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REPORT OF THE COMPTROLLER GENERAL OF THE UNITED STATES

How Good Are School Lunches?


The Department of Agriculture has specific food requirements for lunches served under the national school lunch program. Through these requirements, the Department seeks to provide students with lunches that, over time, contain one-third of the recommended daily dietary allowances of specified nutrients.

However, results of laboratory tests sponsored by GAO from Cleveland, Los Angeles, and New York showed that the Department's goal is not being met. Lunches in these cities were significantly short in as many as 8 of the 13 nutrients tested.

Separate tests in New York showed that at least 40 percent of the lunches did not meet the Department's requirements as to quantities served. Department officials acknowledged this is a nationwide problem.

Microbiological tests sponsored by GAO showed that the lunches were safe to eat but that local testing varied considerably. Also, a lot of food was being thrown away because the students did not like it.

Improved meal standards and better monitoring of meal services are needed.



COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20544

B-178564

The Honorable Frederick W. Richmond
House of Representatives

Dear Mr. Richmond:

As you requested we reviewed various nutritional and food quality and quantity aspects of the national school lunch program. We issued a report to the Secretary of Agriculture on June 15, 1977, on one aspect of our review. (See app. II.) Also, we summarized the results of our review in testimony before the Senate Select Committee on Nutrition and Human Needs on September 10, 1977. (See app. I.) This report summarizes our findings and contains recommendations to the Secretary of Agriculture to improve the program. Oral comments were obtained from the Department of Agriculture and are recognized in the report as appropriate.

The National School Lunch Act (42 U.S.C. 1758) provides that lunches served by participating schools must meet standards prescribed by the Secretary of Agriculture. These standards require that, as a minimum, the lunches contain specific quantities of various food types. The type of lunch thus required is commonly called a Type A lunch. The Secretary's goal in requiring Type A lunches, although not promulgated as a formal requirement, is to provide students, over time, one-third of the recommended dietary allowances published by the National Academy of Sciences.

Independent laboratory tests we sponsored showed that compliance with Type A requirements did not insure the achievement of one-third of the recommended dietary allowances. The tests showed that sample lunches from three cities--New York, Cleveland, and Los Angeles--were significantly short in as many as 8 of the 13 nutrients tested.

The Department recently proposed changes to the Type A lunch requirements, but the only relevant change for 10- to 12-year olds is that three additional slices of bread would be required each week, and alternatives to bread, such as rice or macaroni, would be permitted. We do not believe these changes, if adopted, will overcome the nutritional shortages we found.

We also sponsored tests of the microbiological safety and quality of lunches served in the three cities. Although the tests showed that the lunches were safe to eat, we noted that the testing and standards used by the local authorities varied considerably and that there were no Federal procedures or standards for microbiological testing in the program other than for milk. Various experts told us that mandatory minimum Federal procedures and standards are not warranted because food contamination is not a serious problem. We find it difficult to argue with this logic; however, if localities are going to continue voluntary testing, it might be more effective for them to use consistent procedures and compare the results against uniform standards.

In another phase of our review, we selected a random sample of lunches served in New York City during a 6-week test period and had them tested for compliance with Type A requirements. At least 40 percent did not contain the types or quantities of foods required. In a March 1977 briefing of Department officials and again in our June 15, 1977, report to the Secretary (see app. II), we recommended that the Department determine the extent to which such noncompliance is a nationwide problem. The Department has acknowledged that compliance with Type A requirements is a nationwide problem and plans to make changes in its regulations to deal with this problem. The changes would, among other things, require States to develop standard vendor contracts; require contract specifications, including grade, style, weight, and ingredients, of meal components; and require that no Federal payment be made for meals not meeting contract requirements. The Department also plans to require States to develop, implement, and monitor plans to insure compliance with Type A requirements under certain conditions. These plans need to be translated into concrete and effective requirements with related oversight procedures to insure compliance. Also, additional measures need to be taken, as recommended below.

Food waste has long been a recognized problem in the school lunch program and has been discussed in several earlier reports by our Office. Our recent observations of meals served in New York City confirm our earlier findings. A number of different factors contribute to food waste--as discussed in chapter 4 of our report to the Congress, "The Impact of Federal Commodity Donations on the School Lunch Program" (CED-77-32, Jan. 31, 1977). Although the factors in New York City were in line with those discussed in that report, the most important one seemed to

be that the students did not like the food that was served. The Department is currently studying waste in the school lunch program and expects the results to be available in several months.

RECOMMENDATIONS TO THE
SECRETARY OF AGRICULTURE

If the goal of providing one-third of the recommended dietary allowances is to be achieved, we recommend that the Department modify the requirements for school lunches beyond the changes recently proposed. Increasing the quantities of food required may not be a satisfactory solution because children frequently do not eat all of the food served to them in school lunches now. New approaches may be needed, and we recommend that consideration be given to other alternatives as discussed in appendix I. (See p. 10 of this report.)

We also recommend that the Department consider the possibility and feasibility of publishing uniform procedures and standards for those localities conducting microbiological testing in the school lunch program. Other Federal agencies, such as the Food and Drug Administration, would need to be consulted in the development of such procedures and standards.

To achieve compliance with Federal school lunch meal requirements, we recommend that the Department

- develop explicit instructions on how and when Federal, State, and local monitoring of this compliance is to be performed (Department officials said they plan to develop such instructions);
- check to see that the instructions are being followed and determine if the Federal requirements are being met both by vendors and schools which prepare their own meals; and
- stop Federal reimbursement in cases where non-compliance with Federal requirements is not promptly corrected.

In our January 31, 1977, report (CED-77-32), we recommended that the Department

- undertake greater promotion of nutrition education as a part of school health programs in an effort to reduce plate waste,
- make greater efforts to encourage State and local school authorities to improve school lunch facilities and atmosphere, and
- include a nutrient standard as an option to the Type A lunch pattern to provide menu planners with greater flexibility in using Federal commodities.

