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# School Food Purchase Study-III: Alaska, Hawaii and Puerto Rico Final Report

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# School Food Purchase Study III: Alaska, Hawaii and Puerto Rico

## Final Report

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## Acronyms and abbreviations used in the study

<b>Acronym</b>	<b>Meaning</b>
AMS	Agricultural Marketing Service
Assisted NuMenu	Assisted Nutrient Standard Menu Planning
CLOC	Commodity Letter of Credit
CN	Child Nutrition
CSV	Cumulative Size Vector
DC	District of Columbia
DoD	Department of Defense
ECOS	Electronic Commodity Online System
EFB	Enhanced Food Based
FFVP	Fresh Fruit and Vegetable Program
FNS	Food and Nutrition Service
FSMC	Food Service Management Company
FY	Fiscal Year
HHFKA	Healthy Hunger-Free Kids Act of 2010
HRG	Homogeneity Response Groups
MDD	Minimum Detectable Difference
m.e.	Meal equivalent
NCES	National Center for Education Statistics
NHANES	National Health and Nutrition Examination Survey
NM	NuMenu/Assisted NuMenu systems
NOI	Net Off Invoice
Non-FSMC	Non Food Service Management Company
NPA	National Processing Agreement
NRR	Nonresponse Rate
NSLP	National School Lunch Program
NuMenu	Nutrient Standard Menu Planning
OMB	Office of Management and Budget
PPS	Procurement Practices Survey
PPS	Probability Proportional to Size
QED	Quality Education Data
SBP	School Breakfast Program
SFA	School Food Authority
SFPS	School Food Purchase Study
SMI	School Meals Initiative for Healthy Children
SNDA	School Nutrition Dietary Assessment Study
SY	School Year
TFB	Traditional Food Based
USDA	US Department of Agriculture

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## **EXECUTIVE SUMMARY**

This is the first School Food Purchase Study (SFPS) that attempts to assess food acquisitions made by public unified NSLP school districts beyond the 48 contiguous states. It covers Hawaii, Alaska, and, to a lesser degree, Puerto Rico, and accompanies the main report that covers the contiguous 48 states and the District of Columbia. The study was undertaken to fulfill the requirements of Section 4307 of the Food, Conservation, and Energy Act of 2008.

This study provides estimates of the quantity, dollar value and unit price of food acquisitions by School Food Authorities (SFAs) participating in the National School Lunch Program (NSLP) and School Breakfast Program (SBP) during school year 2009/10, and compares the results with those for the 48 contiguous states and the District of Columbia. Hawaii and the Commonwealth of Puerto Rico are each covered by a single unified public school district. Alaska comprises more than 50 public unified NSLP school districts.

Originally Puerto Rico was included in the planned research but the SFA responsible for all schools in the territory was unable to provide usable food purchase records. Nevertheless, Puerto Rico's responses to the Procurement Practices Survey (PPS) are included in Sections 2 and 4.

### **School food acquisitions**

Food acquisitions were classified in the same way as for the 48 contiguous states: commercially purchased foods, donated USDA Foods, and processed foods containing donated USDA Foods. Also, the same food codes, food groups and subgroups were used.<sup>1</sup>

- Alaskan school districts acquired an estimated total of 510 food items for \$27 million in SY 2009/10. Of the total dollar value, 86 percent was purchased commercially, 12.4 percent were donated USDA Foods (estimated on the basis of 'fair market value'), and 1.7 percent were processed food items containing donated USDA Foods.
- Hawaii acquired 405 food items for an estimated total of \$28.7 million in SY 2009/10. Of the total dollar value, 85.5 percent were commercially purchased foods and 14.5 percent were donated USDA Foods. No processed food items that contained donated USDA Foods were acquired.
- In terms of value, fruits and juices was the largest food group purchased in Alaska (20.4 percent), followed by milk and dairy products (15.7 percent). In Hawaii, milk and dairy products represented the largest food group (31.2 percent) followed by poultry (14 percent) and fruits and juices (13.5 percent). Bakery products held only a small share in Hawaii because the individual schools bake their own bread and bread products.

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<sup>1</sup> The full food group classification is presented in Table I of the separate Statistical Appendices Report for Alaska and Hawaii.

**Comparison of food acquisitions in Alaska and Hawaii with the 48 contiguous states and the District of Columbia**

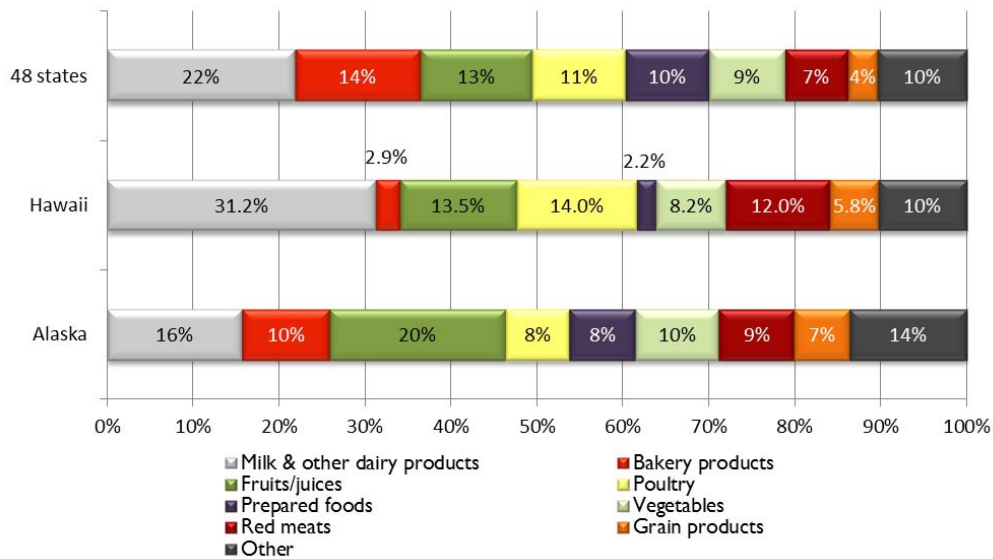
The top 5 foods groups (in dollar value terms) were as follows:

<b>Alaska</b>	<b>Hawaii</b>	<b>48 contiguous states &amp; DC</b>
1. Fruits and juices	1. Milk and other dairy products	1. Milk and other dairy products
2. Milk and other dairy products	2. Poultry	2. Bakery products
3. Bakery products	3. Fruits and juices,	3. Fruits and juices
4. Vegetables	4. Red meats	4. Poultry
5. Prepared foods	5. Vegetables	5. Prepared foods

The share of milk and other dairy products was particularly high in Hawaii, 31.2 percent, compared to 22 percent in the 48 states and 16 percent in Alaska. While there was significant overlap in the most acquired food groups, there were also some notable differences:

- The unusually high share in dollar value of fruits and juices in Alaska was due to the higher prices of these products in the state compared with other regions. In volume terms, this food group had the second largest share and milk and other dairy products was the largest food group, the same as in Hawaii and the 48 states.
- Milk and other dairy products held a particularly high share in Hawaii - 31 percent in value terms and almost half the volume of all food acquisitions (48 percent).
- Bakery products had the second largest share in dollar value terms and the fourth in volume terms in Alaska and the 48 states. In Hawaii, these products had a very low share of the total value and volume (3 and 1 percent respectively) because their schools bake their own bread.
- Grain products held a higher share of acquisition (both in dollar value and volume terms) in Alaska and Hawaii than in the 48 states.
- Poultry product acquisitions in dollar value terms in Alaska were lower than in Hawaii and the 48 states and red meat products acquisitions in Hawaii were higher than in Alaska and the 48 states.

**Comparison of food acquisitions by public unified school districts in Alaska, Hawaii and the 48 states by food groups in SY 2009/10 (dollar value)**



Source: School Food Purchase Study, 2011

The major difference when food acquisitions are compared by source is the significantly higher share of processed foods containing USDA Foods in the 48 states, 8 percent vs. 2 percent in Alaska and none in Hawaii.

**Most frequently acquired foods**

Similar to the 48 states, a relatively small number of foods accounted for most of the value of food acquisitions in Alaska and Hawaii in SY 2009/10.

- Hawaii acquired the smallest number of food items, 405, compared to 510 in Alaska, and 865 in the 48 states. Moreover, the top 100 food items acquired in Hawaii (in dollar value terms) accounted for over 92 percent of value and 94.6 percent of the volume of all food acquisitions. This indicates that over three quarters of all food items were acquired in very small quantities.
- Most of the food acquisitions in Alaska were also concentrated on a relatively limited number of food items, although not as few as in Hawaii. The top 100 food items accounted for 71.9 percent of the value and 75.7 percent of the volume of all food acquisitions. Although Alaska acquired a smaller overall number of food items than the 48 states (510 vs. 865), the shares of the top 50, 100, and 150 items are very similar to those in the 48 states.

**Importance of USDA Foods and the Department of Defense Fresh Fruit and Vegetable Program**

- The 48 states acquired a broader variety of USDA Foods (49 subgroups identified in the food code classification) than Alaska (28 subgroups) and Hawaii (21 subgroups).
- Hawaii did not acquire any processed foods containing USDA donations in SY 2009/10. While Alaska acquired some of these products, they were fewer than in the 48 states.
- The following 18 food subgroups<sup>2</sup> were acquired as USDA Foods or processed products containing USDA Donated Foods by Alaska, Hawaii and the 48 states:
  - Cheese;
  - Turkey;
  - Beef and veal;
  - Chicken;
  - Flour and other milled grains;
  - Fruits;
  - Eggs;
  - Yellow vegetables;
  - Mixed vegetables;
  - Dry beans/peas;
  - Potato and potato products;
  - Tomatoes and tomato products;
  - Fish;
  - Green vegetables;
  - Rice, barley and other grains;
  - Catsup and other sauces;
  - Other vegetables; and
  - Juices.
- Food items of the following 18 subgroups were acquired as USDA donations only in the 48 states but not in Hawaii or Alaska:
  - Nuts;
  - Recipe mix;
  - Meat or cheese filled pastry;
  - Gelatins;
  - Burritos/tacos;
  - Prepared meals;
  - Seeds;
  - Soups;
  - Salad dressings and mayonnaise
  - Margarine;
  - Breakfast cereals;
  - Mixtures with vegetables;
  - Pretzels and snack chips
  - Mixed meats;
  - Flour mix;
  - Flavorings;
  - Crackers; and
  - Sherbet/ices.

At least 10 of these subgroups were for processed foods:

- Food items in the following 9 subgroups were acquired as USDA Foods or processed products containing USDA Donated Foods in Alaska and the 48 states but not in Hawaii:
  - Peanuts/peanut butter;
  - Prepared sandwiches;
  - Pork;
  - Mixtures with eggs
  - Pizza;
  - Mixtures with grain;
  - Cakes and other bakery desserts;
  - Bread and rolls; and
  - Milk.

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<sup>2</sup> Note that these are aggregate food groups not individual foods. For example, barley is not a USDA Food, but it is in the food subgroup 'Rice, barley and other grains' which contains USDA Foods.

Not surprisingly, most of these were processed foods. However, it should be noted that no milk, by far the largest food subgroup acquired in Hawaii, was acquired as a USDA donated food.

- Pasta and noodles, and vegetable oils and shortenings were acquired as USDA Foods in Hawaii and the 48 states but not in Alaska. The share of USDA donations for these two subgroups was significantly higher in Hawaii than in the 48 states, 52.8 and 53.7 percent vs. 20.1 and 25.6 percent respectively.
- Biscuits, muffins, pancakes and waffles were acquired as USDA donated foods in Alaska (7.7 percent) and Hawaii (13.3 percent) but not in the 48 states.
- As in the 48 states, Alaska and Hawaii acquired some fresh fruits and vegetables through the Department of Defense (DoD). However, both Alaska and Hawaii acquired a significantly lower total number of fresh fruits and vegetable items and a lower number of items through DoD than the 48 states.
- Of the 16 items acquired through DoD by school districts in Alaska, carrots (sticks/baby/shredded) were the sixth largest volume fresh fruit/vegetable item, and purchases through DoD held the largest share of total acquisitions (74.2 percent). Apples, bananas, and oranges were the three items acquired in the largest volume (overall). Apple purchases through DoD accounted for over a quarter of all such acquisitions (26.8 percent) and orange purchases accounted for 22.8 percent. However, no bananas were purchased through DoD.
- In Hawaii the share of all fresh fruit and vegetable purchases through DoD was generally small. Of the 26 items purchased through DoD, cabbage (shredded/mixed with other vegetables) held the largest share, just 8.5 percent, followed by fresh spinach (5.7 percent) and mushrooms (5 percent). Oranges were the largest volume fresh fruit and vegetable item acquired by the state, followed by bananas and apples. DoD purchases of these items accounted for 4.1, 4.0 and 4.0 percent respectively of total acquisitions of these items.

### **Comparison of acquisitions and cost in Alaska, Hawaii and the 48 contiguous states**

- SFAs in Alaska paid the highest average price per pound for all foods and the 48 states paid the lowest. Of the 16 aggregate food groups, Alaska paid the highest price per pound for 12 groups and Hawaii for four groups (bakery products, fats/oils, fish, and soups and gravies). The 48 contiguous states paid the lowest price per pound for 12 food groups and Hawaii for four (grain products, legumes/nuts/seeds, non-dairy drinks, and sugars/deserts).
- Overall, the 48 contiguous states acquired the highest volume of foods per 100,000 meal equivalents (m.e.) but incurred the lowest cost per 100,000 m.e..
- A total of 104 food items were among the top 50 most acquired (in dollar value terms) in Alaska, Hawaii and the 48 contiguous states. Of these, only 14 items were among the top 50 in all three regions, including two milk items, two poultry items, two orange juice items, two beef items, two potato product items, apple juice, fresh apples, American cheese and canned peaches. The remaining food items were either unique for one region (22 were among the top 50 only in the 48 states, 22 only in Alaska, and 25 only in Hawaii) or were among the top 50 for two regions. Alaska had the largest number of items (20) with highest price per pound

and the 48 contiguous states had the highest number of top 50 items with the lowest price per pound (18).

### **Food procurement practices**

The participating school districts in Alaska, Hawaii, and Puerto Rico completed a procurement practices survey (PPS) that requested information on the use of NSLP, SBP and other federal food programs, on their food preparation facilities, on how they decided what foods to serve and how to procure the ingredients, and on other aspects of the food procurement process.

The main findings of interest were as follows:

- In Alaska, there were three points of primary responsibility for vendor selection in the different districts: a business or purchasing office, the district food service manager, and the school board. The latter only played a part in the small districts.
- In Hawaii, tenders are put out to bid for most food items by Hawaii's Department of Education and this organization plays the primary role in food procurement. Individual school kitchen managers draw down supplies as required from the list of selected vendors. However, for some items, such as fresh produce and some fresh proteins, local kitchen managers buy locally and not from the list.
- In Puerto Rico, food procurement is undertaken through a Bid Board, although some products are purchased locally by individual schools.
- Almost all districts in Alaska used product specifications when procuring foods, as did the Hawaiian and Puerto Rican SFAs. Most Alaskan district specifications identify the purchase of products bearing child nutrition labels, and sodium, calorie, and whole-grain content. In Hawaii, the specifications most frequently used were calorie content, whole-grain content, origin, condition, and official standards of identity. The Puerto Rico SFA utilized all product specifications identified in the survey form except brand name.
- One third of small school districts in Alaska had no inventory control. However, many of these districts are very small. Of the districts that had inventory control in Alaska, only one could not trace food back to the vendor, and almost 40% could trace back to storage or distribution at another site. Two thirds of Alaskan districts and the Hawaii SFA were confident that they could locate the origin of any items used in a recipe or as a menu item.
- A very small number of districts in Alaska were using farm to school programs. No such programs are utilized in Hawaii or Puerto Rico. Similarly, as one might expect, there was little evidence of locally grown produce programs in Alaska. The availability of local produce supplies was limited in Alaska and the price of many produce items in Hawaii was likely to be high compared with imported produce from the mainland.
- In Alaska, the estimated average USDA donated food entitlement for FY 2009/10 was \$27,000 per district. This reflects the large number of very small districts. The entitlement for the Hawaii SFA was \$4.4 million and for the Puerto Rico SFA, \$11 million.



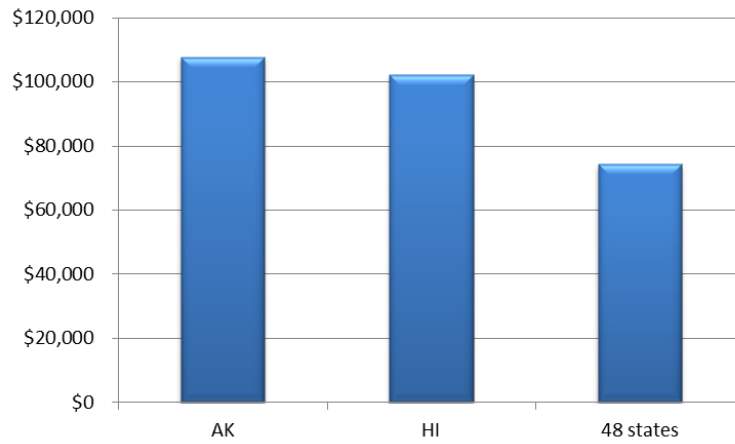
- Only four districts in Alaska used the DoD Fresh Fruit and Vegetable Program, as did the Hawaii school district. The comments on the program were generally positive, with respect to both price and quality.
- Only one of the larger districts in Alaska offered nationally branded fast food products (Subway and Papa John's Pizza). Neither Hawaii nor Puerto Rico offered such brands.
- As in the 48 contiguous states, Alaskan districts used between one and two vendors for each major product type. The total number of vendors across all products was very low compared with the 48 states (2.2). Hawaii and Puerto Rico used a larger number of vendors, as they used separate vendors for most product lines.
- Formal line item bids with the items individually priced were used for most of the food categories purchased in Alaska. Formal lump-sum bids were also used extensively in Alaska and some phone bids were taken for fresh meats and fresh produce that were not purchased centrally. Hawaii used formal line item bids for canned and staple products, frozen foods, snack foods, and nondairy beverages. Lump-sum bids in Hawaii were limited to dairy products.
- In Alaska, roughly two third of the districts used an informal bid or quote method for most of the products purchased. Those who use the more formal fixed price contracts tend to use them for most of the categories with the exception of fresh produce and fresh meats, where an adjustment clause was added to the fixed price commitment. With the exception of some fresh produce and fresh meat, Hawaii purchased all of its products on fixed prices. Puerto Rico purchased all of its products on fixed price contracts although there was an adjustment clause for dairy product prices.
- Only two of the larger districts in Alaska participated in cooperative buying for a wide range of different food categories. Neither Hawaii nor Puerto Rico had the opportunity of participating in any cooperative purchasing activities

### **Comparison of food costs**

The food purchase data collected allowed the estimation of mean values, volumes, and unit costs of food acquisitions and purchases in Alaska and Hawaii.

- The mean cost of food per pound acquired and purchased was substantially higher in Alaska than in Hawaii and the 48 states (\$1.44 compared with \$0.94 and \$0.89). The relatively low average mean cost of acquisitions in Hawaii is explained partly by the much higher volume of purchases and the large share of lower unit value products such as milk and milk products.
- While Hawaii and Alaska have a similar value of acquisitions per 100,000 meal equivalents served, Hawaii purchases much larger volumes per 100,000 meal equivalents. Hawaii purchases 1.5 times the volume per 100,000 meal equivalents served in Alaska, and 1.27 times that of the 48 contiguous states.
- The 48 states had the lowest total cost per 100,000 meal equivalents at \$74,267. Total cost in Alaska was \$107,729 and in Hawaii \$102,196.

**Mean cost of food acquisitions per 100,000 m.e.**



Source: School Food Purchase Study, 2011

## **SECTION I: INTRODUCTION**

This study accompanies the main report of the third School Food Purchase Study (SFPS-III) commissioned by the Food and Nutrition Service (FNS) of the US Department of Agriculture (USDA). The study was undertaken to fulfill the requirements of Section 4307 of the Food, Conservation, and Energy Act of 2008 (P.L. 110-246), (H.R. 2419). This legislation directed USDA to carry out a nationally representative survey of the foods purchased by School Food Authorities (SFAs) during the most recent school year for which data were available. This reflected the high levels of Congressional interest in various issues related to food purchasing for school meals, and in the implications for the health of schoolchildren.

The main study provides national estimates of the quantity, value and unit price of food acquisitions by public unified school districts participating in the National School Lunch Program (NSLP) and School Breakfast Program (SBP) during school year (SY) 2009/10. Data on the 48 contiguous states and the District of Columbia were collected from a nationally representative sample of 420 school districts. In addition to providing data on food acquisitions, the participating districts provided information on district characteristics, procurement practices, and food service operations. The study examines the relationship between these factors and the food costs that were incurred, and compares the results to those of SFPS-II which covered SY 1996/97 and used a very similar methodology.

This is the first SFPS study that attempts to assess food acquisitions made by public unified NSLP school districts beyond the 48 contiguous states. It too is based on records of the foods purchased for use in school meal programs, and on a survey of procurement practices completed by SFAs. This report covers Hawaii, Alaska, and, to a lesser degree, Puerto Rico. It should be viewed as a supplement to the School Food Purchase Study-III report for the 48 contiguous states and the District of Columbia. That report provides a full discussion of the study's purpose and methodology, as well as background on the market and policy setting for school meal programs.<sup>3</sup>

Originally Puerto Rico was included in the planned research but the SFA responsible for all the schools in the territory was unable to provide usable food purchase records. Nevertheless, Puerto Rico's responses to the Procurement Practices Survey (PPS) are included in Sections 2 and 4.

### **I.1 School food programs in Alaska, Hawaii and Puerto Rico**

The National School Lunch Program (NSLP) and the School Breakfast Program (SBP) operate in Hawaii, Alaska, and Puerto Rico in much the same way as in the 48 contiguous states. However, the two states receive higher federal government reimbursement rates for meals served. For SY 2009/10, Hawaii and Alaska received reimbursement rates shown in Table I-1. Rates for Puerto Rico are the same as for the contiguous states although the Commonwealth subsidizes the full amount for every student. In effect, all school meals there are free.

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<sup>3</sup> U.S. Department of Agriculture, Food and Nutrition Service, Office of Research and Analysis, School Food Purchase Study-III, by Nick Young et al. Project Officer: John R. Endahl, Alexandria, VA: January 2012

**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**  
SECTION I: INTRODUCTION

**Table I-1: Federal government reimbursement rates for the NSLP and SBP in Alaska, Hawaii and Puerto Rico, SY 2009/10**

	NSLP			SBP	
	Students receiving free/reduced price meals		Maximum rate	Regular reimbursement rate	Severe need reimbursement rate <sup>2</sup>
	Less than 60% <sup>1</sup>	60% or more <sup>1</sup>			
<b>Alaska</b>					
Full price	\$0.41	\$0.43	\$0.52	\$0.38	\$0.38
Reduced Price	\$3.95	\$3.97	\$4.20	\$2.03	\$2.49
Free	\$4.35	\$4.37	\$4.60	\$2.33	\$2.79
<b>Hawaii</b>					
Full price	\$0.30	\$0.32	\$0.38	\$0.29	\$0.29
Reduced Price	\$2.75	\$2.77	\$2.93	\$1.40	\$1.73
Free	\$3.15	\$3.17	\$3.33	\$1.70	\$2.03
<b>Puerto Rico and 48 contiguous states</b>					
Full price	\$0.25	\$0.27	\$0.33	\$0.26	\$0.26
Reduced Price	\$2.28	\$2.30	\$2.45	\$1.16	\$1.44
Free	\$2.68	\$2.70	\$2.85	\$1.46	\$1.74

<sup>1</sup> Share of students approved for free or reduced price meals

<sup>2</sup> Schools that served at least 40 percent of their lunches free or at a reduced price in the second prior school year qualify to receive severe need reimbursements for free or reduced price breakfasts.

Source: FNS, USDA

The differences between Alaskan and Hawaiian reimbursement rates and those for the 48 contiguous states are shown in Table I-2 for school year 2009/10. The maximum reimbursement rate for NSLP free meals is 161 percent of the 48 states rate in Alaska and 117 percent in Hawaii. Similar ratios apply for each of the other reimbursement categories and the School Breakfast Program (SBP).

**Table I-2: Federal government reimbursement rates for the NSLP and SBP in Alaska, Hawaii compared with the 48 contiguous states, SY 2009/10 (contiguous states = 100%)**

	NSLP			SBP	
	Students receiving free/reduced price meals		Maximum rate	Non-severe need	Severe need
	Less than 60%	60% or more*			
<b>Alaska</b>					
Paid	164%	159%	158%	146%	146%
Reduced Price	173%	173%	171%	175%	173%
Free	162%	162%	161%	160%	160%
<b>Hawaii</b>					
Paid	120%	119%	115%	112%	112%
Reduced Price	121%	120%	120%	121%	120%
Free	118%	117%	117%	116%	117%

\* Share of students eligible for free or reduced price meals

Source: FNS, USDA

## **I.2 Objectives**

A specific objective for this part of the study was to develop estimates of food acquisitions by public unified NSLP school districts in Alaska, Hawaii and Puerto Rico and to compare them with the estimates for the 48 contiguous states. No comparisons with previous similar studies are possible because these states and the territory of Puerto Rico were not included in the earlier School Food Purchase Studies covering SY1996/96 and SY1984/85.

## **I.3 Methodology**

Overall, the methodology applied for Alaska, Hawaii, and Puerto Rico was the same as for the 48 contiguous states and the District of Columbia (referred to hereafter as '48 states'). However, there were some specific differences in deriving the Alaska sample and assigning weights to it. These are described below.

The state of Hawaii is one public school district so no weighting was necessary. Schools acquire most foods through contracts arranged at the SFA level, although they purchase some foods independently of the district. As no detailed record is kept of the drawdown from state contracts, the SFA requested all food purchase invoices from each of the schools and these were sent to the study data collection office for review, transcription, and data entry. The SFA also completed a procurement practices survey instrument. Puerto Rico is also a single public school district but was unable to furnish comprehensive accurate food acquisition data.

### **I.3.1 Alaska sample design**

As for the 48 states, the list of SFAs compiled by Quality Education Data Inc. (QED) was purchased and used for drawing the Alaska sample. However, there were some specific differences in the sample design and procedures for Alaska. Student enrollment by school district was highly skewed and one district alone accounted for well over one third of the total enrollment in the state. Not only was this one district larger than any other, but it was more than 3 times larger than the second largest district. The third, fourth, and fifth largest school districts accounted for 12.5, 10.9 and 7.2 percent of total state enrollment and then the size levels dropped sharply. Consequently, a stratified sample design that included three strata was selected.

- First stratum: The one large district was in a stratum of its own and was required to provide a full year's record of food purchases.
- Second stratum: The next three largest districts were in a second stratum and each was required to provide six months of food purchase data. One district supplied data for quarters 1 and 2; another, for quarters 2 and 3; and the third, for quarters 3 and 4.
- Third stratum: The remaining smaller school districts formed the third stratum, reporting for three months each. From these, eight school districts were selected using a modified probability proportional to size design, which is described in the main SFPS-III report. They were divided into four groups of two districts, each providing food purchase data for one quarter of the school year. In order to assure meeting the need for 12 Alaska districts in the

described structure, three replacement districts were selected to replace three third-strata districts that were unable to participate.

The final Alaska sample consisted of 12 districts. The districts in the first and second strata complied with our request for annual and 6-month food purchase data respectively.

### **1.3.2 Deriving the final weights for the Alaska sample**

In deriving the weights for the Alaska sample the goal was to weight the study data up to state total NSLP public school district enrollment<sup>4</sup>. The one large district that was a stratum of its own has a final weight set at 1.0; it simply represented itself. Even though the three districts in the second stratum were all chosen with certainty, their final weights were not 1.0 because none were sampled in each quarter. Their weights were adjusted upward to cover those in the stratum that were not present in each quarter.

The third stratum was calibrated to the stratum's total NSLP enrollment to obtain final weights. The total NSLP enrollment was obtained by taking the total for the state and subtracting the enrollments for strata 1 and 2 obtained from data recorded on their Procurement Practices Survey instrument:

- 115,279 was the NSLP total enrollment<sup>5</sup>;
- 46,613 for the district in stratum 1;
- 37,127 for the districts in stratum 2; and,
- 31,539 students for the districts in stratum 3.

For the third stratum, a procedure essentially identical to that used for the 48 states was applied; each of the two SFAs present in each quarter was assigned a final weight.

Unlike the study in the 48 states, only one set of weights was required for the Alaska sample as all participants submitted both the food acquisition data and the procurement practices survey data.

## **1.4 Report organization**

In addition to this introductory section, the report is organized as follows:

- Section 2 describes the characteristics of public unified NSLP school districts in Alaska, Hawaii and Puerto Rico, and compares them with those in the 48 states;
- Section 3 summarizes the estimates of volume and value of foods acquired during SY 2009/10 by school districts in Alaska and Hawaii, and compares them to food acquisitions made by SFAs in the 48 states; and

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<sup>4</sup> The state total NSLP public school district enrollment was provided by FNS in a spreadsheet entitled 'NSLP school enrollment 2005 to 2009'.

<sup>5</sup> This figure excludes students participating in various correspondence courses that are not eligible for NSLP.

- Section 4 covers the procurement practices of the public unified NSLP school districts in Alaska, Hawaii and Puerto Rico, and compares them with the 48 states.

**SECTION 2: CHARACTERISTICS OF THE PUBLIC UNIFIED NSLP SCHOOL DISTRICTS IN ALASKA, HAWAII AND PUERTO RICO**

**2.1 Overall school district characteristics**

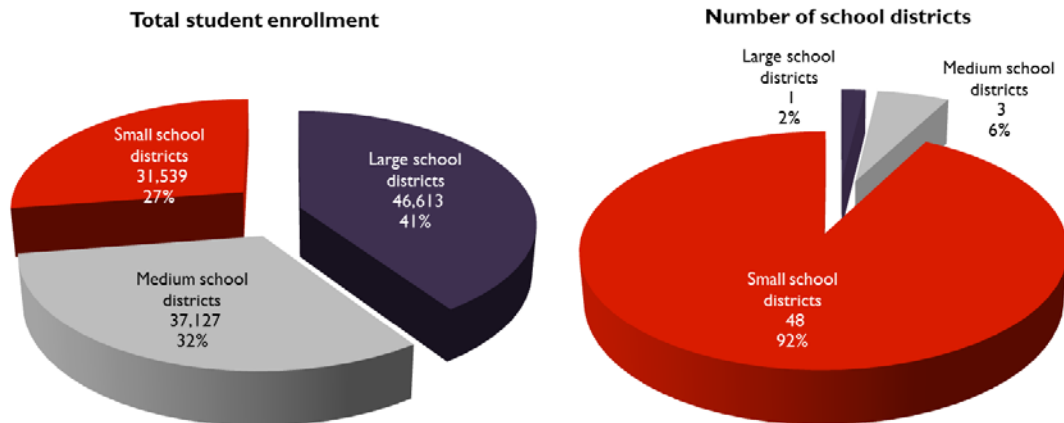
**2.1.1 Number of districts, student enrollment with access to NSLP and SBP**

**a) Alaska**

The survey identified 115,279 students in Alaska attending 52 school districts that provided meals through the NSLP in SY 2009/10. This figure excludes a range of non-public schools, and most importantly the students participating in various local and statewide correspondence courses that are not eligible for NSLP.<sup>6</sup> Student enrollment was heavily concentrated in a small number of population centers. Student and school district distribution were as follows (see Figure 2-1)<sup>7</sup>:

- **Large:** One school district located in a major metropolitan area with 46,613 enrolled students accounted for 40.4 percent of the total state student enrollment.
- **Medium:** Three school districts in three other major population centers with a total enrollment of 37,127 accounted for another 32.2 percent of total state student enrollment.
- **Small:** The remaining 48 school districts (92.3 percent of all the districts) had total enrollment of 31,539 students or 27.4 percent of total state enrollment.

