STATE OF MAINE

ONE HUNDRED AND SIXTH LEGISLATURE

COMMITTEE ON EDUCATION

December 30, 1974

Legislative Council
106th Legislature
State House
Augusta, Maine

Gentlemen:

In accordance with HP 2035 which directed the Legislative Council "to conduct a feasibility study to determine the desirability of establishing a centralized or regionalized frozen food production and distribution center or centers to provide such foods to all schools through grade 8...", and in compliance with the request of the Legislative Council directing the Education Committee to undertake the study, I enclose herein the final report of the Committee.

Respectfully submitted,

Bennett D. Katz (B.D.)

BENNETT D. KATZ, chairman
Committee on Education

REPORT OF THE COMMITTEE

ON EDUCATION

ON ITS STUDY OF

ALTERNATIVE FOOD SERVICE SYSTEMS

FOR MAINE'S PUBLIC SCHOOLS

December, 1974

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FORWARD

This report was developed by Dr. Edward Potter of the Legislative Staff under the direction of the Education Committee of the 106th Legislature.

It is unique in 3 respects:

1. It presents for the Legislature for the first time a comprehensive picture of the extraordinarily involved and costly challenges ahead if we are to provide food services to our elementary pupils throughout Maine.

2. It makes clear an interesting future relationship between feeding our children and feeding other segments of our population.

3. It is, so far as I know, the first time that the Legislature has developed basic information, technical in nature, that will be a significant tool for the Department of Education and Cultural Services and the educational community in general.

The Committee is grateful to Dr. Potter for making a significant contribution to our knowledge.

Bennett D. Katz (E.P.)

BENNETT D. KATZ, Chairman
Committee on Education

INTRODUCTION

Background:

In July, 1973, the Maine State Legislature enacted a law (P.L. 1973, c. 607) that required all elementary and junior high schools to provide school lunches by September, 1974. The Commissioner of Education may waive this requirement until September, 1978 for schools which would experience undue hardship in meeting the requirements of the 1973 Act. To date, approximately 100 schools have not instituted a lunch program. By 1980, the average daily participation rate (ADPR) could increase 100 percent from the present figure of 115,000 per day to 230,000 per day.

Maine's school food service act of 1973 has had many positive results. School food service is becoming available to most students, regardless of family income levels, in the grades kindergarten through eight. Many of the schools are also engaged in services that go beyond the parameters of the National School Lunch Act. A number of schools provide a free lunch to all students, prepare meals for the elderly, and offer hot meals to low income groups, especially headstart centers.

As a result of the additional services provided by Maine's school food service systems along with the rising costs of food, energy, and labor, many school systems are discovering

that they lack the expertise and funds to operate school food service. Public school food service require administrators with good background and experience in management, nutrition, and in school food service. Thus, the school food service program has become as complicated as a business and requires equally competent management. Food service costs for Maine's public schools will probably exceed $15,000,000 for 1974-75. This figure does not include construction and equipment costs which may exceed $5,000,000 for the year 1974-75.

The pressures placed on the public schools in regard to food service along with substantial increases in food, labor, and fuel costs in the past two years stimulated the State Department of Education and a number of local spokesmen to analyze Maine's school lunch program as well as other food service systems. During the Special Session of the 106th Legislature, the Legislative Council was assigned a feasibility study (HP2035) "to determine the desirability of establishing a centralized or regionalized frozen food production center or centers to provide such foods to all schools through Grade 8... "(See Appendix). The Legislative Council reassigned the study to the Education Committee.

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Committee Procedures:

The Education Committee conducted a preliminary study

of school food service, in general, and expanded the scope of the investigation to include two additional food service systems that were not included in the original study order. By broadening the area of research, the Committee planned to evaluate most food service alternatives in terms of economic and social costs and to determine the most feasible system for Maine. As a result the Education Committee delineated the following five alternative food service systems:

1. The Public Decentralized (self-contained kitchens) Food Service System
2. The Centralized Food Production Facility
3. The Regionalized Food Production and Delivery System
4. The Base Kitchen System
5. The Commercial Frozen Food Delivery System

The following report to the State Legislature is a summary of a 200 page report to the Education Committee which analyzes each system in detail. In the unabridged study, all the systems are analyzed in terms of their advantages, disadvantages, goals, and economic costs. The economic costs include all indirect costs and contain among others, insurance, depreciation, interest, and bond payments. Following the Committee's analysis of the research and statistical data on the several systems, it has concluded that any discussions regarding school food service in Maine must be made with local participation.

