program oversight. A portion of these resources are available to assist in implementation. Some of the FY 1995 federal funds for training will be used to train states on implementation of the management systems needed to support food-based menu planning, including the requirement for periodic nutrient analysis of school meals by the State as a component of local reviews. In addition, since the review cycle has been extended from four years to five years, the proposed regulation would reduce the level of State resources devoted to local school food authority reviews, which is described in more detail below.

At the local level, if the proposed food-based menu planning system is selected, it may require training and technical assistance for some staff. The continuation of the historical food component definitions and crediting rules (with one improvement for grains in desserts) will simplify this implementation. However, meals must, on average over a week, meet the RDA/ Dietary Guidelines-based nutrient targets, and achieving this through a food-based menu system requires a considerably greater level of nutrition knowledge than that required to fulfill a meal pattern only. For example, the meal planner must know which combinations of food choices over each week are acceptable to students and are likely to result in meals that offer at least the food component minimums and provide adequate calories, iron and other nutrients without exceeding the fat and saturated fat limits as a percent of calories.

A study of school food authorities in the mid-Atlantic region found that under the existing meal pattern system, 60 percent of school food authorities (SFAs) employ computers for some functions (Brewer, DeMicco and Conn, 1993). Over one-fourth of these districts had comprehensive systems that allowed them to do menu management and nutritional evaluations. The menu modification demonstrations found that the lack of appropriate computer software limited the feasibility of monitoring the nutritional quality of menus. More recently developed software has greatly enhanced the ability to perform these analyses, which will now be supported by a USDA developed data base. Schools with microcomputers should be able to use this software, and may opt to use it to assist in food-based menu planning, for example, to analyze the recipes of some popular entrees.

The cost analysis found that the nutrient requirements can be met at about the current cost of food in the

National School Lunch Program. Because the foods used in the market impact analysis were drawn from what is currently being served, and various adjustments in preparation practices and frequency of food use can meet the food component minimums and nutrient requirements, USDA does not anticipate the need for significant changes in meal preparation practices that would affect the cost to prepare meals. The administrative cost of conducting the proposed food-based menu planning should be about the same as current operations once the system is fully implemented in a school.

In summary, since at the local level schools should make reasonable economic decisions and this proposal serves to increase their options, the Department does not anticipate increased local implementation cost due to this proposal. At the Federal and State levels, there will be increased cost to provide training and technical assistance for an additional option and to implement systems for management of this option in the event that some locals select food-based menu planning, with the majority of this cost being State implementation. The Federal component of this will be covered through revised budgeting for the funding available for Dietary Guidelines implementation in FY 1995 and subsequent years. At the State level, the initial planning and set-up for this additional food-based menu planning option is estimated to take about 80 hours of staff time for each State administrative unit (the time for ongoing operation is addressed in the following section). Therefore, at an estimated average rate of \$25 per hour, the Department projects an average cost of \$2,000 per State for initial planning and set-up. This cost would be covered by part of the savings from the reduction in administrative burden due to the previously proposed extension of the review cycle from four to five years.

## c. Ongoing Costs and Other Significant Effects

Under this proposed rule, States will be required to perform nutrient analyses as a routine component of reviews of school food authorities using the foodbased menu planning system, increasing the cost of ongoing program management. It is estimated that on average an additional 12 hours will be required for nutrient analysis for each food-based menu planning school reviewed. The actual total cost for these reviews will vary depending upon the percent of school food authorities selecting the food-based menu planning option. Since this percentage is

unknown, a range of cost is projected including the upper bound of 100 percent. In consideration of the comments received from the food service community, the lower bound has been set at 25 percent. Given this range, and assuming an average rate of \$25 per hour, the Department projects an increase in national aggregate State ongoing management cost for these reviews of \$0.4 to \$1.7 million. States can reduce the percent of schools using food-based menu planning by providing enhanced levels of training and technical assistance for NSMP and Assisted-NSMP.

To provide for the resources needed, this proposal continues the twenty per cent reduction in state monitoring requirements previously proposed. This reduction will enhance the level of resources available at the State level to focus on training and technical assistance efforts and nutrition reviews of food-based menu planning systems.

While implementation will require a dedicated effort on the part of the Department, the state agencies and local school food authorities, the cost of ongoing operation and maintenance of a food-based menu planning system at the local level will be indistinguishable from the current meal pattern based system.

## d. Benefits

The health benefits and value due to risk reduction of improving school meals to be consistent with the principles of the Dietary Guidelines for Americans were discussed in the June 10, 1994 cost/benefit assessment. The addition of the food-based menu planning option retains the benefits as previously presented.

The SNDA study found that NSLP lunches significantly exceed the Dietary Guidelines recommendations for fat, saturated fat and sodium. Diet-related diseases accounted for almost 65 percent of all deaths in the U.S. in 1991 (National Center for Health Statistics, 1993). About 300,000 deaths per year, or about 14 percent of all deaths, has been estimated as the lower bound for deaths due to diet and activity patterns (McGinnis and Foege, 1993). The previous analysis concluded that if the reductions in fat and saturated fat intake instituted during the school years are continued into adulthood, the increase in life-years and the value in dollars based upon willingness to pay would be of a magnitude similar to or exceeding that estimated for the Food and Drug Administration (FDA) food labeling changes, which were \$4.4 to \$26.5 billion over 20 years. The lag time to realize this level of benefits over a 20