**Figure 2-1: Student enrollment and number of public unified NSLP school districts in Alaska by size of district, SY 2009/10**



Source: School Food Purchase Study, 2011

<sup>6</sup> Official USDA Food and Nutrition Service data for the year record 114,500 students eligible for NSLP in the year.

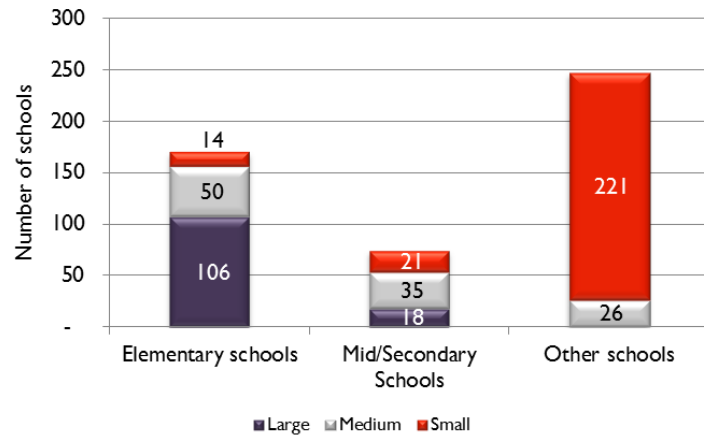
<sup>7</sup> Use of the term enrollment refers only to those students attending schools in the public school districts with access to the NSLP.



**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**  
**SECTION 2: CHARACTERISTICS OF THE SCHOOL DISTRICTS IN ALASKA, HAWAII AND PUERTO RICO**

There were 491 schools in Alaska in SY 2009/10. Of these, 124 (25.3 percent) were in the large school district, 111 (22.6 percent) were in the medium sized school districts, and 256 (52.1 percent) were in the small school districts. Half of all schools, 50.3 percent, were ‘other’ schools. These were primarily mixed grade schools in the small school districts. Of the remaining, almost 7 out of every 10 schools were elementary. The distribution of schools by grade and size of school district is shown in Figure 2-2.

**Figure 2-2: Number of schools in Alaska by grade category and size of school district, SY 2009/10**



Source: School Food Purchase Study, 2011

Similar to the school districts in the 48 states, larger school districts in Alaska operated schools with larger student enrollments, and elementary schools had a smaller number of students per school than middle/secondary schools. Table 2-1 shows student enrollment in Alaska by size of school district and grade category.

**Table 2-1: Number of schools and student enrollment in Alaska by size of district and grade category, SY 2009/10**

	School district size			Total
	Large	Medium	Small	
<b>Elementary schools</b>				
Schools	106	50	14	170
Enrollment	26,439	20,468	5,549	52,456
Students per school	249	409	396	309
<b>Mid/Secondary schools</b>				
Schools	18	35	21	74
Enrollment	20,174	16,114	10,552	46,840
Students per school	1121	460	502	633
<b>Other schools</b>				
Schools	0	26	221	247
Enrollment	-	545	15,438	15,983
Students per school	-	21	70	65
<b>All schools</b>				
Schools	124	111	256	491
Enrollment	46,613	37,127	31,539	115,279
Students per school	376	334	123	235

Source: School Food Purchase Study, 2011

**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**  
**SECTION 2: CHARACTERISTICS OF THE SCHOOL DISTRICTS IN ALASKA, HAWAII AND PUERTO RICO**

The large majority of Alaskan students enrolled in small and medium sized public unified NSLP school districts had access to school meals. In the large school district, 6 percent of the total student enrollment had no access to lunch and/or breakfast. At the state level, 3 percent of all enrolled students had no access to lunch and/or breakfast. Estimates of the total student enrollment, average daily attendance, and students with no access to NSLP and SBP are shown in Table 2-2.

**Table 2-2: Student enrollment, average daily attendance, and average number of attendees with no access to the lunch and breakfast programs in public unified NSLP school districts in Alaska by size of district and grade category, SY 2009/10**

School district enrollment	Elementary	Mid/ Secondary	Other	Total
-----Number of students-----				
<b>Large</b>				
Total student enrollment	26,439	20,174	-	46,613
Average daily attendance	24,747	18,883	-	43,630
Average daily attendance (%)	93.6%	93.6%	-	93.6%
Students with NO access to school lunch	2,841	-	-	2,841
Students with NO access to school breakfast	-	2,764	-	2,764
<b>Medium</b>				
Total student enrollment	20,468	16,114	545	37,127
Average daily attendance	19,684	14,578	523	34,784
Average daily attendance (%)	92.6%	90.5%	96.0%	93.7%
Students with NO access to school lunch	110	-	378	488
Students with NO access to school breakfast	110	-	378	488
<b>Small</b>				
Total student enrollment	5,549	10,552	15,438	31,539
Average daily attendance	5,256	10,105	13,376	28,738
Average daily attendance (%)	94.7%	95.8%	86.6%	91.1%
Students with NO access to school lunch	-	-	117	117
Students with NO access to school breakfast	-	-	117	117
<b>Alaska total</b>				
Total student enrollment	52,456	46,840	15,983	115,279
Average daily attendance	49,687	43,566	13,899	107,152
Average Daily Attendance (%)	94.7%	93.0%	87.0%	93.0%
Students with NO access to school lunch	2,951	-	495	3,446
Students with NO access to school breakfast	110	2,764	495	3,369

Source: School Food Purchase Study, 2011

**b) Hawaii**

The whole state of Hawaii is one public school district that had 170,830 students enrolled in SY 2009/10. It had a total of 254 schools as follows:

- 167 elementary schools (65.7 percent of the total)
- 76 middle/secondary schools (29.9 percent of the total); and
- 11 other schools (4.3 percent of the total)

**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**  
**SECTION 2: CHARACTERISTICS OF THE SCHOOL DISTRICTS IN ALASKA, HAWAII AND PUERTO RICO**

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As in the 48 contiguous states and Alaska, elementary schools had a significantly lower number of students per school than the middle/secondary schools (see Table 2-3).

**Table 2-3: Number of schools and student enrollment in Hawaii by grade category, SY 2009/10**

	<b>Elementary schools</b>	<b>Mid/Secondary schools</b>	<b>Other schools</b>	<b>All schools</b>
Number of schools	167	76	11	254
Student enrollment	86,303	80,068	4,459	170,830
Students per school (average)	517	1,054	405	673

Source: School Food Purchase Study, 2011

Average daily attendance in Hawaiian schools was reported as 99 percent and all students (100 percent) had access to both NSLP and SBP.

**c) Puerto Rico**

As shown in Table 2-4, Puerto Rico comprised one public school district with 608,081 students enrolled during SY 2009/10. The district had 1,781 schools of which 58.6 percent were elementary and 22.7 and 18.8 percent were middle/secondary and other schools respectively. On average, schools were much smaller than in Hawaii.

**Table 2-4: Number of schools and student enrollment in Puerto Rico by grade category, SY 2009/10**

	<b>Elementary schools</b>	<b>Mid/Secondary schools</b>	<b>Other schools</b>	<b>All schools</b>
Number of schools	1,043	404	334	1,781
Student enrollment	269,419	204,686	133,976	608,081
Students per school (average)	258	507	401	341

Source: School Food Purchase Study, 2011

As seen in Table 2-5, all schools in Puerto Rico participated in the NSLP and all students had access to school lunches. A small number of schools however, did not participate in the SBP. All 1,641 schools in Puerto Rico participating in SBP were classified as severe need schools.

**Table 2-5: Number of schools in Puerto Rico with NSLP and SBP programs by grade category, SY 2009/10**

	<b>Elementary Schools</b>	<b>Mid/Secondary Schools</b>	<b>Other Schools</b>	<b>All schools</b>
With NSLP & SBP programs	1,003	398	240	1,641
With only NSLP program	40	6	94	140
Total	1,043	404	334	1,781
Severe need schools	1,003	398	240	1,641

Source: School Food Purchase Study, 2011

**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**  
**SECTION 2: CHARACTERISTICS OF THE SCHOOL DISTRICTS IN ALASKA, HAWAII AND PUERTO RICO**

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**d) Comparison with the 48 states**

Table 2-6 below summarizes the differences in enrollment and school size for the Alaskan, Hawaiian and Puerto Rican districts and for the 48 contiguous states. Puerto Rico had 2.1 times the combined enrollment of the other two regions reviewed in this study, and Hawaii had 1.5 times the enrollment of Alaska.

**Table 2-6: Numbers of districts, schools, enrollment and school size in Alaska, Hawaii, and Puerto Rico districts and the 48 contiguous states, SY 2009/10**

	Number of districts	Number of schools	Enrollment eligible for NSLP	Average enrollment per school
Alaska	52	491	115,278	235
Hawaii	1	254	170,830	673
Puerto Rico	1	1,781	608,081	341
48 contiguous states	10,826	87,832	48,328,273	550

Source: School Food Purchase Study, 2011

Schools in Hawaii had the highest average student daily attendance (99 percent). Average daily student attendance in Alaska was very similar to that in the 48 states, 93.0 and 93.6 percent, respectively, for elementary and mid/secondary schools. Puerto Rico did not to provide student daily attendance data.

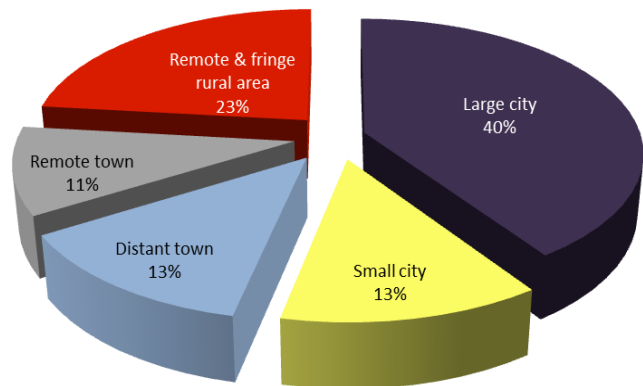
Overall, only few students had no access to NSLP or SBP. In Hawaii all students had access to school lunches and breakfasts. In Alaska, 3 percent of the enrolled students (almost all of them in the large school districts) had no access to school lunches and breakfast. This share is higher than the average for the 48 contiguous states where an estimated 0.5 and 1.2 percent of the enrolled students did not have access to NSLP and SBP respectively.

**2.1.2 School district location and poverty levels**

**a) School district location**

Based on the National Center for Education Statistics (NCES) classification of school district location, most of the small size districts in Alaska were located in rural areas (75 percent) with the remaining districts being located in remote towns (25 percent). The three medium size districts were classified as located in a small city, a distant town, and a rural area. The large district was classified as located in a large city. The distribution of student enrollment in Alaska by location of school districts is shown in Figure 2-3.

**Figure 2-3: Distribution of student enrollment in Alaska by location of school district, SY 2009/10**



Source: School Food Purchase Study, 2011

**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**  
**SECTION 2: CHARACTERISTICS OF THE SCHOOL DISTRICTS IN ALASKA, HAWAII AND PUERTO RICO**

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The Hawaii school district is identified by the NCES as a “large suburb”, a description that fails to capture the diversity of school locations within the state.

There is no single NCES description of the Puerto Rico school district, although clearly it covers a diversity of locations from rural to urban.

**b) Poverty levels**

In Alaska 63.5 percent of all school districts had more than 60 percent of students approved for free or reduced price school meals (Table 2-7). All of these were small school districts and consequently these districts had only 16.5 percent of the student enrollment eligible for NSLP meals. Only two districts had less than 30 percent of students approved for free or reduced price school meals.

**Table 2-7: Share of public unified NSLP school districts and share of student enrollment by eligibility for free/reduced price meals in Alaska, SY 2009/10**

Students approved for free/reduced price meals	Large school districts		Medium school districts		Small school districts		Alaska total	
	School districts	Student enrollment	School districts	Student enrollment	School districts	Student enrollment	School districts	Student enrollment
Less than 30%	-	-	1	14,855	1	3,940	2	18,795
row percent	0.0%	0.0%	50.0%	79.0%	50.0%	21.0%	100.0%	100.0%
column percent	0.0%	0.0%	33.3%	40.0%	2.1%	12.5%	3.8%	16.3%
30 to 59%	1	46,613	2	22,272	14	8,593	16	77,478
row percent	6.3%	60.2%	12.5%	28.7%	87.5%	11.1%	100.0%	100.0%
column percent	100.0%	100.0%	66.7%	60.0%	29.2%	27.2%	30.8%	67.2%
Greater than 60%	-	-	-	-	33	19,007	33	19,007
row percent	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%	100.0%
column percent	0.0%	0.0%	0.0%	0.0%	68.8%	60.3%	63.5%	16.5%
Total	1	46,613	3	37,127	48	31,539	52	115,279
row percent	1.9%	40.4%	5.8%	32.2%	92.3%	27.4%	100.0%	100.0%
column percent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Note: Totals may not add up due to rounding

Source: School Food Purchase Study, 2011

While Alaska had a higher share of districts with more than 60 percent of the students approved for free or reduced price meals than the 48 contiguous states, the share of students in these districts is lower. However, the share of Alaskan districts with less than 30 percent of approved enrollment was also much lower than in the 48 contiguous states (see Table 2-8).

**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**  
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**Table 2-8: Share of public unified NSLP school districts and share of student enrollment by level of poverty in Alaska and the 48 contiguous states, SY 2009/10**

Students eligible for free/reduced price meals	Alaska		48 contiguous states & DC	
	School districts	Student enrollment	School districts	Student enrollment
Less than 30%	3.8%	16.3%	40.0%	33.1%
30 to 59%	30.8%	67.2%	40.4%	43.9%
60% or more	63.5%	16.5%	19.6%	23.1%

Source: School Food Purchase Study, 2011

Overall, 77.1 percent of all students in Alaska were eligible for free or reduced price meals. The Hawaii school district had 49 percent of its students approved for free or reduced price meals, and 91.4 percent of the students in the Puerto Rico school district were reported to be approved.

### 2.1.3 Year-round operations

No schools in Alaska or Puerto Rico, and only 4 schools in Hawaii (1.6 percent of all schools) operated on a year-round basis.

## 2.2 Characteristics of school feeding programs

### 2.2.1 Participation in NSLP and SBP

As with the 48 states, all school districts in the Alaska, Hawaii, and Puerto Rico samples had to participate in the NSLP. There was no requirement however, for the districts to participate in the SBP, or for all schools in a district to participate in the NSLP. Thus, a small number of schools did not participate in the NSLP, the SBP, or both.

It was estimated that 78.2 percent of all schools in Alaska participated in both the NSLP and SBP, an additional 10.2 percent participated in the NSLP only, and just 0.2 percent in the SBP only. These estimates are shown in Table 2-9. As seen in the table, participation was the lowest among elementary schools. Almost 92 percent of Alaskan schools participating in the SBP, and 71.9 percent of all schools, qualified as severe need.

Participation in the feeding programs in Alaska was lower than the average for the 48 states. Also a significantly higher share of schools participating in the SBP qualified as severe need in Alaska than in the 48 contiguous states (92 vs. 63 percent of the schools participating in SBP and 71.9 vs. 56.6 percent of all schools)

All schools in Hawaii participated in both the NSLP and SBP. There were no severe need schools in Hawaii. However, in sharp contrast, all schools with access to SBP in Puerto Rico were identified as severe need schools (Table 2-10).

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**Table 2-9: Number of schools in public unified NSLP school districts in Alaska, by grade category and by participation in school meals programs, SY 2009/10**

Participation in NSLP/SBP	Elementary		Mid/Secondary		Other		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Number participating in both NSLP and SBP	96	56.5%	66	89.2%	222	89.9%	384	78.2%
Number participating in NSLP only	33	19.4%	8	10.8%	9	3.6%	50	10.2%
Number participating in SBP only	1	0.6%	-	-	-	-	1	0.2%
NOT participating in NSLP or SBP	40	23.5%	-	-	16	6.5%	56	11.4%
Number of SBP * severe-need schools	90	52.9%	61	82.4%	202	81.8%	353	71.9%
All schools	170	100.0%	74	100.0%	247	100.0%	491	100.0%

\* SBP severe need is a subset of SBP

Source: School Food Purchase Study, 2011

**Table 2-10: Number of schools in public unified NSLP school districts in Puerto Rico, by grade category and by participation in school meals programs, SY 2009/10**

Participation in NSLP/SBP	Elementary		Mid/Secondary		Other		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Number participating in both NSLP and SBP	1,003	96.2%	398	98.5%	240	71.9%	1,641	92.1%
Number participating in NSLP only	40	3.8%	6	1.5%	94	28.1%	140	7.9%
Number participating in SBP only	-	0.0%	-	0.0%	-	0.0%	-	0.0%
NOT participating in NSLP or SBP	-	0.0%	-	0.0%	-	0.0%	-	0.0%
Number of SBP * severe-need schools	1,003	96.2%	398	98.5%	240	71.9%	1,641	92.1%
All schools	1,043	100.0%	404	100.0%	334	100.0%	1,781	100.0%

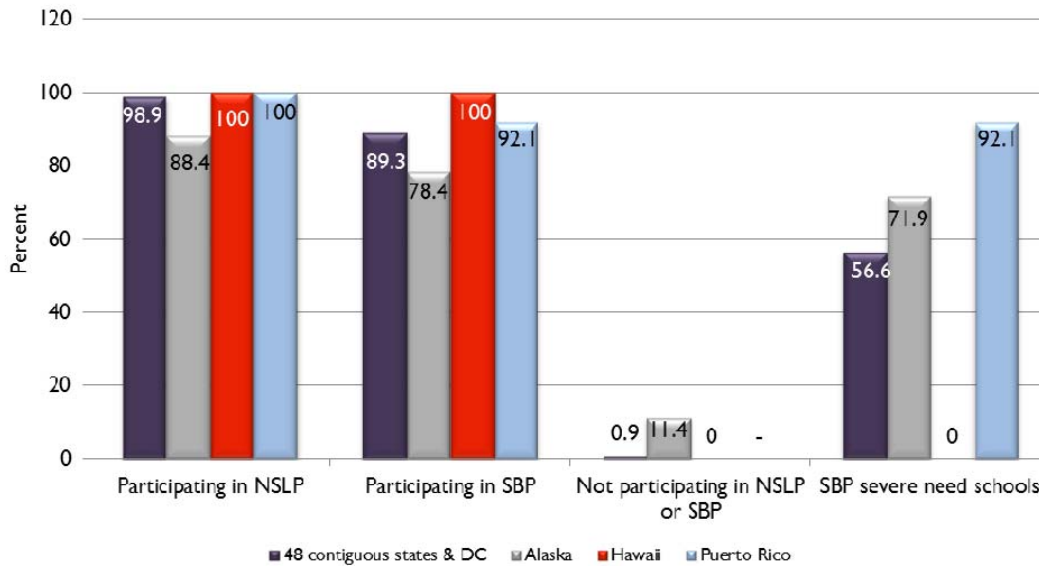
\* SBP severe need is a subset of SBP

Source: School Food Purchase Study, 2011

The following Figure 2-4 illustrates the differences among the 48 contiguous states, Alaska, Hawaii, and Puerto Rico.

**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**  
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**Figure 2-4: School meal program participation rates in the 48 contiguous states, Alaska, Hawaii, and Puerto Rico, SY 2009/10**



Source: School Food Purchase Study, 2011

**2.2.2 Number of lunches and breakfasts served**

The data for lunches and breakfasts served were obtained from the procurement practices survey. The survey appears to overestimate the numbers of meals served. FNS data indicate that in Alaska in FY 2010 8.9 million lunches and 3.1 million breakfasts were served. This compares with the survey estimates of 9.3 and 3.9 million respectively. The sample included eight of 48 smaller districts, with 2 reporting each of the four quarters of the school year. It is possible that the variability among these smaller districts could account for the difference. In particular, the sample could be different from the total population of smaller districts in terms of the distribution of food purchases through the year.

Table 2-11 shows the numbers of free, reduced, and full price lunches served in Alaska, Hawaii, and Puerto Rico. In SY 2009/10, school districts in Alaska served an estimated total of 9.3 million lunches. Close to 60 percent of these were free and an additional 12 percent were at reduced price. The largest share of free lunches, 46.2 percent, was served in the small districts and the largest share of full price lunches, 37.5 percent, was served in the medium size districts. Just over 17 million lunches were served in Hawaii in SY 2009/10; 46.8 percent of these were full price, 41.1 percent were free, and 12.1 percent were reduced price. In Puerto Rico the vast majority of lunches were reported to qualify for the free lunch reimbursement rate (83.3%). However, as noted earlier, the Commonwealth fully subsidizes all school meals. The distribution of free, reduced price and full price reimbursements shown in the table reflects agreement with USDA in the absence of appropriate descriptive statistical data.



**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**  
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**Table 2-11: Number of lunches served in public unified NSLP school districts in Alaska, Hawaii and Puerto Rico by type of meal and size of school district, SY 2009/10**

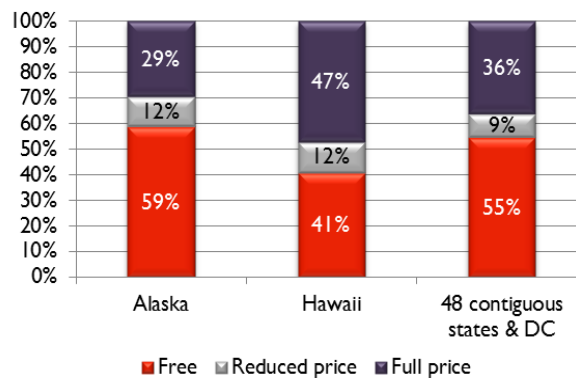
School District Enrollment	Number of full price lunches	Number of reduced price lunches	Number of free lunches	Total number of NSLP lunches
<b>Alaska</b>				
Large	900,921	424,749	1,729,615	3,055,285
row percent	29.5%	13.9%	56.6%	100.0%
column percent	32.8%	38.9%	31.5%	32.8%
Medium	1,029,252	398,967	1,225,985	2,654,204
row percent	38.8%	15.0%	46.2%	100.0%
column percent	37.5%	36.6%	22.3%	28.5%
Small	814,519	266,861	2,534,538	3,615,918
row percent	22.5%	7.4%	70.1%	100.0%
column percent	29.7%	24.5%	46.2%	38.8%
Alaska total	2,744,692	1,090,577	5,490,138	9,325,407
row percent	29.4%	11.7%	58.9%	100.0%
column percent	100.0%	100.0%	100.0%	100.0%
<b>Hawaii</b>	7,988,440	2,062,706	7,002,114	17,053,260
row percent	46.8%	12.1%	41.1%	100.0%
<b>Puerto Rico*</b>	4,496,864	4,235,419	43,556,837	52,289,120
row percent	8.6%	8.1%	83.3%	100.0%

\*Note: The Commonwealth of Puerto Rico provides free lunches to all students. These figures reflect agreed reimbursement rates.

Source: School Food Purchase Study, 2011.

Figure 2-5 illustrates the differences in the share of full price, reduced price and free lunches. School districts in Alaska served the largest share of free and reduced price lunches and Hawaii served the lowest share (14 percent lower than for the contiguous states). The Puerto Rico data are not presented in this figure as they reflect an administrative allocation of the agreed reimbursement rates.

**Figure 2-5: Share of free, reduced-, and full price lunches served by public unified NSLP school districts in Alaska, Hawaii, and the 48 contiguous states, SY 2009/10**



Source: School Food Purchase Study, 2011

In SY 2009/10, school districts in Alaska served an estimated 3.5 million breakfasts. Close to 67 percent of these were free and an additional 12 percent were at reduced price.

Seventy five percent of the breakfasts served were severe need. As for lunches, the largest share of free breakfasts, 52.9 percent, was served in the small districts and the largest share of full price breakfasts, 46.8 percent, was served in the medium size districts (see Table 2-12).

**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**  
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Just under 6 million breakfasts were served in Hawaii in SY 2009/10; 54.8 percent of these were free, 33.3 percent full price, and 11.9 percent were reduced price (see Table 2-12). As noted earlier, all breakfasts are free in Puerto Rico. The distribution of free, reduced price and full price reimbursements for Puerto Rico shown in the table reflects agreement with USDA in the absence of appropriate statistical data.

**Table 2-12: Number of SBP breakfasts served in public unified NSLP school districts in Alaska, Hawaii, and Puerto Rico, by type of meal and size of school district, SY 2009/10**

School district enrollment	Number of full price breakfasts	Number of reduced price breakfasts	Number of free breakfasts	Total number of SBP breakfasts	Number of severe need breakfasts
<b>Alaska</b>					
Large	96,615	91,500	594,984	783,099	731,664
Row Sum %	12.3%	11.7%	76.0%	100.0%	93.4%
Column Sum %	13.0%	21.9%	25.5%	22.4%	27.9%
Medium	347,092	155,868	503,317	1,006,277	979,127
Row Sum %	34.5%	15.5%	50.0%	100.0%	97.3%
Column Sum %	46.8%	37.3%	21.6%	28.8%	37.4%
Small	298,087	170,432	1,232,832	1,701,351	908,263
Row Sum %	17.5%	10.0%	72.5%	100.0%	53.4%
Column Sum %	40.2%	40.8%	52.9%	48.7%	34.7%
Alaska total	741,793	417,801	2,331,133	3,490,727	2,619,054
Row Sum %	21.3%	12.0%	66.8%	100.0%	75.0%
Column Sum %	100.0%	100.0%	100.0%	100.0%	100.0%
<b>Hawaii</b>	1,919,618	684,724	3,160,831	5,765,173 <sup>a</sup>	3,974,137
Row Sum %	33.3%	11.9%	54.8%	100.0%	68.9%
Column Sum %	100.0%	100.0%	100.0%	100.0%	100.0%
<b>Puerto Rico<sup>b</sup></b>	1,702,716	1,603,721	16,492,789	19,799,226	- <sup>c</sup>
Row Sum %	8.6%	8.1%	83.3%	100.0%	0.0%
Column Sum %	100.0%	100.0%	100.0%	100.0%	100.0%

<sup>a</sup> The data for Hawaii were provided in their Procurement Practices Survey. The data differ from those in the FNS National Databank.

<sup>b</sup> The Commonwealth of Puerto Rico provides free breakfast to all students. These figures reflect agreed reimbursement rates.

<sup>c</sup> No data were provided by the Commonwealth of Puerto Rico.

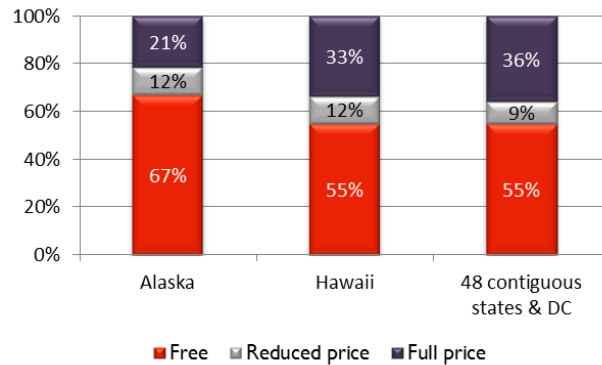
Note: Percentages might not add to 100.0% due to rounding.

Source: School Food Purchase Study, 2011.

**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**  
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As shown in Figure 2-6, 55 percent of the breakfasts served in Hawaii were free. This is the same proportion as in the 48 contiguous states. The share of free breakfasts served in Alaska, 67 percent, was higher by 12 percentage points. The highest share of full price breakfasts was served in the 48 contiguous states, 36 percent, followed by Hawaii, 33 percent, and Alaska, 21 percent. The share of reduced price breakfasts served in Alaska and Hawaii was the same, 12 percent, higher than the 9 percent in the 48 contiguous states. The Puerto Rico data are not presented as they reflect an administrative allocation of the reimbursement rate.

**Figure 2-6: Share of free, reduced, and full price breakfasts served by public unified NSLP school districts in Alaska, Hawaii, and the 48 contiguous states, SY 2009/10**



Source: School Food Purchase Study, 2011

**2.2.3 Meal prices**

**a) Lunch**

Table 2-13 shows the estimated mean, median, minimum, and maximum prices charged for full and reduced price school lunches in Alaska, Hawaii, and Puerto Rico in SY 2009/10.

The range of full prices charged in Alaska is wide. The maximum prices vary from \$3.00 in the elementary schools in medium sized districts to \$5.00 in the small districts, and from \$3.50 to \$5.00 in middle/secondary schools. The minimum prices vary from \$1.00 in some elementary schools in the small school districts to as high as \$3.73. The variation of prices for reduced price lunch is much smaller because of the cap of \$0.40. A significant number of school districts in Alaska, all small size, had schools that did not charge any students for NSLP lunches. Two thirds of the small size Alaskan school districts had elementary schools that did not charge any students for lunches and 87.5 percent had mid/secondary schools that did not charge for meals. All schools in the large and medium size districts charged for full and reduced price lunches. The districts that reported \$0.00 in the procurement practices survey as a minimum price for the meals they served were excluded from the calculations shown in Table 2-13.

In Hawaii all full price lunches in all schools were \$2.20 and all reduced price lunches were \$0.40. In Puerto Rico all lunches were free to students.