. . . .

Recommendations:

The Committee views Maine's School Food Service Program as having implications for segments of our population other than students. We recommend that an ad hoc committee be established by the Commissioner of Education and Cultural Services in cooperation with the Commissioner of Health and Welfare to include representatives of the appropriate Health and Welfare agencies, the Department of Education and local school units.

The ad hoc committee should review the report of the Education Committee, evaluate our current food service system and in light of total state needs, make recommendations to a 1976 Special Session of the Legislature for further action.

The History of School Food Service

School food service has been in existence in the United States since the mid 19th Century. In 1853, New York City initiated a lunch program sponsored by volunteer social organizations. Between 1853 and the depression of the 1930's, school lunch was strictly an optional program that was available in a few schools and operated by charitable organizations, particularly women's groups.

The depression, along with the changing role of government in the U.S. economy, led to the National School Lunch Act of 1946 which provided federal funds and farm commodities for school hot lunch programs. School food service, for a number of reasons, tended to develop in schools that had greater resources to support the program compared to schools with a large low income student population. The formula for the distribution of federal funds as well as the financial resources of the local community and the attitudes of school administrators played a significant role in the development of school food service.

During the decade of the 1960's, a profound change occurred in the school food service systems throughout the country and in public attitudes toward school meals. Programs and attitudinal changes in school food service were the result of the efforts of social activists, a growing social consciousness among the population, and research

on nutrition. The Civil Rights Movement along with the exposés regarding life in Appalachia and life among migrant workers had a great impact on the public conscience. The results of studies which indicated that poor nutrition had grave consequences on children's learning abilities, also played a prominent role in the change of public attitudes toward the school lunch programs. As a result, school food service has been and is being extended to more groups in society, especially low income people. School lunch and breakfast programs have increased more than 600 percent in the years 1960-1974.

Maine's school food service, like that of most other states, has undergone significant change since the depression years. In the 1930's a few towns such as Sanford, served hot lunches prepared by an active parents organization. In the past 10 years, the number of school lunches served each day in Maine has risen nearly 60 percent, and it is expected to increase by an additional 10 percent in 1975-76.

While increased federal funds, public education, and social organizations have played a vital role in the expansion and improvement of the school food service program in Maine, the State Legislature has also had a dramatic impact on the program. The 106th Legislature instituted a law that requires all schools, kindergarten through grade eight, to provide school lunches to all students.

School food service may be expanded from its current average daily participation rate of 25,000,000 to 50,000,000 in the next few years. Senators Hubert Humphrey and George McGovern are sponsoring a bill shich has substantial Congressional support for a universal free lunch system. The effect on Maine will be to double the number of school lunch consumers from 115,000 to 230,000 students.

The future of school food service in Maine appears to be one of significant growth. In addition, the role of the school is also changing. Schools are being used more and more as community centers. By providing meals to the elderly and underprivileged, and by offering more community activities, Maine schools are evolving into social organizations.

In order to assess the direction or type of organization that school food service in Maine could follow, it is necessary to look at several alternatives. The alternative most feasible for the state is one which is flexible and can serve a wide range of different types of schools. The following section analyzes the present school food service system in Maine, and points out its strengths as well as its weaknesses.

The Public Decentralized School Food Service System

Maine's present school food service system can be characterized as a decentralized operation. There are 888 schools in Maine, of which 650 have food preparation kitchens and 718 offer a school lunch. Each community or school district controls and operates its own food service program in the schools. Within each district or municipality there is a supervisor employed by the superintendant, who oversees the school food service for the entire area. In addition to a manager, there is an "on-state" manager in each school kitchen who is responsible for the operation of the individual kitchen.

