Food Preference Patterns: Cultural and National

DO YOU EAT TO LIVE, or do you live to eat? Food preference patterns are influenced by cultural preferences, income level, buying patterns, and current food trends. In the United States, we are twice as likely to be obese as people living in the developed countries of Europe. What does that say about our food preferences? Which of these "farmers' market" foods do you prefer?

Objective:

Analyze food preference data and patterns.

Key Terms:

convenience foods
demographics
disposable income
food pathways
food preferences
inferior food
normal food
nutrition
per capita
product attributes

Understanding Food Preference Patterns

Geographical area often plays a role in food preference due to availability of items. However, multiple variables play a role in dietary habits and preferences, including cultural and national norms.

FOOD PREFERENCES

Food preferences are the foods deemed acceptable for eating by a given society. Food preferences are determined by various factors, including physiological needs, psychological needs, and social norms.

Physiological Needs

Physiological (physical) needs are those the body requires to sustain life. For instance, our bodies need nutrients to survive. Historically, humans have adapted their diets to what is available in their geographic region. For example, in coastal areas (e.g., Japan), diets are high in fish and other seafood.

Psychological Needs

Psychological needs are related to the mind. Some examples are understanding, compassion, and the need to have choices. Humans eat certain foods because they enjoy them and not because they need them. For instance, chocolate is a favorite food choice that meets a psychological need.

FIGURE 1. Which sandwich is your food preference?

BROADENING AWARENESS...

AMAZING ASPECTS: Maslow's Hierarchy of Needs

Abraham Maslow wrote "A Theory of Human Motivation" in 1943. In this paper, he introduced the Hierarchy of Needs. The hierarchy is displayed as a pyramid. The physiological needs are placed at the bottom. He explained the physiological needs must be met before one can move up the pyramid for safety needs. Psychological and social needs include love and the feeling of importance. These needs must be met before one can reach the highest level of the pyramid: self-actualization or personal growth and development. The hierarchy of needs, from the bottom to the top, is:

- Physiological needs (e.g., water, air, food, and sleep)
- Security needs (e.g., safety and shelter)
- Social needs (e.g., belonging, love, and affection)
- Esteem needs (e.g., personal worth and accomplishment)
- Self-actualization needs (e.g., personal growth to reach one's full potential)

Social Norms

Social norms are beliefs a group holds. We accept certain items as food, but we reject other items that offer similar nutritional value because of the prevailing social norms or our social culture. Religious views may limit what we consider acceptable food or may restrict how food is prepared (e.g., Kosher) and/or eaten. For example, most people consider insects to be unsuitable for food. Yet in some regions of the world, insects are often a significant source of food and are even considered a delicacy (e.g., chocolate-covered ants).

FIGURE 2. Kosher food is labeled.

Food Pathways

Food preferences taken collectively make up **food pathways** or "food ways." These food pathways determine what is appropriate to meet the food preference needs for a particular culture. Cultures often differ widely in a large country. Food is one aspect in defining a culture. Thus, it is not surprising that the United States is composed of many cultures or is multicultural. Consider the variety of restaurants in a large city. One way to experience multiculturalism is to try foods not normally consumed at home.

FIGURE 3. The United States has multicultural food options. Can you name the country of each flag and one food from each country?

INCOME AND CULTURE IMPACT

Food preferences often tell us what is acceptable to eat in a certain area or within a certain group, but we also must choose from among all the acceptable foods. We do so by determining the **product's attributes**—nutritional value, taste, texture, and convenience.

Nutrition

We choose what we eat based on nutrition. **Nutrition** is the act of being nourished and sustained by food so our bodies can function well and be healthy. However, with obesity being

such a problem in our country today, it is clear that many people—children and adults—are eating far more than they need for basic nutrition.

Taste and Texture

Taste and textures are the primary ways we choose what we eat. We become accustomed to certain tastes and textures at an early age and often find it difficult to change. The taste of food greatly influences our preference for it. For example, many consumers prefer regular salad dressings rather than low-fat options. While fat does not have any taste, it does enhance the flavors already present in the food. Regular salad dressings typically taste better, particularly if consumers are accustomed to eating them. Texture is another important consideration. Consider a bowl of cereal. It may have a good flavor, but if it immediately becomes soggy in milk, consumers may find it undesirable.

UNDER INVESTIGATION...

