudes about all parameters. The attitudes which had the most distinct effect were for the taste-refreshment, price-value, calorie level, and convenience parameters.

Attitudes about all of the parameters except calorie level had an effect on the consumption of skim milk by respondents age 35 and over.

The only respondents who consumed any powdered milk were females age 35 and over. Three parameters affected their consumption in a discriminatory manner. They were the nutrition-vitality, appropriateness, and calorie level parameters. They drank powdered milk if they felt that it was low in calories.

In addition, their attitudes about the taste-refreshment parameter had a definite effect on their level of consumption.

Conclusions

The following conclusions regarding peoples' attitudes toward the four fluid milk products has been arrived at. Bayton's work was limited to regular whole milk.

In general the respondents' average intensities of feeling about discriminatory parameters were higher for regular whole milk than for the other products. Among the other three products, the respondents' attitudes about discriminatory parameters were most positive for those products which were most like regular whole milk. Consumption levels followed the same pattern.

This can serve as a guideline for advertising campaigns wherein consumers may be reminded of the qualities of the fluid milk product being advertised which are like the original whole milk product.

It can also serve as a guide in the development of new fluid milk products. While introducing the particular advantages for which the product is being developed, its nature should be such that the consumer can associate it closely with the regular whole milk which he likes so well.

Bayton concluded that nutrition and refreshment considerations were the most vital for promoting increased consumption of milk. In addition this study isolated appropriateness and convenience as being important considerations. The relationship of these four variables is described in the following paragraphs.

The consistent discriminatory nature of the taste-refreshment and appropriateness parameters for all products and the majority of consumer groups indicates their universal use as attitudes to screen the use of fluid milk products.

Advertising campaigns stressing good taste, refreshing, tastes good to all age groups and similar aesthetic considerations should be utilized. Also stressing the many situations and places where milk may be properly served and consumed should be used for advertising campaigns.

New products should be developed which fit the refreshment and appropriateness requirements. This may include containers, etc., which suggest refreshment qualities and are conducive to various social situations.

While taste-refreshment and appropriateness were important considerations throughout, in very few cases was the consumer willing to receive these values at the sacrifice of nutrition-vitality value. This has obvious consequences in the need to develop products which fit all three specifications and to advertise the three properties simultaneously.

The convenience parameter also had a quite universal effect. This underscores the movement in our country toward convenience foods and the need for the dairy industry to compete by developing products which are easily and quickly prepared and served as well as easily stored. This obviously includes cartons.

In addition to these general recommendations, the following are made with reference to specific groups of respondents. These refinements were not included in Bayton's findings.

When advertising milk to 15-19 year old females, stress should be put on the low calorie content of the product.

Advertising campaigns directed at 20-34 year olds should stress low calorie content and low price. The low price emphasis should be particularly directed at the male segment of the population.

Respondents age 35 and over were affected in their consumption by their attitudes about all of the parameters. For this reason, when advertising campaigns are directed at them, they should stress the four general parameters mentioned above and also the price-value and calorie level parameters. The male segment of this age group presents a problem to the industry in that they desire higher calorie content than the other age groups. It may well be worthwhile to develop higher calorie products specifically for this market and low calorie products for the younger consumers.

LITERATURE CITED

1. Bayton, James. Communicating nutrition information. Dairy Promotion Topics. Summer, 1967.
2. Bayton, James. Psychological factors in nutrition literacy (target--tempting the mind). World Food and Agricultural Exposition, University of Wisconsin. September 18, 1967.
3. Market Research Corporation of America. Twenty-one "orange" beverages as mothers think of them, Summer, 1964. Economics Research Department Florida Citrus Commission. January, 1966.
4. Universal Marketing Research. Factor analysis of the image of milk. American Dairy Association. February, 1963.

APPENDIXES

Appendix A

Average Intensities of Feeling by Acquaintance Level

Table 30. Average intensities of feeling by acquaintance group for regular whole milk, metropolitan Salt Lake City, 1967