A decentralized operation has a number of advantages that many other systems cannot offer. It provides flexibility of control and operation, employs local people, offers the potential to provide more attractive meals, provides meals which are well-accepted in the local area and utilizes local food products.

On the other hand, there are a number of disadvantages which need to be remedied in the decentralized operation. For example, there is a limited number of individuals with good managerial ability and experience to manage a food service program. In some schools, there is insufficient attention to quality and nutritional value of meals. There is inadequate provision for the State Department of Education

to supervise program costs and personnel. Other problems are associated with costs and duplication of equipment and facilities. Many small schools which comprise 75 percent of Maine's schools have a very high per meal cost, while larger schools have a lower per meal cost. In some cases, one kitchen is sufficient for an entire district which may have several kitchens at the present time. Another problem is the vast quantity of obsolete equipment in Maine schools which increases operating costs.

The average cost per school lunch in Maine in 1973-1974 was 60 cents. The range of costs ranged from 51 cents (Sanford) to 96 cents (Biddefore) per meal. On the following page is a summary of the expenses and sources of income of Maine's school food service. The costs do not reflect many of the indirect costs which are costed in the other models in this report. It is very possible that the present cost per meal is close to 70 cents.

TABLE I

INCOME AND EXPENDITURES - FOOD SERVICE

PROGRAM IN MAINE, 1964-1974

INCOME	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75
CHILDREN'S PAYMENTS (in Millions)	3.40	3355	3815	4222	440	4717	4879	5014	4919	4787	4885
FEDERAL SUBSIDIES RECEIVED (000's of dollars)	891.8	931	916.6	988.3	1,079	1,310	1,637	2,962	5,110.7	5,085	5,901
ALL OTHER (Includes state funds) 000's of dollars	466.6	504	563	738	773	937	1,072	1,195	1,233	1,601	2,207
TOTAL INCOME (Millions)	4.75	4.79	5.29	5.95	6.24	6.96	7.58	9.17	11.2	11.5	12.9
EXPENDITURES											
FOOD (In 000's)	3,124.1	3,190.9	3,520.	3,987.7	4,044.4	4,530.6	4,763.3	5,692.2	6,581.1	7,195.5	8,231.8
LABOR (In 000's)	1,355	1,442	1,582	1,733	1,911	2,188	2,461	2,923	3,417	3,559	3821
MAINTENANCE, UTILITIES (000's)	276.6	287.5	309.2	262.8	350.9	393.3	448.9	577.2	888.8	1,028	1,056
TOTAL EXPENDITURES (000's)	4,753	4,929	5,411	5,983	6,306	7,117	7,674	9,193	10,886	11,783	13,116

A Centralized Food Production Facility

A centralized Food Production facility (CFPF) is one alternative school food service system that Maine could adopt. In brief, it consists of a central kitchen which prepares and blast freezes all the required school meals each day and distributes them to schools throughout the state or region. A central kitchen can utilize one central frozen food storage facility or regional storage facilities.

There are a number of advantages associated with a CFPE operation. It provides central control over the quality and nutritional value of the food, better supervision over school lunch personnel, and strict control over operational costs. In addition, a central kitchen creates food savings by means of bulk purchasing, reduces overhead costs by eliminating duplication of facilities and equipment, and provides nutritional meals at low cost to very small schools.

On the other hand, there are a number of problems and disadvantages inherent in the CFPF system. A central kitchen requires very highly skilled technical people who are experienced in the food processing industry. It creates a complex transportation-distribution system which can only be operated by a transportation specialist. Furthermore once such a system has been adopted, a state

is locked into it and the opportunities to adopt another system are very limited. A central kitchen operation also requires substantial capital investment in equipment and construction, utilizes very little of the school food service equipment that is now available, and completely displaces local communities in the operation and management of the system. It also consumes vast amounts of energy.

A model of a centralized food production facility for Maine consists of the following:

1. A central kitchen in Portland
   a. 230,000 meals per day - Universal free lunch program
   b. 125,000 meals per day - expected in 1976
2. A central warehouse in Portland
3. 287 base schools (see tables 3, 4) in which the frozen meals can be reconstituted and shipped to more than 600 sattelite schools
4. Bi-weekly deliveries of frozen pre-plated meals to the base schools.