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**Table 2-13: Mean, median, and range of student lunch prices, full price and reduced price, in of public unified NSLP school districts in Alaska, Hawaii, and Puerto Rico by size of district SY 2009/10**

	Full price lunch				Reduced price lunch			
	Mean	Median	Minimum	Maximum	Mean	Median	Minimum	Maximum
	----- dollars -----							
<b>Alaska</b>								
Large								
Elementary	\$3.15	\$3.15	\$3.15	\$3.15	\$0.40	\$0.40	\$0.40	\$0.40
Middle/Secondary	\$3.73	\$3.73	\$3.73	\$3.73	\$0.40	\$0.40	\$0.40	\$0.40
Medium								
Elementary	\$2.84	\$2.75	\$2.75	\$3.00	\$0.40	\$0.40	\$0.40	\$0.40
Middle/Secondary	\$3.34	\$3.25	\$3.25	\$3.50	\$0.40	\$0.40	\$0.40	\$0.40
Small								
Elementary	\$2.47	\$2.50	\$1.00	\$5.00	\$0.40	\$0.40	\$0.40	\$0.40
Middle/Secondary	\$2.77	\$2.90	\$1.50	\$5.00	\$0.40	\$0.40	\$0.40	\$0.40
All Alaska districts								
Elementary	\$2.66	\$2.75	\$1.00	\$5.00	\$0.40	\$0.40	\$0.40	\$0.40
Middle/Secondary	\$3.06	\$3.25	\$1.50	\$5.00	\$0.40	\$0.40	\$0.40	\$0.40
<b>Hawaii</b>								
Elementary	\$2.20	\$2.20	\$2.20	\$2.20	\$0.40	\$0.40	\$0.40	\$0.40
Middle/Secondary	\$2.20	\$2.20	\$2.20	\$2.20	\$0.40	\$0.40	\$0.40	\$0.40
<b>Puerto Rico*</b>								
Elementary	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Middle/Secondary	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Note: In Alaska, only schools in school districts that charge for meals have been included in the calculations. The values for Puerto Rico reflect free school meals for all.

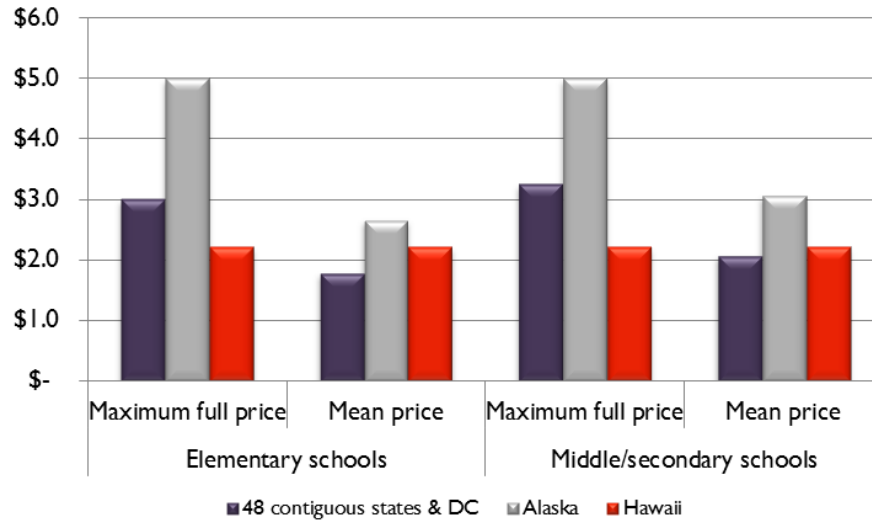
Source: School Food Purchase Study, 2011

A comparison with lunch prices in the 48 contiguous states shows much higher maximum full prices for lunches in Alaska and significantly lower maximum prices in Hawaii (see Figure 2-7). Mean prices in Alaska are also the highest, both in elementary and mid/secondary schools. Puerto Rico data are not presented in the figure because lunches served there are free to all students.

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**Figure 2-7: Comparison of lunch prices charged by public unified NSLP school districts in Alaska, Hawaii, and the 48 contiguous states, SY 2009/10**



Source: School Food Purchase Study, 2011

**b) Breakfasts**

Table 2-14 shows the estimated mean, median, minimum, and maximum prices charged for full and reduced price school breakfast in Alaska, Hawaii, and Puerto Rico in SY 2009/10.

As for lunch prices, the Alaskan districts that did not charge for breakfast were excluded from the calculations. This was the same number of small size districts as the number of districts that did not charge for lunch. In addition, no mid-size districts had elementary and mid/secondary schools that served free breakfasts to all students.

Large school districts in Alaska charged a flat full price of \$1.80 for full price breakfasts in elementary schools and \$1.91 in middle/secondary schools. In the medium size districts, the maximum price charged for a full price breakfast was \$1.75 in elementary school and \$2.00 in middle/secondary schools and the minimum price was \$1.50 for both elementary and middle/secondary schools. Of the small schools that charged for full price breakfast, the maximum reported price was \$2.00 in both elementary and mid/secondary schools, and the minimum was \$0.50 in elementary and \$0.75 in mid/secondary schools.

Hawaii charged a flat full price of \$0.95 for full price breakfast and \$0.30 for reduced price in all schools. In Puerto Rico breakfasts are free to all students.

**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**  
 SECTION 2: CHARACTERISTICS OF THE SCHOOL DISTRICTS IN ALASKA, HAWAII AND PUERTO RICO

**Table 2-14: Mean, median, and range of student breakfast prices, full price and reduced price, in of public unified NSLP school districts in Alaska, Hawaii, and Puerto Rico by size of district SY 2009/10**

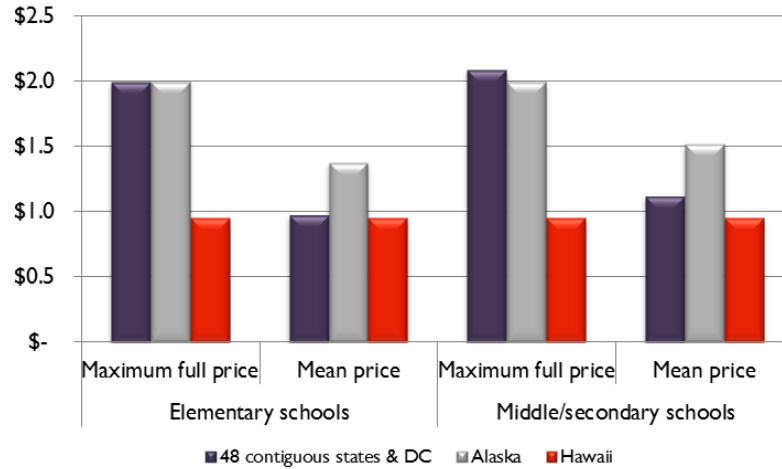
	Full price breakfast				Reduced price breakfast			
	Mean	Median	Min-imum	Max-imum	Mean	Median	Min-imum	Max-imum
----- dollars -----								
<b>Alaska</b>								
<b>Large</b>								
Elementary	\$1.80	\$1.80	\$1.80	\$1.80	\$0.30	\$0.30	\$0.30	\$0.30
Middle/Secondary	\$1.91	\$1.91	\$1.91	\$1.91	\$0.40	\$0.40	\$0.40	\$0.40
<b>Medium</b>								
Elementary	\$1.64	\$1.75	\$1.50	\$1.75	\$0.00	\$0.00	\$0.00	\$0.00
Middle/Secondary	\$1.79	\$2.00	\$1.50	\$2.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>Small</b>								
Elementary	\$1.17	\$1.50	\$0.50	\$2.00	\$0.32	\$0.30	\$0.30	\$0.39
Middle/Secondary	\$1.32	\$1.63	\$0.75	\$2.00	\$0.32	\$0.30	\$0.30	\$0.39
<b>All Alaska districts</b>								
Elementary	\$1.38	\$1.50	\$0.50	\$2.00	\$0.32	\$0.30	\$0.30	\$0.39
Middle/Secondary	\$1.52	\$1.63	\$0.75	\$2.00	\$0.33	\$0.30	\$0.30	\$0.40
<b>Hawaii</b>								
Elementary	\$0.95	\$0.95	\$0.95	\$0.95	\$0.30	\$0.30	\$0.30	\$0.30
Middle/Secondary	\$0.95	\$0.95	\$0.95	\$0.95	\$0.30	\$0.30	\$0.30	\$0.30
<b>Puerto Rico*</b>								
Elementary	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Middle/Secondary	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

\* Note: In Alaska, only schools in school districts that charge for meals have been included in the calculations. The values for Puerto Rico reflect free school meals for all.

Source: School Food Purchase Study, 2011

A comparison with breakfast prices in the 48 contiguous states shows the same maximum full prices at elementary schools in Alaska and the 48 states and just slightly lower maximum prices in middle schools (\$2.09 in the 48 states vs. \$2.00 in Alaska) but the mean prices in Alaska are significantly higher. However, the mean prices do not reflect the large number of districts in Alaska that have schools serving free breakfasts to all students. Hawaii's flat price is much lower than the maximum full price breakfast in the 48 states (see Figure 2-8). Puerto Rico data are not presented in the figure because breakfasts served there are free to all students.

**Figure 2-8: Comparison of breakfast prices charged by public unified NSLP school districts in Alaska, Hawaii, and the 48 states, SY 2009/10**



Source: School Food Purchase Study, 2011

#### 2.2.4 À la carte food sales

##### Availability

The availability of à la carte foods by size of school district and school grade level is shown in Table 2-15.

The Hawaii school district offered à la carte foods to students in all elementary and middle/secondary schools, and over 90 percent of the other schools. The Commonwealth of Puerto Rico did not provide any à la carte offerings to students.

In Alaska, all large and medium sized school districts offered food on an à la carte basis. In the large school district, all middle/secondary schools and no elementary schools offered à la carte foods for lunch and for breakfast. In all medium sized districts the majority of both elementary and middle/secondary schools offered a la carte foods for lunch. A smaller number of schools representing 46.2 percent of the elementary and 31.6 percent of the middle/secondary schools offered à la carte foods for breakfast.

Only very few small size districts in Alaska, an estimated 3 out of 48 on a weighted basis, offered à la carte foods. In these districts, 6 elementary schools, (representing close to half of all elementary schools in the small sized districts) offered à la carte foods for lunch and six offered breakfast à la carte items. Six middle/secondary schools (28.6 percent) offered à la carte foods for lunch and 3 (14.3 percent) offered breakfast à la carte items. Ten other schools (mixed grade) offered à la carte foods for both breakfast and lunch. Roughly one quarter of the students enrolled in small size districts were in these 3 districts, although not all were enrolled in schools that offered à la carte foods.

**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**  
**SECTION 2: CHARACTERISTICS OF THE SCHOOL DISTRICTS IN ALASKA, HAWAII AND PUERTO RICO**

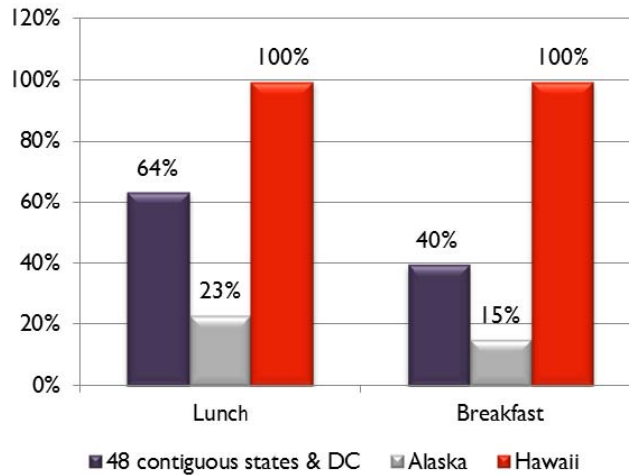
**Table 2-15: Percent of public unified NSLP schools offering à la carte foods at lunch and breakfast, by size of district and grade category, SY 2009/10**

Grade category	Alaska				Hawaii
	Large school districts	Medium school districts	Small school districts	All districts	
<b>Lunch</b>					
Elementary schools	-	85.6%	42.9%	29.7%	100.0%
Middle/secondary	100.0%	74.7%	28.6%	67.5%	100.0%
Other	-	-	4.5%	4.1%	90.9%
<b>All schools</b>	<b>14.5%</b>	<b>66.1%</b>	<b>8.6%</b>	<b>23.0%</b>	<b>99.6%</b>
<b>Breakfast</b>					
Elementary	-	46.2%	42.9%	17.4%	100.0%
Middle/secondary	100.0%	33.3%	14.3%	44.2%	100.0%
Other	-	-	4.5%	4.1%	90.9%
<b>All schools</b>	<b>14.5%</b>	<b>33.0%</b>	<b>7.4%</b>	<b>15.1%</b>	<b>99.6%</b>

Source: School Food Purchase Study, 2011.

Compared to the 48 states, a significantly smaller share of schools in Alaska offered à la carte foods. This applied to both lunch and breakfast (see Figure 2-9).

**Figure 2-9: Comparison of share of schools offering à la carte foods in Alaska, Hawaii and the 48 states, SY 2009/10**



Source: School Food Purchase Study, 2011

**Revenues from à la carte sales**

School districts in Alaska received \$3.1 million from à la carte food sales. The largest sales revenues as well as the largest revenue per 1,000 students were achieved by medium size districts. À la carte sales revenue in Hawaii was \$1.6 million (Table 2-16). In the table the number of students with access to à la carte foods should be viewed as the upper bound. It represents the total number of students enrolled in districts that offer à la carte, not just the students with access. The mean sales per district are calculated as a mean for the districts that offered à la carte, not all districts in the state.



**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**  
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**Table 2-16: À la carte sales revenues in public unified NSLP school districts in Alaska and Hawaii, SY 2009/10**

School district enrollment	À la carte sales revenue, SY 2009/10			
	Total	Mean per district	Students with access to a la carte	Yearly revenue per 1,000 students
<b>Alaska</b>	<i>Dollars</i>	<i>Dollars</i>	<i>Number</i>	<i>Dollars \$</i>
Large	\$1,472,629	\$1,472,629	46,613	\$31,593
Medium	\$1,537,285	\$512,428	37,127	\$41,406
Small	\$131,748	\$43,916	8,006	\$16,456
Alaska total	\$3,141,662	\$448,809	91,746	\$34,243
<b>Hawaii</b>	\$1,574,153	\$1,574,153	170,830	\$9,215

Source: School Food Purchase Study, 2011.

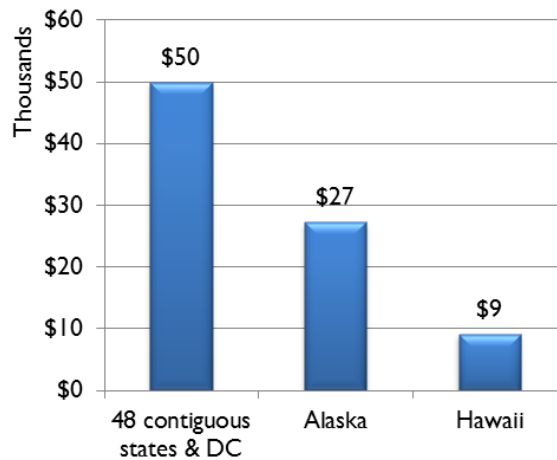
Compared to the 48 contiguous states, annual à la carte sales revenue per 1,000 students was the lowest in Hawaii and the highest in the 48 states (see Figure 2-10).

**Top selling à la carte foods**

As in the 48 contiguous states, respondents that offered à la carte foods were asked to list the ten top selling à la carte foods. As one would expect, the selection of food items listed as top selling was significantly more limited than in the 48 states where respondents identified a total of 59 items as being top sellers in the elementary schools and 64 items in the middle secondary schools. In the state of Alaska, 15 items were identified as top sellers in the elementary schools and 25 in the middle/secondary schools. These, ranked by the number of districts identifying them as being a top selling item are listed in Table 2-17. It should be noted however, that only a small number of schools offered à la carte items in Alaska.

In Hawaii, this list was very short. There were three items in elementary schools (entrée, juice, and milk) and five in middle/secondary schools (dessert/baked goods, entrée, milk, salad, and water).

**Figure 2-10: Annual à la carte food sales revenue per 1,000 students for school districts in Alaska, Hawaii, and the 48 states, SY 2009/10**



Source: School Food Purchase Study, 2011

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**Table 2-17: Number of public unified NSLP school districts in Alaska identifying specified foods as one of the top ten selling à la carte food items, by elementary and middle/secondary, SY 2009/10**

Alaska Elementary				Alaska Middle/secondary			
Rank	Food group	Number of districts	Percent of all districts	Rank	Food group	Number of districts	Percent of all districts
1	dessert/baked goods	3	5.8%	1	pizza	5	9.7%
2	milk	3	5.8%	2	entree	3	5.8%
3	breadsticks/breads/rolls	2	3.9%	3	french fries	3	5.8%
4	entree	2	3.9%	4	milk	3	5.8%
5	fruit	2	3.9%	5	cheeseburger	2	3.9%
6	juice	2	3.9%	6	cookies	2	3.9%
7	snack chips	2	3.9%	7	dessert/baked goods	2	3.9%
8	vegetable	2	3.9%	8	fruit	2	3.9%
9	bagels	1	1.9%	9	juice	2	3.9%
10	cookies	1	1.9%	10	sandwiches	2	3.9%
11	misc. pocket sandwiches	1	1.9%	11	snack	2	3.9%
12	salad	1	1.9%	12	snack chips	2	3.9%
13	sandwiches	1	1.9%	13	vegetable	2	3.9%
14	snack	1	1.9%	14	vitamin water	2	3.9%
15	yogurt	1	1.9%	15	beverage	1	1.9%
No à la carte sales		47	90.9%	16	burrito	1	1.9%
				17	chicken sandwich	1	1.9%
				18	corn dog	1	1.9%
				19	hamburger	1	1.9%
				20	ice cream	1	1.9%
				21	nachos	1	1.9%
				22	pretzels	1	1.9%
				23	salad	1	1.9%
				24	sport drink	1	1.9%
				25	water	1	1.9%
				No à la carte sales		45	87.1%

School Food Purchase Study, 2011

**2.2.5 Programs served other than NSLP and SBP**

As in the 48 states, most school districts in Alaska served food outside the NSLP and SBP. As might be expected, the smaller districts were less likely to serve food programs other than the NSLP and SBP (see Table 2-18).

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**Table 2-18: Public unified NSLP school districts in Alaska, Hawaii, and Puerto Rico serving other programs, by size of districts, SY 2009/10**

Type of program	Alaska: School District size				Hawaii	Puerto Rico
	Large	Medium	Small	Alaska total		
	----- number -----					
Staff meals	1	3	17	21	1	1
Non-reimbursable, school related events	0	2	18	20	0	0
Other (non-reimbursable)	1	0	17	18	0	1
Head start	0	0	16	16	1	1
Elderly nutrition program	0	0	16	16	1	0
After school snack program	1	2	13	16	1	1
Fresh fruit and vegetable program	1	2	5	8	1	0
Summer food service program	1	2	4	7	1	0
Seamless summer option	0	0	4	4	0	0
Public catering	0	1	1	2	0	0
Day care	0	0	2	2	0	0
Child and adult care feeding	0	0	1	1	1	1
Disaster feeding	0	1	0	1	0	0
Other schools	0	0	0	0	1	0
Districts with no other programs	0	0	16	16	0	0

School Food Purchase Study, 2011

Estimated revenues from other programs served in Alaska and Hawaii in SY 2009/10 were:

	<b>Alaska</b>	<b>Hawaii</b>
• Reimbursable:	\$581,564	\$0
• Non-reimbursable	\$333,036	\$3,548,809

Puerto Rico did not provide a response to these questions.

**2.2.6 Food service management companies**

The sample of Alaskan districts is too small to identify confidently the extent of food service management companies' (FSMCs) involvement in Alaska. Based on the statistical sample, an estimated total of 25 small school districts in Alaska used food service management companies (FSMCs) to run their food service operations in SY 2009/10. However, this is probably a significant over-estimate. Our sample included three districts with FSMCs: one of the four larger districts, and two small districts.

Hawaii and Puerto Rico did not use the services of an FSMC.

**2.2.7 Menu planning systems**

A total of six districts in Alaska were using Nutrient Standard Menu Planning. These represented the large and medium size districts and two small districts. The 46 remaining small districts were using Traditional Food Based Menu Planning.

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Hawaii and Puerto Rico both used Traditional Food Based Menu Planning exclusively.

In the 48 contiguous states an estimated 62.3 percent of the districts were using solely Traditional Food Based Menu Planning.

**2.2.8 Meal preparation facilities**

Table 2-19 shows the estimated number and type of kitchens operated by school districts in Alaska, Hawaii, Puerto Rico, and the 48 states. Results for Alaska and Hawaii are consistent with findings for the 48 states:

- On-site kitchens are the prevalent type, especially in the small districts in Alaska where they account for over 95 percent of all kitchens; and
- Central and satellite kitchens are operated by the larger size districts.

Puerto Rico uses exclusively on-site kitchens.

**Table 2-19: Number of public unified NSLP school district kitchens by type of kitchen in Alaska, Hawaii, Puerto Rico, and the 48 contiguous states & DC, SY 2009/10**

Meal preparation facility	Alaska: school district size								Hawaii		Puerto Rico		48 states & DC	
	Large		Medium		Small		All districts							
	#	%	#	%	#	%	#	%	#	%	#	%		
Central kitchens	1	1.2%	2	2.0%	0	-	3	0.7%	1	0.4%	0	-	376	0.5%
Base kitchens	-	-	4	4.0%	1	0.4%	5	1.1%	36	14.2%	0	-	9,333	11.3%
Satellite kitchens	66	77.6%	45	45.5%	8	3.1%	119	27.1%	51	20.1%	0	-	13,451	16.3%
Combination	18	21.2%	29	29.3%	2	0.8%	48	10.9%	1	0.4%	0	0	12,064	14.6%
On-site kitchens	-	-	20	20.2%	244	96.1%	263	59.9%	165	65.0%	1,781	100.0%	47,202	57.1%
Other types	-	-	0	-	0	-	0	-	-	-	0	-	92	0.1%
<b>Total</b>	<b>85</b>	<b>100%</b>	<b>99</b>	<b>100%</b>	<b>254</b>	<b>100%</b>	<b>439</b>	<b>100%</b>	<b>254</b>	<b>100%</b>	<b>1,781</b>	<b>100.0%</b>	<b>82,594</b>	<b>100%</b>

Source: School Food Purchase Study, 2011

**2.2.9 Miscellaneous program features**

As seen in Table 2-20, school districts in Alaska used the same full array of food service options as the 48 contiguous states. Hawaii offered à la carte breakfast and lunch items, choice of NSLP entrees, offer vs. serve, snack bars, and electronic debit cards, although the latter two were offered by less than half a percent of the schools.

As in the 48 contiguous states ‘offer vs. serve’ was the most popular feature in Alaska. À la carte items for lunch, free fresh fruit or vegetables, and choice of NSLP entrée followed with 23, 21, and 18 percent of the schools in Alaska offering them.

In Hawaii, the most popular features were à la carte items for breakfast and lunch, offered by almost all schools in the district. ‘Offer vs. serve’ was used by over one third of the schools.

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**Table 2-20: Food service options offered by public unified NSLP schools in Alaska, Hawaii, and Puerto Rico by size of district, SY 2009/10**

Food Service Options	Alaska: school district size				Hawaii	Puerto Rico	48 states & DC
	Large	Medium	Small	All districts			
	----- percent of school -----						
A la carte items lunch	14.5%	66.4%	8.6%	23.0%	99.6%	0.0%	63.5%
A la carte items breakfast	14.5%	32.7%	7.4%	15.1%	99.6%	0.0%	39.6%
Offer vs. serve	67.7%	91.8%	32.4%	54.6%	34.3%	100.0%	87.3%
Choice of NSLP entrees	8.1%	67.3%	3.9%	18.9%	20.5%	0.0%	73.2%
Electronic debit cards	0.0%	32.7%	0.0%	7.3%	0.4%	0.0%	10.2%
Snack bars	6.5%	9.1%	0.0%	3.7%	0.4%	0.0%	8.6%
Free fresh fruit or vegetables	12.1%	34.5%	19.5%	21.0%	0.0%	0.0%	18.8%
Open campus	6.5%	1.8%	25.8%	15.5%	0.0%	0.0%	6.9%
Vending machines	14.5%	20.9%	0.8%	8.8%	0.0%	0.0%	19.5%
Student stores	14.5%	9.1%	0.0%	5.7%	0.0%	0.0%	6.7%

Note: The percentages displayed are of schools and not school districts; not all features are offered by all schools within a district.

Source: School Food Purchase Study, 2011

**2.2.10 Participation in reimbursable lunch programs**

Participation rates for Puerto Rico are unavailable as Puerto Rico could not provide average daily student attendance. However they did provide average daily meals served by program type. Average daily meals served in Puerto Rico were as follows:

- Total enrollment: 608,081
- Breakfast: 107,521 meals per day or 17.6% of total enrollment
- Lunch: 254,743 meals per day or 41.8% of total enrollment

Participation rates for free, reduced price, and full price lunches in Alaska and Hawaii are shown in Table 2-21 and for breakfast in Table 2-22. Overall lunch participation rates in both Alaska (66 percent) and Hawaii (61 percent) were very similar to the 66 percent for the 48 states. Participation rates for free and reduced price lunches were higher in the 48 states than in Alaska and Hawaii, and lower for full price lunches than in Alaska.

Participation rates in the breakfast program were significantly lower than in the lunch program. Alaska had higher participation rates in the breakfast program than the 48 states. Hawaii's overall participation rates were slightly lower than in the 48 states; they were the same for full price breakfasts, but much lower for reduced price breakfasts.

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**Table 2-21: Mean rates of participation in the reimbursable lunch programs of public unified NSLP school districts in Alaska, Hawaii, and the 48 states by meal type, SY 2009/10**

School district	Free lunches	Reduced price lunches	Full price lunches	All reimbursable lunches
----- percent of certified eligible students-----				
<b>Alaska</b>				
Large	76%	77%	19%	41%
Medium	66%	66%	22%	37%
Small	72%	70%	67%	69%
All Alaska districts	72%	70%	63%	66%
<b>Hawaii</b>	67%	66%	56%	61%
<b>48 states &amp; DC</b>	82%	78%	56%	66%

Source: School Food Purchase Study, 2011

**Table 2-22: Mean rates of participation in the reimbursable breakfast programs of public unified NSLP school districts in Alaska, Hawaii, and the 48 states by meal type, SY 2009/10**

School district	Free breakfasts	Reduced price breakfasts	Full price breakfasts	All reimbursable breakfasts
----- percent of certified eligible students-----				
<b>Alaska</b>				
Large	26%	17%	2%	10%
Medium	27%	26%	8%	14%
Small	38%	56%	29%	36%
All Alaska districts	38%	55%	28%	36%
<b>Hawaii</b>	30%	22%	13%	21%
<b>48 states &amp; DC</b>	38%	26%	12%	25%

Source: School Food Purchase Study, 2011

## **SECTION 3: FOOD ACQUISITIONS BY UNIFIED SCHOOL DISTRICTS IN ALASKA AND HAWAII**

### **3.1 Introduction**

This section provides a summary of the estimated food acquisitions by unified public school districts in Alaska and Hawaii in SY 2009/10 and compares them with the national estimates for the 48 contiguous states and the District of Columbia. Puerto Rico could not provide usable food purchase data and is not included in this section.

### **3.2 School food acquisitions, SY 2009/10**

#### **3.2.1 Total food acquisitions**

An estimated total of 510 food items were acquired by public unified school districts in Alaska and 405 in Hawaii in SY 2009/10. This is a significantly smaller number of items than the total of 865 acquired by public unified NSLP school districts in the 48 states. However, it should be noted that the top 500 food items acquired by school districts in the 48 states accounted for 99 percent of the value and almost 100 percent of the volume of all food acquisitions, which means that the remaining 365 food items were acquired by very few districts in very small quantities.

A summary of the dollar value of these acquisitions in Alaska and Hawaii is provided in Table 3-1, and by weight in pounds in Table 3-2. In these summaries, the individual food items have been aggregated in the same 72 food subgroups and 16 broader food groups as food acquisitions in the 48 states. As for the 48 states, USDA Foods are presented with two different values in Table 3-1; one is the estimated 'fair market value' based on the cost of purchasing comparable products in the open marketplace, and the second is the value assigned by USDA plus a charge reflecting the transportation to a single location in the state.

Alaskan acquisitions of all foods were valued at \$27 million of which \$23 million were purchased foods and \$0.5 million were processed using USDA Foods and \$3.3 million were USDA Foods valued at fair market value (\$1.9 million at USDA assigned cost).

Hawaiian acquisitions were valued at \$28.7 million, of which \$24.6 million were purchased foods, \$4.2 million were USDA Foods valued at fair market value (\$2.5 million at USDA assigned cost).

Detailed value and volume information for all food items acquired in Alaska and Hawaii is provided in the Alaska and Hawaii Statistical Appendices Report.

