

Nutrition and the labor market

Does income play a role in people's health and their dietary consumption? There is correlation between people's income and their diet/health. Low income is generally thought to be associated with poor dietary intake and poor health. Generally, when someone's income is higher than that person has received more schooling; therefore, there could be a correlation between education and nutrition. There are several factors to take into account when seeing how nutrition and the labor market correlate like, income, education, job, location, and convenience.

Income plays a large role when it comes to malnutrition. People can not afford to get the necessary vitamins and nutrients because they are more concerned about just getting food. In the article "The Economic Cause of Malnutrition" by William Masters, it talks about the link between malnutrition and income levels. Poorer countries do not have the same food supply as higher income countries; for example, countries with a GDP of over \$30,000 consume in the range of 3,000-3,500 calories a day but poor countries (Africa for example) that has a GDP less than \$10,000 consume a range of 2,000-2,5000 calories a day. The data shows that income plays a role in how much food people consume because the less money you have, the less food you can buy. The countries with a lower GDP need to find options that give them energy and nutritional value at a lower cost (Masters).

Low income plays a factor in nutritional intake. In the article "Can Low-Income Americans Afford a Healthy Diet?" by Adam Drewnowski, he talks about the effects of income on the nutritional intake. He mentions that as income decreases people shift towards buying cheaper food items and options such as fruits, vegetables, proteins, and whole grains are replaced by energy rich starches, added sugars, and vegetable fats. The article mentions that the United State Agricultural Department made Thrifty Food Plan that establishes a food plan for lower income families so that it meets the required nutritional needs. The only problem with the plan is it wanted the families to eat food that are not eaten that often

and multiplying way beyond the norms of what families normally eat and reducing the foods that families eat normally to zero. People are not going to drastically change their eating habits just to have a nutritional meal because they are going to eat the same food groups but healthier options. Another issue with the Thrifty Food Plan is it assumes people have more time than they actually do to prepare these meals. Families are busy working and taking care of their families and do not always have the time to prepare a healthy meal. Time and income play a factor in people's food consumptions because people need money to buy quality foods while not changing their eating habits and they need time to prepare those meals (Drewnowski).

Families that shift away from healthy foods to cheaper, low-quality foods pay the price in health mostly for the children. In the article "Children in Food-Insufficient, Low Income Families" by Patrick Casey, the effects of children not receiving enough food is the center of discussion. The article talks about how lack of food caused stunted growth, cognitive development and those kids are more susceptible to getting sick. The study was comparing the health and activities of food sufficient households with children to households with children that were food insufficient. It was noted that households with less money spent less per person on food so that every member of the family would be able to eat. The data collected was that children who lived in lower income families compared to higher income families consumed less carbohydrates, fruits, grains, and yogurt, but consumed more dry beans and peas. Beans and peas are a cheap nutritional food that replaces more expensive meats and vegetables. Also, lower income families were more likely to be overweight and watch more television. The link between being overweight and income levels is more from how active the families are and less of a nutritional factor (Casey).

In the Journal "Is Income Overrated in Determining Adequate Nutrition?" by Barbara Wolfe, she brings up several variables that play a factor into nutrition from prices of groceries, to income, to household size, to nutrition education. The Journal notes that prices vary by population density, as in an

area with a denser population will have more grocery store and be more competitive with their prices so people could buy more food for less. Household size also plays a factor when correlating income and nutrition because the more people that live in the house the more groceries that will be needed which would cost more money. Nutritional education in this case are being given its correlation from what the woman of the house considers the best foods to be: Nutritional education is being evaluated on the woman of the house because it has been shown that they are the one who are more likely to buy the food. Then those foods that they considered “the best” would be placed into different categories depending on what nutrients they are dense in (Wolfe).

The Journal “Is Income Overrated in Determining Adequate Nutrition?” brings up that the correlation between income and nutrition is positive. For the correlation between Vitamin A and protein is 5% while for calories and Iron it is at 10%, which supports that a person’s dietary health can be affected by income. The article also talks about how income elasticity is impacted by the average income of the area. The more money, on average, that each household makes the more they are willing to spend on groceries regardless of price (their demand is inelastic). It is mentioned that in urban areas household’s income is 7% higher than those in rural areas, and that urban areas household’s income elasticity are 30-45% lower than rural areas income elasticity. Taking all that into account Urban area households are willing to pay more for groceries because it does not take as much of their income. Since Urban areas are more likely to buy more groceries and that the area is denser in population explains why more grocery stores are in the area which creates lower prices (Wolfe).

Nutritional education is another factor looked at in the article “Is Income Overrated in Determining Adequate Nutrition?” As stated before, to determine this, the women of the households were asked what the best foods are, and those foods were placed into different categories depending on what nutritional attributes they were dense in and how many households choose that category. The results were: 79% of households choose food high in protein, 72% of households choose food high in

vitamin A content, 49% of households choose foods high in caloric content, and 9% choose foods that were high in iron content. There is data implying that each additional year of education that a woman has increases consumption of calories by .7%, protein by 1.4%, iron by .6%, and Vitamin A by 2.7%. The results show that education plays an important role in dietary consumption, and normally those who are higher educated have a higher income (Wolfe).