According to statistical data, a central kitchen can produce a school lunch in Maine for 75-79 cents per meal. The price includes all indirect costs, including bond interest, depreciation, etc. (See Table 2 on following page) Excluding bond payments, interest and depreciation, the average price per meal ranges between 65 and 70 cents, which is 5 to 10 cents above the per meal costs of the present system.

Several theories regarding a CFPF system are proved in

CONSTRUCTION AND OPERATING COSTS OF TWO CENTRAL FOOD PRODUCTION FACILITIES

	230,000 meals/day	125,000 meals/day
Square Feet of Structure	100,000	55,000
Land Costs	$ 220,000	110,000
Building Construction Costs	6,000,000	3,300,000
Equipment Costs	2,500,000	2,000,000
Warehouse Construction Costs	1,336,600	742,600
Base Kitchen Equipment Costs	8,890,559	5,250,000
Construction Insurance	10,000	6,050
Architect Fees	1,312,500	787,150
Fund Raising Costs	4,000	4,000
DIRECT OPERATING COSTS		
Direct Labor - CFPF	1,356,927	776,907
Indirect Labor - CFPF	300,000	200,000
Administration(.00214 per ml)	90,000	48,150
Labor-Management benefits	623,539	461,536
Utilities - CFPF	140,000	83,000
Warehouse Labor/Management	75,000	45,000
Warehouse Utilities	15,564	11,208
Food	18,772,000	9,386,000
Transportation from CFPF	800,000	551,500
Equipment Repair	51,700	48,150
Non-Food Supplies	848,000	450,000
Base Kitchen Labor	2,500,000	2,100,000
Base Kitchen Utilities	750,000	375,000
Transportation from Base Schl	1,242,000	675,000
Alternative-Commercial Warehse	310,500	168,750
INDIRECT OPERATING COSTS		
Depreciation	1,400,000	885,000
Bond Payments	1,028,250	609,608
Interest	1,115,538	670,568
Equipment/Building Insurance	10,000	6,050
Frozen Food Insurance	90,000	45,000
Base School Equipment Insurnc	9,000	5,250
TOTAL CONSTRUCTION COSTS	20,373,659	12,254,800
TOTAL OPERATING COSTS	31,260,516	17,574,799

the statistical data. For example, a CFPF utilizing regional warehouses is 5 percent more costly per meal than a CFPF using one central warehouse. Capital investment is 58.5 percent greater in a regional warehouse system compared to the central warehouse system. Another theory that has been advanced is that bi-weekly deliveries to the school and storage facilities with a 2 week's supply are economically more advantageous than smaller storage facilities and weekly deliveries. Statistics indicate that larger storage facilities and a lesser number of deliveries reduce operating costs by at least 10 percent. Furthermore, state owned warehouse facilities are 39 percent less costly compared to leasing commerical facilities.

A central kitchen operation cannot prepare school meals at less cost than the average cost per meal (ranges between 50 and 96¢ per meal) produced under the present system. Furthermore, a capital investment in construction and equipment of more than $10,000,000 will be required.

The Regional Food Service Delivery Program

A regional food service delivery program (RFDS) is a second alternative that Maine's public schools could institute. In brief, it consists of regional kitchens, strategically lcoated throughout the state, which prepare most of the school meals in the state and distribute them to schools throughout Maine. In addition, each kitchen contains a regional warehouse from which the meals are shipped throughout the region.

An RFDS operation is essentially a central kitchen on a smaller scale and serving a more confined area compared to a central kitchen system. There are several advantages that the CFPF and RFDS have in common, and others that are unique to the RFDS. For example, an RFDS provides good control over operational costs, the quality and nutritional value of food, and food service personnally. In addition, an RFDS reduces the number of facilities and quantity of equipment required in the present system. A regional operation provides more flexibility of operation compared to the CFPF.

On the other hand, a regional food service operation requires more skilled and technical people than either a CFPF or the present system. It causes jurisdictional

problems in cases where regions may overlap. Like the CFPF, an RFDS creates a complicated transportation-distribution system, locks the state into a system which it cannot easily change, displaces local control and management of school food service, and consumes vast quantities of energy.