All of these measures should help reduce food waste. Some initial steps have been taken on these recommendations, as described below, but implementation has not been completed.

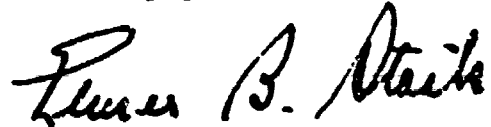
- Recent legislation provides for more nutrition education.
- The Department has proposed that schools be required to involve students in efforts to enhance the school lunch eating environment and has taken other steps to encourage the improvement of school lunch facilities.
- An alternate nutrient standard has not been proposed but, in conjunction with the Department's proposed changes to school lunch requirements, it has requested public comments on this approach to menu planning. It plans to consider these comments in determining if such an approach is feasible.

Our most recent review of the school lunch program has reinforced our view that these measures are needed to help reduce food waste and we again recommend that they be implemented. In addition, we recommend that the Department encourage local school authorities to use decentralized menu planning to meet the tastes of children from various cultural and ethnic backgrounds and offer a wide selection of foods that are highly preferred and palatable.

B-178564

As arranged with your office, we are sending copies of this report to the Secretary of Agriculture and to various interested parties. Copies will be furnished to others upon request.

Sincerely yours,

A handwritten signature in cursive script, reading "Luther B. Staitz". The signature is written in black ink and is positioned below the typed name.

Comptroller General
of the United States

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UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

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FRIDAY, SEPTEMBER 30, 1977

STATEMENT FOR THE RECORD DURING HEARINGS
BEFORE THE
SENATE SELECT COMMITTEE ON
NUTRITION AND HUMAN NEEDS
ON NUTRITIONAL AND FOOD QUALITY ASPECTS OF
THE NATIONAL SCHOOL LUNCH PROGRAM

MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE:

WE ARE HERE TODAY AT THE REQUEST OF THE COMMITTEE TO DISCUSS THE SCHOOL LUNCH PROGRAM--THE LARGEST OF THE SEVERAL FEDERALLY FUNDED CHILD-FEEDING PROGRAMS. THE FOOD AND NUTRITION SERVICE, DEPARTMENT OF AGRICULTURE, ADMINISTERS THE PROGRAM THROUGH STATE EDUCATION AGENCIES. OUR OFFICE IS COMPLETING A REVIEW OF CERTAIN NUTRITIONAL AND FOOD QUALITY ASPECTS OF THE PROGRAM PURSUANT TO A REQUEST BY CONGRESSMAN FREDERICK W. RICHMOND. GAO'S STATEMENT TODAY WILL SUMMARIZE OUR FINDINGS AND OUR SUGGESTIONS FOR IMPROVING THE SCHOOL LUNCH PROGRAM.

THE SCHOOL LUNCH PROGRAM OPERATES IN THE 50 STATES, THE DISTRICT OF COLUMBIA, PUERTO RICO, GUAM, THE VIRGIN ISLANDS, AMERICAN SAMOA, AND THE TRUST TERRITORY OF THE PACIFIC ISLANDS. IN FISCAL YEAR 1976, OVER 4.1 BILLION LUNCHES WERE SERVED IN NEARLY 90,000 SCHOOLS PARTICIPATING IN THE PROGRAM. DURING THE PEAK MONTH (NOVEMBER) IN SCHOOL YEAR 1976-77, ABOUT 25.3 MILLION CHILDREN WERE SERVED LUNCHES DAILY. THE VALUE OF FEDERAL CASH AND COMMODITIES PROVIDED TO THE SCHOOL LUNCH PROGRAM WAS ABOUT \$1.9 BILLION IN FISCAL YEAR 1976.

NUTRITION PROVIDED BY LUNCHES

THE NATIONAL SCHOOL LUNCH ACT (42 U.S.C. 1758) REQUIRES THAT LUNCHES SERVED BY PARTICIPATING SCHOOLS MEET NUTRITIONAL STANDARDS PRESCRIBED BY THE SECRETARY OF AGRICULTURE. THE SECRETARY HAS DETERMINED THAT, AS A GOAL, SCHOOL LUNCHES SHOULD, OVER TIME, PROVIDE ONE-THIRD OF THE NUTRITION CALLED FOR BY THE RECOMMENDED DIETARY ALLOWANCES (RDA) DEVELOPED BY THE NATIONAL ACADEMY OF SCIENCES. TO ACHIEVE THIS GOAL, THE SECRETARY REQUIRES THAT SCHOOL LUNCHES CONTAIN PRESCRIBED QUANTITIES OF VARIOUS TYPES OF FOODS. THE REQUIRED MEAL PATTERN IS BASED ON THE NUTRITIONAL NEEDS OF 10-TO-12 YEAR OLD CHILDREN AND IS COMMONLY CALLED THE TYPE A LUNCH.

TYPE A LUNCHES ARE REQUIRED TO CONTAIN TWO OUNCES OF MEAT OR OTHER HIGH PROTEIN FOOD, THREE-QUARTERS CUP OF TWO OR MORE FRUITS AND/OR VEGETABLES, ONE SLICE OF ENRICHED BREAD, AND ONE HALF PINT OF FLUID MILK. ADJUSTMENTS IN THE QUANTITIES REQUIRED BY THE TYPE A PATTERN ARE PERMITTED FOR YOUNGER AND OLDER CHILDREN.

