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Hello, I'm _____ and today my team and I will be discussing the global issue of food insecurity, along with its possible solutions here in Florida.

But first, what even *is* food insecurity? The Food and Agriculture Organization of the UN defines food security as “physical, social and economic access to food, which is safe and consumed in sufficient quantity and quality to meet dietary needs and food preferences”¹. Based on this definition, food *insecurity* is therefore the failed fulfillment of “physical, social, and economic access to food” along with the other stated conditions. This particular definition is the most appropriate to the rest of our discussion because the FAO has direct oversight of research, data analysis, and policy recommendations specific to the issue of food insecurity world-wide, which means their definition takes into account the aspects of food insecurity that vary from country to country.

Moreover, the interest in resolving food insecurity lies in preventing its harm to public health worldwide. According to the UN, a combination of 230 million children under 5 suffered from stunting, wasting, or being overweight in 2022 as a result of food insecurity;² and in addition to this, the rate of anemic 15-49 year-old women has remained at approximately 30 percent since the year 2000. Given this reality, the promotion of food security is needed to preempt the detriments of malnutrition.

To solve a problem, though, we must understand the reasons behind it. To achieve this, let's look at the different causes of food insecurity in low-income versus high-income countries. Although poverty is a major cause of food insecurity in both low and high-income countries, low-income countries tend to lack food security as a result of the domestic unavailability of adequate quantities of food. The Democratic Republic of Congo, for example, is a low-income country with one of the highest levels of food insecurity in the world. Although agricultural land and resources are available, the US International Trade Administration details that the percentage of cultivated land remains below 10 percent;³ meanwhile, the International Food Policy Research Institute reports that the main form of agriculture practiced in DRC is subsistence rather than commercial agriculture.⁴ The lack of mass agricultural development is further

¹ [COMMITTEE ON WORLD FOOD SECURITY](#).

² [Zero Hunger Goal](#).

³ [Democratic Republic of the Congo - Agriculture](#).

⁴ [Democratic Republic of Congo's agrifood system structure and drivers of transformation | IFPRI : International Food Policy Research Institute](#).

pronounced by ongoing political conflict, which disrupts agricultural productivity, employment stability, and increases dependency on food imports. The latter is especially problematic because rising costs of food imports can then limit food affordability; meaning, a limited domestic food supply gives rise to other risks that can worsen food insecurity. But the DRC is not an isolated case; other food insecure low-income countries such as Yemen⁵ and Haiti⁶ also face insufficient food production, illustrating a common theme of food insecurity caused by the unavailability of food among low-income countries.

On the other hand, high-income countries have the infrastructure, technology and financial resources to support large-scale agriculture. Because of this, it might be tempting to think that high-income countries are impervious to food insecurity. However, consumers' ability to purchase sufficient high-quality food at the market-driven price point varies with income earnings. Thus, the unaffordability of food is a principal cause of food insecurity among high-income countries, with those living in poverty being the most vulnerable to food insecurity. Finland, for example, is a highly food secure country at an insecurity rate of 2.6 percent,⁷ yet the insecurity rate jumps up to 14 percent among children of low-income households.⁸

At the same time, our purchasing power as consumers is affected by the food price point. If the price point of food increases while the consumer's income remains the same or decreases, the purchasing power of the consumer overall decreases, because a greater proportion of income is needed to purchase the same foods. This is yet another considerable factor because, according to independent figures from both the International Monetary Fund and the FAO, food prices have been overall increasing within the past year⁹ and decades¹⁰. Additionally, both the International Monetary Fund and the FAO are reputable sources of international data, so their concordant findings (though at different time scales) emphasizes the prevalence of rising market prices and its potential impact on food security.

The implication of this data for low-income-earning consumers in high-income countries is a decrease in their food purchasing power, which may lead individuals to resort to cheaper, highly processed foods in place of healthier, but unaffordable, options. In fact,

⁵ [Breaking the Cycle of Food Crises in Yemen](#)

⁶ [Haiti - Agricultural Sector](#)

⁷ [Prevalence of severe food insecurity in the population \(%\) - Finland.](#)

⁸ [More families in Finland finding everyday life a "struggle for survival" | Yle News.](#)

⁹ [Global Food Crisis Update: Recent Developments, Outlook, and IMF Engagement in.](#)

¹⁰ [FAO Food Price Index.](#)

a study published by the American Journal of Clinical Nutrition found that 55.7 percent of energy intake came from ultra-processed foods among adults with “very low food security”¹¹. Although this study is limited to American participants, similar studies from Canada¹² and Australia¹³ also highlight a direct relationship between low diet quality and food insecurity, suggesting that the study’s results are generalizable to high-income countries. Considering all data collectively, then, the food insecurity in high-income countries is overall an issue of food unaffordability rather than unavailability.

