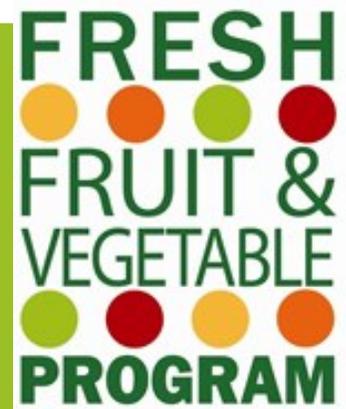


# The Fresh Fruit and Vegetable Program:

*Does it promote nagging for fruits and vegetables at the store and at home?*

July 2016



## Introduction

Fruit and vegetable consumption is critical to the growth, development, and well-being of children. Yet, in the US, less than 17% of children ages 6-11 years old eat the daily recommended amount of vegetables; less than 26% of children consume the recommended amount of fruit.<sup>1</sup>

The US Department of Agriculture's (USDA) Fresh Fruit and Vegetable Program (FFVP) is designed to increase children's exposure to a variety of fresh fruits and vegetables.<sup>2</sup> The program offers fresh fruits and vegetables as snacks at least two times per week in elementary schools with the highest proportion of low-income children. Research shows the program is successful in creating positive attitudes towards fruits and vegetables<sup>3</sup> and increasing fruit and vegetable consumption in school settings.<sup>4</sup>

This study examines potential associations between children who participate in the FFVP and family food shopping practices including the child's fruit and vegetable requests made at the store. All variables were examined from the perspectives of both the child and the parent. The results presented in this brief are based on cross-sectional analyses; therefore, causation cannot be implied.

## Methodology

Data were collected during the 2014-2015 school year. Six elementary schools— three that participated in the FFVP and three that did not participate— were selected from three school districts within the Phoenix metropolitan area. Schools were closely matched on school enrollment, the number of students eligible for free or reduced-price meals, and the ethnic/racial makeup of the student body. Fourth grade students (n=296) and parent of all elementary school children (n = 205) participated in two separate surveys.

Children were asked validated questions about their knowledge and attitudes towards fruits and vegetables; their preferences for fruits and vegetables; their self-efficacy to choose fruits and vegetables over less healthful snacks; their self-efficacy to demand fruits and vegetables be made available in the home; their requests at the store for fruits, vegetables, and energy dense snacks to be purchased; and their consumption of fruits and vegetables.

Parents were asked validated questions about their child's fruit and vegetable preferences; their child's request at the store for fruits, vegetables, and energy dense snacks to be purchased; their fresh fruit and vegetable purchasing frequency; and the availability of fruits and vegetables in their home.

1. Lorson BA, Melgar-Quinonez HR, Taylor CA. Correlates of fruit and vegetable intakes in US children. *J Am Diet Assoc.* 2009;109(3):474-478.

2. Fresh Fruit and Vegetable Program. 2013; <http://www.fns.usda.gov/sites/default/files/FFVPFactSheet.pdf>. Accessed August 17, 2015

3. Buzby J, Guthrie J, Kantor LS. Evaluation of the USDA Fruit and Vegetable Pilot Program: Report to Congress. Food Assistance & Nutrition Research Program: USDA 2012-08-29T17:23:01 2003.

4. Jamelske EM, Bica LA. Impact of the USDA Fresh Fruit and Vegetable Program on Children's Consumption. *J Child Nutr Manag.* 2012;36(1):n1

# Key Findings

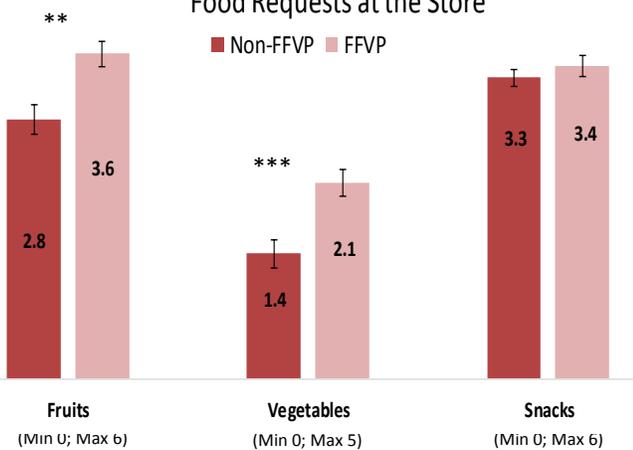
## Child's Perspective

- Children from FFVP-participating schools reported *requesting* significantly more fruits and vegetables during their last shopping trip than non-participating children.
- No significant difference was found in the amount of snack foods requested between the two groups.

## Parent's Perspective

- Parents of children attending FFVP-participating schools reported that their child *requested* marginally more fruits and more vegetables during their last shopping trip compared to parents of children from non-participating schools.
- No significant difference was found in the amount of snack foods requested between the two groups.

Food Requests at the Store

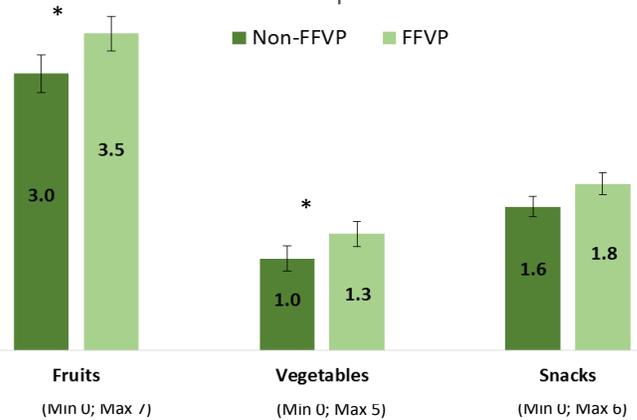


Food requests made at the store by children from non-FFVP and FFVP participating schools. Mean (Standard Error bars),  $n = 296$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$

Compared to children from non-FFVP schools, children from FFVP-participating schools reported:

- greater *knowledge* of the benefits of consuming fruits and vegetables and more positive *attitudes* towards these foods.
- greater *preferences* for fruits and vegetables and higher *self-efficacy* for asking for fruits and vegetables at home and at the store.
- higher *consumption* of fruits and vegetables on school days when FFVP snacks were not offered.

Food Requests at the Store



Parent reports of food requests made at the grocery store by children from non-FFVP and FFVP participating schools. Mean (Standard Error bars),  $n = 205$ ; \* $p < 0.1$

Compared to parents of children attending non-FFVP schools, parents of children from FFVP-participating schools reported:

- *purchasing* fresh fruits and vegetables more frequently.
- their child had a greater *preference* for fruits and vegetables.
- higher *self-efficacy* to eat, buy, and prepare fruits and vegetables.

## Implications of Findings

FFVP participation was associated with healthful behaviors that extend beyond the school setting and into children's home food environment. Participation in the FFVP may result in children asking or "nagging" their parents for these healthful foods; this nagging may increase the frequency at which a child's parent purchases fresh fruits and vegetables. These associations suggest the importance of collaborations between schools and other community partners, such as food retailers, to cross-promote fruits and vegetables and further expose families to messages about fruit and vegetable consumption.