ALTHOUGH SCHOOL LUNCHES ARE NOT SPECIFICALLY REQUIRED TO PROVIDE ONE-THIRD RDA, THE TYPE A PATTERN WAS DESIGNED TO ACHIEVE THE GOAL OF ONE-THIRD RDA OVER TIME, EXCEPT FOR CALORIES. HOWEVER, INDEPENDENT LABORATORY TESTS WE SPONSORED SHOWED THAT ADHERING TO THE TYPE A PATTERN DOES NOT ENSURE THAT THIS GOAL WILL BE ACHIEVED.

WE CONTRACTED WITH THE WARP INSTITUTE IN MADISON, WISCONSIN--NATIONALLY RECOGNIZED EXPERTS IN NUTRITIONAL

TESTING--TO TEST 60 SCHOOL LUNCHES WE OBTAINED FROM 12 ELEMENTARY SCHOOLS IN THREE CITIES--NEW YORK, CLEVELAND, AND LOS ANGELES. ALTHOUGH IT WAS NOT FEASIBLE FOR US TO SELECT A SCIENTIFIC RANDOM SAMPLE OF LUNCHES FOR THIS PHASE OF OUR WORK, WE SELECTED SCHOOLS SERVING TYPES OF MEALS COMMONLY SERVED TO 10-TO-12 YEAR OLD CHILDREN IN THE RESPECTIVE CITIES.

FOR FIVE CONSECUTIVE DAYS IN EACH OF THE 12 SCHOOLS, WE PURCHASED SCHOOL LUNCHES JUST LIKE THE ONES BEING SERVED TO THE CHILDREN. WE MEASURED THE LUNCHES AND SUPPLEMENTED THEM IF NECESSARY TO MAKE SURE THEY MET THE REQUIREMENTS OF THE TYPE A LUNCH PATTERN. IN ACCORDANCE WITH DETAILED INSTRUCTIONS PROVIDED BY WARF, WE PACKED AND FROZE THE LUNCHES AND SHIPPED THEM TO WARF IN DRY ICE; THEY ARRIVED AT WARF STILL FROZEN AND IN EXCELLENT CONDITION. WARF RAN TESTS TO DETERMINE THE QUANTITIES OF 13 DIFFERENT NUTRIENTS CONTAINED IN THE LUNCHES. THE RESULTS WERE ANALYZED TO SEE WHETHER EACH SCHOOL'S LUNCHES PROVIDED ONE-THIRD OF THE RDA FOR 10-TO-12 YEAR OLD CHILDREN OVER THE 5 DAY PERIOD.

THE CURRENT TYPE A PATTERN IS BASED ON THE 1968 VERSION OF RDA WHICH INCLUDED 17 NUTRIENTS. WE TESTED FOR 12 OF THESE NUTRIENTS PLUS ZINC, WHICH WAS ADDED TO THE RDA IN 1974. ON THE RECOMMENDATIONS OF PROFESSIONAL NUTRITIONISTS, WE DID NOT RUN TESTS ON THE OTHER FIVE NUTRIENTS IN THE RDA BECAUSE RELIABLE TESTING TECHNIQUES WERE NOT AVAILABLE OR BECAUSE IT WAS VERY UNLIKELY THAT THERE WOULD BE SHORTAGES.

THE TESTS SHOWED THAT, OVER THE 5 DAYS, THE LUNCHES FROM EACH SCHOOL PROVIDED THE RECOMMENDED AMOUNTS OF 5 OF THE 13 NUTRIENTS--PROTEIN, PHOSPHORUS, NIACIN, IODINE, AND VITAMIN C. HOWEVER, THERE WERE SIGNIFICANT SHORTAGES (MORE THAN 5 PERCENT OF RDA) AT EACH OF THE 12 SCHOOLS IN ONE OR MORE OF THE OTHER 8 NUTRIENTS. FOR EXAMPLE, LUNCHES FROM 7 OF THE 12 SCHOOLS HAD DEFICIENCIES OF 19 TO 50 PERCENT IN VITAMIN A; 9 SCHOOLS HAD DEFICIENCIES OF 13 TO 42 PERCENT IN IRON; AND ALL 12 SCHOOLS HAD DEFICIENCIES OF 5 TO 35 PERCENT IN MAGNESIUM. LUNCHES FROM ALL 12 SCHOOLS ALSO HAD DEFICIENCIES OF 7 TO 42 PERCENT IN ZINC. THERE ALSO WERE LESSER DEFICIENCIES IN CALORIES, THIAMINE, CALCIUM, AND VITAMIN B6.

WE BELIEVE THESE TESTS INDICATE THAT THE TYPE A PATTERN IS NOT ADEQUATE TO ENSURE ACHIEVEMENT OF THE PROGRAM'S NUTRITIONAL GOAL. THE DEPARTMENT RECENTLY PROPOSED A NEW LUNCH PATTERN GIVING SCHOOLS MORE FLEXIBILITY IN ACHIEVING ONE-THIRD RDA FOR DIFFERENT AGE GROUPS, BUT THE ONLY RELEVANT CHANGE FOR 10-TO 12-YEAR OLDS IS THAT EIGHT SLICES OF BREAD WILL BE REQUIRED EACH WEEK INSTEAD OF FIVE. ALSO, ALTERNATIVES TO BREAD, SUCH AS RICE OR MACARONI, WOULD BE PERMITTED. EXCEPT FOR CALORIES, THESE CHANGES DO NOT APPEAR SUFFICIENT TO OVERCOME THE NUTRITIONAL SHORTAGES INDICATED BY OUR CONTRACTOR'S TESTS.