**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**  
SECTION 3: FOOD ACQUISITIONS IN ALASKA AND HAWAII

**Table 3-1: Summary of dollar value of food acquisitions by public unified NSLP school districts in Alaska and Hawaii, SY 2009/10**

Food groups/subgroups	ALASKA									HAWAII								
	All foods		Purchased foods		Processed foods containing USDA Foods		USDA Foods			All foods		Purchased foods		USDA Foods				
							Fair market value	USDA assigned						Fair market value	USDA assigned			
	(\$)	(%)	(\$)	(%)	(\$)	(%)	(\$)	(%)	(\$)	(\$)	(%)	(\$)	(%)	(\$)	(%)	(\$)		
<b>All foods</b>	<b>26,982,613</b>	<b>100.0</b>	<b>23,183,181</b>	<b>85.9</b>	<b>453,936</b>	<b>1.7</b>	<b>3,345,495</b>	<b>12.4</b>	<b>1,887,631</b>	<b>28,789,384</b>	<b>100.0</b>	<b>24,611,287</b>	<b>85.5</b>	<b>4,178,096</b>	<b>14.5</b>	<b>2,498,542</b>		
<b>Bakery products</b>	<b>2,736,900</b>	<b>10.1</b>	<b>2,694,593</b>	<b>11.6</b>	<b>37,689</b>	<b>8.3</b>	<b>4,618</b>	<b>0.1</b>	<b>3,339</b>	<b>834,183</b>	<b>2.9</b>	<b>794,087</b>	<b>3.2</b>	<b>40,096</b>	<b>1.0</b>	<b>20,079</b>		
Biscuits, muffins, pancakes & waffles	422,985	1.6	400,214	1.7	22,771	5.0	-	-	-	392,910	1.4	352,814	1.4	40,096	1.0	20,079		
Bread & rolls	1,471,692	5.5	1,460,373	6.3	11,319	2.5	-	-	-	145,267	0.5	145,267	0.6	-	-	-		
Cakes & other bakery desserts	265,662	1.0	257,444	1.1	3,599	0.8	4,618	0.1	3,339	123,837	0.4	123,837	0.5	-	-	-		
Crackers	370,094	1.4	370,094	1.6	-	-	-	-	-	57,117	0.2	57,117	0.2	-	-	-		
Pretzels & snack chips	206,467	0.8	206,467	0.9	-	-	-	-	-	114,845	0.4	114,845	0.5	-	-	-		
<b>Condiments</b>	<b>662,855</b>	<b>2.5</b>	<b>613,589</b>	<b>2.6</b>	<b>-</b>	<b>-</b>	<b>49,266</b>	<b>1.5</b>	<b>7,282</b>	<b>421,464</b>	<b>1.5</b>	<b>361,284</b>	<b>1.5</b>	<b>60,180</b>	<b>1.4</b>	<b>18,681</b>		
Catsup & other sauces	532,622	2.0	483,356	2.1	-	-	49,266	1.5	7,282	274,339	1.0	214,158	0.9	60,180	1.4	18,681		
Flavorings	82,445	0.3	82,445	0.4	-	-	-	-	-	135,270	0.5	135,270	0.5	-	-	-		
Pickles/olives	47,788	0.2	47,788	0.2	-	-	-	-	-	11,856	-	11,856	-	-	-	-		
<b>Eggs</b>	<b>488,910</b>	<b>1.8</b>	<b>369,361</b>	<b>1.6</b>	<b>80,826</b>	<b>17.8</b>	<b>38,723</b>	<b>1.2</b>	<b>10,218</b>	<b>184,969</b>	<b>0.6</b>	<b>121,177</b>	<b>0.5</b>	<b>63,792</b>	<b>1.5</b>	<b>25,017</b>		
Eggs	173,301	0.6	134,578	0.6	-	-	38,723	1.2	10,218	168,675	0.6	104,883	0.4	63,792	1.5	25,017		
Mixtures with eggs	315,609	1.2	234,783	1.0	80,826	17.8	-	-	-	16,294	0.1	16,294	0.1	-	-	-		
<b>Fats/oils</b>	<b>334,870</b>	<b>1.2</b>	<b>334,870</b>	<b>1.4</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>778,916</b>	<b>2.7</b>	<b>697,645</b>	<b>2.8</b>	<b>81,271</b>	<b>1.9</b>	<b>39,646</b>		
Butter	15,565	0.1	15,565	0.1	-	-	-	-	-	441,292	1.5	441,292	1.8	-	-	-		
Margarine	55,548	0.2	55,548	0.2	-	-	-	-	-	6,009	-	6,009	-	-	-	-		
Salad dressings & mayonnaise	189,926	0.7	189,926	0.8	-	-	-	-	-	171,002	0.6	171,002	0.7	-	-	-		
Vegetable oils & shortenings	73,830	0.3	73,830	0.3	-	-	-	-	-	160,612	0.6	79,342	0.3	81,271	1.9	39,646		
<b>Fish</b>	<b>563,323</b>	<b>2.1</b>	<b>533,482</b>	<b>2.3</b>	<b>28,633</b>	<b>6.3</b>	<b>1,208</b>	<b>-</b>	<b>1,417</b>	<b>595,131</b>	<b>2.1</b>	<b>341,272</b>	<b>1.4</b>	<b>253,859</b>	<b>6.1</b>	<b>201,640</b>		
Fish	549,245	2.0	519,404	2.2	28,633	6.3	1,208	-	1,417	595,105	2.1	341,246	1.4	253,859	6.1	201,640		
Shellfish	14,078	0.1	14,078	0.1	-	-	-	-	-	26	-	26	-	-	-	-		



**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**

SECTION 3: FOOD ACQUISITIONS IN ALASKA AND HAWAII

Food groups/subgroups	ALASKA									HAWAII						
	All foods		Purchased foods		Processed foods containing USDA Foods		USDA Foods			All foods		Purchased foods		USDA Foods		
							Fair market value	USDA as-signed						Fair market value	USDA as-signed	
	(\$)	(%)	(\$)	(%)	(\$)	(%)	(\$)	(%)	(\$)	(\$)	(%)	(\$)	(%)	(\$)	(%)	(\$)
<b>Fruits/juices</b>	<b>5,512,077</b>	<b>20.4</b>	<b>4,309,437</b>	<b>18.6</b>	<b>97,203</b>	<b>21.4</b>	<b>1,105,437</b>	<b>33.0</b>	<b>614,479</b>	<b>3,897,345</b>	<b>13.5</b>	<b>3,351,246</b>	<b>13.6</b>	<b>546,099</b>	<b>13.1</b>	<b>253,438</b>
Fruits	4,296,835	15.9	3,131,295	13.5	81,618	18.0	1,083,922	32.4	606,017	3,330,079	11.6	2,881,601	11.7	448,478	10.7	220,708
Juices	1,215,242	4.5	1,178,142	5.1	15,585	3.4	21,515	0.6	8,462	567,266	2.0	469,644	1.9	97,621	2.3	32,730
<b>Grain products</b>	<b>1,765,642</b>	<b>6.5</b>	<b>1,688,086</b>	<b>7.3</b>	<b>2,026</b>	<b>0.4</b>	<b>75,531</b>	<b>2.3</b>	<b>33,112</b>	<b>1,661,154</b>	<b>5.8</b>	<b>796,028</b>	<b>3.2</b>	<b>865,126</b>	<b>20.7</b>	<b>519,235</b>
Breakfast cereals	636,499	2.4	636,499	2.7	-	-	-	-	-	215,590	0.7	215,590	0.9	-	-	-
Flour & other milled grains	133,703	0.5	66,324	0.3	-	-	67,379	2.0	30,643	519,300	1.8	111,590	0.5	407,711	9.8	196,914
Flour mix	371,975	1.4	371,975	1.6	-	-	-	-	-	2,621	-	2,621	-	-	-	-
Mixtures with grain	411,192	1.5	409,166	1.8	2,026	0.4	-	-	-	4,607	-	4,607	-	-	-	-
Pasta & noodles	116,048	0.4	116,048	0.5	-	-	-	-	-	256,974	0.9	120,916	0.5	136,058	3.3	43,509
Rice, barley & other grains	96,226	0.4	88,074	0.4	-	-	8,152	0.2	2,469	662,062	2.3	340,704	1.4	321,358	7.7	278,812
<b>Legumes/nuts/seeds</b>	<b>201,530</b>	<b>0.7</b>	<b>200,923</b>	<b>0.9</b>	-	-	<b>606</b>	-	<b>332</b>	<b>135,608</b>	<b>0.5</b>	<b>77,815</b>	<b>0.3</b>	<b>57,793</b>	<b>1.4</b>	<b>23,897</b>
Dry beans/peas	111,977	0.4	111,930	0.5	-	-	47	-	43	118,244	0.4	60,451	0.2	57,793	1.4	23,897
Other nuts	7,056	-	7,056	-	-	-	-	-	-	180	-	180	-	-	-	-
Peanuts/peanut butter	61,981	0.2	61,422	0.3	-	-	559	-	289	242	-	242	-	-	-	-
Seeds	6,803	-	6,803	-	-	-	-	-	-	394	-	394	-	-	-	-
Soybeans & soy products	13,713	0.1	13,713	0.1	-	-	-	-	-	16,548	0.1	16,548	0.1	-	-	-
<b>Milk &amp; other dairy products</b>	<b>4,245,010</b>	<b>15.7</b>	<b>3,910,891</b>	<b>16.9</b>	<b>9,780</b>	<b>2.2</b>	<b>324,340</b>	<b>9.7</b>	<b>222,977</b>	<b>8,974,280</b>	<b>31.2</b>	<b>8,563,819</b>	<b>34.8</b>	<b>410,460</b>	<b>9.8</b>	<b>201,750</b>
Cheese	901,397	3.3	681,955	2.9	9,780	2.2	209,662	6.3	144,259	886,208	3.1	475,747	1.9	410,460	9.8	201,750
Cream	20,213	0.1	20,213	0.1	-	-	-	-	-	2,849	-	2,849	-	-	-	-
Ice cream & ice milk	52,289	0.2	52,289	0.2	-	-	-	-	-	-	-	-	-	-	-	-
Milk	3,169,890	11.7	3,055,213	13.2	-	-	114,677	3.4	78,719	8,010,361	27.8	8,010,361	32.5	-	-	-
Yogurt	101,221	0.4	101,221	0.4	-	-	-	-	-	74,862	0.3	74,862	0.3	-	-	-

**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**  
SECTION 3: FOOD ACQUISITIONS IN ALASKA AND HAWAII

Food groups/subgroups	ALASKA									HAWAII								
	All foods		Purchased foods		Processed foods containing USDA Foods		USDA Foods			All foods		Purchased foods		USDA Foods				
							Fair market value	USDA as-signed						Fair market value	USDA as-signed			
	(\$)	(%)	(\$)	(%)	(\$)	(%)	(\$)	(%)	(\$)	(\$)	(%)	(\$)	(%)	(\$)	(%)	(\$)		
<b>Non dairy drinks</b>	<b>241,539</b>	<b>0.9</b>	<b>241,539</b>	<b>1.0</b>						<b>176,423</b>	<b>0.6</b>	<b>176,423</b>	<b>0.7</b>					
Carbonated	894		894															
Coffee & tea	4,928		4,928							593		593						
Dry beverage	1,667		1,667															
Enriched drinks	74,542	0.3	74,542	0.3														
Fruit drinks	98,921	0.4	98,921	0.4						1,077		1,077						
Water	60,587	0.2	60,587	0.3						174,753	0.6	174,753	0.7					
<b>Poultry</b>	<b>2,024,588</b>	<b>7.5</b>	<b>1,127,290</b>	<b>4.9</b>	<b>111,159</b>	<b>24.5</b>	<b>786,139</b>	<b>23.5</b>	<b>370,659</b>	<b>4,023,038</b>	<b>14.0</b>	<b>3,206,029</b>	<b>13.0</b>	<b>817,008</b>	<b>19.6</b>	<b>548,094</b>		
Chicken	1,292,136	4.8	840,785	3.6	111,159	24.5	340,193	10.2	130,882	2,705,342	9.4	2,521,104	10.2	184,238	4.4	216,420		
Mixed poultry	-		-							17		17						
Recipe mix	773		773															
Turkey	731,679	2.7	285,732	1.2			445,946	13.3	239,777	1,317,678	4.6	684,909	2.8	632,770	15.1	331,673		
<b>Prepared foods</b>	<b>2,053,186</b>	<b>7.6</b>	<b>2,022,161</b>	<b>8.7</b>	<b>31,025</b>	<b>6.8</b>				<b>640,482</b>	<b>2.2</b>	<b>640,482</b>	<b>2.6</b>					
Burritos/tacos	338,914	1.3	338,914	1.5						357,162	1.2	357,162	1.5					
Meat or cheese filled pastry	71,179	0.3	71,179	0.3						189,581	0.7	189,581	0.8					
Mixtures with fish	12,237		12,237	0.1														
Pizza	1,135,026	4.2	1,127,620	4.9	7,406	1.6				729		729						
Prepared meals	212,060	0.8	212,060	0.9						204		204						
Prepared sandwiches	283,771	1.1	260,152	1.1	23,619	5.2				92,806	0.3	92,806	0.4					
<b>Red meats</b>	<b>2,338,168</b>	<b>8.7</b>	<b>1,865,420</b>	<b>8.0</b>	<b>55,597</b>	<b>12.2</b>	<b>417,151</b>	<b>12.5</b>	<b>262,613</b>	<b>3,443,806</b>	<b>12.0</b>	<b>2,757,743</b>	<b>11.2</b>	<b>686,063</b>	<b>16.4</b>	<b>548,909</b>		
Beef & veal	1,608,728	6.0	1,157,251	5.0	47,796	10.5	403,681	12.1	251,387	1,987,700	6.9	1,344,271	5.5	643,429	15.4	524,691		
Buffalo	165		165															
Mixed meats	227,506	0.8	227,506	1.0						666,004	2.3	666,004	2.7					
Pork	488,973	1.8	467,703	2.0	7,800	1.7	13,470	0.4	11,227	789,794	2.7	747,160	3.0	42,634	1.0	24,218		
Recipe mix	12,796		12,796	0.1						308		308						

**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**  
SECTION 3: FOOD ACQUISITIONS IN ALASKA AND HAWAII

Food groups/subgroups	ALASKA									HAWAII								
	All foods		Purchased foods		Processed foods containing USDA Foods		USDA Foods			All foods		Purchased foods		USDA Foods				
							Fair market value	USDA assigned						Fair market value	USDA assigned			
	(\$)	(%)	(\$)	(%)	(\$)	(%)	(\$)	(%)	(\$)	(\$)	(%)	(\$)	(%)	(\$)	(%)	(\$)		
<b>Soups &amp; gravies</b>	<b>420,484</b>	<b>1.6</b>	<b>420,484</b>	<b>1.8</b>						<b>297,202</b>	<b>1.0</b>	<b>297,202</b>	<b>1.2</b>					
Gravies	71,881	0.3	71,881	0.3						156,008	0.5	156,008	0.6					
Soups	348,602	1.3	348,602	1.5						141,194	0.5	141,194	0.6					
<b>Sugar/desserts</b>	<b>753,966</b>	<b>2.8</b>	<b>753,966</b>	<b>3.3</b>						<b>358,840</b>	<b>1.2</b>	<b>358,840</b>	<b>1.5</b>					
Candies/toppings	186,928	0.7	186,928	0.8						734		734						
Gelatins	71,905	0.3	71,905	0.3						67,162	0.2	67,162	0.3					
Jellies, jams & preserves	69,908	0.3	69,908	0.3						12,907		12,907	0.1					
Puddings/pie filling	159,210	0.6	159,210	0.7						646		646						
Sherbet/ices	31,698	0.1	31,698	0.1														
Sugars	99,946	0.4	99,946	0.4						208,919	0.7	208,919	0.8					
Syrups	134,370	0.5	134,370	0.6						68,471	0.2	68,471	0.3					
<b>Vegetables</b>	<b>2,639,565</b>	<b>9.8</b>	<b>2,097,090</b>	<b>9.0</b>			<b>542,475</b>	<b>16.2</b>	<b>361,203</b>	<b>2,366,544</b>	<b>8.2</b>	<b>2,070,196</b>	<b>8.4</b>	<b>296,349</b>	<b>7.1</b>	<b>137,802</b>		
Green vegetables	594,785	2.2	389,955	1.7			204,830	6.1	123,188	613,550	2.1	598,839	2.4	14,710	0.4	12,636		
Mixed vegetables	320,017	1.2	301,112	1.3			18,904	0.6	49,660	290,215	1.0	284,289	1.2	5,926	0.1	7,289		
Mixtures with vegetables	-	-	-	-			-	-	-	34		34						
Other vegetables	88,200	0.3	81,993	0.4			6,207	0.2	6,024	65,047	0.2	64,212	0.3	835		894		
Potato & potato products	882,267	3.3	747,509	3.2			134,758	4.0	86,028	761,436	2.6	577,262	2.3	184,174	4.4	75,441		
Tomatoes & tomato products	341,212	1.3	218,256	0.9			122,956	3.7	36,641	370,153	1.3	321,513	1.3	48,640	1.2	25,114		
Yellow vegetables	413,086	1.5	358,265	1.5			54,821	1.6	59,661	266,109	0.9	224,046	0.9	42,063	1.0	16,429		

Source: School Food Purchase study, 2011

**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**

SECTION 3: FOOD ACQUISITIONS IN ALASKA AND HAWAII

**Table 3-2: Summary of volume of food acquisitions by public unified school districts in Alaska and Hawaii, SY 2009/10**

Food groups/subgroups	ALASKA				HAWAII		
	All foods	Purchased foods	Processed foods containing USDA Foods	USDA Foods	All foods	Purchased foods	USDA Foods
	<i>pounds</i>						
<b>All Foods</b>	<b>18,691,894</b>	<b>16,125,237</b>	<b>280,577</b>	<b>2,286,080</b>	<b>30,578,777</b>	<b>27,372,960</b>	<b>3,205,817</b>
<b>Bakery products</b>	<b>1,245,257</b>	<b>1,216,439</b>	<b>27,154</b>	<b>1,664</b>	<b>370,976</b>	<b>347,024</b>	<b>23,952</b>
Biscuits, muffins, pancakes & waffles	197,324	182,165	15,160	-	180,242	156,290	23,952
Bread & rolls	700,948	691,942	9,006	-	81,183	81,183	-
Cakes & other bakery desserts	126,193	121,540	2,989	1,664	51,195	51,195	-
Crackers	135,653	135,653	-	-	12,170	12,170	-
Pretzels & snack chips	85,138	85,138	-	-	46,187	46,187	-
<b>Condiments</b>	<b>485,692</b>	<b>469,916</b>	<b>-</b>	<b>15,775</b>	<b>431,309</b>	<b>390,838</b>	<b>40,471</b>
Catsup & other sauces	408,996	393,221	-	15,775	283,927	243,456	40,471
Flavorings	35,852	35,852	-	-	137,302	137,302	-
Pickles/olives	40,843	40,843	-	-	10,080	10,080	-
<b>Eggs</b>	<b>160,513</b>	<b>107,589</b>	<b>36,578</b>	<b>16,346</b>	<b>120,509</b>	<b>80,489</b>	<b>40,020</b>
Eggs	75,134	58,788	-	16,346	110,519	70,499	40,020
Mixtures with eggs	85,379	48,800	36,578	-	9,990	9,990	-
<b>Fats/oils</b>	<b>231,805</b>	<b>231,805</b>	<b>-</b>	<b>-</b>	<b>459,415</b>	<b>391,178</b>	<b>68,237</b>
Butter	6,746	6,746	-	-	197,832	197,832	-
Margarine	39,702	39,702	-	-	4,925	4,925	-
Salad dressings & mayonnaise	134,027	134,027	-	-	129,638	129,638	-
Vegetable oils & shortenings	51,331	51,331	-	-	127,020	58,782	68,237
<b>Fish</b>	<b>193,357</b>	<b>173,923</b>	<b>18,812</b>	<b>622</b>	<b>200,876</b>	<b>129,926</b>	<b>70,950</b>
Fish	189,141	169,707	18,812	622	200,872	129,922	70,950
Shellfish	4,216	4,216	-	-	4	4	-
<b>Fruits/juices</b>	<b>4,562,515</b>	<b>3,508,485</b>	<b>59,699</b>	<b>994,331</b>	<b>4,199,945</b>	<b>3,780,677</b>	<b>419,267</b>
Fruits	3,607,377	2,588,336	46,182	972,859	3,748,483	3,387,745	360,738
Juices	955,138	920,149	13,517	21,472	451,462	392,933	58,530

**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**

SECTION 3: FOOD ACQUISITIONS IN ALASKA AND HAWAII

Food groups/subgroups	ALASKA				HAWAII		
	All foods	Purchased foods	Processed foods containing USDA Foods	USDA Foods	All foods	Purchased foods	USDA Foods
	----- pounds -----						
<b>Grain products</b>	<b>969,734</b>	<b>838,848</b>	<b>921</b>	<b>129,965</b>	<b>2,188,230</b>	<b>826,535</b>	<b>1,361,695</b>
Breakfast cereals	167,637	167,637	-	-	43,151	43,151	-
Flour & other milled grains	248,495	124,894	-	123,601	998,755	218,580	780,175
Flour mix	236,959	236,959	-	-	1,778	1,778	-
Mixtures with grain	136,285	135,364	921	-	1,971	1,971	-
Pasta & noodles	95,298	95,298	-	-	197,075	93,055	104,020
Rice, barley & other grains	85,060	78,696	-	6,364	945,500	468,000	477,500
<b>Legumes/nuts/seeds</b>	<b>148,106</b>	<b>147,660</b>	<b>-</b>	<b>445</b>	<b>171,627</b>	<b>101,997</b>	<b>69,630</b>
Dry beans/peas	108,274	108,188	-	86	167,229	97,599	69,630
Other nuts	1,100	1,100	-	-	30	30	-
Peanuts/peanut butter	32,994	32,635	-	360	94	94	-
Seeds	2,444	2,444	-	-	96	96	-
Soybeans & soy products	3,294	3,294	-	-	4,177	4,177	-
<b>Milk &amp; other dairy products</b>	<b>4,766,988</b>	<b>4,547,922</b>	<b>4,607</b>	<b>214,458</b>	<b>14,755,043</b>	<b>14,612,423</b>	<b>142,620</b>
Cheese	400,709	296,345	4,607	99,757	283,082	140,462	142,620
Cream	10,528	10,528	-	-	1,796	1,796	-
Ice cream & ice milk	19,783	19,783	-	-	-	-	-
Milk	4,278,423	4,163,722	-	114,701	14,425,297	14,425,297	-
Yogurt	57,545	57,545	-	-	44,869	44,869	-
<b>Non dairy drinks</b>	<b>360,778</b>	<b>360,778</b>	<b>-</b>	<b>-</b>	<b>967,337</b>	<b>967,337</b>	<b>-</b>
Carbonated	476	476	-	-	-	-	-
Coffee & tea	2,593	2,593	-	-	142	142	-
Dry beverage	551	551	-	-	-	-	-
Enriched drinks	141,436	141,436	-	-	-	-	-
Fruit drinks	43,685	43,685	-	-	929	929	-
Water	172,037	172,037	-	-	966,266	966,266	-

**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**

SECTION 3: FOOD ACQUISITIONS IN ALASKA AND HAWAII

Food groups/subgroups	ALASKA				HAWAII		
	All foods	Purchased foods	Processed foods containing USDA Foods	USDA Foods	All foods	Purchased foods	USDA Foods
	----- pounds -----						
<b>Poultry</b>	<b>742,313</b>	<b>458,024</b>	<b>68,972</b>	<b>215,317</b>	<b>2,034,689</b>	<b>1,677,849</b>	<b>356,840</b>
Chicken	457,691	327,401	68,972	61,318	1,457,314	1,331,554	125,760
Mixed poultry	-	-	-	-	2	2	-
Recipe mix	187	187	-	-	-	-	-
Turkey	284,435	130,436	-	153,998	577,372	346,292	231,080
<b>Prepared foods</b>	<b>827,426</b>	<b>808,739</b>	<b>18,688</b>	-	<b>342,033</b>	<b>342,033</b>	-
Burritos/tacos	174,560	174,560	-	-	231,271	231,271	-
Meat or cheese filled pastry	30,589	30,589	-	-	79,213	79,213	-
Mixtures with fish	1,211	1,211	-	-	-	-	-
Pizza	462,398	456,254	6,145	-	337	337	-
Prepared meals	69,479	69,479	-	-	75	75	-
Prepared sandwiches	89,189	76,647	12,543	-	31,137	31,137	-
<b>Red meats</b>	<b>851,366</b>	<b>648,404</b>	<b>45,145</b>	<b>157,816</b>	<b>1,560,512</b>	<b>1,227,632</b>	<b>332,880</b>
Beef & veal	551,374	359,184	40,612	151,577	868,408	553,248	315,160
Buffalo	36	36	-	-	-	-	-
Mixed meats	121,196	121,196	-	-	279,218	279,218	-
Pork	174,681	163,909	4,533	6,239	412,725	395,005	17,720
Recipe mix	4,079	4,079	-	-	161	161	-
<b>Soups &amp; gravies</b>	<b>214,051</b>	<b>214,051</b>	-	-	<b>125,861</b>	<b>125,861</b>	-
Gravies	18,098	18,098	-	-	48,676	48,676	-
Soups	195,953	195,953	-	-	77,185	77,185	-
<b>Sugar/desserts</b>	<b>507,025</b>	<b>507,025</b>	-	-	<b>442,921</b>	<b>442,921</b>	-
Candies/toppings	115,292	115,292	-	-	289	289	-
Gelatins	43,085	43,085	-	-	28,695	28,695	-
Jellies, jams & preserves	40,701	40,701	-	-	6,972	6,972	-
Puddings/pie filling	66,222	66,222	-	-	273	273	-
Sherbet/ices	19,920	19,920	-	-	-	-	-
Sugars	111,299	111,299	-	-	344,375	344,375	-
Syrups	110,506	110,506	-	-	62,316	62,316	-

**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**

*SECTION 3: FOOD ACQUISITIONS IN ALASKA AND HAWAII*

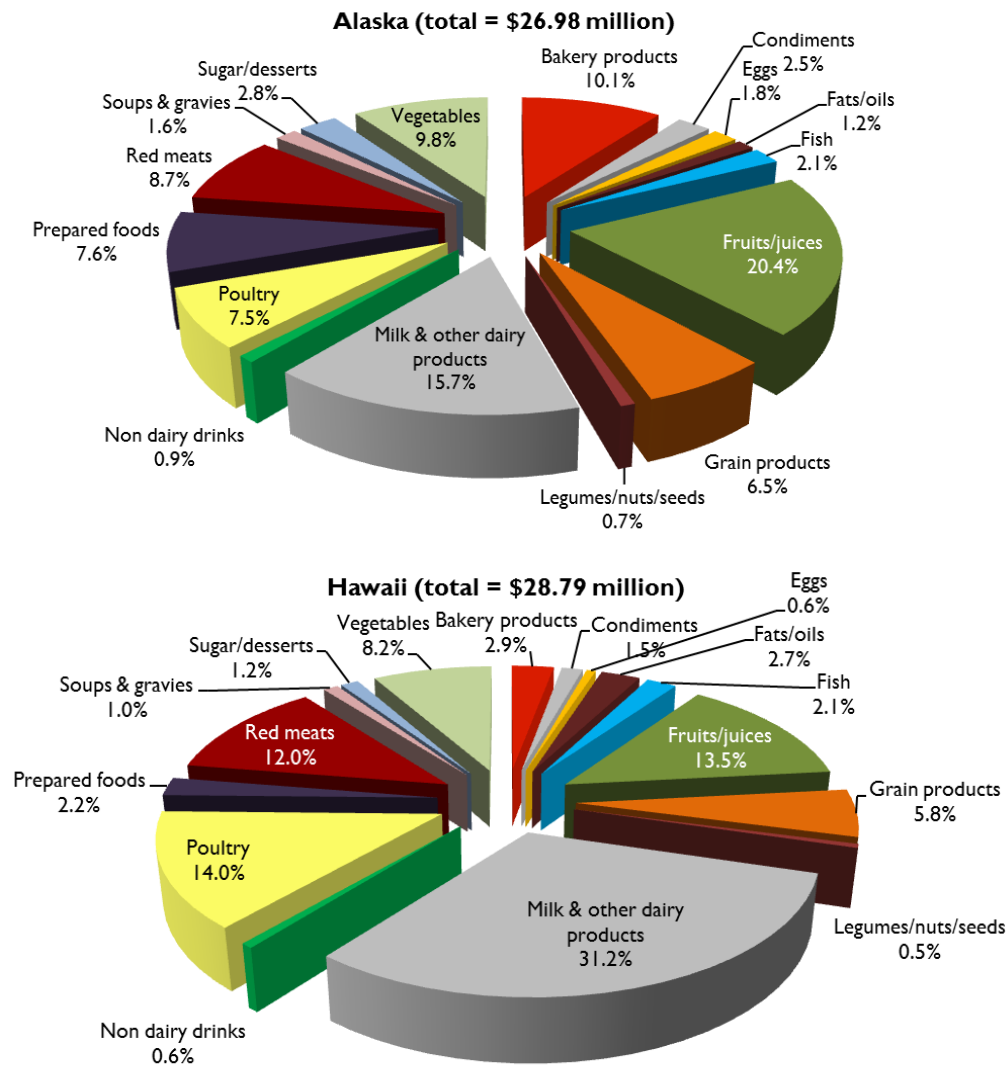
Food groups/subgroups	ALASKA				HAWAII		
	All foods	Purchased foods	Processed foods containing USDA Foods	USDA Foods	All foods	Purchased foods	USDA Foods
	----- pounds -----						
<b>Vegetables</b>	<b>2,424,969</b>	<b>1,885,629</b>	<b>-</b>	<b>539,340</b>	<b>2,207,496</b>	<b>1,928,241</b>	<b>279,254</b>
Green vegetables	540,956	333,294	-	207,661	441,331	431,451	9,880
Mixed vegetables	282,847	261,991	-	20,857	212,558	209,353	3,205
Mixtures with vegetables	-	-	-	-	7	7	-
Other vegetables	41,540	39,229	-	2,312	32,396	31,829	567
Potato & potato products	865,116	706,387	-	158,729	773,423	617,133	156,290
Tomatoes & tomato products	320,641	221,059	-	99,582	505,667	430,889	74,778
Yellow vegetables	373,869	323,670	-	50,199	242,115	207,580	34,535

Source: School Food Purchase study, 2011

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Figure 3-1 shows the dollar value of all food acquisitions. In terms of value, fruits and juices was the largest food group purchased in Alaska (20.4 percent), followed by milk and dairy products (15.7 percent). In Hawaii, milk and dairy products represented the largest food group (31.2 percent) followed by poultry (14 percent) and fruits and juices (13.5 percent). Bakery products held a small share in Hawaii because the SFA does not purchase bread products but schools bake their own.

**Figure 3-1: Share of food product acquisitions by public unified school districts in Alaska and Hawaii in SY 2009/10 by product groups (dollar value)**

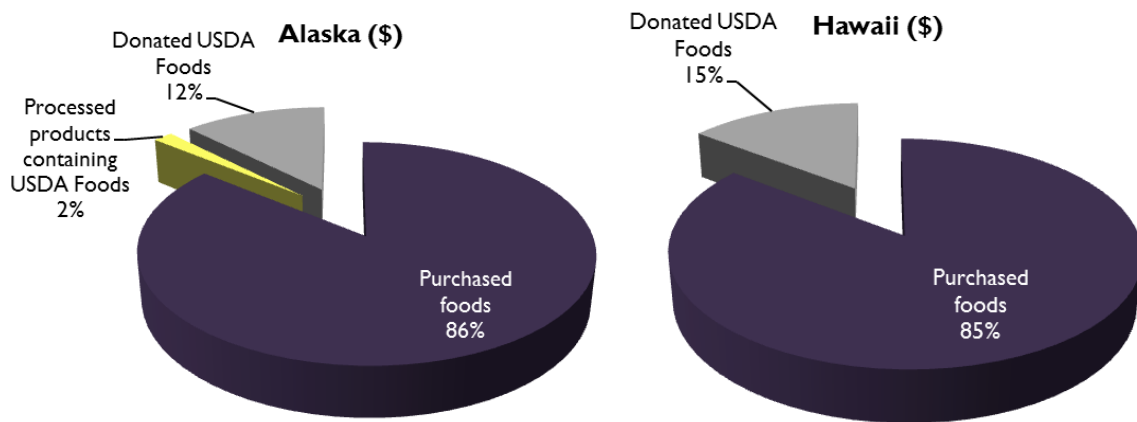


Source: School Food Purchase study, 2011

As shown in Figure 3-2, commercially purchased products in Alaska and Hawaii represented 86 and 85 percent respectively of the value of all food acquisitions. USDA Foods (fair market value) represented 12 percent of all food acquisitions in Alaska and 15 percent in Hawaii. Processed foods containing USDA foods represented two percent of all food acquisitions in Alaska; none of these types of products were acquired in Hawaii. These shares are very similar in volume terms (see Figure 3-3).