In the article “Nutrition quality of food purchases varies by household income: the SHoPPER study” by Simone French, the effect of income on diet is the topic. They talk about how income is known to be associated with poor dietary consumption choices. In this article the study was made up of (202) households in Chicago who decided to be a part of Study of Household Purchasing Patterns, Eating, and Recreation to collect data on the effect of income on nutritional intake. The Nutrition Data System for Research was used to evaluate the nutritional quality of food bought by the households with their Healthy Eating Index-2010 system. The food purchases for each household were also used to calculate how much money was spent on each of the food categories. Another thing the study did was separate what people bought from a grocery store versus when they ate out. What was not bought from a store was taken out of the results of the study because they could not separate what was a drink and what was a meal (and the various components of the meal ex. Appetizer, main course, dessert), so 993 out of 2,342 receipts were taken out of the data (French).

A significant thing to note from the study in the article “Nutrition quality of food purchases varies by household income: the SHoPPER study” is that they look at the income levels and notice trends in what they buy. Lower income households that participated in the study spent a smaller percentage of their income on fruits, vegetables and more on frozen desserts and sugar sweetened beverages than those with a higher income. The study also noted that higher income households purchased foods with a higher overall nutritional quality than lower income households. It also noted that programs like SNAP could encourage lower income households to purchase healthier foods by incentivizing people who buy

healthier foods. This study showed the impact of income on the food categories that were bought and it showed that lower incomes are less likely to buy healthy foods (French).

Grocery stores deciding where to place their stores also plays a role in a household's nutritional intake. The article "How Whole Foods Decides If Your Neighborhood Is Worthy" by Marisa Kashino, she talks about how companies decide where to locate their stores. There are some grocery stores that will not place their stores in low income communities and it impacts the diets of the people who live there because they will have to go somewhere else to get food which could result in a less healthy alternative. There is no question that location and easy accessibility of food impacts what we buy. Stores like Whole Foods decides if an area is "good enough" for them to put one of their stores there (Kashino).

Grocery Stores like Whole Foods lead the start of checking the demographics of areas before deciding to place a store there. Whole Foods (and other grocery stores) has certain demographic they want to appeal to with their products. Whole Foods contains high priced products and because of that they need to be located in higher income areas. Not only do they look at the income of the area but they also look at the education level of the area because Whole Foods said that those who are more educated are willing to pay more for the foods in their stores because they are aware of the health benefits. Grocery stores are like other stores and want to maximize their profits, so they look at areas that are high in population and then a specific location that is high in traffic. The irony behind all of this is that Whole Foods have to close most of their stores. The result is when grocery stores look at demographics when deciding where to place their stores, they are making food less available to lower income areas. Convenience is an important factor when people are deciding where to shop and lower income areas are also likely to have their own transportation, so they would have to take a bus or find another alternative for food (Kashino).

Another thing to consider when talking about nutrition is looking at hours worked and how much fast food people consume. It is more likely that someone who does not have a lot of time is more likely to eat fast food than make their own meals because it saves them time. The article "Work Hours and Perceived Time Barriers to Healthful Eating Among Young Adults", by Kamisha Escoto, talks about the effects of a busy schedule on the nutrition intake of young adults. The article mentions that younger adults are more likely to experience this effect, so they did a study to back up the claims. The study took into account hours worked, how busy the participants felt, fast food intake, fruit and vegetable intake, and socio-demographics. They did not want to leave out any variable that could give a reason for the data not being accurate. The results for time and nutritional intake were that over half of the participants felt they did not have the time to eat healthy and would either eat on the go or skip meals. The data also showed that 80% of males and 70% of females ate fast food at least one or more times in a week: data also showed that only one third of participants ate five servings of fruits and vegetables that same week. The data is important to take into consideration because over a third of the participants said healthy eating took too much time and the data reflects these choices. If people feel they do not have enough time to eat healthy, they are more likely to find an option that takes less time (Escoto).

The study from the article "Work Hours and Perceived Time Barriers to Healthful Eating Among Young Adults", brings a relation between time and nutrition. A reason that is important is because hours work reduces the amount of time people have to eat and the article also mentions how people's beliefs about healthy eating corresponds with hours worked. The data showed that people who worked over 40 hours a week said that healthy eating was too time consuming and that they would skip eating a healthy meal in the morning, and women who worked less than 40 hours were more likely to consume 5 or more servings of fruits and vegetables. The article said that no matter the hours worked food consumption was about the same and the only nutritional impact from hours worked is females who worked 20-39 hours a week were more likely to consume fruits and vegetables (Escoto).

