

## **Academic 'Surprised' Just How Much World Hunger Has Fallen Recently**

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March 5, 2017

Non-governmental organizations (NGOs) and genetically-engineered food have helped eradicate global hunger, according to a simulation conducted at the University of Virginia (UVA).

Food production climbed to record-highs throughout the 20th Century as farmers have found new ways to produce more food per acre of land. Anti-hunger groups have taken that surplus food to people in countries ravaged by war and famine. Earth has seen a sharp decrease in world hunger thanks to both those efforts.

“I was actually surprised when I looked at the historical trends for just how much food security is getting better,” Dr. Gerry Learmonth, the researcher at UVA who designed the simulation, told The Daily Caller News Foundation. “I’m actually pleasantly surprised by how much better things are getting globally on these different indicators in the real world.”

Learmonth created a computer scenario to allow students to simulate controlling a charitable NGO interested in improving food security. The scenario required students to make tough decisions about how to spend their budget on projects to get the most bang for the buck.

“The students were playing as a non-governmental organization one of five regions in the world,” Learmonth said. “They had to deal with indicators like prevalence of undernourishment, protein supply, food production, or demographics. They tried to make those indicators better by choosing products and spending their own NGO’s money. Most of them were able to improve compared to their historical performance, but some of them didn’t perform as well.”

The scenario used real world historical data so that the students involved in it could make meaningful choices to improve their region’s historical performance.

“We got all this data from the United Nations from 1991 to 2015,” Learmonth said. “We showed the players what historical values were for these indicators. Occasionally each region got whacked with some impact like a drought, a massive hurricane, or flood.”

One aspect of the scenario which offered rapid food security improvements was investing in genetically-engineered crops.

“There’s real improvement on food security around the world,” Learmonth noted. “Some nations are even convinced that genetically modified food crops aren’t a bad thing. One of the decisions

the students could make in the simulation was whether to make an investment in genetically modified golden rice. If they invested, that would boost their indicators significantly.”

Gold rice is genetically-engineered to prevent blindness and malnutrition by providing vitamin A to impoverished children. Vitamin A deficiency kills 1.15 million children each year, according to the United Nations International Children’s Emergency Fund.

Greenpeace protesters in 2013 destroyed a genetically-modified crop of Golden Rice in the Philippines due to alleged health concerns. Academic studies estimate Greenpeace’s delaying of Golden Rice in India alone cost 1,424,000 life years since 2002.

“We build serious games that are round base ,” Learmonth told TheDCNF. “You have data, you look at it, and you make a decision. The game itself has up to 20 players sitting at laptops. It gave the students a simulated opportunity to actually perform one of these jobs.”