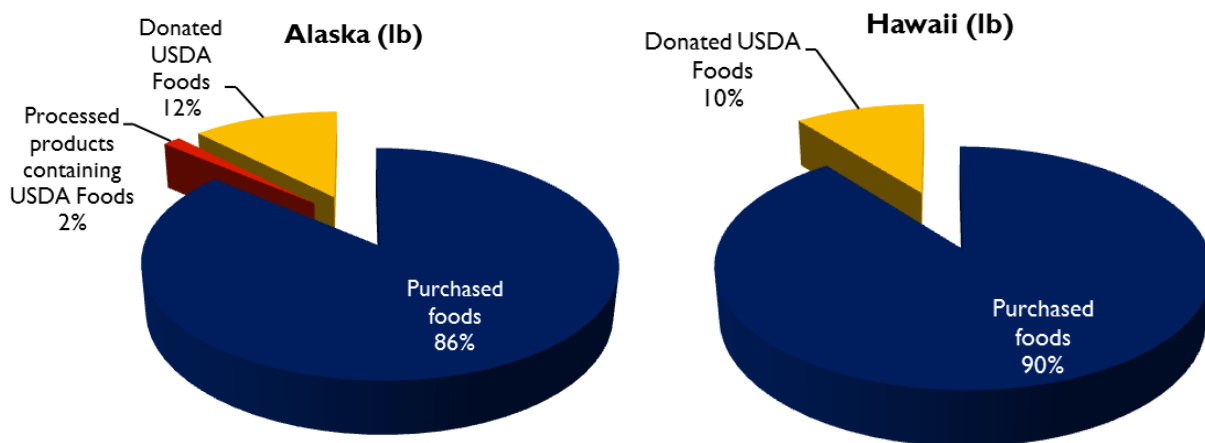


**Figure 3-2: Share of commercially purchased products, USDA Foods and processed foods containing USDA Foods in Alaska and Hawaii, SY 2009/10 (dollar value)**



Source: School Food Purchase Study, 2011

**Figure 3-3: Share of commercially purchased products, USDA donations and processed foods in Alaska and Hawaii, SY 2009/10 (pounds)**



Source: School Food Purchase Study, 2011

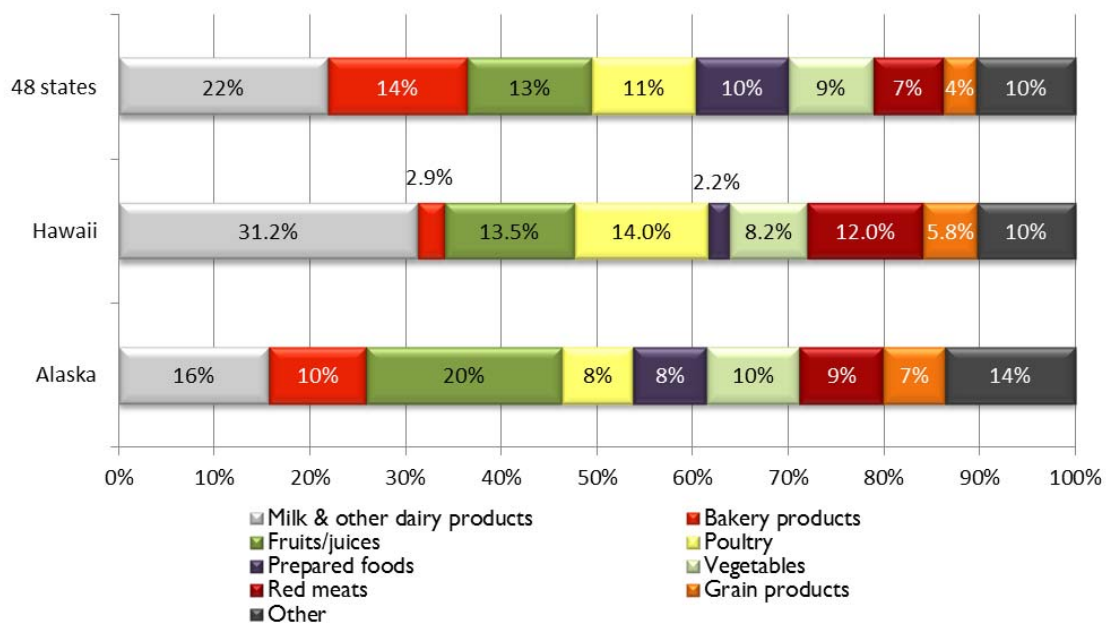
The comparisons of food acquisitions in Alaska, Hawaii, and the 48 states by food group are shown in Figure 3-4 (in value terms) and Figure 3-5 (in volume terms). The top five foods groups (in value terms) in the 48 states were milk and other dairy products, bakery products, fruits and juices, poultry, and prepared foods. In Alaska, these were fruits and juices, milk and other dairy products, bakery products, vegetables, and prepared foods; and in Hawaii, milk and other dairy products, poultry, fruits and juices, red meats, and vegetables. Milk and other dairy products had the highest value share of food acquisitions in the 48 states and Hawaii, and the second highest share in Alaska. The share of this food group was particularly high in

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Hawaii, 31.2 percent, compared to 22 percent in the 48 states and 16 percent in Alaska. While there was significant overlap in most acquired food groups, there were also some notable differences:

- The unusually high value share of fruits and juices in Alaska was due to the higher prices of these products in the state compared to other regions. In volume terms, this food group had the second largest share and milk and other dairy products became the largest food group as it was in Hawaii and the 48 states.
- Milk and other dairy products held a particularly high share in Hawaii, 31 percent in value terms and almost half the volume of all food acquisitions (48 percent).
- Bakery products had the second largest share in value terms and the fourth in volume terms in Alaska and the 48 states. In Hawaii however, they had an unusually low share, both in value and volume terms (three and one percent respectively). This is because schools in the state bake their own bread.
- Grain products held a higher share of acquisition (both in value and volume terms) in Alaska and Hawaii than in the 48 states.
- Poultry product acquisitions in Alaska were lower than in Hawaii and the 48 states and red meat products acquisitions in Hawaii were higher than in Alaska and the 48 states.

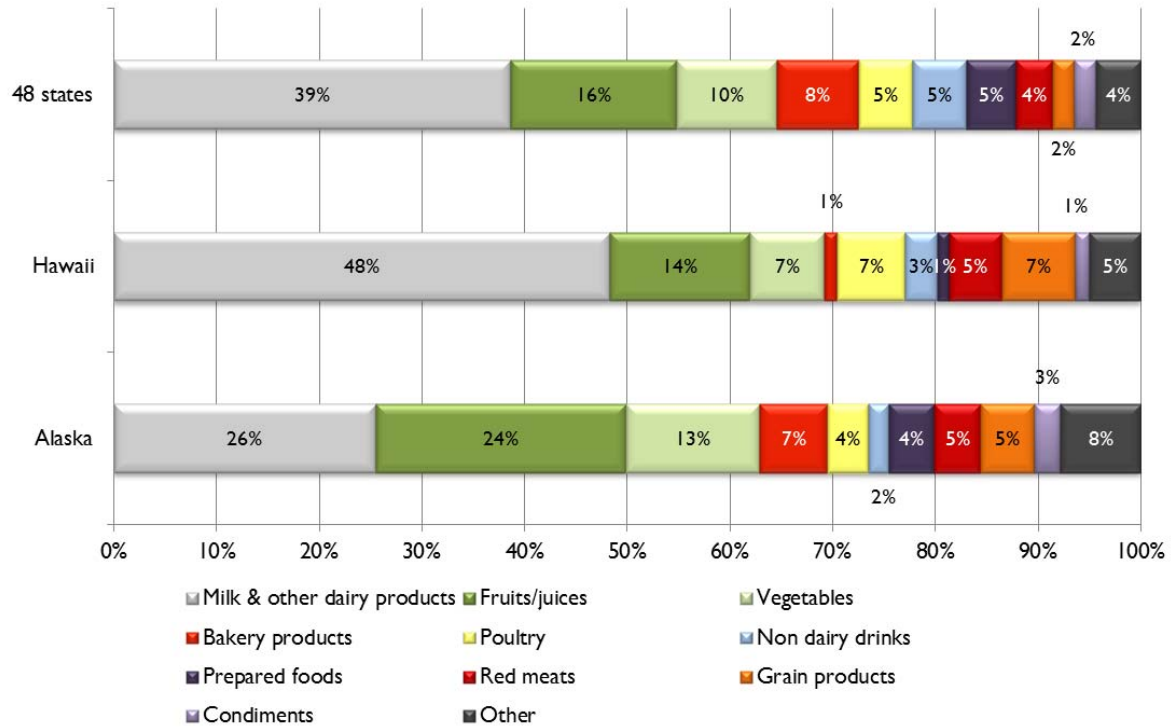
**Figure 3-4: Comparison of food acquisitions by public unified school districts in Alaska, Hawaii and the 48 states by food groups in SY 2009/10 (dollar value)**



Source: School Food Purchase Study, 2011

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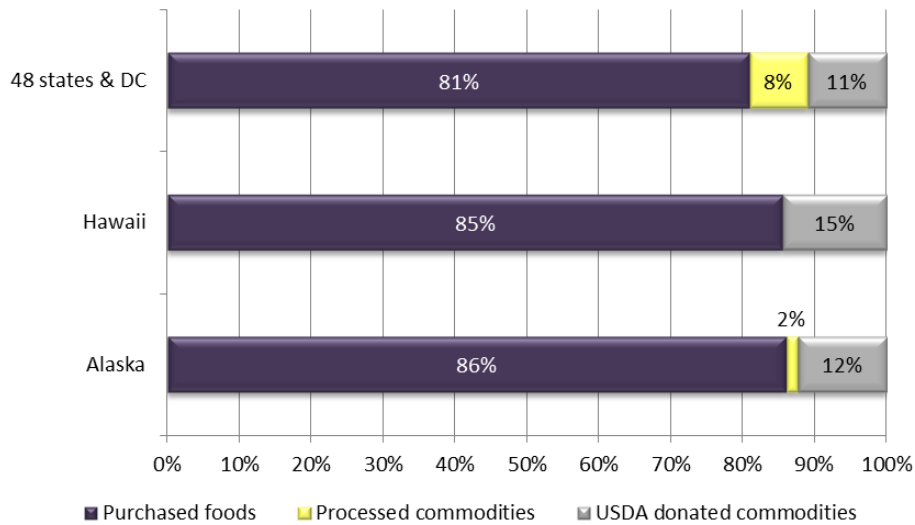
**Figure 3-5: Comparison of food acquisitions by public unified school districts in Alaska, Hawaii and the 48 states by food groups in SY 2009/10 (pounds)**



Source: School Food Purchase Study, 2011

The major difference when food acquisitions are compared by sources is the significantly higher share of processed foods containing USDA Foods in the 48 states, eight percent vs. two percent in Alaska and none in Hawaii (see Figure 3-6)

**Figure 3-6: Comparison of food acquisitions by public unified school districts in Alaska, Hawaii and the 48 contiguous states in SY 2009/10 by source (dollar value)**



Source: School Food Purchase Study, 2011

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**3.2.2 Most frequently acquired foods**

Similar to the 48 states, a relatively small number of foods accounted for most of the value of food acquisitions in Alaska and Hawaii in SY 2009/10. As seen in Table 3-3 the top 10 food subgroups in Alaska and the 48 states were the same, although their share of total acquisitions and their rank in terms of cost of purchase varied.

Hawaii had three food subgroups among the top 10 that were not among the most frequently acquired foods in the other regions (pork, mixed meats, and rice, barley and other grains). Three subgroups that were among the top 10 in Alaska and the 48 states but not in Hawaii were juices, pizza, and bread (Hawaii bakes its own bread).

As seen in the table, Alaska and the 48 states shared the same top 10 food subgroups, although they had different rankings. Hawaii shared the same top three, and each of these accounted for a higher share of total food acquisitions than in the other regions (with the exception of fruits in Alaska). Indeed the top three subgroups in Hawaii (milk, fruits, and chicken) accounted for almost half of all food acquisitions (48.8 percent) compared to 33.6 and 32.3 in Alaska and the 48 states respectively. The top five accounted for 60.3 percent in Hawaii and 43.9 and 43.7 percent in Alaska and the 48 states respectively, and the top 10 accounted for 73.3 percent in Hawaii vs. 61.9 percent in Alaska and 62.8 percent in the 48 states.

**Table 3-3: Share of total value of acquisitions for the ten leading categories acquired by public unified NSLP school districts in Alaska, Hawaii and the 48 contiguous states, SY 2009/10**

Food subgroup	Alaska			Hawaii			48 contiguous states & DC		
	Value (\$)	Share (%)	Rank	Value (\$)	Share (%)	Rank	Value (\$)	Share (%)	Rank
Milk	3,169,890	11.7%	2	8,010,361	27.8%	1	1,348,769,386	15.8%	1
Fruits	4,296,835	15.9%	1	3,330,079	11.6%	2	741,520,935	8.7%	2
Chicken	1,292,136	4.8%	5	2,705,342	9.4%	3	670,500,886	7.9%	3
Pizza	1,135,026	4.2%	7				497,498,807	5.8%	4
Bread & rolls	1,471,692	5.5%	4				472,884,000	5.5%	5
Cheese	901,397	3.3%	8	886,208	3.1%	6	380,229,000	4.5%	6
Beef & veal	1,608,728	6.0%	3	1,987,700	6.9%	4	374,910,066	4.4%	7
Juices	1,215,242	4.5%	6				367,462,943	4.3%	8
Turkey	731,679	2.7%	10	1,317,678	4.6%	5	256,247,263	3.0%	9
Potato & potato products	882,267	3.3%	9	761,436	2.6%	8	254,956,598	3.0%	10
Pork				789,794	2.7%	7			
Mixed meats				666,004	2.3%	9			
Rice, barley & other grains				662,062	2.3%	10			
Top 3 food subgroups	9,075,453	33.6%		14,045,782	48.8%		2,760,791,207	32.3%	
Top 5 food subgroups	11,839,281	43.9%		17,351,160	60.3%		3,731,174,014	43.7%	
<b>Total ( top 10)</b>	<b>16,704,891</b>	<b>61.9%</b>		<b>21,116,664</b>	<b>73.3%</b>		<b>5,364,979,884</b>	<b>62.8%</b>	

Source: School Food Purchase Study, 2011

The food items acquired in largest value and volume in Alaska and Hawaii are shown in Table 3-4 (value) and Table 3-5 (volume).

Hawaii acquired the smallest number of food items, 405, compared to 510 in Alaska, and 865 in the 48 states. As seen in the tables, in addition to acquiring an overall smaller number of food items, the top 50

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foods acquired by Hawaii accounted for 76.7 percent of the value and 84.2 percent of the volume of all food acquisitions, and the top 100 items accounted for over 92 percent of value and 94.6 percent of the volume of all food acquisitions. This indicates that over three quarters of all food items have been acquired in very small quantities.

Most of the food acquisitions in Alaska were also concentrated on a relatively limited number of food items, although not as few as in Hawaii. The top 100 food items accounted for 71.9 percent of the value and 75.7 percent of the volume of all food acquisitions. Although Alaska acquired a smaller overall number of food items than the 48 states (510 vs. 865), the shares of the top 50, 100, and 150 items are very similar to those in the 48 states. The top 100 in the 48 states accounted for 72.6 and 78.1 percent respectively of the value and volume of all food acquisition.

Table 3-6 summarizes the top 50 food items by food group:

- In Alaska, 17 out of the top 50 most acquired food items were fruits or juices and they accounted for 18.4 percent of the total volume of foods acquired and 14.7 percent of the total value. Milk and other dairy products contained eight top 50 items accounting for 23.3 and 13 percent of the volume and value of all food acquisitions. There were three food groups each containing five top 50 items: poultry, red meat, and bakery products accounting for 2.2, 2.7, and 3.4 percent of the volume and 4.5, 5.0, and 5.1 percent of the value of all food acquisitions.
- In Hawaii, the food subgroup with the largest number of top 50 food items was poultry (11 items). These 11 items accounted for 5.5 percent of the total volume of food acquisitions and 11.6 percent of the total value. Fruits and juices and red meat had nine of the top 50 food items each and milk and other dairy products and grain products contained five top 50 items each. The five dairy products alone accounted for almost half of the total volume of food acquisitions (47.4 percent) and 29.9 percent of the total value.
- As in Hawaii, in the 48 states the dairy products among the top 50 items (11 items) accounted for the largest share of both volume and value of total food acquisitions, 35.9 and 19.4 percent respectively. There were nine bakery products among the top 50 acquired food items in the 48 states compared to five in Alaska and one in Hawaii; eight poultry products compared with five in Alaska and 11 in Hawaii; seven prepared food items compared with two in Alaska and two in Hawaii; and six fruit and juice items compared with 17 in Alaska and nine in Hawaii.

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**Table 3-4: Share of total value of individual food items acquired by public unified NSLP school districts in Alaska, Hawaii and the 48 contiguous states, SY 2009/10**

Number of top items acquired	Alaska				Hawaii			48 states and DC			
	All foods	Purchased foods	Processed foods containing USDA Foods	USDA Foods (Fair market price)	All foods	Purchased foods	USDA Foods (Fair market price)	All foods	Purchased foods	Processed foods containing USDA Foods	USDA Foods (Fair market price)
Top 50	52.2%	48.2%	57.3%	79.8%	76.7%	76.2%	79.8%	54.3%	54.6%	53.0%	53.2%
Top 100	71.9%	68.8%	64.1%	94.9%	92.0%	91.3%	96.1%	72.6%	71.8%	78.7%	74.0%
Top 150	83.1%	81.4%	72.5%	96.0%	97.6%	97.2%	99.9%	83.0%	82.5%	85.9%	84.5%
Top 200	90.1%	89.0%	84.0%	98.2%	99.3%	99.1%	100.0%	89.0%	88.4%	91.2%	91.7%
Top 300	97.3%	96.9%	98.7%	99.4%	99.9%	99.9%	100.0%	95.3%	94.8%	97.4%	97.6%
Top 400	99.6%	99.6%	100.0%	100.0%	100.0%	100.0%	100.0%	98.0%	97.8%	99.1%	99.1%
Top 500	100.0%	100.0%	100.0%	100.0%	-	-	-	99.2%	99.1%	99.6%	99.8%

Source: School Food Purchase Study, 2011

**Table 3-5: Share of total volume of individual food items acquired by public unified NSLP school districts in Alaska, Hawaii and the 48 contiguous states, SY 2009/10**

Number of top items acquired	Alaska				Hawaii			48 states and DC			
	All foods	Purchased foods	Processed foods containing USDA Foods	USDA Foods (Fair market price)	All foods	Purchased foods	USDA Foods (Fair market price)	All foods	Purchased foods	Processed foods containing USDA Foods	USDA Foods (Fair market price)
Top 50	58.5%	55.9%	57.7%	76.9%	84.2%	84.7%	80.1%	64.2%	66.7%	53.1%	43.5%
Top 100	75.7%	73.2%	64.0%	94.2%	94.6%	94.5%	96.0%	78.1%	79.1%	79.2%	66.2%
Top 150	86.6%	85.5%	75.5%	95.7%	98.3%	98.1%	99.9%	86.5%	87.0%	86.4%	80.9%
Top 200	92.3%	91.7%	85.6%	97.5%	99.6%	99.5%	100.0%	91.5%	91.8%	92.0%	88.9%
Top 300	97.8%	97.6%	98.7%	99.5%	100.0%	100.0%	100.0%	96.3%	96.2%	97.7%	96.5%
Top 400	99.7%	99.6%	100.0%	100.0%	100.0%	100.0%	100.0%	98.5%	98.5%	99.1%	98.9%
Top 500	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	99.5%	99.5%	99.6%	99.8%

Source: School Food Purchase Study, 2011

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**Table 3-6: Summary of top 50 food items acquired by public unified NSLP school districts in in Alaska, Hawaii, and the 48 contiguous states**

Food group	Number of food items in top 50 list			Share of total volume of food acquisitions			Share of total value of food acquisitions		
	Alaska	Hawaii	48 states & DC	Alaska	Hawaii	48 states & DC	Alaska	Hawaii	48 states & DC
Milk & other dairy products	8	5	11	23.3%	47.4%	35.9%	13.0%	29.9%	19.4%
Bakery products	5	1	9	3.4%	0.3%	7.0%	5.1%	0.6%	9.7%
Poultry	5	11	8	2.2%	5.5%	3.0%	4.5%	11.6%	6.1%
Prepared foods	2	2	7	1.5%	1.0%	3.0%	2.6%	1.8%	6.0%
Fruits/juices	17	9	6	18.4%	11.5%	6.6%	14.7%	10.5%	4.3%
Red Meat	5	9	3	2.7%	4.7%	1.6%	5.0%	10.9%	3.1%
Vegetables	3	3	3	5.0%	2.4%	3.2%	2.8%	2.6%	2.5%
Non-dairy drinks	-	1	2	0.0%	3.2%	3.8%	0.0%	0.6%	1.7%
Grain products	3	5	1	1.4%	6.1%	0.3%	3.1%	4.4%	1.3%
Eggs	1	-	-	0.2%	-	-	0.7%	-	-
Fats/oils	-	1	-	-	0.6%	-	-	1.5%	-
Fish	1	2	-	0.4%	0.5%	-	0.7%	1.7%	-
Sugar/desserts	-	1	-	-	1.0%	-	-	0.6%	-

Source: School Food Purchase Study, 2011

### 3.2.3 Importance of USDA Foods

In SY 2009/10, school districts in Alaska acquired 65 food items as donated USDA Foods and 30 processed food items that contained donated USDA foods. The Hawaiian SFA acquired 59 food items as donated USDA Foods and no processed food items that contained USDA Foods.

Table 3-7 lists the dollar value of total food subgroup acquisitions in Alaska and Hawaii in SY 2009/10 and the share acquired as USDA Foods or processed products containing donated USDA Foods. Table 3-8 compares these with the results for the 48 states. Cells highlighted in grey in Table 3-8 indicate that the region did not acquire USDA foods of this subgroup; blue cells indicate that all regions acquired some USDA foods belonging to this subgroup; yellow indicates highest share and red indicates lowest share of value of acquisitions. The two tables illustrate the following:

- The 48 states acquired a broader variety of USDA Foods (49 subgroups) than Alaska (28 subgroups) and Hawaii (21 subgroups).
- Hawaii did not acquire any processed foods containing USDA donations in SY 2009/10. While Alaska acquired some of these products, they were fewer than in the 48 states.
- Food items of 18 subgroups were acquired as USDA Foods by Alaska, Hawaii and the 48 states. These aggregate subgroups were: cheese, turkey, beef and veal, chicken, flour and other milled grains, fruits, eggs, yellow vegetables, mixed vegetables, dry beans/peas, potato and potato products, tomatoes and tomato products, fish, green vegetables, rice, barley and other grains, catsup and other sauces, other vegetables, and juices<sup>8</sup>. However, in many cases

<sup>8</sup> All individual food items acquired as USDA Foods are itemized in the Statistical Appendix which is presented as a separate report.

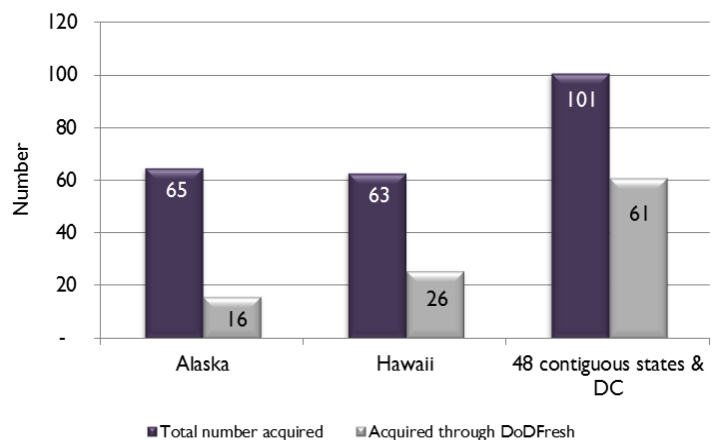
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the share of total acquisitions that was USDA donated varied significantly across the regions. For example, USDA donated cheese accounted for 25.6 percent of total cheese acquisitions in Alaska, 50.4 percent in Hawaii, and 61.5 percent in the 48 states; and USDA donated dry beans/peas accounted for 0.1 percent in Alaska, 22.7 percent in the 48 states, and 41.6 percent in Hawaii.

- Food items of 18 subgroups were acquired as USDA donations in the 48 states but not in Hawaii or Alaska. These aggregate subgroups were: other nuts, recipe mix, meat or cheese filled pastry, gelatins, burritos/tacos, prepared meals, seeds, soups, salad dressings and mayonnaise, margarine, breakfast cereals, mixtures with vegetables, pretzels and snack chips, mixed meats, flour mix, flavorings, crackers, and sherbet/ices. At least 10 of these subgroups were for processed foods.
- Food items in nine subgroups were acquired as USDA donations in Alaska and the 48 states but not in Hawaii. These aggregate subgroups were peanuts/peanut butter, prepared sandwiches, pork, mixtures with eggs, pizza, mixtures with grain, cakes and other bakery desserts, bread and rolls, and milk. Not surprisingly, most of these were processed foods. However, it should be noted that no milk, by far the largest food subgroup acquired in Hawaii, was acquired as a USDA donated food.
- Pasta and noodles, and vegetable oils and shortenings were acquired as USDA Foods in Hawaii and the 48 states but not in Alaska. The share of USDA donations for these two subgroups was significantly higher in Hawaii than in the 48 states 52.8 and 53.7 percent compared with 20.1 and 25.6 percent respectively.
- Biscuits, muffins, pancakes and waffles were acquired as USDA donated foods in Alaska (7.7 percent) and Hawaii (13.3 percent) but not in the 48 states.

As in the 48 states, Alaska and Hawaii acquired some fresh fruits and vegetables through the Department of Defense Fresh Fruit and Vegetable Program (DoDFresh). However, as seen in Figure 3-7, both Alaska and Hawaii acquired a significantly lower total number of fresh fruits and vegetable items and a lower number of items acquired through DoDFresh than the 48 states.

**Figure 3-7: Number of fresh fruit and vegetable items acquired by public unified school districts in Alaska, Hawaii and the 48 states, SY 2009/10**



Source: School Food Purchase Study, 2011



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**Table 3-7: Share of the total value of acquisitions by public unified NSLP school districts in Alaska and Hawaii that is accounted for by USDA Foods and processed foods containing donated foods, SY 2009/10**

Alaska			Hawaii				
Food subgroup	Total value of acquisitions from all sources	Share of total subgroup value that is donated or processed	Food subgroup	Total value of acquisitions from all sources	Share of total subgroup value that is donated or processed		
1	Mixtures with eggs	\$315,609	53.8%	1	Flour & other milled grains	\$519,300	78.1%
2	Turkey	\$731,679	49.1%	2	Vegetable oils & shortenings	\$160,612	53.7%
3	Flour & other milled grains	\$133,703	46.3%	3	Pasta & noodles	\$256,974	52.8%
4	Green vegetables	\$594,785	35.1%	4	Rice, barley & other grains	\$662,062	50.5%
5	Beef & veal	\$1,608,728	33.1%	5	Cheese	\$886,208	50.4%
6	Tomatoes & tomato products	\$341,212	28.3%	6	Dry beans/peas	\$118,244	41.6%
7	Chicken	\$1,292,136	26.3%	7	Turkey	\$1,317,678	40.0%
8	Fruits	\$4,296,835	25.9%	8	Beef & veal	\$1,987,700	36.3%
9	Cheese	\$901,397	25.6%	9	Eggs	\$168,675	36.2%
10	Eggs	\$173,301	23.5%	10	Fish	\$595,105	35.3%
11	Potato & potato products	\$882,267	17.5%	11	Potato & potato products	\$761,436	20.2%
12	Prepared sandwiches	\$283,771	15.3%	12	Tomatoes & tomato products	\$370,153	14.8%
13	Yellow vegetables	\$413,086	14.4%	13	Yellow vegetables	\$266,109	14.3%
14	Fish	\$549,245	8.7%	14	Catsup & other sauces	\$274,339	14.3%
15	Rice, barley & other grains	\$96,226	8.1%	15	Biscuits, muffins, pancakes & waffles	\$392,910	13.3%
16	Mixed vegetables	\$320,017	7.8%	16	Juices	\$567,266	13.0%
17	Biscuits, muffins, pancakes & waffles	\$422,985	7.7%	17	Fruits	\$3,330,079	9.6%
18	Pork	\$488,973	6.6%	18	Chicken	\$2,705,342	8.6%
19	Other vegetables	\$88,200	6.0%	19	Green vegetables	\$613,550	2.2%
20	Catsup & other sauces	\$532,622	4.1%	20	Other vegetables	\$65,047	1.8%
21	Cakes & other bakery desserts	\$265,662	3.7%	21	Mixed vegetables	\$290,215	1.5%
22	Juices	\$1,215,242	3.7%				
23	Milk	\$3,169,890	2.6%				
24	Bread & rolls	\$1,471,692	1.4%				
25	Pizza	\$1,135,026	1.4%				
26	Peanuts/peanut butter	\$61,981	1.1%				
27	Mixtures with grain	\$411,192	0.6%				
28	Dry beans/peas	\$111,977	0.1%				

Source: School Food Purchase Study, 2011

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**Table 3-8: Comparison of share of the total value of acquisitions by public unified NSLP school districts in Alaska, Hawaii, and the 48 contiguous states that is accounted for by USDA Foods and processed foods donated foods, SY 2009/10**

Food subgroup	Alaska			Hawaii			48 contiguous states & DC		
	Total dollar value of acquisitions from all sources	Share of total subgroup value that is donated or processed	Rank	Total dollar value of acquisitions from all sources	Share of total subgroup value that is donated or processed	Rank	Total dollar value of acquisitions from all sources	Share of total subgroup value that is donated or processed	Rank
Cheese	\$901,397	25.6%	9	\$886,208	50.4%	5	\$380,229,000	61.5%	3
Turkey	\$731,679	49.1%	2	\$1,317,678	40.0%	7	\$256,247,264	54.2%	4
Beef & veal	\$1,608,728	33.1%	5	\$1,987,700	36.3%	8	\$374,910,066	45.9%	6
Chicken	\$1,292,136	26.3%	7	\$2,705,342	8.6%	18	\$670,500,886	39.9%	8
Flour & other milled grains	\$133,703	46.3%	3	\$519,300	78.1%	1	\$14,428,220	32.3%	11
Fruits	\$4,296,835	25.9%	8	\$3,330,079	9.6%	17	\$741,520,935	32.0%	12
Eggs	\$173,301	23.5%	10	\$168,675	36.2%	9	\$21,269,691	31.7%	13
Yellow vegetables	\$413,086	14.4%	13	\$266,109	14.3%	13	\$114,049,025	27.5%	14
Mixed vegetables	\$320,017	7.8%	16	\$290,215	1.5%	21	\$86,459,493	24.7%	17
Dry beans/peas	\$111,977	0.1%	28	\$118,244	41.6%	6	\$37,532,851	22.7%	19
Potato & potato products	\$882,267	17.5%	11	\$761,436	20.2%	11	\$254,956,598	21.9%	21
Tomatoes & tomato products	\$341,212	28.3%	6	\$370,153	14.8%	12	\$92,283,800	21.9%	22
Fish	\$549,245	8.7%	14	\$595,105	35.3%	10	\$54,033,436	17.9%	24
Green vegetables	\$594,785	35.1%	4	\$613,550	2.2%	19	\$179,590,396	15.2%	25
Rice, barley & other grains	\$96,226	8.1%	15	\$662,062	50.5%	4	\$20,454,677	13.8%	26
Catsup & other sauces	\$532,622	4.1%	20	\$274,339	14.3%	14	\$126,841,985	12.6%	28
Other vegetables	\$88,200	6.0%	19	\$65,047	1.8%	20	\$18,817,734	4.7%	35
Juices	\$1,215,242	3.7%	22	\$567,266	13.0%	16	\$367,462,943	1.7%	40
Peanuts/peanut butter	\$61,981	1.1%	26				\$13,509,955	65.4%	2
Prepared sandwiches	\$283,771	15.3%	12				\$119,523,586	41.8%	7
Pork	\$488,973	6.6%	18				\$196,147,077	36.5%	9
Mixtures with eggs	\$315,609	53.8%	1				\$37,350,170	33.5%	10
Pizza	\$1,135,026	1.4%	25				\$497,498,807	24.3%	18
Mixtures with grain	\$411,192	0.6%	27				\$100,399,557	22.1%	20
Cakes & other bakery desserts	\$265,662	3.7%	21				\$215,489,162	1.9%	39
Bread & rolls	\$1,471,692	1.4%	24				\$472,884,000	1.6%	42
Milk	\$3,169,890	2.6%	23				\$1,348,769,386	0.3%	46
Pasta & noodles				\$256,974	52.8%	3	\$28,519,227	20.1%	23
Vegetable oils & shortenings				\$160,612	53.7%	2	\$29,127,903	25.6%	16
Biscuits, muffins, pancakes & waffles	\$422,985	7.7%	17	\$392,910	13.3%	15			
Other nuts							\$6,109,754	92.7%	1
Recipe mix (poultry)							\$1,427,251	53.0%	5

**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**  
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Food subgroup	Alaska			Hawaii			48 contiguous states & DC		
	Total dollar value of acquisitions from all sources	Share of total subgroup value that is donated or processed	Rank	Total dollar value of acquisitions from all sources	Share of total subgroup value that is donated or processed	Rank	Total dollar value of acquisitions from all sources	Share of total subgroup value that is donated or processed	Rank
Meat or cheese filled pastry							\$106,300,359	26.9%	15
Gelatins							\$5,952,198	13.3%	27
Burritos/tacos							\$66,788,612	12.4%	29
Prepared meals							\$39,070,480	11.3%	30
Seeds							\$4,680,815	10.9%	31
Soups							\$38,642,214	5.2%	32
Salad dressings & mayonnaise							\$90,085,704	5.0%	33
Recipe mix (red meat)							\$3,495,177	3.4%	36
Margarine							\$16,338,575	2.4%	37
Breakfast cereals							\$119,347,545	2.2%	38
Mixtures with vegetables							\$7,116,909	1.5%	43
Pretzels & snack chips							\$224,445,837	1.4%	44
Mixed meats							\$51,440,613	0.7%	45
Flour mix							\$15,988,849	0.2%	47
Flavorings							\$11,984,220	0.2%	48
Crackers							\$92,909,400	0.1%	49
Sherbet/ices							\$17,800,048	1.6%	41

Color legend:

	Blue	indicates highest share
	Red	indicates lowest share
	Yellow	indicates that all regions acquired some USDA foods belonging to this subgroup
	Grey	indicates that region did not acquire USDA Foods of this subgroup

Source: School Food Purchase Study, 2011

Table 3-9 shows the volume (pounds) of the fresh fruit and vegetable items acquired through DoDFresh by SFAs in Alaska and Hawaii, and Table 3-10 compares acquisitions through DoDFresh in Alaska, Hawaii, and the 48 states. In Table 3-10, cells highlighted in grey indicate that SFAs did not purchase any volume of this item at all; and cells in yellow indicate that no volume was purchased through DoDFresh. As seen in the two tables:

- Apples, oranges, and bananas were the top three items acquired in the highest volume by all regions, although in different orders. However, the share of purchases through DoDFresh of these products was very different in the three regions. The share of apples and oranges purchased through DoDFresh in Alaska was much higher than in Hawaii and the 48 states; and no bananas were purchased through DoDFresh in Alaska vs. the 4.0 and 3.0 percent that were purchased through DoDFresh in Hawaii and the 48 states.
- None of the five items most purchased through DoDFresh in the 48 states (avocado, tropical fruit, sweet potatoes, mixed vegetables, and tangerines) were acquired through this program

**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**  
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in Alaska or Hawaii. Indeed, no tropical fruit or sweet potatoes were acquired in Alaska, and no tropical fruit, mixed vegetables, or tangerines were acquired in Hawaii.

