USDA United States Department of Agriculture
Food and Nutrition Service

EATING BREAKFAST: EFFECTS OF THE SCHOOL BREAKFAST PROGRAM

Office of Research and Analysis **August 1998**

Background

Started as a pilot in 1966, the School Breakfast Program (SBP) was designed to provide funding for meals served to children in poor areas and areas where children had to travel a great distance to school. On small farms in rural communities, many young children ate an early breakfast, performed their chores, and, after a lengthy school bus trip, arrived at school hungry. In 1975, Congress made the SBP permanent, with the stated objective that the program be made "available in all schools where it is needed to provide adequate nutrition for children in attendance."

In recent years, researchers have become interested in the question of whether the availability of SBP at school increased the likelihood of a child eating breakfast.

The answer to that question depends on how breakfast is defined and also upon family income. The 1992 School Nutrition Dietary Assessment Study (SNDA-1) defined breakfast as eating any food containing at least 50 calories. Using this very broad definition of breakfast, the SNDA-1 study found that the availability of a SBP at school did not increase the likelihood of a child eating breakfast. Commenter's on this finding have expressed an interest in whether the finding would be the same if breakfast was defined more substantively, for example, as providing more than a minimum level of food energy. This study is a reanalysis of data from SNDA-1 and examines this and related questions.

A review of the literature on breakfast consumption shows that breakfast is defined in a variety of ways. Studies that examine the prevalence of eating (or skipping) breakfast typically use a simplistic definition of breakfast, based either on reports of whether breakfast was eaten or on dietary recall data on whether any food or beverage was consumed. In contrast, studies that assess the effects of eating breakfast on various performance measures usually define breakfast more substantively, (for example, providing some minimum level of food energy).

The analysis conducted in this study builds on these two strands of the literature and uses three alternate definitions of breakfast:

- Consumption of any food or beverage
- Breakfast intake of food energy greater than 10 percent of the Recommended Dietary Allowance (RDA)
- Consumption of foods from at least two of five main food groups and intake of food energy greater than 10 percent of the RDA

As the definition of breakfast becomes more robust, the percentage of students who eat breakfast declines. Almost 9 of 10 students consumed any food or beverage, but only 6 of 10 students consumed food from at least two of the main food groups and had breakfast intake of food energy greater than 10 percent of the RDA.

Findings

Three important findings from the analysis of the effects of the SBP are the following:

If breakfast is defined as any food or beverage consumed, the SBP is not associated with an increased likelihood of eating breakfast. These results are consistent with previous studies that found that the SPB had no effect on the likelihood of eating any food or food with a minimum number of calories.

For low-income students, as the definition of breakfast becomes more robust, the SBP is

associated with an increased likelihood of eating breakfast.

When breakfast is defined as intake of food energy greater than 10 percent of the RDA, the likelihood of eating breakfast is significantly higher for low-income students attending schools with the SBP than for similar students attending schools without it (74 percent versus 63 percent).

When breakfast is defined as consumption of food from two or more food groups and intake of food energy greater than 10 percent of the RDA, the likelihood of eating breakfast is significantly higher for low-income students attending schools with the SBP than for similar students attending schools without it (67 percent versus 55 percent).

The estimated effects of SBP availability on the likelihood of eating breakfast are largest for low-income elementary students.

When breakfast is defined as intake of food energy greater than 10 percent of the RDA, the likelihood of eating breakfast is significantly higher for low-income elementary students attending schools with the SBP than for similar elementary students attending schools without it (82 percent versus 66 percent).

When breakfast is defined as consumption of food from two or more food groups and intake of food energy greater than 10 percent of the RDA, the likelihood of eating breakfast is significantly higher for low-income elementary students attending schools with the SBP than for similar elementary students attending schools without it (77 percent versus 62 percent).