THE DEPARTMENT NEEDS TO FURTHER MODIFY THE SCHOOL LUNCH REQUIREMENTS IF THE GOAL OF PROVIDING ONE-THIRD RDA IS TO BE ACHIEVED. INCREASING THE QUANTITIES OF FOOD REQUIRED BY THE TYPE A PATTERN MAY NOT BE A SATISFACTORY SOLUTION BECAUSE SOME

FOODS MIGHT BE INCREASED TO EXCESSIVE QUANTITIES AND BECAUSE, AS DISCUSSED LATER IN THIS STATEMENT, CHILDREN FREQUENTLY DO NOT EAT ALL OF THE FOOD SERVED TO THEM IN SCHOOL LUNCHES. NEW APPROACHES MAY BE NEEDED; CONSIDERATION SHOULD BE GIVEN TO OPTIONAL USE OF A STANDARD REQUIRING SPECIFIC NUTRIENT CONTENT (AS DISCUSSED LATER IN THIS STATEMENT), CAREFUL EXPANSION OF THE USE OF ENRICHED FOODS, MORE DECENTRALIZED AND MORE FLEXIBLE MENU PLANNING, OR OTHER INNOVATIVE TECHNIQUES.

MICROBIOLOGICAL QUALITY AND SAFETY OF LUNCHES

TO OBTAIN AN INDICATION OF WHETHER SCHOOL LUNCHES ARE OF GOOD QUALITY AND SAFE TO EAT ACCORDING TO MICROBIOLOGICAL TESTS, WE CONTRACTED WITH PRIVATE LABORATORIES IN THE THREE CITIES TO OBTAIN SAMPLE LUNCHES AND CONDUCT BACTERIA TESTS. THE LABORATORIES PICKED UP 60 ADDITIONAL LUNCHES FROM THE SCHOOLS AND TESTED THEM FOR RECOGNIZED INDICATORS OF QUALITY AND SAFETY--TOTAL BACTERIA PLATE COUNT, FECAL COLIFORM, E. COLI, STAPHYLOCOCCUS, SALMONELLA, SHIGELLA, AND CLOSTRIDIUM PERFRINGENS.

THERE ARE NO NATIONAL STANDARDS FOR BACTERIAL CONTENT IN SCHOOL LUNCHES OR FOR TESTING PRACTICES OTHER THAN FOR MILK. ACCORDINGLY, THE LABORATORIES TESTED LUNCHES IN ALL THREE CITIES AGAINST THE NEW YORK CITY HEALTH CODE STANDARD FOR BACTERIAL CONTENT SO THAT ALL OF OUR TEST RESULTS WOULD BE BASED ON THE SAME STANDARD.

A FOOD AND DRUG ADMINISTRATION (FDA) OFFICIAL AND AN INDEPENDENT MICROBIOLOGIST EXPLAINED THAT THE NEW YORK CITY

STANDARDS CONTAIN SAFETY MARGINS. THEY REVIEWED THE RESULTS OF THE TESTS WE HAD CONDUCTED AND, ALTHOUGH 20 OF THE 420 BACTERIAL READINGS EXCEEDED NEW YORK CITY STANDARDS BY SMALL AMOUNTS, THEY CONCLUDED THAT ALL THE LUNCHES WERE SAFE TO EAT BECAUSE EACH OF THE READINGS EXCEEDING THE STANDARDS WAS WITHIN THE SAFETY MARGINS.

STATE AND LOCAL STANDARDS FOR BACTERIA IN SCHOOL LUNCHES VARY CONSIDERABLY. IN 1975, FDA ESTIMATED THAT ONLY HALF OF THE STATES HAD OR WERE IN THE PROCESS OF ESTABLISHING BACTERIAL STANDARDS OR GUIDELINES FOR FOODS. ACCORDING TO AN FDA ANALYSIS, STATE STANDARDS AND GUIDELINES VARY BY FOODS COVERED, TYPES OF BACTERIA, AND PERMISSIBLE LEVELS OF THE BACTERIA. SOME STATES APPLY STANDARDS FOR BACTERIAL LEVELS EQUALLY TO ALL FOODS. OTHER STATES HAVE LEVELS FOR ONLY ONE OR TWO SPECIFIC FOOD ITEMS.

ALTHOUGH SOME LOCAL BACTERIAL TESTING WAS BEING PERFORMED IN EACH OF THE THREE CITIES WE VISITED, THE TESTING PRACTICES VARIED GREATLY. FOR INSTANCE, ONE CITY REGULARLY TESTED FROZEN ITEMS FOR EACH OF THE BACTERIA FOR WHICH WE HAD TESTS CONDUCTED. GENERALLY, ITEMS PURCHASED EITHER FRESH OR CANNED WERE TESTED FOR BACTERIA ONLY WHEN SOMETHING APPEARED WRONG WITH THEM OR WHEN SOMEONE COMPLAINED ABOUT THEM.

IN ANOTHER CITY TWO BACTERIAL READINGS WERE TAKEN DURING THE INITIAL COOKING OF RAW FOODS--TOTAL BACTERIA PLATE COUNT AND COLIFORM. IF EITHER COUNT WAS EXCESSIVE, THE LABORATORY CONDUCTED OTHER TESTS AS NEEDED. THIS PROCEDURE WAS ALSO

APPLIED TO FROZEN FOODS AND CANNED GOODS IF SOMETHING SEEMED WRONG WITH THEM.

IN THE THIRD CITY FROZEN FOODS WERE TESTED FOR YEAST, MOLD, COLIFORM, AND TOTAL PLATE COUNT. ALL FOODS WERE TESTED BY KITCHEN STAFFS FOR FRESHNESS, TEMPERATURE, AND TASTE, AND THE EQUIPMENT USED IN PREPARING THE FOOD WAS TESTED FOR BACTERIA.