- SFAs in Alaska acquired 16 items through DoDFresh. Of these:
  - Carrots (sticks/baby/shredded) were the sixth largest volume fresh fruit/vegetable item acquired by Alaskan SFAs, and purchases through DoD held the largest share of total acquisitions (74.2 percent).
  - Apples, bananas, and oranges were the three items acquired in the largest volume (overall). Apple purchases through DoD accounted for over a quarter of all acquisitions (26.8 percent) and orange purchases accounted for 22.8 percent. However, no bananas were purchased through DoD.
- Hawaii acquired 26 items through DoDFresh. Of these:
  - The share of all fresh fruit and vegetable purchases through DoD was small. Cabbage (shredded/mixed with other vegetables) held the largest share, just 8.5 percent, followed by fresh spinach, 5.7 percent and mushrooms, five percent.
  - Oranges were the largest overall volume item acquired by the state, followed by bananas and apples. DoDFresh purchases of these items accounted for 4.1, 4.0 and 4.0 percent of the total acquisition of these items respectively.

**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**  
SECTION 3: FOOD ACQUISITIONS IN ALASKA AND HAWAII

**Table 3-9: Share of fresh fruit and vegetable acquisitions through the DoDFresh program by public unified NSLP school districts in Alaska, and Hawaii, SY 2009/10**

Food Item	Total	DoD Fresh Fruit and vegetable program	Share of DoDFresh purchases
	<i>lb</i>	<i>lb</i>	%
<b>Alaska</b>			
1 Carrots sticks/baby carrots/shredded bulk	55,712	41,321	74.2%
2 Cauliflower, florettes	3,838	2,195	57.2%
3 Radishes, fresh	77	42	53.7%
4 Lettuce, salad mix	57,549	20,857	36.2%
5 Broccoli florettes	15,992	4,941	30.9%
6 Apples, fresh	176,189	47,217	26.8%
7 Pears, fresh	17,431	4,159	23.9%
8 Lettuce, shredded/chopped	27,496	6,534	23.8%
9 Oranges, fresh	136,589	31,176	22.8%
10 Celery sticks/diced celery	6,231	1,206	19.4%
11 Tomatoes, fresh	30,317	2,520	8.3%
12 Tomatoes, Cherry or Grape, Fresh	8,808	587	6.7%
13 Grapes, fresh	29,768	1,655	5.6%
14 Onions, green, fresh	483	23	4.8%
15 Potatoes, fresh	46,162	450	1.0%
16 Onions, fresh	11,835	52	0.4%
<b>Hawaii</b>			
1 Cabbage, shredded w/other veg.	3,707	315	8.5%
2 Spinach, fresh	442	25	5.7%
3 Mushrooms, fresh	1,774	89	5.0%
4 Lettuce, shredded/chopped	40,437	1,994	4.9%
5 Celery, fresh	9,711	455	4.7%
6 Lettuce, salad mix	62,188	2,705	4.3%
7 Oranges, fresh	240,717	9,975	4.1%
8 Bananas, fresh	132,019	5,280	4.0%
9 Apples, fresh	168,293	6,730	4.0%
10 Lettuce, heads	120,849	4,230	3.5%
11 Cabbage, head	55,837	1,845	3.3%
12 Carrots, fresh	11,862	370	3.1%
13 Papayas	9,783	290	3.0%
14 Cabbage, shredded	32,734	930	2.8%
15 Onions, fresh	17,985	450	2.5%
16 Broccoli florettes	601	15	2.5%
17 Melons, watermelons	6,624	120	1.8%
18 Tomatoes, fresh	73,139	1,315	1.8%
19 Onions, green, fresh	1,678	28	1.7%
20 Carrots sticks/baby carrots/shredded, bulk	19,266	307	1.6%
21 Cucumbers, fresh	10,559	166	1.6%
22 Potatoes, fresh	29,063	320	1.1%
23 Peppers, fresh	1,981	20	1.0%
24 Tomatoes, cherry or grape, fresh	449	5	1.0%
25 Bean sprouts, fresh	1,359	5	0.4%
26 Celery sticks/diced celery	5,605	10	0.2%

Source: School Food Purchase Study, 2011

**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**

SECTION 3: FOOD ACQUISITIONS IN ALASKA AND HAWAII

**Table 3-10: Comparison of fresh fruit and vegetable acquisitions and share of purchases through DoDFresh by public unified NSLP school districts in Alaska, Hawaii and the 48 contiguous states, SY 2009/10**

Food Item	Alaska				Hawaii				48 states & DC			
	Total	Rank	DoD Fresh Fruit and Vegetable Program	Share of DoDFresh purchases	Total	Rank	DoD Fresh Fruit and Vegetable Program	Share of DoDFresh purchases	Total	Rank	DoD Fresh Fruit and Vegetable Program	Share of DoDFresh purchases
	lb	#	lb	%	lb	#	lb	%	lb	#	lb	
Apples, fresh	176,189	1	47,217	26.8%	168,293	2	6,730	4.0%	151,522,929	1	8,578,898	5.7%
Bananas, fresh	145,189	2	-	-	132,019	3	5,280	4.0%	81,228,443	3	2,415,172	3.0%
Oranges, fresh	136,589	3	31,176	22.8%	240,717	1	9,975	4.1%	83,333,906	2	4,543,913	5.5%
Mixed fruit, tropical	66,836	4	-	-	-	-	-	-	5,353,012	27	-	-
Lettuce, salad mix	57,549	5	20,857	36.2%	62,188	6	2,705	4.3%	56,713,979	4	13,224,635	23.3%
Carrots sticks/baby carrots/shredded bulk	55,712	6	41,321	74.2%	19,266	11	307	1.6%	22,154,398	11	1,519,934	6.9%
Potatoes, fresh	46,162	7	450	1.0%	29,063	10	320	1.1%	28,598,670	7	2,480,639	8.7%
Kiwi	39,634	8	-	-	67	50	-	-	6,889,766	21	1,078,548	15.7%
Lettuce, heads	35,212	9	953	2.7%	120,849	4	4,230	3.5%	23,434,179	10	512,873	2.2%
Tomatoes, fresh	30,317	10	2,520	8.3%	73,139	5	1,315	1.8%	25,648,272	8	1,148,571	4.5%
Grapes, fresh	29,768	11	1,655	5.6%	1,332	28	-	-	23,732,895	9	1,945,259	8.2%
Cucumbers, fresh	28,177	12	856	3.0%	10,559	14	166	1.6%	16,989,953	15	512,827	3.0%
Melons, other	27,520	13	-	-	-	-	-	-	1,181	96	-	-
Lettuce, shredded/chopped	27,496	14	6,534	23.8%	40,437	8	1,994	4.9%	40,140,466	5	4,453,763	11.1%
Melons, honeydew	23,760	15	-	-	2,149	23	-	-	5,912,345	23	202,529	3.4%
Celery, fresh	21,490	16	-	-	9,711	16	455	4.7%	3,211,587	33	62,057	1.9%
Carrots, fresh	17,574	17	225	1.3%	11,862	13	370	3.1%	2,191,849	37	58,254	2.7%
Pears, fresh	17,431	18	4,159	23.9%	585	32	-	-	30,704,984	6	8,258,690	26.9%
Broccoli florettes	15,992	19	4,941	30.9%	601	31	15	2.5%	5,630,503	25	450,870	8.0%
Onions, fresh	11,835	20	52	0.4%	17,985	12	450	2.5%	5,353,499	26	278,651	5.2%
Peppers, fresh	10,296	21	-	-	1,981	24	20	1.0%	5,240,705	28	256,075	4.9%
Melons, cantaloupes	9,696	22	-	-	4,007	19	-	-	11,938,141	17	1,319,870	11.1%
Carrots, individual serving, fresh	9,680	23	-	-	-	-	-	-	13,180,228	16	893,118	6.8%
Tomatoes, cherry or grape, Fresh	8,808	24	587	6.7%	449	36	5	1.0%	7,240,187	20	738,973	10.2%
Melons, watermelons	8,640	25	-	-	6,624	17	120	1.8%	18,055,346	13	1,635,222	9.1%
Strawberries, fresh	8,192	26	-	-	283	39	-	-	5,803,199	24	1,058,393	18.2%

**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**

SECTION 3: FOOD ACQUISITIONS IN ALASKA AND HAWAII

Food Item	Alaska				Hawaii				48 states & DC			
	Total	Rank	DoD Fresh Fruit and Vegetable Program	Share of DoDFresh purchases	Total	Rank	DoD Fresh Fruit and Vegetable Program	Share of DoDFresh purchases	Total	Rank	DoD Fresh Fruit and Vegetable Program	Share of DoDFresh purchases
	lb	#	lb	%	lb	#	lb	%	lb	#	lb	
Grapes, fresh, individual	8,108	27	-	-	-	-	-	-	1,394,895	43	-	-
Celery sticks/diced celery	6,231	28	1,206	19.4%	5,605	18	10	0.2%	8,109,128	19	398,250	4.9%
Pineapple, fresh	5,948	29	-	-	3,560	22	-	-	4,495,341	29	52,771	1.2%
Tangerines, fresh	5,646	30	-	-	-	-	-	-	6,248,672	22	1,694,111	27.1%
Grapefruit, fresh	5,012	31	-	-	40	54	-	-	2,153,923	38	567,716	26.4%
Cauliflower, heads	4,745	32	-	-	35	57	-	-	1,004,240	47	39,359	3.9%
Cauliflower, florettes	3,838	33	2,195	57.2%	35	56	-	-	2,044,996	40	177,404	8.7%
Oranges, mandarin, fresh	3,475	34	-	-	210	40	-	-	744,539	51	189,712	25.5%
Broccoli, fresh	3,372	35	3,060	90.8%	3,909	20	-	-	1,991,825	41	53,045	2.7%
Mixed vegetables, fresh	3,271	36	-	-	-	-	-	-	857,906	49	249,162	29.0%
Mixed fruit, fresh	2,965	37	-	-	-	-	-	-	2,135,251	39	-	-
Cabbage, head	2,552	38	-	-	55,837	7	1,845	3.3%	2,931,675	34	99,879	3.4%
Mushrooms, fresh	1,963	39	-	-	1,774	25	89	5.0%	325,502	61	23,283	7.2%
Cabbage, Shredded w/other veg.	1,887	40	-	-	3,707	21	315	8.5%	2,902,522	35	106,350	3.7%
Spinach, fresh	1,711	41	-	-	442	37	25	5.7%	1,965,127	42	77,658	4.0%
Apples, fresh, individual	1,040	42	-	-	-	-	-	-	17,181,567	14	159,812	0.9%
Peas, snow/pods	1,023	43	-	-	202	41	-	-	683,494	53	69,039	10.1%
Onions, green, fresh	483	44	23	4.8%	1,678	26	28	1.7%	195,231	65	10,646	5.5%
Peaches, fresh	390	45	-	-	500	34	-	-	3,571,842	31	85,613	2.4%
Nectarines, fresh	375	46	-	-	552	33	-	-	2,438,220	36	4,749	0.2%
Squash, fresh	366	47	-	-	358	38	-	-	1,102,906	46	18,079	1.6%
Plums, fresh	312	48	-	-	-	-	-	-	3,986,420	30	76,450	1.9%
Turnips, fresh	234	49	-	-	-	-	-	-	7,837	87	-	-
Mangoes, fresh	218	50	-	-	116	47	-	-	359,279	60	-	-
Rutabagas, fresh	195	51	-	-	-	-	-	-	4,860	94	-	-
Pomegranates, fresh	176	52	-	-	150	44	-	-	95,530	72	19,484	20.4%
Cranberries, fresh	140	53	-	-	20	60	-	-	4,864	93	-	-
Limes, fresh	117	54	-	-	41	53	-	-	100,174	70	-	-
Alfalfa sprouts	98	55	-	-	201	42	-	-	21,918	85	600	2.7%

**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**

SECTION 3: FOOD ACQUISITIONS IN ALASKA AND HAWAII

Food Item	Alaska				Hawaii				48 states & DC			
	Total	Rank	DoD Fresh Fruit and Vegetable Program	Share of DoDFresh purchases	Total	Rank	DoD Fresh Fruit and Vegetable Program	Share of DoDFresh purchases	Total	Rank	DoD Fresh Fruit and Vegetable Program	Share of DoDFresh purchases
	lb	#	lb	%	lb	#	lb	%	lb	#	lb	
Avocado, fresh	88	56	-	-	6	63	-	-	208,718	64	102,211	49.0%
Cilantro	84	57	-	-	129	46	-	-	95,680	71	328	0.3%
Cabbage, shredded	78	58	-	-	32,734	9	930	2.8%	1,226,725	45	36,356	3.0%
Radishes, fresh	77	59	42	53.7%	10	61	-	-	445,417	57	42,678	9.6%
Lemons, fresh	59	60	-	-	37	55	-	-	470,656	55	21,870	4.6%
Bean sprouts, fresh	39	64	-	-	1,359	27	5	0.4%	28,842	81	-	-
Eggplant, fresh	39	63	-	-	62	52	-	-	29,891	80	-	-
Green beans, fresh	39	61	-	-	32	58	-	-	417,509	58	16,315	3.9%
Beets, fresh	39	62	-	-	-	-	-	-	45,748	78	-	-
Parsley, fresh	23	65	-	-	65	51	-	-	23,258	84	850	3.7%
Papayas	-	-	-	-	9,783	15	290	3.0%	81,857	73	-	-
Tomato, puree	-	-	-	-	1,071	29	-	-	858,619	48	-	-
Corn on the Cob, Fresh	-	-	-	-	650	30	-	-	452,770	56	877	0.2%
Tropical vegetables	-	-	-	-	462	35	-	-	571	99	-	-
Sweet potatoes, fresh	-	-	-	-	165	43	-	-	1,393,300	44	409,301	29.4%
Starfruit	-	-	-	-	132	45	-	-	109,242	67	15,047	13.8%
Raspberries, fresh	-	-	-	-	114	48	-	-	26,624	83	-	-
Cherries, fresh	-	-	-	-	72	49	-	-	4,339	95	-	-
Blueberries, fresh	-	-	-	-	22	59	-	-	254,180	63	-	-
Vegetable salad, specialty	-	-	-	-	7	62	-	-	75,555	74	1,848	2.4%
Oranges, peeled/sectioned	-	-	-	-	-	-	-	-	3,318,251	32	110,644	3.3%
Jicama	-	-	-	-	-	-	-	-	794,490	50	1,413	0.2%
Tangeloes, fresh	-	-	-	-	-	-	-	-	730,390	52	114,834	15.7%
Pluot, fresh	-	-	-	-	-	-	-	-	493,484	54	-	-
Plantains, fresh	-	-	-	-	-	-	-	-	319,148	62	-	-
Kale, fresh	-	-	-	-	-	-	-	-	126,863	66	-	-
Asparagus, fresh	-	-	-	-	-	-	-	-	108,631	68	-	-
Collards, fresh	-	-	-	-	-	-	-	-	105,181	69	-	-
Mineolas, fresh	-	-	-	-	-	-	-	-	70,435	75	-	-



**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**

SECTION 3: FOOD ACQUISITIONS IN ALASKA AND HAWAII

Food Item	Alaska				Hawaii				48 states & DC			
	Total	Rank	DoD Fresh Fruit and Vegetable Program	Share of DoDFresh purchases	Total	Rank	DoD Fresh Fruit and Vegetable Program	Share of DoDFresh purchases	Total	Rank	DoD Fresh Fruit and Vegetable Program	Share of DoDFresh purchases
	lb	#	lb	%	lb	#	lb	%	lb	#	lb	
Kumquats	-	-	-	-	-	-	-	-	58,802	76	-	-
Pumpkin, fresh	-	-	-	-	-	-	-	-	51,170	77	-	-
Blackberries, fresh	-	-	-	-	-	-	-	-	43,354	79	-	-
Tomatillo, fresh	-	-	-	-	-	-	-	-	27,254	82	-	-
Coconut, fresh	-	-	-	-	-	-	-	-	7,958	86	-	-
Oranges, mandarin, individual	-	-	-	-	-	-	-	-	7,056	88	-	-
Apricots, fresh	-	-	-	-	-	-	-	-	6,631	89	-	-
Okra, fresh	-	-	-	-	-	-	-	-	6,314	90	-	-
Guava	-	-	-	-	-	-	-	-	5,938	91	-	-
Spinach filled pastry	-	-	-	-	-	-	-	-	5,493	92	-	-
Artichoke, fresh	-	-	-	-	-	-	-	-	646	97	-	-
Mustard greens, fresh	-	-	-	-	-	-	-	-	623	98	-	-
Rhubarb, fresh	-	-	-	-	-	-	-	-	202	100	-	-
Chard, fresh	-	-	-	-	-	-	-	-	202	101	-	-
Peaches, individual serving	-	-	-	-	-	-	-	-	19,906,216	12	-	-
Strawberries, individual serving	-	-	-	-	-	-	-	-	8,216,314	18	-	-
Tropical fruit, fresh	-	-	-	-	-	-	-	-	373,618	59	171,402	45.9%

Color legend: Grey indicates that SFAs do not acquire item

Yellow indicates that SFAs do not purchase any volume of these items through the D0D Fresh Fruit & Vegetable program

Source: School Food Purchase Study, 2011

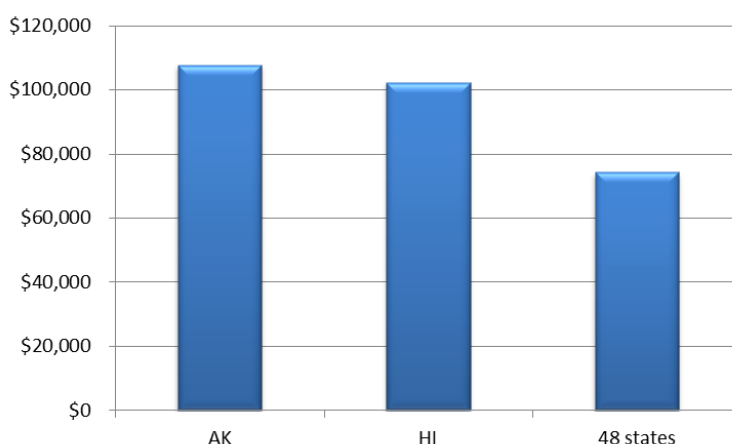
### 3.3 Comparison of acquisitions and cost in Alaska, Hawaii and the 48 contiguous states

In this section we compare the mean cost per unit, the mean volume per 100,000 meal equivalents (m.e.), and the mean cost per 100,000 m.e. for food acquisitions in Alaska, Hawaii and the 48 contiguous states and the District of Columbia. The results are shown in Table 3-11. The cells highlighted in red identify the highest value for each food group and subgroup.

SFAs in Alaska incurred the highest average cost per pound for all foods and the 48 states paid the lowest. Of the 16 aggregate food groups, Alaska incurred the highest cost per pound for 12 groups and Hawaii for four groups (bakery products, fats/oils, fish, and soups and gravies). The 48 contiguous states incurred the lowest cost per pound for 12 food groups and Hawaii for four (grain products, legumes/nuts/seeds, non-dairy drinks, and sugars/deserts).

Overall, the 48 contiguous states acquired the highest volume of foods per 100,000 m.e. but incurred the lowest cost per 100,000 m.e. (Figure 3-8). Alaska acquired the most pounds per 100,000 m.e. for eight food groups (condiments, eggs, fish, fruits/juices, prepared foods, soups/gravies, sugars, deserts, and vegetables). For each of these groups it also incurred the highest cost per 100,000 m.e. Hawaii acquired the highest volume per 100,000 m.e. for five food groups (fats/oils, grain products, milk and other dairy products, poultry, and red meat). For fats and oils, milk and other dairy products, and poultry it also incurred the highest cost per 100,000 m.e.. For the other two groups, grain products and red meats, Alaska incurred the highest cost per 100,000 m.e. The 48 contiguous states acquired the highest volume per 100,000 m.e. for three food groups (bakery products, legumes/seeds/nuts, and non-dairy drinks) but they did not incur the highest costs per m.e. for any of these. Alaska had the highest cost per m.e. for the first two groups and Hawaii for non-dairy drinks. Hawaii had by far the lowest volume and cost per m.e. for bakery products. This is because schools in the state bake their own bread products and no bread is purchased by the SFA.

**Figure 3-8: Mean cost of food acquisitions per 100,000 m.e.**



Source: School Food Purchase Study, 2011

**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**  
SECTION 3: FOOD ACQUISITIONS IN ALASKA AND HAWAII

**Table 3-1 I: Comparisons of summary mean cost and volume of food acquisitions by public unified NSLP school districts in Alaska, Hawaii and the 48 contiguous states, SY 2009/10**

Food groups/subgroups	48 states			48 states			48 states		
	Alaska	Hawaii	& DC	Alaska	Hawaii	& DC	Alaska	Hawaii	& DC
	\$/lb			lb/100,000 m.e.			\$/100,000 m.e.		
<b>All foods</b>	<b>\$1.44</b>	<b>\$0.94</b>	<b>\$0.89</b>	<b>142,864</b>	<b>146,333</b>	<b>154,027</b>	<b>\$206,231</b>	<b>\$137,770</b>	<b>\$136,604</b>
<b>Bakery products</b>	<b>\$2.20</b>	<b>\$2.25</b>	<b>\$1.61</b>	<b>9,518</b>	<b>1,775</b>	<b>12,331</b>	<b>\$20,918</b>	<b>\$3,991</b>	<b>\$19,813</b>
Biscuits, muffins, pancakes & waffles	\$2.14	\$2.18	\$1.79	1,508	863	2,080	\$3,233	\$1,880	\$3,715
Bread & rolls	\$2.10	\$1.79	\$1.14	5,357	388	6,632	\$11,248	\$695	\$7,562
Cakes & other bakery desserts	\$2.11	\$2.42	\$2.06	965	245	1,669	\$2,030	\$593	\$3,444
Crackers	\$2.73	\$4.69	\$2.28	1,037	58	652	\$2,829	\$273	\$1,486
Pretzels & snack chips	\$2.43	\$2.49	\$2.78	651	221	1,298	\$1,578	\$550	\$3,606
<b>Condiments</b>	<b>\$1.36</b>	<b>\$0.98</b>	<b>\$0.81</b>	<b>3,712</b>	<b>2,064</b>	<b>3,225</b>	<b>\$5,066</b>	<b>\$2,017</b>	<b>\$2,626</b>
Catsup & other sauces	\$1.30	\$0.97	\$0.86	3,126	1,359	2,355	\$4,071	\$1,313	\$2,025
Flavorings	\$2.30	\$0.99	\$1.21	274	657	159	\$630	\$647	\$192
Pickles/olives	\$1.17	\$1.18	\$0.58	312	48	711	\$365	\$57	\$410
<b>Eggs</b>	<b>\$3.05</b>	<b>\$1.53</b>	<b>\$1.41</b>	<b>1,227</b>	<b>577</b>	<b>667</b>	<b>\$3,737</b>	<b>\$885</b>	<b>\$942</b>
Eggs	\$2.31	\$1.53	\$1.07	574	529	324	\$1,325	\$807	\$346
Mixtures with eggs	\$3.70	\$1.63	\$1.74	653	48	342	\$2,412	\$78	\$597
<b>Fats/oils</b>	<b>\$1.44</b>	<b>\$1.70</b>	<b>\$1.12</b>	<b>1,772</b>	<b>2,199</b>	<b>1,982</b>	<b>\$2,559</b>	<b>\$3,727</b>	<b>\$2,228</b>
Butter	\$2.31	\$2.23	\$1.92	52	947	31	\$119	\$2,112	\$59
Margarine	\$1.40	\$1.22	\$0.77	303	24	338	\$425	\$29	\$260
Salad dressings & mayonnaise	\$1.42	\$1.32	\$1.25	1,024	620	1,155	\$1,452	\$818	\$1,441
Vegetable oils & shortenings	\$1.44	\$1.26	\$1.02	392	608	459	\$564	\$769	\$468
<b>Fish</b>	<b>\$2.91</b>	<b>\$2.96</b>	<b>\$2.28</b>	<b>1,478</b>	<b>961</b>	<b>454</b>	<b>\$4,306</b>	<b>\$2,849</b>	<b>\$1,035</b>
Fish	\$2.90	\$2.96	\$2.28	1,446	961	382	\$4,198	\$2,849	\$870
Shellfish	\$3.34	\$6.48	\$2.29	32	-	72	\$108	\$-	\$164
<b>Fruits/juices</b>	<b>\$1.21</b>	<b>\$0.93</b>	<b>\$0.71</b>	<b>34,872</b>	<b>20,099</b>	<b>24,841</b>	<b>\$42,129</b>	<b>\$18,651</b>	<b>\$17,751</b>
Fruits	\$1.19	\$0.89	\$0.80	27,572	17,938	14,746	\$32,841	\$15,936	\$11,840
Juices	\$1.27	\$1.26	\$0.59	7,300	2,160	10,095	\$9,288	\$2,715	\$5,912
<b>Grain products</b>	<b>\$1.82</b>	<b>\$0.76</b>	<b>\$1.44</b>	<b>7,412</b>	<b>10,472</b>	<b>3,308</b>	<b>\$13,495</b>	<b>\$7,949</b>	<b>\$4,776</b>
Breakfast cereals	\$3.80	\$5.00	\$3.45	1,281	206	554	\$4,865	\$1,032	\$1,911
Flour & other milled grains	\$0.54	\$0.52	\$0.32	1,899	4,779	726	\$1,022	\$2,485	\$231
Flour mix	\$1.57	\$1.47	\$1.16	1,811	9	217	\$2,843	\$13	\$253
Mixtures with grain	\$3.02	\$2.34	\$1.67	1,042	9	955	\$3,143	\$22	\$1,595
Pasta & noodles	\$1.22	\$1.30	\$0.93	728	943	490	\$887	\$1,230	\$455
Rice, barley & other grains	\$1.13	\$0.70	\$0.91	650	4,525	365	\$735	\$3,168	\$331
<b>Legumes/nuts/seeds</b>	<b>\$1.36</b>	<b>\$0.79</b>	<b>\$0.86</b>	<b>1,132</b>	<b>821</b>	<b>1,233</b>	<b>\$1,540</b>	<b>\$649</b>	<b>\$1,055</b>
Dry beans/peas	\$1.03	\$0.71	\$0.60	828	800	996	\$856	\$566	\$599
Other nuts	\$6.42	\$6.01	\$5.36	8	-	18	\$54	\$1	\$98
Peanuts/peanut butter	\$1.88	\$2.57	\$1.42	252	-	154	\$474	\$1	\$218
Seeds	\$2.78	\$4.09	\$2.52	19	-	31	\$52	\$2	\$77
Soybeans & soy products	\$4.16	\$3.96	\$1.86	25	20	34	\$105	\$79	\$63
<b>Milk &amp; other dairy products</b>	<b>\$0.89</b>	<b>\$0.61</b>	<b>\$0.50</b>	<b>36,435</b>	<b>70,609</b>	<b>59,535</b>	<b>\$32,445</b>	<b>\$42,946</b>	<b>\$29,922</b>
Cheese	\$2.25	\$3.13	\$2.01	3,063	1,355	3,043	\$6,889	\$4,241	\$6,117
Cream	\$1.92	\$1.59	\$1.37	80	9	121	\$154	\$14	\$166
Ice cream & ice milk	\$2.64	\$-	\$1.47	151	-	716	\$400	\$-	\$1,056
Milk	\$0.74	\$0.56	\$0.39	32,700	69,031	54,805	\$24,228	\$38,333	\$21,563
Yogurt	\$1.76	\$1.67	\$1.20	440	215	850	\$774	\$358	\$1,020