This brings us to the individual case of food insecurity in Florida, which as part of the US (a high-income country) is best explained by food unaffordability. As was previously explained, food unaffordability is generally shaped by income and price. In Florida, though, price is especially a critical factor contributing to a 10.6 percent food insecurity rate¹⁴ because the state is among the top five with the highest average weekly grocery bill¹⁵. In part, national supply shocks are to thank for the rising costs of food production,¹⁶ which in turn contributes to the soaring food prices we see at grocery stores. However, a unique and overlooked aspect of Florida’s unaffordable food prices is the daunting food transportation challenges farmers face. The CBS local news network, for example, elucidates that Florida farmers have been experiencing longer truck delivery times for food products, and difficulty securing trucks for shipment.¹⁷ Though lacking in quantitative data, this news article compiles qualitative insight from farmers and industry insiders, putting into perspective the on-going challenge of securing timely truck delivery. Truck transportation is also especially relevant to farmers’ transportation challenges because the US Department of Agriculture reports that 83 percent of agricultural products are moved by truck.¹⁸ As an official government department, the USDA has high accessibility to accurate and relevant national data related to agriculture. Hence, the news article’s demonstration of the reality faced by

¹¹ [Food insecurity and ultra-processed food consumption: the modifying role of participation in the Supplemental Nutrition Assistance Program \(SNAP\) - The American Journal of Clinical Nutrition.](#)

¹² [The relationship between diet quality and the severity of household food insecurity in Canada | Public Health Nutrition | Cambridge Core.](#)

¹³ [The Diet Quality of Food-Insecure Australian Adults-A Nationally Representative Cross-Sectional Analysis.](#)

¹⁴ [Food Insecurity Rate - FL Health CHARTS - Florida Department of Health.](#)

¹⁵ [Florida food prices: Miami has most expensive grocery bills in U.S.](#)

¹⁶ [Global Food Prices to Remain Elevated Amid War, Costly Energy, La Niña.](#)

¹⁷ [Florida Farmers Grapple With Transportation Problems - CBS Miami.](#)

¹⁸ [The Importance of Highways to U.S. Agriculture - December 2020](#), page 13.

Florida farmers takes on increasing gravity when you consider the USDA's data on the magnitude of trucking. Since transportation is a factor of production, and timely delivery of perishables is also necessary to prevent supply-side food loss, the result of delivery delays and truck unavailability is an increase in the price consumers pay for food. As we previously discussed, this then disadvantages low-income consumers and consequently enables food insecurity caused by food unaffordability.

So, what can be done to remediate food insecurity in Florida's unique context? I propose that improvements to transportation infrastructure (especially to roads and highways) be funded to provide farmers with more reliable and efficient food delivery systems, thereby decreasing food prices and increasing food affordability. Investing in Florida's transportation infrastructure is the optimal way to resolve food insecurity because it can effectively mitigate many of the food transportation issues that contribute to high food prices. For example, consider that 70 percent of Florida's urban interstates are congested at peak hours.¹⁹ Naturally, congestion leads to longer travel times for delivery trucks; yet, this issue could be greatly abated by following the USDA's recommendation of increasing highway capacity through expanding or redesigning roads.²⁰ Even beyond road capacity improvement, similar investments in Florida's transportation system would directly support the efficiency of travel for freight carriers; consequently, transportation costs for farmers would decrease by reducing traffic congestion, traffic accidents, route closures, and other conditions that delay food delivery. Such improvements are especially vital for getting perishable, nutritious food staples such as fruits and vegetables on the shelf at reasonable prices.

To summarize, today we've explored how transportation is greatly relevant to the supply-side factors that determine price-driven food insecurity in Florida. We've also identified infrastructure conditions as evident determiners of transportation efficiency. In accordance with this, I've concluded that the best way to target food insecurity in Florida, based on the primary cause of food unaffordability, is to improve the state's transportation infrastructure.

¹⁹ [America's Interstate Highway System at 65 Report - June 2021](#).

²⁰ [The Importance of Highways to U.S. Agriculture - December 2020](#), page 14.