LAB CONNECTION: Sensory Experiments

You can design many different sensory experiments to evaluate taste or texture (mouth feel). For example, you could compare the differences in the taste of a food caused by changing the temperature. Some foods (e.g., cookies) taste better because of the volatile substances released when the food is heated. Try two cookies from the same batch: one out of the oven and one that has cooled. Design a data table to evaluate taste and texture. The same principle applies to a food normally served cold (e.g., watermelon).

You could conduct a blindfolded sensory experiment designed with samples of similar products. You could taste three brands of the same food item. You may find you like a brand you had not tried before. You could try different styles of the same product (e.g., salt-free, low-fat, reduced sugar, and original versions). Design a data table.

Dried spices and herbs increase the flavor of foods. Many consumers have specific preferences in terms of added flavors.

Next, experiment with new herbs and spices. Use scrambled eggs to evaluate savory spices and herbs: dill weed, oregano, basil, thyme, parsley, sage, and rosemary. Place a small amount of the herb or spice in the egg mixture before it is cooked. Remember, the heating of the herb or spice will increase the flavor. Use a clean skillet for each cooking procedure. Finally, use a plain muffin mix to test spices used in sweet desserts. Prepare the plain muffin mixture, and divide the mixture into muffin tins. Place a dash of different spices used for sweet desserts in each: cinnamon, nutmeg, cloves, mace, and allspice. Gently swirl before baking. Design a data table to evaluate the taste.

Convenience and Education

Many consumers want food options that are quick and easy to prepare. This may be especially true in single-parent families or in families where both parents work. Although many consumers understand the importance of a healthy diet, an educated consumer is more likely to make good food choices.

Income Level

Education levels generally have a strong relationship with income levels. The amount of money consumers have to buy food influences their food choices. Generally, this amount is referred to as disposable income. **Disposable income** is the amount that remains after taxes, which is available for discretionary (flexible) spending. This is sometimes referred to as take-home pay (the amount remaining after taxes and deductions). Consumers may prefer to eat more expensive foods (e.g., steak and premium ice cream) very often, but their disposable income may not allow that to happen. If disposable income increases and consumers choose to eat more of a certain kind of food, then that food is called a **normal food**. If consumers purchase less of a food as their income goes up, that food is called an **inferior food**. These are terms that economists use and should not indicate that one food is better than another.

FURTHER EXPLORATION...

ONLINE CONNECTION: Earnings and Unemployment Rates by Educational Attainment

Research the Bureau of Labor Statistics comparison of education level with weekly earnings and unemployment. Earning power and unemployment is figured for adults 25 years of age and older who work full time or are salaried employees. The education levels analyzed are less than high school, high school, some post graduate, associate's degree, bachelor's degree, master's degree, professional degree, and doctorate degree. The information is updated monthly. Calculate the education you plan to attain, and see your potential weekly earning power at http://www.bls.gov/emp/ep_chart_001.htm.

Buying Patterns

All of these factors (nutrition vs. obesity, taste and texture, convenience foods vs. healthy diet, and income level) interact to help shape our buying patterns. For each family, the importance of each one of these factors is different. Even within a family, the importance of these factors changes at different times.

TRENDS IN FOOD PREFERENCE PATTERNS

Several interesting trends are taking place in the food industry in the United States. Certain foods have increased in consumption, but others have decreased. The demographics of the population and the increase of fast food consumption have changed our food preference trends. When families relocate to another region of the country, however, they often try new foods. In addition, when an ethnic group opens a new grocery or market, more options are available to the public.

Increased and Decreased Consumption Foods

The United States has experienced increased consumption trends for selected items. For instance, the annual consumption of soft drinks has increased to 51 gallons per person per year, nearly double from the amount of soft drinks consumed in 1972. Pork, chicken, and turkey consumption has increased as well. Also, frozen potato products consumption has increased. In 1972, Americans ate 36 pounds of frozen potato products per year. Today the amount has increased to 56 pounds per person per year. It is interesting to note that the increase in consumption of soft drinks and potatoes closely matches the growth of the fast food industry.

While some areas have seen growth, the following foods have decreasing consumption trends: beef, eggs, and whole milk. Do you think they have decreased because of health issues related to high levels of fat and cholesterol in each of these foods?

"I prefer to be called your diabetes counselor, not your meter maid."

FIGURE 4. Some consumers limit foods because of health issues, such as high cholesterol, diabetes, and other heart problems.

FURTHER EXPLORATION...

ONLINE CONNECTION: U.S. Food Market Reports

Get the latest information on food market reports at http://www.reportlinker.com/report/best/keywords/food%20united%20states?utm_source=adwords1&utm_medium=cpc&utm_campaign=Food&utm_adgroup=Food_United_States&gclid=CJHp8LOH_bcCFQtgMgodXmIAmA. The report changes monthly. To research topics on the site, you are required to provide your name and email address to obtain the information.