**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**  
SECTION 3: FOOD ACQUISITIONS IN ALASKA AND HAWAII

Food groups/subgroups	48 states			48 states			48 states		
	Alaska	Hawaii	& DC	Alaska	Hawaii	& DC	Alaska	Hawaii	& DC
	\$/lb			lb/100,000 m.e.			\$/100,000 m.e.		
<b>Non dairy drinks</b>	<b>\$0.67</b>	<b>\$0.18</b>	<b>\$0.47</b>	<b>2,757</b>	<b>4,629</b>	<b>8,057</b>	<b>\$1,846</b>	<b>\$844</b>	<b>\$3,762</b>
Carbonated	\$1.88	\$-	\$0.58	4	-	173	\$7	\$-	\$100
Coffee & tea	\$1.90	\$4.19	\$0.66	20	1	682	\$38	\$3	\$449
Dry beverage	\$3.02	\$-	\$2.48	4	-	13	\$13	\$-	\$32
Enriched drinks	\$0.53	\$-	\$0.65	1,081	-	2,165	\$570	\$-	\$1,412
Fruit drinks	\$2.26	\$1.16	\$0.67	334	4	933	\$756	\$5	\$625
Water	\$0.35	\$0.18	\$0.28	1,315	4,624	4,091	\$463	\$836	\$1,143
<b>Poultry</b>	<b>\$2.73</b>	<b>\$1.98</b>	<b>\$1.84</b>	<b>5,674</b>	<b>9,737</b>	<b>8,085</b>	<b>\$15,474</b>	<b>\$19,252</b>	<b>\$14,881</b>
Chicken	\$2.82	\$1.86	\$1.79	3,498	6,974	6,007	\$9,876	\$12,946	\$10,781
Game birds	\$-	\$-	\$6.02	-	-	0	\$-	\$-	\$1
Mixed poultry	\$-	\$9.06	\$4.46	-	0	0	\$-	\$-	\$1
Recipe mix	\$4.13	\$-	\$1.95	1	-	12	\$6	\$-	\$23
Turkey	\$2.57	\$2.28	\$1.97	2,174	2,763	2,066	\$5,592	\$6,306	\$4,076
<b>Prepared foods</b>	<b>\$2.48</b>	<b>\$1.87</b>	<b>\$1.80</b>	<b>6,324</b>	<b>1,637</b>	<b>7,341</b>	<b>\$15,693</b>	<b>\$3,065</b>	<b>\$13,183</b>
Burritos/tacos	\$1.94	\$1.54	\$1.54	1,334	1,107	701	\$2,590	\$1,709	\$1,078
Meat or cheese filled pastry	\$2.33	\$2.39	\$1.84	234	379	934	\$544	\$907	\$1,719
Mixtures with fish	\$10.10	\$-	\$4.67	9	-	1	\$94	\$-	\$6
Pizza	\$2.45	\$2.16	\$1.71	3,534	2	4,653	\$8,675	\$3	\$7,966
Prepared meals	\$3.05	\$2.71	\$2.08	531	-	231	\$1,621	\$1	\$481
Prepared sandwiches	\$3.18	\$2.98	\$2.36	682	149	821	\$2,169	\$444	\$1,933
<b>Red meats</b>	<b>\$2.75</b>	<b>\$2.21</b>	<b>\$1.82</b>	<b>6,507</b>	<b>7,468</b>	<b>5,516</b>	<b>\$17,871</b>	<b>\$16,480</b>	<b>\$10,058</b>
Beef & veal	\$2.92	\$2.29	\$1.69	4,214	4,156	3,550	\$12,296	\$9,512	\$6,012
Lamb	\$4.59	\$-	\$5.40	0	-	0	\$1	-	\$-
Mixed meats	\$1.88	\$2.39	\$1.82	926	1,336	452	\$1,739	\$3,187	\$825
Pork	\$2.80	\$1.91	\$2.14	1,335	1,975	1,479	\$3,737	\$3,780	\$3,165
Recipe mix	\$3.14	\$1.92	\$1.67	31	1	34	\$98	\$1	\$56
<b>Soups &amp; gravies</b>	<b>\$1.96</b>	<b>\$2.36</b>	<b>\$1.48</b>	<b>1,636</b>	<b>602</b>	<b>578</b>	<b>\$3,214</b>	<b>\$1,422</b>	<b>\$854</b>
Gravies	\$3.97	\$3.21	\$2.35	138	233	97	\$549	\$747	\$229
Soups	\$1.78	\$1.83	\$1.30	1,498	369	481	\$2,664	\$676	\$625
<b>Sugar/desserts</b>	<b>\$1.49</b>	<b>\$0.81</b>	<b>\$0.93</b>	<b>3,875</b>	<b>2,120</b>	<b>1,815</b>	<b>\$5,763</b>	<b>\$1,717</b>	<b>\$1,681</b>
Candies/toppings	\$1.62	\$2.54	\$2.09	881	1	120	\$1,429	\$4	\$250
Gelatins	\$1.67	\$2.34	\$1.22	329	137	78	\$550	\$321	\$95
Jellies, jams & preserves	\$1.72	\$1.85	\$1.14	311	33	131	\$534	\$62	\$150
Puddings/pie filling	\$2.40	\$2.36	\$0.74	506	1	312	\$1,217	\$3	\$230
Sherbet/ices	\$1.59	\$-	\$1.04	152	-	274	\$242	\$-	\$286
Sugars	\$0.90	\$0.61	\$0.61	851	1,648	501	\$764	\$1,000	\$306
Syrups	\$1.22	\$1.10	\$0.91	845	298	399	\$1,027	\$328	\$363

**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**  
SECTION 3: FOOD ACQUISITIONS IN ALASKA AND HAWAII

Food groups/subgroups	48 states			48 states			48 states		
	Alaska	Hawaii	& DC	Alaska	Hawaii	& DC	Alaska	Hawaii	& DC
	\$/lb			lb/100,000 m.e.			\$/100,000 m.e.		
<b>Vegetables</b>	<b>\$1.09</b>	<b>\$1.07</b>	<b>\$0.80</b>	<b>18,534</b>	<b>10,564</b>	<b>15,060</b>	<b>\$20,174</b>	<b>\$11,325</b>	<b>\$12,037</b>
Green vegetables	\$1.10	\$1.39	\$0.85	4,135	2,112	3,384	\$4,546	\$2,936	\$2,866
Mixed vegetables	\$1.13	\$1.37	\$1.00	2,162	1,017	1,381	\$2,446	\$1,389	\$1,379
Mixtures with vegetables	\$-	\$4.91	\$1.45	-	-	79	\$-	\$-	\$114
Other vegetables	\$2.12	\$2.01	\$1.23	317	155	243	\$674	\$311	\$298
Potato & potato products	\$1.02	\$0.98	\$0.70	6,612	3,701	5,858	\$6,743	\$3,644	\$4,083
Tomatoes & tomato products	\$1.06	\$0.73	\$0.79	2,451	2,420	1,859	\$2,608	\$1,771	\$1,475
Yellow vegetables	\$1.10	\$1.10	\$0.81	2,858	1,159	2,257	\$3,157	\$1,273	\$1,822
<b>Food groups: Number of highest mean cost/volume</b>	12	4	-	8	5	3	12	3	1
<b>Food subgroups: Number of highest mean cost volume</b>	47	23	3	27	15	30	38	23	21

Color legend: Red indicates highest value

Source: School Food Purchase Study, 2011

### 3.4 Comparison of top 50 Items

Table 3-12 compares the top 50 most acquired items (in value terms) in Alaska, Hawaii and the 48 contiguous states. In this table, cells highlighted in grey indicate that the item is not among the top 50 most acquired foods in that region, red indicates highest value of the item compared to the other regions, and yellow indicates lowest value. A total of 102 food items were among the top 50 most acquired (in value terms) in Alaska, Hawaii and the 48 contiguous states. Of these, only 14 items were among the top 50 in all three regions, including two milk items, two poultry, two beef items, two potato product items, apple juice, orange juice, fresh apples, fresh oranges, American cheese, and canned peaches. The remaining food items were either unique for one region (23 were among the top 50 only in the 48 states, 21 only in Alaska, and 24 only in Hawaii) or were among the 50 for two regions. Alaska had the largest number of items (22) with highest cost per pound and the 48 contiguous states had the highest number of top 50 items with lowest costs per pound (23).

**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**  
SECTION 3: FOOD ACQUISITIONS IN ALASKA AND HAWAII

**Table 3-12: Comparison of mean cost and volume of top 50 most acquired items by unified public school districts in Alaska, Hawaii, and the 48 contiguous states, SY 2009/10**

Food item	Alaska			Hawaii			48 states					
	Cost per unit	Volume per 100,000 m.e.	Cost per 100,000 m.e.	Cost per unit	Volume per 100,000 m.e.	Cost per 100,000 m.e.	Cost per unit	Volume per 100,000 m.e.	Cost per 100,000 m.e.			
	Rank	dollars/pound	pounds/100,000 m.e.	dollars/100,000 m.e.	Rank	dollars/pound	pounds/100,000 m.e.	dollars/100,000 m.e.	Rank	dollars/pound	pounds/100,000 m.e.	dollars/100,000 m.e.
Milk, Flavored, Lo Fat, 1%									1	\$0.41	21,717	\$8,863
Milk, Flavored, Skim/Nonfat	1	\$0.65	17,618	\$11,536	1	\$0.54	47,156	\$25,655	2	\$0.37	11,843	\$4,346
Hamburger,Hot Dog Buns,Steak,Sub & Dinner Rls	2	\$2.12	1,957	\$4,150					3	\$1.13	3,166	\$3,577
Milk, Lo Fat, 1%	5	\$0.58	6,126	\$3,562	2	\$0.56	19,255	\$10,730	4	\$0.38	8,962	\$3,407
Cheese, Mozzarella/String					16	\$3.45	519	\$1,787	5	\$2.43	847	\$2,062
Chicken, Nuggets, White/dark Mix, Unknow	24	\$2.32	751	\$1,743	7	\$2.12	1,096	\$2,326	6	\$1.62	1,271	\$2,054
Orange Juice, Individual	19	\$1.02	1,889	\$1,920	50	\$1.06	595	\$631	7	\$0.54	3,586	\$1,931
Pizza, w/Real Cheese	14	\$2.42	865	\$2,091					8	\$1.81	1,044	\$1,886
Cereals, Individual	6	\$4.61	733	\$3,382					9	\$3.70	464	\$1,719
Beef, Patties, Cooked	21	\$2.96	605	\$1,790	12	\$3.36	571	\$1,922	10	\$1.53	1,097	\$1,677
Apple Juice, Individual	25	\$0.87	1,977	\$1,716					11	\$0.51	3,254	\$1,668
Potatoes, French Fries	12	\$0.83	2,948	\$2,444	28	\$0.73	1,802	\$1,319	12	\$0.62	2,630	\$1,639
Cheese, American/Processed	29	\$2.18	739	\$1,612	10	\$2.88	703	\$2,022	13	\$1.88	817	\$1,536
Beef, Ground	3	\$2.64	1,539	\$4,056	4	\$2.04	1,399	\$2,859	14	\$1.74	863	\$1,505
Pizza, Pepperoni w/Real Cheese	9	\$2.64	1,244	\$3,286					15	\$1.98	757	\$1,498
Apples, Fresh	36	\$0.82	1,708	\$1,392	45	\$0.97	838	\$814	16	\$0.59	2,438	\$1,440
Milk, Flavored, Lo Fat, .5%									17	\$0.38	3,782	\$1,431
Sport Drink, e.g. Gatorade									18	\$0.65	2,165	\$1,411
Chips,Misc.Snack(Cheetos,Sun Chips)									19	\$3.72	359	\$1,335
Fruit Juice, Mixed, Individual	38	\$1.03	1,325	\$1,371					20	\$0.63	1,973	\$1,248
Cookie Dough									21	\$1.60	738	\$1,179

**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**

SECTION 3: FOOD ACQUISITIONS IN ALASKA AND HAWAII

Food item	Alaska			Hawaii			48 states					
	Cost per unit	Volume per 100,000 m.e.	Cost per 100,000 m.e.	Cost per unit	Volume per 100,000 m.e.	Cost per 100,000 m.e.	Cost per unit	Volume per 100,000 m.e.	Cost per 100,000 m.e.			
	Rank	dollars/pound	pounds/100,000 m.e.	dollars/100,000 m.e.	Rank	dollars/pound	pounds/100,000 m.e.	dollars/100,000 m.e.	Rank	dollars/pound	pounds/100,000 m.e.	dollars/100,000 m.e.
Cheese Filled Pastry(Includes Hot Pocket)				39	\$2.39	379	\$907	22	\$1.78	649	\$1,156	
Milk, Flavored, Lo Fat, Fat Solids Unkwn	15	\$0.64	3,221	\$2,070				23	\$0.39	2,776	\$1,095	
Chicken, Nuggets, White Meat				25	\$2.72	524	\$1,428	24	\$2.01	544	\$1,092	
Chips, Tortilla/Corn								25	\$2.16	504	\$1,088	
Milk, Lo Fat, 2%								26	\$0.40	2,670	\$1,080	
Turkey Breasts								27	\$2.40	439	\$1,052	
Ham,Boneless/Canadian Bacon								28	\$2.33	449	\$1,046	
Chicken, Patties, Breaded, White Meat								29	\$1.93	522	\$1,006	
Muffins								30	\$2.25	446	\$1,005	
Cheese, Cheddar	32	\$2.85	523	\$1,488				31	\$2.18	459	\$1,001	
Peanut Butter and Jelly Sandwich								32	\$2.36	420	\$991	
Pizza, Cheese, Type Unknown								33	\$1.61	597	\$964	
Yogurt								34	\$1.18	813	\$960	
Water				44	\$0.18	4,624	\$836	35	\$0.26	3,639	\$946	
Chicken, Patties, White/dark Meat, Unkn	50	\$1.98	548	\$1,087	17	\$1.68	1,042	\$1,755	36	\$1.43	655	\$937
Lettuce, Salad Mix								37	\$1.02	907	\$927	
Crackers, Graham, Individual								38	\$2.27	405	\$919	
Potatoes, Formed, Frozen	23	\$0.80	2,200	\$1,754	26	\$1.18	1,174	\$1,383	39	\$0.63	1,442	\$908
Pizza, Cheese Blend								40	\$1.49	603	\$899	
Pizza,Pepperoni w/Cheese Blend								41	\$1.53	554	\$844	
Bread/Biscuit/Pastry Dough								42	\$1.04	811	\$844	
Peaches, Canned, Light Syrup	8	\$1.09	3,017	\$3,291	3	\$0.84	3,678	\$3,086	43	\$0.73	1,132	\$831
Ice Cream Novelties								44	\$1.65	476	\$784	
Turkey, Mixed Roasts	17	\$3.17	642	\$2,032	11	\$2.95	670	\$1,975	45	\$2.62	292	\$767
Cookies, Individual								46	\$2.88	264	\$760	
Oranges, Fresh	47	\$0.90	1,282	\$1,151	30	\$1.01	1,200	\$1,206	47	\$0.57	1,335	\$758
Chicken, Nuggets, Mixed Meat								48	\$1.41	526	\$744	

**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**

SECTION 3: FOOD ACQUISITIONS IN ALASKA AND HAWAII

Food item	Alaska			Hawaii			48 states					
	Cost per unit	Volume per 100,000 m.e.	Cost per 100,000 m.e.	Cost per unit	Volume per 100,000 m.e.	Cost per 100,000 m.e.	Cost per unit	Volume per 100,000 m.e.	Cost per 100,000 m.e.			
	Rank	dollars/pound	pounds/100,000 m.e.	dollars/100,000 m.e.	Rank	dollars/pound	pounds/100,000 m.e.	dollars/100,000 m.e.	Rank	dollars/pound	pounds/100,000 m.e.	dollars/100,000 m.e.
Chicken, Parts, Breaded, Cooked				40	\$1.47	603	\$883		49	\$2.31	320	\$741
Pork, Sausage, Cooked									50	\$1.94	366	\$709
Mixed Fruit, Canned, Light Syrup	4	\$1.15	3,151	\$3,629	15	\$0.84	2,178	\$1,838				
Milk, Dry, Non Fat	7	\$2.42	1,384	\$3,350								
Pears, Canned, Light Syrup	10	\$1.11	2,648	\$2,946	6	\$0.91	2,581	\$2,347				
Chicken, Pulled or Diced	11	\$5.50	502	\$2,757								
Bread, Wheat	13	\$2.82	814	\$2,292								
Cherries, Tart, Dry	16	\$9.07	225	\$2,041								
Beef, Cuts, Raw	18	\$4.54	433	\$1,968	21	\$2.24	713	\$1,599				
Cheese Sauce or Soup, Ready to Use	20	\$1.54	1,172	\$1,804								
Oranges, Mandarin, Canned	22	\$1.22	1,468	\$1,788								
Breakfast Burrito or Eggroll	26	\$3.19	533	\$1,702								
Turkey, Pulled/Sliced/Diced/Deli Meat	27	\$2.61	644	\$1,683								
Green Beans, Canned	28	\$0.84	1,941	\$1,639								
Applesauce, Canned, Sweetened	30	\$1.07	1,453	\$1,554	24	\$0.72	2,030	\$1,452				
Pollock Patties/Nuggets, Breaded	31	\$2.51	601	\$1,509	35	\$2.43	407	\$987				
French Toast/Sticks/French Toast Bagels	33	\$1.88	772	\$1,453	41	\$2.30	377	\$869				
Crackers, Bulk	34	\$2.74	518	\$1,422								
Egg Entree, Crust/Cheese/Meat	35	\$4.63	304	\$1,407								
Milk, Lo Fat, Fat Solids Unkno	37	\$0.55	2,515	\$1,391								
Corn Dogs/Nuggets, All Meat	39	\$1.70	788	\$1,342								
Orange Juice, Concentrate	40	\$2.67	497	\$1,330								
Applesauce, Unsweetened	41	\$0.77	1,685	\$1,300								
Pineapple, Canned, Juice Pack	42	\$1.11	1,166	\$1,294	5	\$0.77	3,130	\$2,423				
Bread/Biscuit Mixes	43	\$1.68	753	\$1,263								



**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**

SECTION 3: FOOD ACQUISITIONS IN ALASKA AND HAWAII

Food item	Alaska				Hawaii				48 states			
	Cost per unit		Volume per 100,000 m.e.	Cost per 100,000 m.e.	Cost per unit		Volume per 100,000 m.e.	Cost per 100,000 m.e.	Cost per unit		Volume per 100,000 m.e.	Cost per 100,000 m.e.
	Rank	dollars/pound	pounds/100,000 m.e.	dollars/100,000 m.e.	Rank	dollars/pound	pounds/100,000 m.e.	dollars/100,000 m.e.	Rank	dollars/pound	pounds/100,000 m.e.	dollars/100,000 m.e.
Applesauce, Individual, Sweetened	44	\$1.39	899	\$1,251								
Apple Juice, Concentrate	45	\$2.62	470	\$1,233								
Tortillas, Flour	46	\$1.49	794	\$1,181								
Peaches, Canned, Syrup Pack Unknown	48	\$0.79	1,463	\$1,150								
Beef,Nuggets or Patties w Sauce or Glaze	49	\$2.30	490	\$1,128								
Chicken, Cut up/Parts, Raw					8	\$1.12	2,062	\$2,304				
Butter					9	\$2.23	947	\$2,112				
Chicken Grill Strips/Patties,Dark Meat					13	\$3.94	482	\$1,901				
Beef, Ground, Cooked					14	\$2.04	907	\$1,851				
Smoked Sausage					18	\$3.31	506	\$1,673				
Rice, White					19	\$0.67	2,414	\$1,625				
Burrito, Beef and Bean					20	\$1.55	1,048	\$1,622				
Rice, Brown					22	\$0.73	2,110	\$1,543				
Pork, Breaded					23	\$2.32	633	\$1,465				
Tuna, Canned					27	\$3.58	369	\$1,321				
Hot Dogs, All Meat					29	\$1.71	743	\$1,267				
Meatballs/Meatloaf/Salisbury Stk, No Sce					31	\$2.24	534	\$1,197				
Flour, Bread					32	\$0.52	2,269	\$1,189				
Pork, Cuts, Boneless, Raw					33	\$1.37	858	\$1,174				
Turkey Ham/Turkey Canadian Bacon					34	\$2.32	460	\$1,068				
Pasta, Dry					36	\$1.31	752	\$983				
Milk, Skim/Nonfat					37	\$0.56	1,714	\$961				
Turkey Sausage					38	\$2.22	431	\$957				
Lettuce, Heads					42	\$1.41	599	\$842				
Sugar, Granulated					43	\$0.58	1,441	\$838				

**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**

SECTION 3: FOOD ACQUISITIONS IN ALASKA AND HAWAII

Food item	Alaska			Hawaii				48 states				
	Cost per unit	Volume per 100,000 m.e.	Cost per 100,000 m.e.	Cost per unit	Volume per 100,000 m.e.	Cost per 100,000 m.e.	Cost per unit	Volume per 100,000 m.e.	Cost per 100,000 m.e.			
	Rank	dollars/pound	pounds/100,000 m.e.	dollars/100,000 m.e.	Rank	dollars/pound	pounds/100,000 m.e.	dollars/100,000 m.e.	Rank	dollars/pound	pounds/100,000 m.e.	dollars/100,000 m.e.
Lunchmeat, Turkey				46	\$1.99	383	\$764					
Flour, Whole Wheat				47	\$0.54	1,365	\$732					
Corn Dogs/Nuggets, Chicken				48	\$2.26	287	\$650					
Bananas, Fresh				49	\$0.97	657	\$639					
Highest value (number of items)	22	11	19	10	9	10	2	13	5			
Lowest value (number of items)	1	10	2	7	14	11	23	8	18			

Grey indicates item is not among top 50 for the region

Red indicates highest value

Yellow indicates lowest value

Source: School Food Purchase Study, 2011

### 3.5 Comparison of food costs

Table 3-13 illustrates the differences in the mean value, volume and cost per unit of acquisitions and purchases made by public unified school districts in Alaska and the Hawaii SFA in SY 2009/10. The equivalent data for the 48 contiguous states and District of Columbia are displayed for comparative purposes. The mean cost per pound acquired and purchased was substantially higher in Alaska than in Hawaii and the 48 states. The mean cost per unit of food purchased in Hawaii was also higher than in the other 48 states, although the difference was not large. However, it will be noted that the total dollar value of purchases in Alaska and Hawaii was similar, while the volumes purchased varied considerably. It will be recalled that milk and milk products, a group of products with a relatively low price, represented a large proportion of Hawaiian purchases (much higher than in the other states).

Further elaboration on this difference is found in Table 3-14. This illustrates the value and volume of all food acquisitions and purchases per 100,000 meal equivalents in the public unified school districts in Alaska and Hawaii. These two states had similar values of acquisitions per 100,000 m.e., although Hawaii purchases a much larger volume per 100,000 m.e. due to its high volume of milk purchases. Hawaii purchases 1.5 times the volume per 100,000 m.e. as Alaska, and 1.27 times that of the 48 contiguous states.

**Table 3-13: Mean volume, cost, and cost per unit of acquisitions and purchases in public unified school districts, SY 2009/10**

	Value (\$)	Volume (lbs)	\$/lb
<b>All food acquisitions</b>			
Alaska	\$26,982,613	18,691,894	1.44
Hawaii	\$28,789,384	30,578,777	0.94
48 states & DC	\$8,536,666,927	9,622,769,000	0.89
<b>All food purchases</b>			
Alaska	\$23,183,181	16,125,237	1.44
Hawaii	\$24,611,287	27,372,960	0.90
48 states & DC	\$6,887,555,680	8,341,472,000	0.83

Source: School Food Purchase Study, 2011

**Table 3-14: Mean volume and cost of acquisitions and purchases per 100,000 meal equivalents public unified school districts, SY 2009/10**

	Value (\$)	Volume (lbs)
<b>All food acquisitions per 100,000 m.e.</b>		
Alaska	107,729	83,537
Hawaii	102,196	125,535
48 states & DC	74,267	98,789
<b>All food purchases per 100,000 m.e.</b>		
Alaska	90,704	71,713
Hawaii	94,448	114,364
48 states & DC	62,872	93,274

Source: School Food Purchase Study, 2011

## SECTION 4: SCHOOL FOOD PROCUREMENT PRACTICES

### 4.1 Food service decision making

The data presented in this section are based on the responses provided by senior food service staff in the school districts to questions in the Procurement Practices Survey (PPS) for the school year 2009/10. In most cases the person providing the information was the Food Service Director. Hawaii and Puerto Rico are single large districts serving diverse enrollments. Alaska comprises one large, three medium sized districts, and forty-eight smaller districts. In most of the following tables we provide a summary of the data for the 48 contiguous states and the District of Columbia for comparison. The procurement practices survey instrument is in Appendix 2 of the main report on the 48 states.

#### 4.1.1 Vendor selection

##### a) Responsibility for decision

Table 4-1 below illustrates the persons or institutions responsible for vendor selection in the school districts. In Alaska, there were three points of primary responsibility for vendor selection in the different districts: a business or purchasing office, the district food service manager, and the school board. The latter only played a part in the small districts. The district food service manager was less frequently responsible than in the 48 contiguous states. In Hawaii, tenders are put out to bid for most food items by Hawaii's Department of Education and this organization plays the primary role in procurement. Individual school kitchen managers draw down supplies as required from the list of selected vendors. However, for some items, local kitchen managers may buy locally and not from the list. This will apply to some fresh produce (as these items cannot be purchased on fixed price contract) and some fresh proteins (meat and seafood).

In Puerto Rico, food procurement is undertaken similarly through the Commonwealth's Bid Board, although some products are purchased locally by individual schools.

**Table 4-1: Number of public unified NSLP school districts in Alaska, Hawaii and the 48 contiguous states by decision maker with primary responsibility for vendor selection, SY 2009/10**

	Alaska: School district size						All Alaskan districts		48 states & DC		Hawaii	Puerto Rico
	Large		Medium		Small		#	%	#	%		
	#	%	#	%	#	%						
District Food Service Manager	0	0.0	2	67.0	13	27.0	15	28.0	7,589	70.1		
Kitchen Manager/Head Cook	0	0.0	0	0.0	2	4.0	2	4.0	479	4.4		
FSMC	0	0.0	0	0.0	0	0.0	0	0.0	671	6.2		
Business Office/Purch. Dept	1	100.0	0	0.0	16	34.0	17	33.0	602	5.6		
School Board	0	0.0	0	0.0	16	33.0	16	31.0	504	4.7		
Nutritionist	0	0.0	0	0.0	0	0.0	0	0.0	160	1.5		
Other	0	0.0	1	33.0	1	2.0	2	4.0	822	7.6	✓	✓

Source: School Food Purchase Study, 2011

**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**  
SECTION 4: SCHOOL FOOD PROCUREMENT PRACTICES

**b) Selection criteria**

Districts were asked to identify the criteria that they take into account when selecting vendors. The results are shown in Table 4-2. In Alaska, price and ability to meet specification were identified by all districts. Other key criteria were dependability and food quality. These two criteria were also important in Hawaii and Puerto Rico. While it is difficult to compare these responses with those in the 48 contiguous states, price was also the most important factor in the 48 states, although the ability to meet specification was ranked much less important. Price was critical in Hawaii and Puerto Rico. Dependability, location, flexibility, food quality, and delivery schedules were also identified by the Hawaiian SFA, and food quality was also identified by the Puerto Rico school district.

**Table 4-2: Criteria considered by public unified NSLP school districts in selecting vendors in Alaska, Hawaii and the 48 contiguous states, SY 2009/10**

Selection criteria	Alaska: School district size			All Alaskan districts	48 states & DC	Hawaii	Puerto Rico
	Large	Medium	Small				
	<i>percent</i>						
Price	100.0	100.0	100.0	100.0	95.2	✓	✓
Brands	0.0	66.7	6.3	9.6	57.5		
Service after sale	0.0	100.0	60.4	59.6	85.7		
Dependability	0.0	100.0	100.0	98.1	89.5	✓	
Location	0.0	66.7	68.8	67.3	89.5	✓	
Flexibility	0.0	66.7	58.3	57.7	44.3	✓	
Food quality	0.0	100.0	100.0	98.1	37.4	✓	✓
Promotion programs	0.0	33.3	20.8	21.2	58.2		
Delivery schedules	0.0	100.0	56.3	57.7	86.6	✓	
Handles donated USDA Foods	0.0	66.7	2.1	5.8	77.9		
Ability to meet specifications	100.0	100.0	100.0	100.0	35.0	✓	✓

Source: School Food Purchase Study, 2011

**4.1.2 Food selection**

**a) Responsibility for decision**

The primary responsibility for food selection may be more complex than characterized by the list in Table 4-3 below as an individual may consult with others. Where this was the case, it was classified as 'other'. In Alaska, the district food service manager was the most important decision maker, as it was in the 48 contiguous states. However, as some of the Alaskan districts are very small, the decision was often made by the kitchen manager – more frequently than in the 48 contiguous states. A small number of districts identified nutritionists as having primary responsibility, including 2 of the largest Alaskan districts. In Hawaii, a phased approach was taken in identifying foods to be solicited by bids. This involved the participation of local island food service supervisors, Department of Education staff and others in menu planning activities. However, local kitchen managers may decide to buy some foods that are not available through approved vendors or USDA donations from local suppliers. In Puerto Rico, the Commonwealth's Department of Education food service department arranges for competitive bids with nutritionists playing an important role in food selection. Again, as with Hawaii, local purchases of fresh products may supplement supplies of grocery products purchased centrally.