Attitude parameters and statements	Acquaintance level						
	1	2	3	4	5	6	7
	Average intensity of feeling ^a						
Nutrition-vitality parameter	6.6	4.8	5.1	4.4	5.2	5.6	6.1
Full of vitamins	7.0	5.2	6.0	4.7	5.0	5.8	6.3
Very nutritious	7.0	4.2	4.5	4.3	5.9	6.2	6.4
High in protein	7.0	4.7	6.0	4.3	5.5	6.0	6.1
High in calcium	7.0	5.2	5.5	4.5	4.7	5.7	6.4
Energy for hours	5.7	3.8	3.0	4.2	4.6	5.3	5.7
Lots of vitality	6.0	5.5	5.5	4.5	5.6	4.8	5.6
Taste-refreshment parameter	6.3	4.3	4.5	3.9	5.4	6.1	6.2
Liked by children	6.0	3.2	4.0	5.0	6.0	6.4	6.5
Tastes good	6.0	5.2	3.0	4.0	5.4	6.0	6.6
Tastes rich	7.0	3.8	7.0	4.7	5.1	5.7	5.8
Liked by adults	5.7	4.2	4.0	2.5	4.9	5.8	5.9
Liked by entire family	7.0	4.5	4.0	3.0	4.9	6.3	6.2
Refreshing	6.0	5.0	5.0	4.3	5.9	6.2	6.3
Appropriateness parameter	5.3	4.1	2.7	2.9	4.5	4.7	5.2
Good restaurant drink	5.3	4.0	3.0	3.0	4.7	4.7	5.4
For company	5.0	3.8	2.5	3.0	3.9	4.6	4.8
Many uses	4.0	4.0	2.5	3.2	4.9	5.0	5.0
For me	7.0	4.7	3.0	2.5	4.6	4.6	5.5
Price-value parameter	5.7	3.9	3.5	4.2	3.9	4.8	4.5
Low priced	4.3	3.2	4.0	3.7	3.2	3.6	3.2
Good value for money	7.0	4.5	3.0	4.7	4.5	6.1	5.8
Weight apprehension parameter	3.3	4.7	7.0	4.0	5.0	5.2	5.9
Convenience parameter	7.0	4.5	4.5	5.8	5.1	6.1	6.5
Others							
Stylish drink	2.0	3.2	3.5	2.7	2.7	3.0	2.5
Quality uniform	4.3	3.8	3.5	3.8	3.6	2.8	2.9
Increases attractiveness	4.0	4.0	2.5	3.2	4.9	5.0	5.0
Know product well	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Have very often	7.0	4.0	1.0	2.2	2.6	4.7	5.3

^aComplete agreement with statement would be indicated by a value of seven. Complete disagreement with the statement would be indicated by a value of one.

Table 31. Average intensities of feeling by acquaintance group for two percent (lowfat) milk for drinking, metropolitan Salt Lake City, 1967

Attitude parameters and statements	Acquaintance level						
	1	2	3	4	5	6	7
	Average intensity of feeling ^a						
Nutrition-vitality parameter	4.2	4.0	4.0	4.1	4.5	4.9	5.4
Full of vitamins	4.4	4.1	4.2	4.1	4.4	5.0	5.6
Very nutritious	4.4	4.2	4.3	4.2	4.7	4.8	5.5
High in protein	4.9	3.9	3.8	4.5	4.7	4.7	5.2
High in calcium	4.5	3.7	4.1	4.2	4.8	5.0	5.5
Energy for hours	3.6	3.5	3.8	3.8	4.2	4.8	5.1
Lots of vitality	3.5	4.4	3.6	4.0	4.2	5.0	5.2
Taste-refreshment parameter	3.7	3.8	3.7	3.9	4.1	4.4	5.2
Liked by children	3.3	4.0	4.1	4.3	4.0	3.9	5.3
Tastes good	3.6	3.8	4.0	3.9	4.5	4.0	5.8
Tastes rich	2.8	2.8	3.0	2.7	2.9	4.0	3.8
Liked by adults	5.0	4.1	4.0	4.5	4.5	4.9	5.4
Liked by entire family	3.5	3.1	3.0	3.6	3.8	4.1	5.3
Refreshing	4.2	4.8	4.1	4.7	5.0	5.1	5.7
Appropriateness parameter	3.3	2.8	3.0	3.2	3.2	4.0	4.5
Good restaurant drink	2.8	2.9	3.3	3.0	2.8	4.0	4.1
For company	3.3	2.9	2.7	3.1	2.8	3.9	3.9
Many uses	4.2	3.5	4.4	4.4	4.7	5.0	5.1
For me	2.8	1.6	1.4	2.2	2.6	3.3	4.9
Price-value parameter	4.7	4.9	4.4	4.6	5.0	4.3	5.1
Low-priced	4.6	4.6	4.3	4.7	4.7	4.1	4.5
Good value for money	4.8	5.1	4.5	4.5	5.3	4.5	5.7
Weight apprehension parameter	2.8	2.9	2.9	2.8	2.6	3.2	2.8
Convenience parameter	4.4	6.2	6.1	5.5	5.6	5.5	6.3
Others							
Stylish drink	1.7	1.5	1.5	2.2	2.1	3.3	2.2
Quality uniform	4.3	3.6	2.6	3.6	3.2	2.4	3.3
Increases attractiveness	4.2	3.5	4.4	4.4	4.7	5.0	5.1
Know product well	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Have very often	1.4	1.2	1.2	2.0	2.3	2.8	4.6

^aComplete agreement with the statement would be indicated by a value of seven. Complete disagreement with the statement would be indicated by a value of one.