A model of a regional food delivery system for Maine is comprised of the following.

1. 3 regional kitchens and frozen food warehouses located in Protland, Bangor and Caribou, Maine
2. 287 Base Schools (See Tables 3,4-Chapter IV) in which the frozen meals are reconstituted and shipped to 600 sattelite schools.
3. Bi-weekly deliveries of frozen pre-blasted meals to the base schools.

According to the statistical data, the RFDS can produce a school lunch in Maine for approximately 85cents per meal. The RFDS price is 40 percent higher than the present per school meal cost in Maine and 6 1/2 percent more than the price per meal produced in a CFPF.

Construction and equipment costs of an RFDS are also significantly higher than the CFPF system. The capital investment required in an RFDS is 20 percent greater than that of a CFPF, and RFDS operating costs are 12.5 percent higher than those of a CFPF. The regional system increases labor costs by 12 percent, food costs by 13.8 percent, and warehouse costs by 50 percent, compared to a centralized

CONSTRUCTION AND OPERATING COSTS OF A REGIONAL FOOD PRODUCTION AND DELIVERY SYSTEM

	62,500 Meals Per Day	40,000 Meals Per Day	20,000 Meals Per Day
Square feet of Structure	30,000	20,000	15,000
Land Costs	$ 110,000	75,000	45,000
Building Construction Costs	1,810,000	1,200,000	930,000
Equipment Costs	1,300,000	1,200,000	1,000,000
Warehouse Construction Costs	520,900	355,450	300,025
Base Kitchen Equipment Costs		5,250,000	
Construction Insurance	3,630	2,750	2,430
Architect Fees	332,850	242,582	205,102
Fund Raising Costs		4,000	
DIRECT OPERATING COSTS			
Direct Labor - CFPF	441,667	260,000	202,331
Indirect Labor - CFPF	160.000	118,000	109,000
Administration	24,285	15,508	7,804
Labor-Management Benefits		525,300	
Utilities - CFPF	42,000	27,000	14,000
Warehouse Labor/Management	39,000	39,000	33,000
Warehouse Utilities	8,030	5,470	4,423
Food	5,193,000	3,500,000	2,000,000
Transportation from RFPF		496,125	
Equipment Repair	14,050	9,063	4,500
Non Food Supplies	225,000	144,000	72,000
Base Kitchen Labor		2,100,000	
Base Kitchen Utilities		375,000	
TRANSPORTATION From Base Schools to Sattelite Schools		675,000	
Alternative Commercial Warehouse Facilities	84,375	72,000	36,000
INDIRECT OPERATING COSTS			
Depreciation		1,151,255	
Bond Payments		705,000	
Interest		775,500	
Equipment/Building Insurance	3,630	2,750	2,430
Frozen Food Insurance		39,278	
Base School Equipment Insurance		5,250	
TOTAL CONSTRUCTION COSTS		15,184,000	
TOTAL OPERATING COSTS		19,668,753	

operation. The only saving incurred by the regional system is a 10 percent reduction in transportation costs.

A regional food delivery system does not provide sufficient advantages to compensate for its greater costs compared to the present system and the central kitchen. Regionalization therefore, is not feasible as a food source alternative as it is organized in the model. It may be more practical on a much smaller scale.

Central Base Kitchen

The central base kitchen (CBK) may be the most feasible food service system alternative for communities which are presently confronted with high operating costs or with other problems. The central base kitchen, as defined in this report, consists of one preparation kitchen for a community or school district. The base kitchen prepares the food daily and ships it in hot bulk or in preplated form to the sattelite schools in the area.

The CBK has all of the advantages and few of the disadvantages of on-site, regional, or central kitchens. It is large enough to benefit from economics of scale without being administratively unwieldy. A base kitchen consolidates space and equipment, provides good quality control, offers an excellent opportunity to supervise personnel, provides good control over operational costs, produces meals that are well accepted in the local area, retains considerable local control over the system, and uses a minimum of energy.