**SCHOOL FOOD PURCHASE STUDY-III: ALASKA, HAWAII AND PUERTO RICO**  
SECTION 4: SCHOOL FOOD PROCUREMENT PRACTICES

**Table 4-3: Number of public unified NSLP school districts in Alaska, Hawaii, Puerto Rico and the 48 contiguous states by decision-maker with primary responsibility for food selection, by size of school district, SY 2009/10**

	Alaska: School district size						All Alaskan districts		48 states & DC		HI	PR
	Large		Medium		Small		#	%	#	%		
	#	%	#	%	#	%						
District Food Service Manager	0	0	2	67	29	60	31	59	8,428	78		
Kitchen Manager/Head Cook	0	0	0	0	16	34	16	31	1,243	12		
FSMC	0	0	0	0	0	0	0	0	460	4		
Business Office/Purch. Dept	0	0	0	0	2	4	2	4	106	1		
School Board	0	0	0	0	0	0	0	0	21	0		
Nutritionist	1	100	1	33	1	2	3	6	222	2		
Other	0	0	0	0	0	0	0	0	346	3	✓	✓

Source: School Food Purchase Study, 2011

**b) Use of product specifications and food safety criteria**

School districts were asked to identify the product specifications and food safety criteria that they used when purchasing food products. The PPS listed 13 potential types of product specifications (as identified in Table 4-4). In Alaska, only 3 per cent of the districts used none of the product specifications and most indicated that they used the majority of these specifications. The least frequently used were calorie content, origin, official standards of identity, container weight, and brand name. Almost all Alaskan districts used child nutrition labels, and the specification of sodium, calorie and whole grain content. In Hawaii, the specifications most frequently used were calorie content, whole grain content, origin, condition, and official standards of identity. The Puerto Rico district utilized all of the identified product specifications except brand name. It is difficult to compare the responses against those in the 48 contiguous states given the different nature of the samples. However, in the 48 contiguous states the least frequently used specification was also the origin of the product.

**Table 4-4: Product specifications used by public unified NSLP school districts in Alaska, Hawaii and the 48 contiguous states in the procurement of food, SY 2009/10**

Product specification	Alaska: School district size						All Alaskan school districts		48 states & DC		HI	PR
	Large		Medium		Small		#	%	#	%		
	#	%	#	%	#	%						
Official quality/grade standards	1	100	3	97.7	29	60.4	33	63.3	4,264	39.4	✓	✓
Style/variety of product	1	100	3	97.7	30	62.4	34	65.1	8,352	77.1	✓	✓
Brand name	1	100	3	97.7	18	37.1	22	41.8	4,870	54.0	✓	
Container weight	0	0.0	3	97.7	18	36.5	20	39.3	5,650	52.2	✓	✓
Fat content and/or type of fat	1	100	3	97.7	30	62.4	34	65.1	7,006	64.7	✓	✓
Calorie content*	1	100	2	61.5	14	28.6	17	31.8	4,933	45.6		✓
Sodium content*	1	100	2	61.5	46	95.4	49	93.5	4,985	46.0	✓	✓
Whole grain content*	1	100	3	97.7	46	95.4	50	95.6	7,207	66.6		✓
Origin	1	100	2	61.5	2	4.1	5	9.2	3,284	30.3		✓
Packaging unit	1	100	3	97.7	44	92.1	48	92.5	8,269	76.4	✓	✓
Condition	1	100	3	97.7	27	55.3	30	58.6	5,641	52.1		✓
Use of Child Nutrition labels	1	100	3	97.7	46	95.4	50	95.6	7,978	73.7	✓	✓
Official standards of identity	0	0.0	2	61.5	12	24.9	14	26.5	6,900	63.7		✓
Not using product specifications	0	0.0	0	0.0	2	4.2	2	3.8	1,624	15.0		

Source: School Food Purchase Study, 2011

**c) Use of food safety criteria**

All districts in Alaska, and the districts of Hawaii and of the Commonwealth of Puerto Rico used food safety criteria in product specifications (Table 4-5). The equivalent proportion in the districts in the 48 contiguous states was 84.6 percent of districts. Forty one percent of school districts in Alaska used USDA/AMS specifications to help develop food safety criteria, although neither Hawaii nor Puerto Rico used these specifications. Sixty eight percent of the districts in the 48 contiguous states used the AMS specifications to help them develop food safety criteria.

**Table 4-5: Use of food safety criteria in product specification by public unified NSLP school districts in Alaska, Hawaii, and the 48 contiguous states, SY 2009/10**

	Use food safety criteria in product specification		Use USDA AMS specifications	
	#	%	#	%
<b>Alaska</b>				
Large school districts	1	100%	0	0%
Medium school districts	2	67%	2	67%
Small school districts	48	100%	19	40%
All school districts	51	97%	21	40%
<b>Hawaii</b>	1	100%	0	0%
<b>Puerto Rico</b>	1	100%	0	0%
<b>48 states &amp; DC</b>	9,154	84.6%	6,211	67.9%

Source: School Food Purchase Study, 2011

**4.1.3 Food traceability**

The districts were invited to indicate if they had inventory control processes so that a product could be traced during a recall. There was a high proportion of the small school districts in Alaska (33 per cent) with no inventory control (Table 4-6). This compares with 6 percent in the 48 contiguous states. Both Hawaii and Puerto Rico reported the use of inventory control processes. We then asked how far the district could trace food back to specific points in the supply chain. Only one district in Alaska could not trace food back to the vendor, and almost 40 percent could trace back to storage or distribution at another site. Two thirds were confident that they could locate the origin of any item used in a recipe or menu item, compared with 57% in the 48 contiguous states.

**Table 4-6: Ability of public unified NSLP school districts in Alaska, Hawaii and the 48 contiguous states to trace food back to specific points in the supply chain, SY 2009/10**

Level of traceability	Alaska: school district size				All Alaskan districts	48 states & DC		Hawaii	Puerto Rico
	Large/Medium		Small			#	%		
	#	%	#	%					
Do not have inventory control	0	0.0%	16	33.2%	16	30.7%	597	6.0%	
Vendors	4	100.0%	47	98.0%	51	98.2%	9,729	89.9%	
Receiving	4	100.0%	31	64.8%	35	67.5%	7,608	70.3%	✓
Warehouse	4	100.0%	29	61.0%	33	64.0%	5,270	48.7%	✓
Distribution to another site	4	100.0%	15	32.3%	19	37.5%	4,098	37.9%	✓
Storage at another site	4	100.0%	16	34.3%	20	39.3%	3,709	34.3%	✓
Used in a recipe or as a menu item	4	100.0%	30	63.4%	34	66.2%	6,186	57.1%	✓

Source: School Food Purchase Study, 2011

**4.1.4 Buying locally: Farm-to-School programs**

**a) State Farm-to-School programs**

Six districts in Alaska were using Farm-to-School programs (Table 4-7). This represented 10.9% of all districts in the state. Neither Hawaii nor Puerto Rico used such programs. For comparison, roughly one-third of districts in the 48 contiguous states operated State Farm-to-School programs.

**Table 4-7: Use of state Farm-to-School programs in Alaska, Hawaii, Puerto Rico, and the 48 contiguous states, SY 2009/10**

	Have Farm-to-School program		Do not have Farm-to-School program	
	#	%	#	%
Alaska	6	10.9%	46	89.1%
Hawaii	0	0.0%	1	100.0%
Puerto Rico	0	0.0%	1	100.0%
48 states & DC	3,738	34.5%	7,088	65.5%

Source: School Food Purchase Study, 2011

**b) Buying locally grown produce**

Only one of the larger districts in Alaska operated a locally grown produce program (Table 4-8). This was used for purchasing carrots and represented a very small proportion of the total food purchases of the district. Neither Hawaii nor Puerto Rico had buying programs for locally grown produce similar to those operating in other US states. However, Puerto Rico had an inter-agency contract that supplied certain surplus produce to schools. The district in Alaska with a locally grown program defined local as 'within the same city/county'. There are various private initiatives to develop the Farm to School movement in Hawaii, but, as yet, no formal statewide program. The cost of local produce is likely to restrict the development of such a program.

**Table 4-8: Use of a buying program for locally grown produce in Alaska, Hawaii, Puerto Rico, and the 48 contiguous states, SY 2009/10**

	Have locally grown produce program		Do not have locally grown produce program	
	#	%	#	%
Alaska	1	2%	51	98%
Hawaii	-	100%	1	100%
Puerto Rico	1	100%	-	0%
48 states & DC	2,274	21%	8,551	79%

Source: School Food Purchase Study, 2011



## 4.2 Use of donated USDA Foods program

The USDA donated food entitlements for Alaskan districts and the districts of Hawaii and Puerto Rico are illustrated in Table 4-9. For comparative purposes, the results for the 48 contiguous states are also included in the table. As Hawaii and Puerto Rico represent single districts covering an entire state and the entire Commonwealth of Puerto Rico, their allocations were substantially higher than for individual school districts. The donated food entitlement for Alaska per district is much smaller than the mean for all districts in the 48 contiguous states as the average size of the districts in Alaska is much smaller.

The table also indicates the share of the USDA entitlement spent on processed foods. Alaska used 12% of its entitlement on processed foods compared with 38% in the 48 contiguous states. Neither Hawaii nor Puerto Rico used any of their entitlement on processed foods.

Only four (7.9 percent) of the districts in Alaska apply some of their USDA entitlement towards purchases through the DoD Fresh Fruit and Vegetable Program (DoDFresh). Hawaii also uses this program. Three of the Alaskan districts use cash reimbursements for additional purchases from the DoDFresh as does the Hawaii SFA.

**Table 4-9: USDA entitlement and utilization of entitlement funds by public unified NSLP school districts in Alaska, Hawaii, Puerto Rico, and the 48 contiguous states, SY 2009/10**

		Alaska	Hawaii	Puerto Rico	48 states & DC
Mean donated USDA Food entitlement	(\$)	\$27,442	\$4,364,334	\$10,961,167	\$298,622
Mean share of USDA entitlement spent on processed foods	(%)	16.0%	0.0%	0.0%	37.7%
Apply USDA entitlement toward purchases through the DoD fresh fruit & vegetable program	(Number of districts)	4	1	0	3,299
	(%)	7.9%	100.0%	0.0%	30.5%
Use cash reimbursements for additional purchases from DoD	(Number of districts)	3	1	0	783
	(%)	5.9%	0.0%	0.0%	7.2%

Source: School Food Purchase Study, 2011

All those that utilized DoDFresh (in Alaska and Hawaii) considered that DoD quality was comparable to commercial products. One district in Alaska considered DoD prices higher than for commercial products and two considered them lower. The Hawaii SFA considered them comparable to commercial products.

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**Table 4-10: Comparison of perceptions about quality and prices of fresh produce from the DoD and commercial products in Alaska, Hawaii, and the 48 contiguous states, SY 2009/10**

	Alaska		48 states & DC		Hawaii
	#	% using the program	#	% using the program	
<b>DoD quality</b>					
Lower than commercial products	0	0.0%	126	3.8%	
Comparable to commercial products	4	100.0%	2,804	85.0%	✓
Higher than commercial products	0	0.0%	369	11.2%	
Total	4	100.0%	3,299	100.0%	
<b>DoD prices</b>					
Lower than commercial products	2	50.0%	774	23.5%	
Comparable to commercial products	1	25.0%	1,846	56.0%	✓
Higher than commercial products	1	25.0%	679	20.6%	
Total	4	100.0%	3,299	100.0%	

Source: School Food Purchase Study, 2011

### 4.3 Use of nationally branded fast food products

Only one of the 4 larger districts in Alaska offered nationally branded fast food products (Subway and Papa John's Pizza). Neither Hawaii nor Puerto Rico offered such brands.

### 4.4 School food vendors

#### 4.4.1 Number of school vendors used

School districts were asked to indicate how many separate vendors they used for different food types. The results are shown in Table 4-11 below. It is difficult to compare the results of Alaska and the 48 states with those of Hawaii and Puerto Rico because of their island status and the methods of organizing their procurement of different food types. As in the 48 contiguous states, Alaskan districts used between one and two vendors for each major product type. The total number of vendors across all products was very low compared with the 48 states (2.2). Hawaii and Puerto Rico used a larger number of vendors, as they used separate vendors for most product lines.

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**Table 4-11: Mean number of vendors used by public unified NSLP school districts in Alaska, Hawaii, and the 48 contiguous states by food group, SY 2009/10**

Food Group	Alaska	Hawaii	Puerto Rico	48 states & DC
	—mean number of vendors per district—			
Dairy products	1.4	1.0	1.0	1.2
Bread products	1.3	0.0	1.0	1.2
Fresh produce products	1.5	13.0	1.0	1.6
Canned/staples products	1.6	13.0	27.0	1.8
Frozen foods products	1.5	9.0	1.0	1.9
Fresh meats products	1.3	2.0	1.0	1.3
Snack items products	0.9	5.0	25.0	1.8
Ice cream products	0.7	0.0	0.0	1.0
Non-dairy beverages products	0.9	10.0	1.0	1.8
Mean total number of vendors used by district	2.2	51	45	6.7

Source: School Food Purchase Study, 2011

#### 4.4.2 Receiving donated USDA Foods

The Alaskan districts used a combination of different methods for receiving donated USDA Foods. A large proportion of smaller districts used methods that were not in the list of options presented in the PPS instrument. For example, several of the smaller districts mentioned the US Postal Service and delivery by boat or barge combined with school district pickup. In Hawaii, commercial trucking companies and food service distributors were used. In Puerto Rico, the methods involved a combination of commercial trucking and state delivery (Table 4-12).

**Table 4-12: Methods of delivery of USDA Foods used by public unified NSLP school districts in Alaska, Hawaii and the 48 contiguous states, SY 2009/10**

Method of delivery	Alaska		48 states & DC		Hawaii	Puerto Rico
	#	%	#	%		
Commercial foodservice distributor, WITH commercial products	1	2.0%	4,184	38.6%	✓	
State delivery	14	26.6%	3,668	33.9%		✓
Commercial trucking company	13	26.0%	2,492	23.0%	✓	✓
Commercial foodservice distributor, SEPARATE from commercial products	6	11.1%	2,159	19.9%		
School district pick-up	4	7.2%	530	4.9%		
Other methods (donated foods)	30	57.2%	487	4.5%		

Source: School Food Purchase Study, 2011

#### 4.4.3 Likes and dislikes about donated USDA Foods

The districts were asked to list their likes and dislikes about the USDA donated food program (Table 4-13). The districts in Alaska identified a similar number of likes and dislikes. In general, the likes expressed appreciation of the cheaper price, the variety and quality of the products, as well as the general value for money. Some identified specific products they liked such as diced chicken, ground beef, and frozen fruit cups. The dislikes mainly related to frustrations over delays between ordering and delivery, and other logistical issues. There were some complaints about the quality and variety of products available and concerns over lack of cash compensation when an item was ordered but not supplied. The suggestions for improvement reflected these concerns, with an additional item being a request for more fresh produce and dairy products and for products with “less carbohydrate/sugar/fat content”.

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The likes and dislikes of the school districts in Hawaii and Puerto Rico are listed in Table 4-14. The Puerto Rican SFA appreciated product quality, the variety of products available, and the low food prices. However, they were dissatisfied at the unavailability of some products and the limited offering of canned meats and changes in delivery dates. The Hawaiian SFA appreciated the availability of bonus commodities, the convenient packaging of flour, and enrichment of rice. They also were concerned about logistical shortcomings that meant that items ordered were not available to meet shipping schedules and other issues related to availability

**Table 4-13: Likes and dislikes of donated USDA Food program by public unified NSLP school districts in Alaska, SY 2009/10**

Likes	Dislikes	Suggestions for improvement
<ul style="list-style-type: none"> <li>- Acceptable to children</li> <li>- Cheap price</li> <li>- Choice of products which are different to what can be purchased from suppliers</li> <li>- Diced Chicken</li> <li>- Ease of contact with state agency</li> <li>- Frozen fruit cups</li> <li>- Fruits &amp; Vegetables 6/#10</li> <li>- Ground beef</li> <li>- Helps subsidize purchasing</li> <li>- Inexpensive</li> <li>- Like the breakfast products</li> <li>- Multiple delivery months instead of just once or twice a year. Could start earlier in the school year.</li> <li>- Our state agency is easy to work with</li> <li>- Pricing</li> <li>- Quality Products</li> <li>- The cost of the food items</li> <li>- The ease of online ordering</li> <li>- Value</li> <li>- Variety of products offered</li> <li>- Variety of products to select from</li> </ul>	<ul style="list-style-type: none"> <li>- A lot of processed foods which we don't use</li> <li>- Accuracy of availability</li> <li>- At times, many products arrive at the same time making storage a big problem</li> <li>- Cost of processed items comparable to what our Food Service Management Company pays</li> <li>- Don't like liquid eggs</li> <li>- Items not handled by your primary vendor.</li> <li>- Items not stored by the state or stored by primary vendor</li> <li>- Notification when product will be shipped</li> <li>- Product unavailability after order is placed</li> <li>- Products sent too late in the school year (April/May)</li> <li>- Quality issues</li> <li>- Rarely receive advance notification</li> <li>- Requirement for ordering far in advance of delivery</li> <li>- Selection is poor</li> <li>- Shipping takes forever</li> <li>- Unpredictability of deliveries</li> <li>- When an item is not supplied, not being able to receive the entitlement in a cash payment. In Alaska, not all items are available and some get cancelled thus we end up leaving money on the table.</li> </ul>	<ul style="list-style-type: none"> <li>- A state warehouse for distribution in state would help with procurement/Some issues often arise when desiring a product that other areas of the state are not interested in. Most items have to be full container/car loads to be available to everyone. Split shipments should be addressed w/other western region states.</li> <li>- Cash for local produce purchase</li> <li>- Delivery dates need to be accurate, 5 months early or late is impossible to plan for effectively</li> <li>- Delivery of product by primary vendor. Storage of product by the state or the primary vendor. Get feedback from customers of what items they would like to see on survey list. Coordination with customer delivery time of product and ship direct to each site in the rural areas. Assist the states w/storage facilities for donated foods.</li> <li>- It seems that there are quite a few issues in the State of Alaska with receiving advance notification of product arrival times. This makes it difficult to plan accordingly. Often the price of the processed commodity items is comparable to what our FSMC already pays.</li> <li>- More fresh produce and dairy</li> <li>- More vegetables and healthier food choices - less carbohydrate/sugar/fat content</li> </ul>

Source: School Food Purchase Study, 2011

**Table 4-14: Likes and dislikes of donated USDA Food program by public unified NSLP school districts in Hawaii and Puerto Rico, SY 2009/10**

Hawaii		Puerto Rico	
Likes	Dislikes	Likes	Dislikes
<ul style="list-style-type: none"> <li>- Availability of bonus commodities</li> <li>- Flour is packaged in convenient sizes (4/10#) instead of bulk 50# bags</li> <li>- Rice is enriched</li> </ul>	<ul style="list-style-type: none"> <li>- Items get cancelled when we depend on it since it wasn't included in our bid</li> <li>- Items ordered are not available to meet shipping schedules</li> </ul>	<ul style="list-style-type: none"> <li>- Product quality</li> <li>- Variety of offers</li> <li>- Food prices of products</li> </ul>	<ul style="list-style-type: none"> <li>- Not all the products requested are distributed</li> <li>- Limited offer of canned meats</li> <li>- Delivery date changes</li> </ul>

Source: School Food Purchase Study, 2011

#### 4.4.4 Services provided by vendors

Table 4-15 outlines the services provided by vendors. In Alaska, they played an important role in advising on purchasing and also in updating inventory. There is no information available on the services supplied by vendors in Puerto Rico.

**Table 4-15: Services provided by vendors to public unified NSLP school districts in Alaska, Hawaii and the 48 contiguous states, SY 2009/10**

Vendor services	Alaska	48 states & DC	Hawaii
	---percent of districts---		
Unloading at dock/school	28.3%	91.1%	✓
Placing packages in coolers/storage area	5.3%	78.6%	✓
Delivery of donated USDA Foods	7.9%	61.2%	✓
Summary of purchases on monthly/quarterly basis	23.4%	54.9%	
Advice on purchasing	64.0%	54.2%	
Storage of donated USDA Foods	0.0%	41.0%	✓
Processing of donated USDA Foods	1.6%	29.7%	
Menu planning	0.0%	12.0%	
Inventory updating	34.5%	9.6%	
Shelving delivered foods	3.8%	9.5%	

Source: School Food Purchase Study, 2011

## 4.5 Procurement and pricing methods

### 4.5.1 Procurement methods

School districts were asked to indicate the principal method they used to purchase different types of food. The results are shown in Table 4-16. Formal line item bids with items individually priced were used for most of the food groups in Alaska. Formal lump sum bids were also used extensively. Some phone bids were taken for fresh meats and fresh produce that were not purchased centrally. A relatively small number of larger districts completed some purchases through sales representative visits. Several Alaskan districts did not buy either snack foods, ice cream, or non-dairy beverages. Hawaii used formal line item bids for canned and staple products, frozen foods, snack foods and non-dairy beverages. Formal lump sum bids were limited to dairy products.

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**Table 4-16: Food procurement methods used by public unified NSLP school districts in Alaska, Hawaii, and the 48 contiguous states in SY 2009/10, by food group**

Food group	Formal line item bid				Formal lump sum bid				Phone bid/quote			
	AK	HI	PR	48 st.	AK	HI	PR	48 st.	AK	HI	PR	48 st.
	----- percent of school districts -----											
Dairy products	44.0%			60.5%	34.0%	✓		18.5%	0.0%			2.7%
Bread products	44.0%		✓	58.0%	34.0%			17.5%	0.0%			5.4%
Fresh produce	39.0%			34.4%	36.0%			14.0%	3.0%	✓		13.5%
Canned/staples	44.0%	✓	✓	52.2%	34.0%			19.9%	0.0%			0.6%
Frozen foods	44.0%	✓	✓	52.7%	34.0%			20.2%	0.0%			0.2%
Fresh meats	35.0%			33.4%	34.0%			17.5%	0.0%	✓		0.8%
Snack foods	42.0%	✓	✓	47.1%	0.0%			17.7%	2.0%			0.4%
Ice cream	37.0%			37.1%	0.0%			11.6%	0.0%			5.2%
Non-dairy beverages	44.0%	✓	✓	49.2%	4.0%			16.8%	0.0%			1.7%

Food group	Sales rep visits				Other methods				Do not buy			
	AK	HI	PR	48 st.	AK	HI	PR	48 st.	AK	HI	PR	48 st.
	----- percent of school districts -----											
Dairy products	19.0%			7.8%	2.0%		✓	10.5%	0.0%			0.0%
Bread products	19.0%			8.5%	2.0%			10.2%	0.0%	✓*		0.0%
Fresh produce	19.0%			14.6%	2.0%		✓	22.1%	0.0%			0.2%
Canned/staples	19.0%			14.6%	2.0%			12.2%	0.0%			0.0%
Frozen foods	19.0%			14.2%	2.0%			12.2%	0.0%			0.0%
Fresh meats	19.0%			14.5%	2.0%		✓	11.5%	9.0%			14.6%
Snack foods	19.0%			16.5%	2.0%			10.3%	34.0%			5.2%
Ice cream	19.0%			12.8%	2.0%			10.9%	41.0%	✓	✓	16.7%
Non-dairy beverages	19.0%			15.0%	2.0%			10.6%	31.0%			4.6%

\* Note: In Hawaii this product group is not purchased by the district as all bread is cooked from scratch.

Source: School Food Purchase Study, 2011

#### 4.5.2 Pricing methods

Several Alaskan districts did not buy ice cream, snack foods, non-dairy beverages, or fresh meats. Similarly, neither Hawaii nor Puerto Rico purchased ice cream. Also, in Hawaii, no bread was purchased by the district as all bread was baked in the school kitchens (Table 4-17).

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**Table 4-17: Product groups not purchased by public unified NSLP school districts in Alaska, Hawaii, Puerto Rico and the 48 contiguous states, SY 2009/10**

Food group	Do not buy			
	AK	HI	PR	48 st.
	<i>% of school districts for each row</i>			
Dairy products	0.0%			0.0%
Bread products	0.0%	✓*		0.0%
Fresh produce	2.0%			0.2%
Canned/staples	0.0%			0.0%
Frozen foods	0.0%			0.0%
Fresh meats	9.0%			14.6%
Snack foods	34.0%			5.2%
Ice Cream	41.0%	✓	✓	16.7%
Non-dairy bev.	31.0%			4.6%
* Note: In Hawaii this product group is not purchased by the district as all bread is baked in school kitchens. Source: School Food Purchase Study, 2011				

Table 4-18 indicates the pricing methods used by school districts. In Alaska, roughly two thirds of the districts used an informal bid or quote method for most of the products purchased. Those who use the more formal fixed price contracts tend to use them for most of the categories with the exception of fresh produce and fresh meats, where an adjustment clause was added to the fixed price commitment. No districts use cost-based pricing and a very small number used formula prices for any products.

Hawaii buys all its products except some fresh produce and fresh meat on fixed prices. It does not buy bread products. Puerto Rico buys all of its products on fixed price contracts, although there is an adjustment clause for dairy product prices.

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**Table 4-18: Pricing methods used by public unified NSLP school districts in Alaska, Hawaii, Puerto Rico and the 48 contiguous states in food procurement by food group, SY 2009/10**

Food group	Formal method															
	Fixed price contract				Fixed price with adjustment clause				Formula price				Cost based price			
	AK	HI	PR	48 st.	AK	HI	PR	48 st.	AK	HI	PR	48 st.	AK	HI	PR	48 st.
	<i>percent of school districts for each row</i>															
Dairy products	21.0%		✓	21.9%	6.0%	✓		46.7%	5.0%			2.5%	0.0%			4.2%
Bread products	27.0%			50.6%	0.0%			20.7%	5.0%			1.2%	0.0%			1.2%
Fresh produce	4.0%			13.2%	19.0%			22.6%	5.0%			5.9%	0.0%			7.0%
Canned/staples	27.0%	✓	✓	32.7%	3.0%			19.0%	2.0%			6.3%	0.0%			3.1%
Frozen foods	27.0%	✓	✓	32.9%	3.0%			19.0%	2.0%			6.4%	0.0%			3.1%
Fresh meats	2.0%			24.1%	22.0%			16.0%	0.0%			4.3%	0.0%			3.8%
Snack foods	27.0%	✓	✓	28.1%	3.0%			17.1%	2.0%			6.0%	0.0%			2.9%
Ice Cream	21.0%			26.6%	3.0%			14.3%	0.0%			3.1%	0.0%			2.3%
Non-dairy bev.	27.0%	✓	✓	32.5%	3.0%			19.7%	2.0%			2.6%	0.0%			2.8%
	<b>Informal method</b>															
Food group	Bid or quote price				Retail price				Mutually accepted discount				Other			
	AK	HI	PR	48 st.	AK	HI	PR	48 st.	AK	HI	PR	48 st.	AK	HI	PR	48 st.
	<i>percent of school districts for each row</i>															
Dairy products	65.0%			16.0%	0.0%			2.9%	4.0%			0.8%	0.0%			5.1%
Bread products	65.0%			16.7%	0.0%			2.8%	4.0%			1.5%	0.0%			5.3%
Fresh produce	66.0%			29.5%	0.0%	✓		8.4%	4.0%			6.6%	0.0%			4.9%
Canned/staples	65.0%			24.2%	0.0%			6.0%	4.0%			3.9%	0.0%			4.5%
Frozen foods	65.0%			24.0%	0.0%			6.0%	4.0%			3.8%	0.0%			4.5%
Fresh meats	63.0%			15.0%	0.0%	✓		4.2%	4.0%			5.0%	0.0%			4.9%
Snack foods	34.0%			23.1%	0.0%			6.9%	0.0%			4.7%	0.0%			4.0%
Ice Cream	34.0%			18.4%	0.0%			3.9%	0.0%			3.0%	0.0%			4.8%
Non-dairy bev.	34.0%			22.0%	0.0%			5.0%	4.0%			4.3%	0.0%			5.2%

Source: School Food Purchase Study, 2011



#### **4.6 Cooperative buying**

Only two of the larger districts in Alaska participated in cooperative buying for a wide range of different food categories. One of the participating Alaskan districts considered the experience more positively than the other. Neither Hawaii nor Puerto Rico has the opportunity of participating in any cooperative purchasing activities.

#### **4.7 Degree of procurement centralization**

As one might expect given the small average size of districts in Alaska, there was a higher emphasis on purchases being made by the district rather than the schools (see Table 4-19). Hawaii had a strong element of centralization of purchasing for most of its products with the exception of fresh produce and fresh meat. Frozen foods tended to be purchased centrally, although a proportion was purchased by individual schools. In Puerto Rico, a similar pattern was found with centralized purchasing of most products being supplemented by more local purchases of fresh produce, frozen foods and snacks.

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**Table 4-19: Degree of procurement centralization of public unified NSLP school districts in Alaska, Hawaii, and the 48 contiguous states by food category, SY 2009/10**

Food vendor category	Alaska				Hawaii				Puerto Rico				48 states & DC			
	Do not buy	Centralized	De-centralized	Combination	Do not buy	Centralized	De-centralized	Combination	Do not buy	Centralized	De-centralized	Combination	Do not buy	Centralized	De-centralized	Combination
Dairy	(#)	-	48	2	2		✓			✓			-	6,643	1,874	2,310
	(%)	-	92.3%	3.8%	3.9%								-	61.4%	17.3%	21.3%
Bread	(#)	-	47	3	2	✓*				✓			-	7,091	1,472	2,263
	(%)	-	90.4%	5.9%	3.8%								-	65.5%	13.6%	20.9%
Fresh produce	(#)	-	47	3	2		✓				✓		18	6,601	1,625	2,582
	(%)	-	90.4%	5.7%	3.9%								0.2%	61.0%	15.0%	23.9%
Canned goods/staples	(#)	-	49	2	1		✓			✓			-	7,287	1,378	2,162
	(%)	-	94.4%	3.8%	1.8%								-	67.3%	12.7%	20.0%
Frozen food	(#)	-	49	2	1				✓		✓		-	7,219	1,209	2,398
	(%)	-	94.4%	3.8%	1.8%								-	66.7%	11.2%	22.2%
Fresh meat	(#)	3	47	2	-		✓			✓			1,582	5,596	1,212	1,782
	(%)	5.9%	90.4%	3.8%	0.0%								14.6%	51.7%	11.2%	16.5%
Snacks	(#)	19	30	2	1		✓				✓		568	6,301	1,553	2,302
	(%)	36.4%	58.0%	3.8%	1.8%								5.2%	58.2%	14.3%	21.3%
Ice cream	(#)	21	27	3	-	✓				✓			1,804	4,709	1,918	1,949
	(%)	41.4%	52.7%	5.9%	0.0%								16.7%	43.5%	17.7%	18.0%
Non-dairy beverages	(#)	16	32	3	1		✓			✓			498	6,477	1,392	2,390
	(%)	30.7%	61.6%	5.9%	1.8%								4.6%	59.8%	12.9%	22.1%

\* Note: In Hawaii this product group is not purchased by the district as all bread is baked from scratch.

Source: School Food Purchase Study, 2011