DESPITE THE INCONSISTENCIES IN LOCAL TESTING PRACTICES AND STANDARDS, VARIOUS EXPERTS IN BACTERIA TESTING TOLD US THAT MINIMUM NATIONAL STANDARDS FOR SCHOOL LUNCHES, ALTHOUGH THEORETICALLY DESIRABLE, ARE NOT PRACTICAL OR ARE NOT JUSTIFIED BY THE SMALL NUMBER OF CASES OF ILLNESS CAUSED BY CONTAMINATED FOODS. WE FIND IT DIFFICULT TO ARGUE WITH THIS LOGIC. IF LOCALITIES ARE GOING TO CONTINUE CONDUCTING BACTERIAL TESTS, HOWEVER, IT MIGHT BE WORTHWHILE FOR THE DEPARTMENT OF AGRICULTURE TO GIVE THE IDEA OF UNIFORM TESTING PRACTICES AND STANDARDS SOME FURTHER THOUGHT.

MEETING TYPE A LUNCH REQUIREMENTS

IN A SEPARATE SERIES OF TESTS, WE USED STATISTICAL SAMPLING TECHNIQUES TO ESTIMATE THE NUMBER OF SCHOOL LUNCHES SERVED IN NEW YORK CITY SCHOOLS THAT FAILED TO MEET TYPE A REQUIREMENTS FOR QUANTITY AND TYPE OF FOOD SERVED DURING A 6-WEEK PERIOD IN JANUARY AND FEBRUARY 1977.

WE HAD TESTS MADE OF EACH TYPE OF LUNCH SERVICE IN NEW YORK CITY SCHOOLS--CAFETERIA STYLE, MEAL PACK, BASIC (SOUP AND SANDWICH), AND BULK (PREPARED-FROZEN COMPONENTS). WE

PICKED UP THE LUNCHES AND DELIVERED THEM TO DIETITIANS AT A VETERANS ADMINISTRATION HOSPITAL IN NEW YORK CITY WHO TESTED THE LUNCHES FOR COMPLIANCE WITH TYPE A REQUIREMENTS.

FROM OUR SAMPLE WE ESTIMATE, WITH 90 PERCENT CERTAINTY, THAT AT LEAST 40 PERCENT OF THE SCHOOL LUNCHES SERVED IN NEW YORK CITY DURING OUR TEST PERIOD DID NOT MEET TYPE A REQUIREMENTS; FEDERAL REIMBURSEMENT FOR THESE NONCOMPLYING LUNCHES WOULD BE AT LEAST \$3.7 MILLION. FACTORS CONTRIBUTING TO THIS SITUATION WERE THAT ABOUT 20 PERCENT OF NEW YORK CITY SCHOOLS DID NOT HAVE SCALES TO WEIGH MEAL COMPONENTS AND 16 PERCENT DID NOT HAVE PRE-PORTIONED SERVING UTENSILS TO ENSURE THAT QUANTITIES REQUIRED BY THE TYPE A PATTERN WERE BEING SERVED. THE RESULTS OF THESE TESTS ARE DESCRIBED IN MORE DETAIL IN OUR JUNE 15, 1977, REPORT TO THE SECRETARY OF AGRICULTURE (CED-77-89), A COPY OF WHICH IS ATTACHED TO THIS STATEMENT.

THE DEPARTMENT OF AGRICULTURE HAS DELEGATED RESPONSIBILITY FOR MONITORING THE SCHOOL LUNCH PROGRAM TO THE NEW YORK STATE DEPARTMENT OF EDUCATION. ALTHOUGH AGRICULTURE REQUIRES COMPLIANCE WITH THE TYPE A PATTERN, IT DOES NOT SPECIFY HOW COMPLIANCE IS TO BE TESTED. THE STATE'S REVIEWS HAVE BEEN CONCERNED PRIMARILY WITH CHILDREN'S ELIGIBILITY TO RECEIVE FREE OR REDUCED PRICE LUNCHES AND WITH PROGRAM ACCOUNTABILITY, AND ONLY LIMITED ATTENTION HAS BEEN GIVEN TO COMPLIANCE WITH TYPE A REQUIREMENTS. THE STATE HAD NEVER WITHHELD PROGRAM FUNDS FROM NEW YORK CITY BECAUSE OF TYPE A NONCOMPLIANCE.

IN MARCH 1977, WE BRIEFED THE DEPARTMENT, THE STATE, CITY SCHOOL OFFICIALS, AND CONGRESSMAN RICHMOND ON THE RESULTS OF OUR TESTS. AT THE CONGRESSMAN'S REQUEST, A JOINT FEDERAL, STATE, AND CITY TASK FORCE EVALUATED NEW YORK CITY'S SCHOOL LUNCH PROGRAM AND MADE RECOMMENDATIONS TO CORRECT IDENTIFIED PROBLEMS. TESTING AND MONITORING OF TYPE A LUNCH REQUIREMENTS IS TO BE EXPANDED AND EMPHASIZED BY THE DEPARTMENT AND THE STATE IN THE 1977-78 SCHOOL YEAR.

FAILURE TO MEET THE TYPE A REQUIREMENTS RESULTS IN SCHOOL CHILDREN BEING FURTHER SHORT-CHANGED IN RECEIVING THE NUTRIENTS WHICH THE FEDERALLY SUBSIDIZED LUNCH IS DESIGNED TO PROVIDE. WE FIRST RECOMMENDED BACK IN MARCH THAT THE DEPARTMENT DETERMINE THE EXTENT TO WHICH THE PROBLEM OF NONCOMPLIANCE WITH THE TYPE A LUNCH REQUIREMENTS FOUND IN NEW YORK CITY IS A NATIONWIDE PROBLEM. THE DEPARTMENT HAS ACKNOWLEDGED THIS TO BE A NATIONWIDE PROBLEM AND HAS TAKEN INITIAL STEPS TOWARD REQUIRING BETTER MONITORING OF COMPLIANCE WITH THE TYPE A REQUIREMENTS. HOWEVER, MUCH MORE NEEDS TO BE DONE; THE DEPARTMENT SHOULD DEVELOP SPECIFIC INSTRUCTIONS ON HOW FEDERAL, STATE, AND LOCAL MONITORING IS TO BE PERFORMED. DEPARTMENT OFFICIALS TOLD US THEY PLAN TO DEVELOP SUCH INSTRUCTIONS.