There are only a few problems involved in the central base kitchen operation. It does require an administrator with more managerial expertise as well as more knowledge in food and nutrition than on-site kitchens require. Compared to a CFPF or RFDS, a base kitchen cannot realize substantial

food savings. In addition, it requires a transportation system that is more complicated than the present system, but far less than the one created by a central or regional kitchens.

A central base kitchen system for the State of Maine is comprised of 287 base school kitchens (See tables 3 & 4, Chapter IV, Report To The Education Committee) throughout the state to prepare school meals for 600 sattelite schools. Each base school packs the meals in tote boxes or in roll-in convection oven carriers and are shipped in vans to sattelite schools. Teh sattelite schools require 1-5 individuals to work approximately 2 hours each day. Their work is limited to serving and minor cleaning.

On the following page is a table that analyzes the costs involved in a statewide central base kitchen food source system. The estimates have been purposely inflated, in some cases, to compute the maximum cost per meal that can be expected in a base kitchen system in the next two years. The statistics indicate that a central base kitchen can produce a school lunch in Maine for 72 cents. The price per meal in a CBK system is 12.5 percent less than the cost of the RFDS system, and 46 percent less than the commercial frozen meal.

TABLE 4

BASE KITCHEN FOOD SERVICE SYSTEM

Base Kitchen Equipment Costs	$5,250,000
Direct Labor-Preparation etc	$4,202,000
Indirect Labor-Managerial etc	100,000
Administration	48,150
Labor/Management Benefits	630,000
Food	9,526,000
Transportation	675,000
Equipment Repair	48,150
Non-Food Supplies	450,000
Base Kitchen Utilities	375,000
Depreciation	52,500
Bond Payments	262,500
Interest	14,450
Insurance	5,000
TOTAL OPERATING COSTS	$16,388,750
TOTAL COST PER MEAL	$.72

The Base kitchen model assumes that the labor force will not be reduced from its present level. There will probably be some labor reduction in a base kitchen operation, but it is estimated that the reduction will not be substantial. Although the cost per meal in a CBK system is estimated to be nearly 20% more than the cost per meal of the present system, it must be noted that food costs in the CBK system are based on 1975-76 costs whereas all the operating costs of the present system are based on the year 1973-74. The price per meal of both systems therefore, may be the same.

Despite the 12.5 percent meal cost advantage of the base kitchen system, the CFPF system may be less expensive to operate in the long run. Following the liquidation of the bonds and interest in 20 years, as well as the greatly reduced rate of depreciation, per meal cost in a CFPF may be less than per meal cost in a base kitchen operation. Nevertheless, the greater flexibility, local participation, hot bulk food, and many other advantages of a base kitchen operation greatly outweigh any long run cost savings of a CFPF.

The Commercial Frozen Meal Distribution System

A food service alternative adopted by a number of southern New England towns and cities is the commerical frozen school lunch. There are a variety of distribution systems for the delivery of commercial frozen meals to the schools. In some communities, each school has a small reconstitution kitchen to reheat the meals, and in other towns, one school reconstitutes the meals and ships them hot to the sattelite schools. A community or region can store the meals in a central warehouse, or each school can receive direct shipments from the producing firm.

Most of the communities which have adopted commerical frozen meals for school lunches have been forced to find a quick and expedient solution. State laws and court decisions that have ordered communities to institute a school lunch program in a very short period of time have been the major impetus behind local adoption of commercial frozen meals. The commerical frozen meal distribution system (CFMS) lends itself to ease of and rapid adoption. It requires very little equipment and space. There is no meal preparation involved, no cafeterias or kitchens to be constructed, and the labor force required to operate it smaller than the one required for on-site kitchens.

The advantages of the CFMS, however, are outweighed by the disadvantages. Commercial frozen meals are only

mass produced for elementary school children, have questionable nutritional value, lack variety, and are very costly. Furthermore, the CFMS locks a community into a system that provides no alternatives. It would also drain as much as $10,000,000 from Maine that would have ordinarily been used to purchase Maine agricultural and fish products. A CFMS creates a very complex transportation-distribution system as well as a very serious waste removal problem for the state.