Table 32. Average intensities of feeling by acquaintance group for skim milk, metropolitan Salt Lake City, 1967

Attitude parameters and statements	Acquaintance level						
	1	2	3	4	5	6	7
	Average intensity of feeling ^a						
Nutrition-vitality parameter	4.3	4.2	4.0	4.3	4.0	4.1	4.6
Full of vitamins	3.4	4.1	3.7	4.3	3.9	4.4	4.8
Very nutritious	5.0	4.9	4.2	4.4	4.1	4.6	4.7
High in protein	3.9	4.9	4.0	4.3	4.1	3.9	4.4
High in calcium	4.1	4.1	4.4	4.5	4.1	4.1	4.8
Energy for hours	4.2	3.6	4.0	3.9	3.8	3.9	4.3
Lots of vitality	5.4	3.6	3.8	4.1	4.1	3.9	4.6
Taste-refreshment parameter	2.5	2.6	3.3	3.4	3.9	3.7	3.8
Liked by children	2.4	2.8	3.4	3.4	3.8	3.5	3.8
Tastes good	1.5	3.2	3.2	3.5	4.2	3.5	4.4
Tastes rich	1.3	1.2	2.2	2.3	2.4	2.2	2.3
Liked by adults	4.0	3.1	4.1	4.1	4.7	4.2	4.1
Liked by entire family	1.6	2.0	2.5	3.1	3.1	4.0	3.5
Refreshing	4.1	3.6	4.6	4.2	5.0	4.7	4.8
Appropriateness parameter	2.7	2.4	2.7	3.1	3.1	2.9	3.4
Good restaurant drink	2.5	2.9	2.7	3.0	2.9	2.6	2.9
For company	2.1	2.3	2.1	3.1	2.7	2.4	2.7
Many uses	5.2	3.2	4.3	4.2	4.2	4.6	4.7
For me	1.0	1.1	1.5	2.1	2.5	1.8	3.3
Price-value parameter	4.6	5.2	4.9	4.6	4.7	4.8	4.9
Low-priced	4.9	5.3	4.9	4.5	4.8	4.8	4.8
Good value for money	4.4	5.0	4.9	4.6	4.6	4.7	5.0
Weight apprehension parameter	1.9	1.8	1.5	2.2	1.9	2.1	2.2
Convenience parameter	4.6	4.7	5.8	5.1	5.8	5.8	5.9
Others							
Stylish drink	1.5	1.1	1.6	2.2	1.9	2.1	2.0
Quality uniform	2.8	3.8	5.1	4.1	4.9	4.2	4.5
Increases attractiveness	5.2	3.2	4.3	4.2	4.2	4.6	4.7
Know product well	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Have very often	1.0	1.1	1.3	1.7	2.0	2.2	3.2

^aComplete agreement with statement would be indicated by the value of seven. Complete disagreement with the statement would be indicated by the value of one.

Table 33. Average intensities of feeling by acquaintance group for nonfat dry (powdered) milk for drinking, metropolitan Salt Lake City, 1967