FOOD WASTE

FOOD WASTE HAS LONG BEEN A RECOGNIZED PROBLEM IN THE SCHOOL LUNCH PROGRAM AND HAS BEEN DISCUSSED IN SEVERAL EARLIER REPORTS BY OUR OFFICE. OUR RECENT OBSERVATIONS OF MEALS SERVED IN NEW YORK CITY SCHOOLS CONFIRMED OUR EARLIER FINDINGS.

WE FOUND THAT CHILDREN CONSISTENTLY REJECTED VEGETABLE ITEMS AS WELL AS FRUITS AND MILK.

SCHOOL LUNCH PROGRAM PERSONNEL MENTIONED THE FOLLOWING FACTORS AS CONTRIBUTING TO PLATE WASTE:

- LACK OF NUTRITION EDUCATION AMONG THE CHILDREN AT HOME AND UNFAMILIARITY WITH MANY VEGETABLE ITEMS DUE TO CULTURAL AND ETHNIC DIFFERENCES IN NEW YORK CITY.
- POOR LUNCHROOM ATMOSPHERE AND CONDITIONS, SUCH AS SHORT AND HURRIED LUNCH PERIODS AND LACK OF ADEQUATE SUPERVISION OF STUDENTS.
- PEER GROUP PRESSURES NOT TO EAT CERTAIN FOODS.
- THE CHILDREN TIRE OF EATING THE SAME FOOD ITEMS OVER AND OVER AGAIN.

THESE ARE IN LINE WITH THE REASONS CITED IN OUR JANUARY 31, 1977, REPORT ENTITLED "THE IMPACT OF FEDERAL COMMODITY DONATIONS ON THE SCHOOL LUNCH PROGRAM" (CED-77-32).

ALTHOUGH THESE FACTORS MAY IMPACT ON FOOD CONSUMPTION, IT APPEARED TO US THAT FOOD WASTE WAS MOST OFTEN CAUSED BY STUDENTS SIMPLY NOT LIKING THE ITEMS BEING SERVED. IN ONE SCHOOL, FOR EXAMPLE, SEVERAL CHILDREN SPECIFICALLY REQUESTED THAT GREEN BEANS NOT BE ADDED TO THEIR LUNCHES. WHEN THEIR REQUESTS WERE DENIED THEY THREW THE ITEM AWAY UNTOUCHED. WE ALSO FOUND THAT THE SAME ITEMS WERE NOT CONSISTENTLY ACCEPTED OR REJECTED. FOR EXAMPLE, TUNA FISH WAS WELL RECEIVED IN ONE SCHOOL, BUT 30 PERCENT OF IT WAS WASTED IN ANOTHER SCHOOL.

ALTHOUGH COMPREHENSIVE STUDIES ARE NOT AVAILABLE ON THE EFFECTIVENESS OF NUTRITION EDUCATION IN IMPROVING CHILDREN'S DIETS, THERE ARE SOME INDICATIONS THAT WELL-DESIGNED AND IMPLEMENTED NUTRITION EDUCATION PROGRAMS HAVE A FAVORABLE IMPACT, INCLUDING SIGNIFICANT REDUCTIONS IN PLATE WASTE. HOWEVER, NUTRITION EDUCATION HAS A LOW PRIORITY WITH SCHOOL ADMINISTRATORS RESPONSIBLE FOR CURRICULUM PLANNING.

THE DEPARTMENT IS CURRENTLY STUDYING PLATE WASTE IN THE SCHOOL LUNCH PROGRAM ON A NATIONAL SCALE AND EXPECTS THE RESULTS TO BE AVAILABLE IN LATE 1977.

WE BELIEVE THAT TO REDUCE FOOD WASTE THE DEPARTMENT SHOULD:

- ENCOURAGE MORE NUTRITION EDUCATION IN SCHOOL HEALTH PROGRAMS TO DEVELOP PROPER EATING HABITS AT AN EARLY AGE. WE NOTE THAT THE DEPARTMENT'S PROPOSED CHANGES TO THE SCHOOL LUNCH REGULATIONS ENCOURAGE NUTRITION EDUCATION AND THAT LEGISLATION PRESENTLY BEFORE A HOUSE-SENATE CONFERENCE COMMITTEE CALLS FOR EXPANDED NUTRITION EDUCATION. WE SUPPORT THESE CHANGES.
- ENCOURAGE LOCAL SCHOOL AUTHORITIES TO USE DECENTRALIZED MENU PLANNING TO MEET THE TASTES OF CHILDREN FROM VARIOUS CULTURAL AND ETHNIC BACKGROUNDS AND OFFER A WIDE SELECTION OF FOODS THAT ARE HIGHLY PREFERRED AND PALATABLE. THE DEPARTMENT'S PROPOSED REGULATIONS WOULD REQUIRE STUDENT INVOLVEMENT IN MENU PLANNING AND ENCOURAGE PARENT INVOLVEMENT IN SCHOOL LUNCH ACTIVITIES.

WE SUPPORT THIS PROPOSAL, BUT WE BELIEVE PARENT INVOLVEMENT IN MENU PLANNING COULD HAVE SUBSTANTIAL POTENTIAL FOR REDUCING PLATE WASTE AND SHOULD BE SPECIFICALLY REQUIRED.

--ENCOURAGE LOCAL SCHOOL AUTHORITIES TO IMPROVE LUNCHROOM ATMOSPHERE AND CONDITIONS.