A commerical frozen meal distribution system for Maine is based upon the following: (See Chapter VII, Report to the Committee)

1. 287 base school kitchens, with two week storage capacities.
2. Reconstitution of the meals in each of the 287 base schools.
3. Shipment of the meals from the base schools to the sattelite schools.
4. Direct shipment of frozen meals on a bi-weekly basis from the manufacturer to the base schools.
5. A commercial frozen meal designed for secondary school students as well as for elementary students.

According to the statistical data, the commercial frozen meal system will provide a meal for $1.05 per meal which includes all indirect costs. The CFMS per meal price is 33 percent more than the average cost per meal produced in a central kitchen, 45.8 percent greater than the average base kitchen meal cost, and 75 percent more than the average cost per meal in the present system.

TABLE 5

COMMERCIAL FROZEN MEAL SYSTEM

	230,000 meals/day Weekly deliveries to all Maine Schools	125,000 meals/day Bi-weekly deliveries to Base SchoolsKitch
Land	$ 45,000	
Central Warehouse	742,600	
Kitchen Equipment for Sattelite/Base Schools	9,418,000	$ 5,200,000
DIRECT OPERATING COSTS		
Indirect Labor	100,000	100,000
Administration	90,000	48,150
Labor/Management Benefits	288,750	315,000
Warehouse Labor/Management	75,000	
Warehouse Utilities	11,207	
Food and Milk	34,335,000	20,950,000
Transportation fr. Warehouse	1,100,000	
Equipment Repair	51,700	28,100
Base/Sattelite Kitchen labor	1,850,850	2,100,000
Base/Sattelite Kitchen Utilities	750,000	375,000
Transportation fr. Base Schl		675,000
INDIRECT OPERATING COSTS		
Depreciation	970,000	5,200
Bond Payments	510,300	28,000
Interest	28,065	14,300
Insurance- buildings, equipment, frozen food, etc.	100,250	50,000
TOTAL CONSTRUCTION AND EQUIPMENT COSTS	10,205,600	5,200,000
TOTAL OPERATING COSTS	40,181,057	30,019,700

The theory that commerical frozen meals reduce operating costs by the elimination of food processing and preparation has been proved to be false. The CFMS reduces operating costs primarily in areas (labor, transportation, frozen food storage) which do not comprise substantially large cost factors in the CFPF system. On the other hand, commercial frozen meals substantially increase the cost of the most expensive factor (food) in the CFPF system. The only cost advantage that the CFMS offers is in capital investment. Compared to a central kitchen operation, the commercial frozen meal distribution system requires a 40% percent investment in equipment and construction.

The commercial frozen meal distribution system is not a long run school food service system solution for the state of Maine. It is practical only as a temporary expedient.

CONCLUSION

It is clear that there is no one food service alternative that can best meet Maine's particular and varied needs. Any system that is developed for the state must be a combination of alternatives. Some alternatives appear to be better for small school systems than urban systems while other alternatives are more urban than rural oriented.

Statistical evidence, however, indicates that the present food service system in Maine schools and the central base kitchen are the most flexible and least costly of the food service systems studied for this report. Not only do both systems offer cost savings, they place control and operation of school food service in the local communities which are the most important element for any food service system in Maine. In addition, both the public decentralized and the central base ktichen systems offer the greatest potential to serve the most attractive and nutritious meals compared to the other systems. These two systems also use the least energy and natural resources of all the systems under study.

The inadequacies of the present food source system can be resolved without producing wholesale changes within the system. Managerial expertise and skilled labor, which are two significant problems confronting most school kitchens in Maine, can be overcome by means of education. By offering