Attitude parameters and statements	Acquaintance level						
	1	2	3	4	5	6	7
	Average intensity of feeling ^a						
Nutrition-vitality parameter	3.1	3.7	4.2	4.5	4.4	4.9	5.0
Full of vitamins	3.2	3.4	4.5	4.6	4.5	5.1	5.2
Very nutritious	3.5	4.3	4.5	4.9	4.7	4.8	5.3
High in protein	2.5	3.5	4.3	4.9	4.7	5.1	5.2
High in calcium	2.2	3.6	4.0	4.7	4.8	5.1	5.1
Energy for hours	3.0	3.4	3.8	4.0	3.9	4.4	4.4
Lots of vitality	4.0	3.8	4.2	4.1	4.0	4.8	4.7
Taste-refreshment parameter	2.9	2.7	2.9	3.1	2.8	3.5	3.2
Liked by children	1.5	2.8	3.4	3.1	2.9	3.3	3.0
Tastes good	3.8	2.6	3.3	3.1	2.7	3.5	3.4
Tastes rich	2.5	2.8	2.4	2.4	2.0	3.1	2.6
Liked by adults	3.5	2.6	2.5	3.2	3.4	3.7	3.3
Liked by entire family	2.7	2.5	2.2	3.0	2.8	3.5	3.2
Refreshing	3.5	2.9	3.7	3.7	2.9	3.9	4.0
Appropriateness parameter	3.2	2.4	2.3	2.6	2.6	3.1	4.1
Good restaurant drink	3.2	2.6	2.2	2.1	2.1	2.3	2.1
For company	2.5	2.3	1.7	2.3	1.9	2.6	2.2
Many uses	4.0	3.3	3.9	3.8	3.9	4.3	4.4
For me	3.2	1.5	1.5	2.2	2.5	3.2	3.5
Price-value parameter	4.7	5.0	5.2	5.6	5.3	5.6	5.9
Low-priced	5.2	5.3	5.2	5.6	5.4	5.5	5.8
Good value for money	4.2	4.7	5.3	5.7	5.1	5.7	5.9
Weight apprehension parameter	3.0	2.7	2.8	2.8	3.1	2.9	2.8
Convenience parameter	6.3	3.3	3.0	4.8	3.6	4.0	4.8
Others							
Stylish drink	2.0	2.2	1.7	1.8	2.2	2.2	2.0
Quality uniform	5.7	4.0	3.0	3.7	3.6	4.0	3.8
Increases attractiveness	4.0	3.3	3.9	3.8	3.9	4.3	4.4
Know product well	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Have very often	1.0	1.4	1.5	2.1	2.6	2.7	3.5

^aComplete agreement with statement would be indicated by a value of seven. Complete disagreement with the statement would be indicated by a value of one.

Appendix B

Attitudes of the Aggregate Respondent Groups
Four Fluid Milk Products

Table 34. Consumer attitudes toward regular whole milk, all respondents and sex groups, metropolitan Salt Lake City, 1967

Attitude parameters and statements	All	Males	Females
	<u>Average intensity of feeling^a</u>		
Nutrition-vitality parameter	6.0	5.8	6.1
Full of vitamins	6.2	6.0	6.4
Very nutritious	6.3	6.1	6.4
High in protein	6.1	5.8	6.2
High in calcium	6.2	6.8	6.4
Gives energy for hours	5.6	5.4	5.7
Gives lots of vitality	5.5	5.3	5.6
Taste-refreshment parameter	6.1	5.9	6.2
Liked by children	6.4	6.0	6.5
Tastes good	6.5	6.3	6.5
Tastes rich	5.7	5.5	5.9
Liked by adults	5.8	5.5	5.9
Liked by entire family	6.1	5.7	6.3
Refreshing	6.2	6.2	6.3
Appropriateness parameter	4.6	4.5	4.7
Good restaurant drink	5.3	5.1	5.3
For company	4.7	4.5	4.8
Many uses	5.0	4.7	5.1
For me	5.4	5.7	5.2
Price-value parameter	4.5	4.3	4.6
Low priced	3.2	3.1	3.3
Good value for the money	5.7	5.5	5.9
Calorie level parameter	5.8	5.6	5.8
Convenience parameter	6.4	6.0	6.6
Others			
Stylish drink	2.6	2.6	2.6
Quality uniform	3.0	2.9	3.0
Contributes to attractiveness	5.0	4.7	5.1
Know product very well	6.7	6.6	6.7
Have it very often	5.2	5.2	5.1

^aComplete agreement with statement would be indicated by a value of seven, Complete disagreement with the statement would be indicated by a value of one.

Table 35. Consumer attitudes toward two percent milk, all respondents and sex groups, metropolitan Salt Lake City, 1967