--CONSIDER THE USE OF A NUTRIENT STANDARD AS AN OPTION TO THE TYPE A PATTERN TO PROVIDE GREATER FLEXIBILITY IN MENU PLANNING. THE PROPOSED REGULATIONS STATE THAT THE DEPARTMENT IS CONTINUING TO EXPLORE ALTERNATIVES TO THE TRADITIONAL MENU PLANNING APPROACH AND REQUESTS PUBLIC COMMENT ON THE USE OF A NUTRIENT STANDARD.



UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

COMMUNITY AND ECONOMIC
DEVELOPMENT DIVISION

B-178564

June 15, 1977

The Honorable
The Secretary of Agriculture

Dear Mr. Secretary:

At the request of Congressman Frederick W. Richmond, we are reviewing various food aspects of the school lunch program in New York City. Although our work is not complete, we note one aspect of the program requiring immediate attention and action by the Department of Agriculture. We will include additional information on the results of our review in a subsequent report.

The Department's minimum Type A lunch requirements provide the framework for nutritionally adequate school lunches and consist of specified amounts of protein-rich foods, vegetables and fruits, bread, and milk. (See enc. I.) We estimate, with 90-percent certainty, that during our test period at least 40 percent of the lunches served to children in New York City schools did not meet these nutritional requirements. Department and New York State school lunch officials need to take immediate steps to assure that lunches served in New York City, and elsewhere, meet minimum Type A requirements.

In March 1977 we briefed Department, State, and City school lunch officials and Congressman Richmond's office on the results of this aspect of our review in New York City. City officials were given access to the details supporting our findings. Details on our tests and the results follow.

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PROGRAM ADMINISTRATION

Under the school lunch program, Federal subsidies are provided through the State to school districts on the basis of the number of Type A lunches reported as served to children in participating schools. In New York City about 96 million school lunches were served during the 1975-76 school year at a total cost of over \$79.4 million. Federal reimbursements were \$62 million (78 percent), State reimbursements were \$2.8 million (4 percent), and the City provided the balance of \$14.6 million (18 percent).

The school lunch program is administered by the Department's Food and Nutrition Service at the Federal level, the New York State Education Department's Bureau of School Food Management at the State level, and the New York City Board of Education's Bureau of School Lunches at the City schools. Many of the lunch components--especially for meal pack style lunches--are purchased from vendors and assembled into complete lunches by local school employees. In such cases, it may be possible for the City to obtain refunds from vendors that supplied meal components not meeting Type A requirements.

TESTING METHODOLOGY AND RESULTS

We used statistical sampling techniques to estimate the number of school lunches served in New York City schools that met or failed to meet Type A requirements during our test periods. We tested each of the four types of lunches served--cafeteria style, meal pack, basic (primarily soup and sandwiches), and bulk (prepared foods frozen in bulk). The first two types were tested between January 10 and February 9, 1977; the other two, between February 10 and 22, 1977. Of the lunches served, about 57 percent were cafeteria style, 30 percent were meal pack, 7 percent were bulk, and 6 percent were basic.

Each type of lunch was tested as a separate sampling universe which enabled us to project the results to all lunches of that type served during the respective test periods.

We scientifically selected and sampled 40 cafeteria style, 40 meal pack, 16 bulk, and 16 basic lunches. Respective school lunch managers told us that each sample lunch we obtained was a Type A lunch.

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Dietitians at a Veterans Administration Hospital laboratory in New York City tested the lunches for compliance with Type A requirements basically using a weight and measures test. The results are shown in the following table.

Results of Tests for Type A Lunch Compliance
in New York City Schools

Lunch style	Total sampled	Passed	Failed	Area falling short of requirements				
				Meat	Vegetable	Meat and vegetable	Bread	Milk
Cafeteria style	40	20	20	6	9	4	0	1
Meal pack	40	18	22	7	8	7	0	0
Bulk	16	6	10	5	6	1	0	0
Basic	16	9	7	1	4	2	0	0

As noted above, some of the meals had two components failing to meet minimum requirements. The amounts by which the lunches failed varied from a small part of one minimum component (vegetable), to almost two-thirds of another (meat), and to all of a third (milk).

The sample results, when projected to all lunches served during the test periods, show that:

--At least 40 percent of all cafeteria style lunches and 45 percent of all meal pack lunches served in New York City schools during the period January 10 through February 9 did not meet Type A requirements.^{1/}

--At least 45 percent of all bulk lunches and 27 percent of all basic lunches served in New York City schools during the period February 10 through 22 did not meet the Type A requirements.^{1/}

^{1/}There is 90-percent certainty that a test of every lunch served would show a failure rate at least as much as our sample results.

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--Federal reimbursement for lunches not meeting the Type A requirements during the test periods could be at least \$3,718,000. (See encs. II and III.)

The Service has delegated responsibility of school lunch program monitoring to New York State. The State makes administrative reviews of program operations to see whether school districts are complying with program regulations. These reviews have been primarily concerned with school lunch participant eligibility and program accountability. On occasion, the reviews have uncovered some noncompliances with the Type A lunch requirements due to one or more missing lunch components. In such cases, Service regulations require that State agencies assure corrective action. According to a New York State school lunch official, the State assured that corrective action was taken through followup reviews. The same State official said that program funds have never been withheld from New York City because of noncompliance with Type A lunch requirements.

During a March 28, 1977, meeting held by Congressman Richmond on New York City's school lunch program, the Congressman suggested that a joint Department/State task force be formed to correct program problems.

RECOMMENDATIONS

Because our projections showed that a significant number of school lunches served in New York City fell short of meeting the Department's Type A requirements, we recommend that you direct the Administrator, Food and Nutrition Service, to:

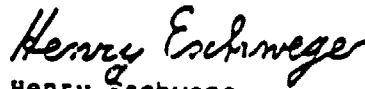
- Determine the extent to which the problem of noncompliance with the Type A lunch requirements found in New York City is a national problem requiring broad, major corrective measures.
- See that State or City officials take appropriate action to establish and collect claims against vendors furnishing meal components not meeting contract specifications.
- Take appropriate action concerning Federal reimbursement for lunches served in New York City and elsewhere that failed to meet Type A lunch requirements.