DIGGING DEEPER...

UNCOVERING ADDITIONAL FACTS: Dietary Assessment of Major Trends

The National Center for Health Statistics found two-thirds of U.S. adults from 2003 to 2004 were overweight or obese. In the years 1976 to 1980, only 47 percent were overweight. Since 1970, Americans have consumed increased amounts of food; yet many do not meet the dietary recommendations for certain food groups. Some consume foods and beverages high in fat and carbohydrates. As a group, we are eating less nutrient-dense foods (e.g., low-fat milk, fruits, and vegetables) and more "junk foods."

The "Dietary Assessment" study completed in 2005 looked at food availability (per capita), loss-adjustment from spoilage, and the relationship of food consumption to the Dietary Guidelines. Grain consumption increased 41 percent from 1970 to 2005. During that time, the available grain increased to 192 pounds per person/year from 137 pounds per person/year. Consumers are eating more refined grains and less whole grains. However, the Dietary Guidelines recommend that Americans consume more whole grains.

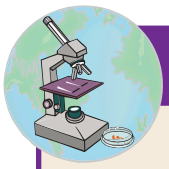
During that same time period, consumption of fruits and vegetables was up 19 percent. The increase has been in apples, bananas, grapes, lettuce, tomatoes, and onions. Even at this level of increase, many do not meet the Dietary Guidelines. Also, Americans are consuming less milk but more cheese products. Whole milk consumption has dropped 73 percent since 1970, and low-fat milk has increased 143 percent during that time. The consumption is below the Dietary Guidelines.

Fat and oil consumption has increased our calories by 32 percent. The consumption of fat and oil is up 63 percent since 1970. The Dietary Guidelines recommend reducing saturated fats. Most of our fat consumption should be unsaturated fats (e.g., nuts, vegetable oils, and fish).

Red meat hit a peak consumption of 133 pounds per person in 1976. In 2005, it was 110 pounds per person. Even with the decrease in beef consumption, beef is still the main source of protein for Americans. The amount of meat consumed is above the Dietary Guidelines.

Sugar consumption totaled 142 pounds per person in 2005, up 19 percent since 1970. Sugar consumption peaked in 1999 at 151 pounds per person. Our soft drink industry has increased the use of high-fructose corn sweeteners from 3 percent in 1970 to 76 percent in 2005. The consumption of sugar is more than triple the recommendation in the Dietary Guidelines for added sugar.

The 2005 study was the latest analyzed data on U.S. food consumption. The study was published in 2008. Do you think we have changed any of the percentages of food consumption since then? You can research this study—the entire report or an executive summary—at http://www.ers.usda.gov/publications/eib-economic-information-bulletin/eib33.aspx#.Ud2hiVMyGUc.



EXPLORING OUR WORLD...

SCIENCE CONNECTION: Fast Food and Fat Profits

Currently two out of three adults are overweight, and one in three adults are obese. The number of overweight adults is expected to rise to three out of four by 2020. The rate of obesity is higher in minority groups. Our rate of overweight and obesity citizens is double most European countries. According to the Centers for Disease Control and Prevention, 30 percent of teens are overweight and 18 percent are obese. Watch the 23-minute documentary about how fast foods are affecting obesity in America at http://topdocumentaryfilms.com/fast-food-fat-profits-obesity-america/.

Population Demographics

Demographics are measures regarding the characteristics of a population. People are living longer, and family sizes are becoming smaller. The demographics of food consumption are changing. The average family size is 3.2 members today versus 3.6 in 1970. More women in traditional families are now in the workforce—62 percent today versus 24 percent in 1950. There is also a significant increase in one- and two-person households. Many of these characteristics suggest that convenience has become an important influence in food purchases. **Convenience foods** are partially prepared foods that are quick and easy to get from the container to the dinner table.

Another significant food preference trend change is the growth of the fast food industry. In 1948, fast food restaurants accounted for only 9 percent of total food sales of meals eaten away from home. Now they account for more than 36 percent of the total food sales of meals eaten away from home.

Relocating to Different Geographical Areas

Today, U.S. workers are changing jobs more frequently than in previous generations. These changes often cause people to relocate to different geographical areas. This increased mixing of the population has created significant additional marketing opportunities for specific types of foods as food preferences are introduced to new regions.