Attitude parameters and statements	All	Males	Females
	<u>Average intensity of feeling^a</u>		
Nutrition-vitality parameter	4.7	4.5	4.9
Full of vitamins	4.9	4.5	4.9
Very nutritious	4.9	4.7	5.0
High in protein	4.7	4.4	5.0
High in calcium	4.8	4.5	5.0
Gives energy for hours	4.4	4.1	4.6
Gives lots of vitality	4.6	4.4	4.7
Taste-refreshment parameter	4.5	4.4	4.6
Liked by children	4.6	4.5	4.7
Tastes good	4.8	4.6	4.9
Tastes rich	3.3	3.2	3.5
Liked by adults	4.9	4.9	4.8
Liked by entire family	4.3	4.2	4.4
Refreshing	5.1	5.1	5.2
Appropriateness parameter	3.7	3.6	3.9
Good restaurant drink	3.6	3.5	3.5
For company	3.4	3.2	3.5
Many uses	4.7	4.5	4.9
For me	3.4	3.2	3.5
Price-value parameter	4.8	4.6	5.0
Low priced	4.5	4.3	4.7
Good value for the money	5.2	4.8	5.3
Calorie level parameter	2.8	3.1	2.6
Convenience parameter	5.9	5.8	6.0
Others			
*Stylish drink	2.2	2.1	2.2
Quality uniform	4.7	4.8	4.7
Contributes to attractiveness	4.7	4.5	4.9
Know product very well	5.2	5.1	5.2
Have it very often	3.1	3.1	3.1

^aComplete agreement with statement would be indicated by a value of seven. Complete disagreement with the statement would be indicated by a value of one.

Table 36. Consumer attitudes toward skim milk, all respondents and sex groups, metropolitan Salt Lake City, 1967

Attitude parameters and statements	All	Males	Females
	<u>Average intensity of feeling^a</u>		
Nutrition-vitality parameter	4.4	4.0	4.5
Full of vitamins	4.4	4.0	4.6
Very nutritious	4.6	4.2	4.7
High in protein	4.2	3.9	4.4
High in calcium	4.5	4.1	4.7
Gives energy for hours	4.1	3.8	4.2
Gives lots of vitality	4.3	4.1	4.4
Taste-refreshment parameter	3.6	3.5	3.7
Liked by children	3.6	3.5	3.6
Tastes good	3.9	3.7	4.1
Tastes rich	2.3	2.4	2.1
Liked by adults	4.2	4.1	4.2
Liked by entire family	3.2	3.2	3.3
Refreshing	4.6	4.4	4.7
Appropriateness parameter	3.2	3.0	3.2
Good restaurant drink	2.9	2.9	2.9
For company	2.7	2.6	2.8
Many uses	4.5	4.1	4.6
For me	2.6	2.3	2.7
Price-value parameter	4.8	4.6	4.9
Low priced	4.8	4.6	4.9
Good value for the money	4.8	4.5	5.0
Calorie level parameter	2.0	2.2	2.0
Convenience parameter	5.7	5.6	5.7
Others			
Stylish drink	2.0	2.0	2.0
Quality uniform	4.4	4.5	4.4
Contributes to attractiveness	4.5	4.1	4.6
Know product very well	5.4	5.2	5.5
Have it very often	2.4	2.2	2.5

^aComplete agreement with the statement would be indicated by a value of seven. Complete disagreement with the statement would be indicated by a value of one.

Table 37. Consumer attitudes toward nonfat dry (powdered) milk, all respondents and sex groups, metropolitan Salt Lake City, 1967

Attitude parameters and statements	All	Males	Females
	<u>Average intensity of feeling^a</u>		
Nutrition-vitality parameter	4.7	4.7	4.8
Full of vitamins	4.8	4.3	5.1
Very nutritious	5.0	4.6	5.1
High in protein	4.9	4.6	5.0
High in calcium	4.7	4.8	4.9
Gives energy for hours	4.1	3.9	4.3
Gives lots of vitality	4.4	4.2	4.5
Taste-refreshment parameter	3.1	3.1	3.2
Liked by children	3.0	3.2	3.0
Tastes good	3.2	3.1	3.3
Tastes rich	2.6	2.4	2.7
Liked by adults	3.2	3.1	3.3
Liked by entire family	3.0	3.0	3.1
Refreshing	3.7	3.5	3.8
Appropriateness parameter	2.8	2.7	2.8
Good restaurant drink	2.1	2.3	2.2
For company	2.2	2.2	2.2
Many uses	4.1	3.7	4.3
For me	2.8	2.5	3.0
Price-value parameter	5.6	5.3	5.8
Low priced	5.6	5.5	5.7
Good value for the money	5.6	5.1	5.8
Calorie level parameter	2.8	3.0	2.7
Convenience parameter	4.3	4.2	4.4
Others			
Stylish drink	2.0	1.8	2.0
Quality uniform	4.2	4.3	4.2
Contributes to attractiveness	4.1	3.7	4.3
Know product very well	5.3	5.2	5.5
Have it very often	2.7	2.4	2.8

^aComplete agreement with the statement would be indicated by a value of seven. Complete disagreement with the statement would be indicated by a value of one.

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