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As you know, section 236 of the Legislative Reorganization Act of 1970 requires the head of a Federal agency to submit a written statement on actions taken on our recommendations to the House Committee on Government Operations and the Senate Committee on Governmental Affairs not later than 60 days after the date of the report and to the House and Senate Committees on Appropriations with the agency's first request for appropriations made more than 60 days after the date of the report.

We are sending copies of this report to the above Committees' the House Committee on Education and Labor and the Senate Committee on Agriculture, Nutrition, and Forestry; other interested Committees and Members of Congress, including Congressman Richmond; the Director, Office of Management and Budget; the Administrator, Food and Nutrition Service; and the Director, Office of Audit.

Sincerely yours,



Henry Eschwege
Director

Enclosures - 3

(ENCLOSURE I)

The Type A Lunch Pattern . . .

The nutritional goal for school lunches is to furnish at least one-third of the Recommended Daily Dietary Allowances of the National Research Council for children of various age groups. The Type A lunch requirements provide the framework for nutritionally adequate school lunches. The kinds and amounts of foods listed in the Type A lunch pattern are based on the 1968 Recommended Daily Dietary Allowances for 10- to 12-year old boys and girls.

As specified in the National School Lunch Regulations, a Type A lunch shall contain as a minimum each of the following food components in the amounts indicated:

MEAT AND MEAT ALTERNATE

Two ounces (edible portion as served) of lean meat, poultry or fish; or two ounces of cheese; or one TBS or one-half cup of cooked dry beans or dry peas; or four TBS-amounts of peanut butter; or an equivalent of any combination of the above-listed foods. To be counted in meeting this requirement, these foods must be served as a main dish or in a main dish and one other main item.

VEGETABLES AND FRUITS

Three-fourths cup serving consisting of two or more vegetables or fruits or 1 TBS. A serving (1/2 cup or more) of full-strength vegetable or fruit juice may be counted to meet not more than 1/2 cup of this requirement.

BREAD

One slice of whole-grain or enriched bread; or a serving of other bread such as cornbread, biscuits, rolls, muffins, made of whole-grain or enriched meal or flour.

FLUID MILK

One-half pint of fluid milk as a beverage.

Add Other Foods not part of the lunch requirements as needed to complete lunches, to help improve acceptability and to provide additional food energy and other nutrients.

To help assure that all Type A lunches meet the nutritional goal, it is recommended that lunches include:

- . . . a VITAMIN A vegetable or fruit at least twice a week.
- . . . a VITAMIN C vegetable or fruit several times a week.
- . . . several foods for IRON each day.

It is also recommended that:

- . . . Fat in the Type A lunch be kept at a moderate level.
- . . . Iodized Salt be used in preparing lunches.

Since younger children are not always able to eat the amounts specified in the Type A lunch, the regulations permit serving these children lesser amounts of selected foods than are specified above. See GAO note below.

To meet the nutritional needs of teenagers, the regulations endorse encouraging the serving to older boys and girls of larger amounts of selected foods than are specified in the Type A lunch requirements.

GAO Note: For 6- to 10-year-old boys and girls, only 1/3 cup of cooked dry beans or peas, or 3 tablespoons of peanut butter are required.

Source: Food and Nutrition Service

(ENCLOSURE II)

ESTIMATE OF THE AMOUNT OF FEDERAL REIMBURSEMENT TO BE APPLIED FOR DURING SAMPLED PERIOD

Lunch type	Average daily number of lunches served (note a)	Lunches not meeting Type A requirement (lower limit at 90-percent confidence) Percent	Reimbursement rate per lunch (note b) (cents)	Potential estimated claim for Federal reimbursement for lunches not meeting Type A requirement (lower limit at 90-percent confidence) Average daily amount	Days sampled	Total
Cafeteria style	324,919	40	60.9	\$ 89,560	5/73	\$2,059,597
Meal pack	171,984	65	66.9	\$ 53,317	5/73	\$1,226,301
Cafeteria style and meal pack	496,903	45	60.9	\$1,154,059	5/73	\$4,815,463,303
Bulk	38,075	46	60.9	\$ 12,386	5/8	\$ 99,075
Basic	36,611	27	60.9	\$ 6,611	5/8	\$ 54,066
Bulk and basic	75,686	42	60.9	\$ 21,902	5/8	\$ 175,216
Total						\$13,710,000

a/Based on the average daily number of lunches served by type in September 1976.

b/Based on data for November 1976. (See enc. III.)

c/Collected from January 10 to February 9, 1977.

d/Totals are statistically derived and are not cumulative.

(ENCLOSURE III)

ESTIMATE OF THE WEIGHTED AVERAGE OF
FEDERAL REIMBURSEMENT FOR EACH LUNCH

<u>Lunch reimbursement category</u>	<u>Average daily number of lunches (note a)</u>	<u>Reimbursement rate (note b)</u> (cents)	<u>Average daily reimbursement</u>
	(1)	(2)	(1) x (2)
Paid	37,985	13.25	\$ 5,033
Reduced	18,078	63.25	11,434
Free	<u>509,751</u>	73.25	<u>373,393</u>
Total	<u>565,814</u>	<u>c/68.90</u>	<u>\$389,860</u>

a/Average daily number of lunches served in November 1976.

b/Reimbursement rates for the period January to June 1977.

c/Weighted average reimbursement rate:

$$\frac{\text{Total daily reimbursement}}{\text{Total average number of lunches}} = \frac{\$389,860}{565,814} = 68.90 \text{ cents per lunch}$$