PER CAPITA FOOD SPENDING

Per capita (per person) food spending is one way in which countries are ranked. On average, only seven to eight percent of disposable income in the United States is spent on food eaten at home. This varies substantially for individual families depending on their income levels and food choices.

One of the advantages that the United States has over many other countries is a productive agricultural system. Because we spend less than people in developing countries, we have more

FURTHER EXPLORATION...

ONLINE CONNECTION: Current Per Capita Food Spending

The Economic Research Service (ERS) of the USDA measures U.S. food expenditures. Data is provided annually from 1929 to the present. Table 13 provides the U.S. per capita food expenditure information from 1953 to the current year. The ERS also displays expenditures on food and alcoholic beverages consumed at home by selected countries. The data on food expenditures is interesting. For example, the U.S. was only using 6.7 percent of household final consumption expenditures on food, and Egypt was using 43.6 percent of household final consumption expenditures on food. Research the most current data at http://www.ers.usda.gov/data-products/food-expenditures.aspx.

money left for other purchases. This has helped transform the United States from an agrarian-based society (farming) to a modern world leader.

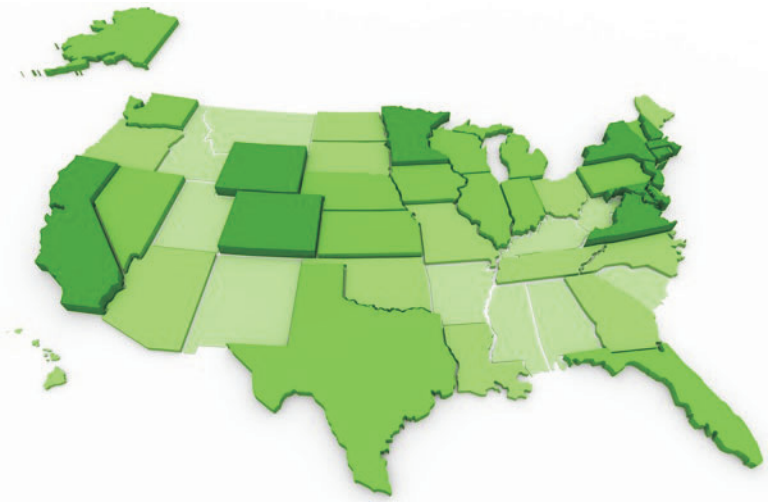


FIGURE 5. The darker the state's color, the higher the per capita income of its residents.

Differences Between Developing and Developed Countries

The difference between a developing country and a developed country is often presented in an overly complex manner. For the purpose of this exercise, consider stages of development as a continuum, with the United States, Canada, and Western Europe on the developed end, and the poorest of nations on the other end. In the poorest of the poor, people are focused on obtaining enough food for survival, with little attention given to food quality. For them, food safety is a luxury of the rich.

Summary:

Many issues influence food preferences: needs, income, culture, and trends. The need for food can be physiological or psychological. Your food pathways determine what is appropriate for food preferences by your culture. We either eat to live or live to eat. Some consumers are more concerned with nutrition and eat only to live. Other consumers live to eat and are overweight as a result. The foods we enjoy are often determined by taste and texture. Convenience, education, income, and buying patterns also influence food preferences.

Nationally, some foods have increased as food preferences while others have decreased. Fast foods have changed meal times for many families. The family demographic and geographic location also influences food options. The most important financial factor of food preference is the per capita spending on food.

Checking Your Knowledge:

1. What is the difference between physiological needs and psychological needs for food?
2. What are social norms?
3. How does education and income level affect food preferences?
4. What are three trends in food preferences?
5. How does per capita food spending affect food preferences?

Expanding Your Knowledge:

The World Health Organization (WHO) estimates that more than one billion people in the world are undernourished. Therefore, one in six people in the world do not have enough nutritious food. This risk is greater than AIDS, malaria, and tuberculosis combined. Malnutrition can cause children to have delays in physical and mental development. Their potential for productivity and lifetime earnings is reduced. For information and suggestions to help the world hunger problem, see the following: http://www.ffl.org/emergency-relief/world-hunger/.

The website Common Dreams discusses the need for water to grow food. In the next 20 years, we will need 24 percent more water in the world for agriculture. If you are interested in how much water it takes for the meat diet most Americans eat compared to vegetarian diets of developing countries, see http://www.commondreams.org/headlines04/0823-02.htm. Do your food preferences influence the amount of food in the world?

Web Links:

Food Security

http://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us.aspx

Hierarchy of Needs

http://psychology.about.com/od/theoriesofpersonality/a/hierarchyneeds.htm

IFT

http://www.ift.org/