CASE STUDY: CLIMATE-FRIENDLY SCHOOL FOOD

NOVATO UNIFIED SCHOOL DISTRICT

Miguel Villarreal arrived at Novato Unified School District in 2002 from Plano Independent School District in Texas, a much larger district where he managed around 300 employees. He noticed that “beautiful Marin County” was a highly productive agricultural region with abundant organic farms and ranches. Yet he quickly realized that no regional produce was served in the schools, and in his words, “that just didn’t make sense.” He entered Novato USD, a relatively small district, with a large school district mindset. This mindset, according to Miguel, enabled him to improve the quality of the food and increase the amount of plant-forward and plant-based meals. Smaller districts have fewer human resources, so he contacted organizations that could help advance his vision of healthy, climate-friendly food. Miguel was empowered, resourceful and dedicated to educating Novato’s community along the way, which proved essential to making positive and lasting change.

Plant-forward menu transitions start locally

Miguel’s “first phase” was to introduce more local and organic vegetables into the cafeteria. In the early 2000s, he worked with Marin Organic’s School Lunch and Gleaning Program (harvesting produce that would otherwise be left in the field) in order to obtain high-quality local, organic produce from farmers at an affordable price. Miguel then connected with local farmers to increase the amount of fresh ingredients served. These shifts slowly changed the perception of school food in the community and helped build trust for future shifts.

In 2008, six years after arriving in Novato, Miguel eliminated beef. This bold move was grounded in a larger goal to eliminate highly processed food from the menu. After the eighth national recall of beef

At A Glance

- 7,500 total students
- $2.15 million total budget
- $700,000 food budget (1.25/lunch)
- 4,000 meals served /day
- 720,000 meals served /year
- 4,000 meals /day
- 38% free & reduced meals
- 60% speed scratch
- 40% heat & serve

Self operated foodservice, with a central distribution center, onsite kitchens & no central kitchen
Plant-based or vegetarian options at every meal & 100% meatless every Monday

The Power of One Recipe Swap: Veggie Burger

Over 10 years of serving a Veggie Burger instead of a beef burger, Novato Unified has saved 1.3 million lbs of CO₂ emissions equivalent to

- 1.5 million miles driven
- 70,000 gallons of gasoline
- planting 15,000 seedlings & letting them grow for 10 years

Source: EPA GHG Calculator

Miguel Villarreal, Foodservice Director
“Today there is no reason why any foodservice Director shouldn’t be providing plant-based options.”

At A Glance

- 7,500 total students
- $2.15 million total budget
- $700,000 food budget (1.25/lunch)
- 4,000 meals served /day
- 720,000 meals served /year
- 4,000 meals /day
- 38% free & reduced meals
- 60% speed scratch
- 40% heat & serve

Self operated foodservice, with a central distribution center, onsite kitchens & no central kitchen
Plant-based or vegetarian options at every meal & 100% meatless every Monday

The Power of One Recipe Swap: Veggie Burger

Over 10 years of serving a Veggie Burger instead of a beef burger, Novato Unified has saved 1.3 million lbs of CO₂ emissions equivalent to

- 1.5 million miles driven
- 70,000 gallons of gasoline
- planting 15,000 seedlings & letting them grow for 10 years

Source: EPA GHG Calculator

Miguel Villarreal, Foodservice Director
“Today there is no reason why any foodservice Director shouldn’t be providing plant-based options.”
during his tenure as a foodservice director, Miguel decided that instead of serving cheap, unhealthy and environmentally-damaging beef, he would not serve any at all. “Initially my superintendent asked if I was nuts,” Miguel recalls.

Miguel succeeded by educating the community through school food events and writing board reports that explained every food shift he made. He also created a precedent a few years earlier by eliminating chocolate milk from the menu. “The education took time, but now there’s so much data out there, so it won’t take as long to get people on board,” he explains.

The district serves plant-based options at every meal and features creative recipes such as the plant-forward chicken taco (one of the most popular entrees, Miguel says). Novato USD also frequently serves a veggie burger and mixes up the daily menu with plant-based burritos, chili bean bowls, and sunflower seed butter sandwiches. Plus, students can always make 100 percent plant-based meals from the salad bar.

Collaboration with outside partners is key to success

From the beginning, Miguel has collaborated with numerous organizational partners, who have assisted with menu planning, nutrition education and leadership. These include Meatless Mondays, Chef Ann Foundation and the Culinary Institute of America’s Healthy Kids Collaborative. Novato Unified has also partnered with the Golden Gate Dietetic Internship Program, which provides interns to help with menu planning and nutrition education.

Miguel also works with Wellness in the Schools to bring a chef into the district to lead student culinary labs. Elementary school students aged 5 to 11 receive at least one 50-minute kitchen lab experience, where students learn to prepare foods like hummus, kale salad, tomato sauce, balsamic vinaigrette and more.

So far, they reach 3,000 students each spring and fall semester. Since launching the program, Miguel has observed increased consumption of these foods in the cafeteria and he credits nutrition education and taste testing as critical factors in successful menu changes. While teachers and administrators have embraced these programs and asked for more culinary labs in the classroom, their expansion is currently prevented by limited resources.

Strong participation rates help offset costs

Miguel’s resourcefulness allowed Novato to incorporate local fresh ingredients and plant-forward options within tight budget constraints while maintaining steady participation. Miguel admits that when Novato “picked out a day, like Meatless Monday, to get the message out, we saw a decline in participation early on,” but “slowly they inched back up, when it became the norm.” If he could do it over again, Miguel says he might not focus on just one day to feature plant-based recipes. He believes that the district’s taste testing and nutrition education programs have played a key role in educating students about the benefits and deliciousness of plant-forward foods. Miguel refers to current students as the “healthier generation,” with increasing consciousness and receptivity to these menu shifts.

When it comes to incorporating plant-based proteins, cost is still a challenge. When Novato phased out beef in 2008 and switched from hamburgers to veggie burgers, the shift did not save Novato money. The heavily subsidized beef cost 25 cents per portion, half the price of the Morning Star veggie burger that replaced it. This is one major challenge for K-12 foodservice. To overcome the higher cost of the veggie burger, Miguel offsets costs by purchasing heavily subsidized USDA Foods products (such as chicken and cheese) and Department of Defense produce, which are much cheaper than market prices. This saves enough money for Novato to afford more fresh, local ingredients and more expensive items like the veggie burger.