TABLE 6

COMPARATIVE OPERATING COSTS AND SOURCES OF INCOME:
ALTERNATIVE FOOD SERVICE SYSTEMS

	Central Kitchn 230,000 Meals Per Day	Central Kitchen 125,000 Meals Per Day	Regional Kitchen 125,000 Meals Per Day	Base Kitchen 125,000 Meals Per Day	Commercial Frozen Meals 125,000 Meals Per Day
TOTAL CONSTRUCTION & EQUIPMENT COSTS	$20,373,659	$12,254,800	$15,184,000	$5,250,000	$5,200,000
TOTAL OPERATING COSTS	$31,260,516	$17,574,799	$19,668,753	$16,388,750	$30,019,700
TOTAL COST PER MEAL	$.75	$.79	$.84	$.72	$1.05
SOURCES OF OPERATING FUNDS					
STATE FUNDS	$18,756,310	$10,485,040	$12,801,251	$9,832,890	18,011,820
FEDERAL FUNDS*	$12,504,206	$7,029,920	$7,867,502	$6,555,260	$12,007,880

Federal Reimbursement is based upon the present reimbusement rate which is roughly 40 percent of the total operating costs, excluding federal farm commodities. In a universal free lunch system, the State Office of Nurtrition expects that the rate of federal reimbursement will be greater than 40 percent. It is also important to note that the commercial frozen meal system cannot take advantage of federal farm commodities which increase federal reimbursement.

courses in management and in food and nutrition at the campuses of the University of Maine, and by expanding the office of nutrition in the State Department of Educaton, these problems can be overcome.

The food service systems that can best meet Maine's needs must also be considered in light of the universal free lunch movement in Congress. Senator Humphrey's bill for a free school lunch for every child is gaining considerable strength in both houses of Congress. By 1976, some spokesmen in the United States Department of Agriculture, believe that a free school lunch act may be passed. As a result, Maine's school food service system will have to be expanded to twice its present size or other alternative systems will have to be devised. Statistical data indicates, however, that the present food service system in the Pine Tree State as well as the central base kitchen system are the most feasible alternatives for Maine.

APPENDICES

STATE OF MAINE

In House March 13, 1974

Ordered

WHEREAS, the Legislature has required that the National School Lunch Program be implemented in all public schools by September of 1974; and

WHEREAS, there are 169 schools with no available food services and many more that lack the necessary facilities or resources for adequate production of appetizing, nutritious meals at low cost; and

WHEREAS, an improved system of food service to schools is urgently needed which can capitalize on mass production, purchasing and distribution and be available to all regardless of size; and

WHEREAS, relief may be possible through innovative design of a precooked frozen food system for schools which would optimize food quality and costs for new programs as well as provide direction to the future development of the state-wide program; now, therefore, be it

ORDERED, the Senate concurring, that the Legislative Council be authorized and directed to conduct a feasibility study to determine the desirability of establishing a centralized or regionalized frozen food production and distribution center or centers to provide such foods to all schools through grade 8 on a continuous wholesale basis and to supplement that which is received in donated commodities from the Federal Government; and be it further

ORDERED, that the Bureau of School Management of the Department of Educational and Cultural Services and the Bureau of Purchases of the Department of Finance and Administration be authorized to expend any available funds and to otherwise assist the Council with technical advice and other needed assistance; and be it further

ORDERED, that the Council is authorized to employ professional and clerical assistance within the limits of funds provided; and be it further

ORDERED, that the Council report the results of its study along with any necessary legislation to the next regular session of the 107th Legislature; and be it further

ORDERED, that there is ~~allocated~~ from the Legislative Account the sum of $40,000 to carry out the purposes of this Order.

HOUSE OF REPRESENTATIVES
On Motion of Simpson
of Standish
MAR 13 1974
Tabled Pending PASSAGE
TOMORROW ASSIGNED
E. Lowell Lincoln

HP 2035

HOUSE OF REPRESENTATIVES
Speaker laid before the House
PASSED
SENT UP FOR CONCURRENCE
MAR 14 1974
E. Lowell Lincoln
ORDERED SENT FORTHWITH

IN SENATE CHAMBER
and TABLED BY SEN. BERRY
OF CUMBERLAND
MAR 15 1974
PENDING Passage
HARRY N. STARBRANCH, Secretary

(Birt)
NAME:
TOWN: E. Millinocket

IN SENATE
TAKEN FROM TABLE ON MOTION
BY SEN. BERRY OF CUMBERLAND AND ONE OTHER
MAR 20 1974
MOTION BY
PASSED
IN CONCURRENCE
SECRETARY