Consumption of foods by category vary by occupation. In the article “Diet and Socioeconomic Position: does the use of different indicators matter” by Bruna Galobardes, it talks about how different variables, such as income and education, effect consumption of different food groups. The data showed that over all that the higher the occupation the consumption of meat, vegetables, fruits, and fish increased but consumption of fried foods, pasta and potato decreased. Nutrient consumption also changed depending on occupation and education level. Fiber, monosaturated fat, calcium, and vitamin D all increased the higher the occupation level. However, table sugar carbohydrates decreased the higher the occupation level. The data suggests that the higher the occupation the more aware the consumer is about the foods they eat and are more likely to eat healthy foods and stay away from unhealthy foods. Education also played a role in determining what people were likely to eat but it went in correlation with occupation for most of the food groups and nutrients. The lower the education in each occupational level would cause an increase in consumption in the same food groups that occupation effected (Galobardes).

There are many factors that play into the nutritional intake of people. Nutritional intake is dependent on income because you need enough income to buy healthier foods since they are priced higher than processed and nutrient lacking foods. Another thing that nutritional intake is dependent on is education level, the higher the education the more aware a person is to make proper food choices because they are aware of the health effects of various diet choices. Taste preferences and convenience is also a determinant of the foods people consume. The last thing nutrient intake is dependent on is gender, men are more likely to make unhealthier food choices than females in regards to consuming more beer and consuming less fruits and vegetables than females overall. Men with lower level of education, occupation, and that are younger are more likely to make unhealthy food choices; However, females with a higher education and occupation are going to make healthier food choices.

Nutritional intake influences many things in a person's life from health to cognitive growth in children. A lack of healthy nutritional intake results in malnutrition, obesity, stunted growth, limited cognitive growth and various other health conditions. There's two things that happen when people can not afford quality food either they buy unhealthy foods so they have enough to feed themselves (and their family if they have one) or they buy very little healthy food which would not be enough to sustain a healthy caloric intake. A result of either of those options is malnutrition because the consumer is not receiving enough calories or nutrients to function properly. A result of buying low quality food, such as fast food, could also cause obesity because the calories are enough for a person to gain weight but there is no other nutritional value. When children lack proper nutrition, it effects their cognitive function and they do not perform well in school and in results creates a loop of never-ending poverty and poor healthy because healthy food was never an option.

Nutrition is impacted by several factors. People of lower income occupations need to be more educated on the healthy adverse of their diet. Not only that but grocery stores need to be more available to lower income areas because when grocery stores prioritize higher income areas, it is making it hard for lower income people to get the food they need.

There are suggestions that could help with the problem of poor nutrition intake as a result from income. Numerous articles suggest SNAP which is a program for low income families that provides money to buy groceries. Another thing companies have been doing is making a lunch program that helps people eat healthier foods, such as having healthy options available for the workers. With companies becoming more of the nutritional issue they have started to make an educational program for the workers, so they are more aware of what is healthy to eat and what is not and was to prepare those meals. An easy way to fix the time preparing of meals is for people to prepare them during their free time during the week and set them aside in the fridge. A last option is for the government to incentivize

food companies to lower their prices of healthy foods or for companies that make unhealthy foods to set a standard of nutrition that all products must have depending on their food category.

Works Cited

- Casey, Patrick H., et al. "Children in Food-Insufficient, Low-Income Families." *Archives of Pediatrics & Adolescent Medicine*, vol. 155, no. 4, 2001, p. 508., doi:10.1001/archpedi.155.4.508.
- Drewnowski, Adam, and Petra Eichelsdoerfer. "Can Low-Income Americans Afford a Healthy Diet?" *Nutrition Today*, vol. 44, no. 6, 2009, pp. 246–249., doi:10.1097/nt.0b013e3181c29f79.
- Escoto, Kamisha Hamilton, et al. "Work Hours and Perceived Time Barriers to Healthful Eating Among Young Adults." *American Journal of Health Behavior*, vol. 36, no. 6, 2012, pp. 786–796., doi:10.5993/ajhb.36.6.6.
- French, Simone A, et al. "Nutrition Quality of Food Purchases Varies by Household Income: the SHoPPER Study." *PMC Public Health*, 26 Feb. 2019.
- Galobardes, Bruna, et al. "Diet and Socioeconomic Position: Does the Use of Different Indicators Matter?" *International Journal of Epidemiology*, vol. 30, no. 2, 2001, pp. 334–340., doi:10.1093/ije/30.2.334.
- Kashino, Marisa M. "How Whole Foods Decides If Your Neighborhood Is Worthy: Washingtonian (DC)." *Washingtonian*, 14 July 2015, www.washingtonian.com/2015/07/14/how-whole-foods-decides-if-your-neighborhood-is-worthy/.
- Masters, William A. "Chapter 2.2 The Economic Causes of Malnutrition." *Good Nutrition: Perspectives for the 21st Century*, 2016, pp. 92–104., doi:10.1159/000452378.
- Wolfe, Barbara L., and Jere R. Behrman. "Is Income Overrated in Determining Adequate Nutrition?" *Economic Development and Cultural Change*, vol. 31, no. 3, 1983, pp. 525–549., doi:10.1086/451340.