

Usage of and Attitudes Toward Cheese in School Meal Programs

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Conducted by:

School Nutrition Association



Making the right food choices, together.

Child Nutrition Foundation



National Dairy Council



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Full Report

Summary

The National Dairy Council, in conjunction with the School Nutrition Association and the Child Nutrition Foundation, conducted a study to assess attitudes and usage of cheese products in school meal programs. The information gained from this study will help the School Nutrition Association and its members better understand the trends and attitudes towards cheese products in schools.

Cheese is a highly nutritious food that enables menu items to meet key nutritional targets in nutrient analysis of school menus. Cheese is also a popular menu item for students due to taste, so much so that adding cheese to some items can enhance student acceptance and popularity.

The Child Nutrition Foundation and the National Dairy Council conducted a survey of cheese usage and attitudes in school meal programs. The objectives of this survey include assessment of:

- the variety of menu items containing cheese that are offered
- interest in offering items that are not currently offered or increasing the current offering of those items
- reasons for choosing particular menu items in school menus
- attitudes about cheese quality and use
- the use of real cheese versus imitation cheese products in school menus

The results of this survey will be used to assist school nutrition operators as well as the school nutrition industry in continuing to develop and offer high quality menu items containing cheese that students accept and consume.

Methodology

A link to an online questionnaire was sent to approximately 4,816 e-mail addresses in the School Nutrition Association's membership database for director level members.

The survey was conducted from October 12, 2006 through October 26, 2006. The questionnaire included the following sections:

- Cheese in school meal programs
 - Breakfast: Participation, current usage and frequency, interest in increasing offerings, and factors important when choosing breakfast items
 - Lunch: Current usage and frequency, interest in increasing offerings, and factors important when choosing lunch items
 - After School Snack Program: Participation, current usage and frequency, interest in increasing offerings, and factors important when choosing after school snack items
- Usage and attitudes toward Real and Imitation cheese in school meal programs
- Utilization of commodity cheese
- Impact of nutrition guidelines from Local School Wellness Policies on cheese usage

Survey Monkey was used as the online data collection tool. Microsoft Excel was used for data analysis and presentation.

Response Rate

A total of 541 responses were received creating a response rate of approximately 11.2%. This response rate does not factor in the number of invalid email addresses or addresses that were

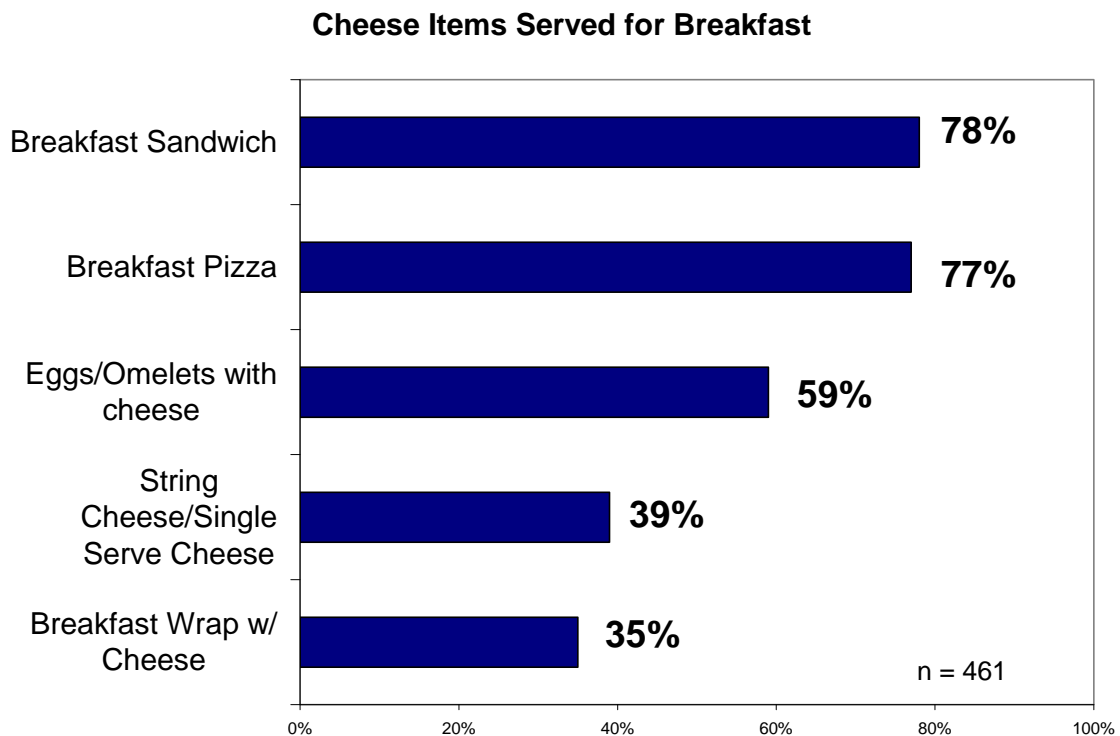
blocked or filtered before reaching the intended recipient. While 541 responses were received, only 481 respondents completed the entire survey. Since the survey items were not dependant on one another, all responses were included in the analysis, even those who did not complete the entire survey questionnaire. Based on the number of district directors contacted and the number of responses received, the data in this report has a sample error of 4.5% at a 95% confidence level. Items that surveyed a segment of the respondents may have a greater margin of error.

Results and Discussion

Breakfast

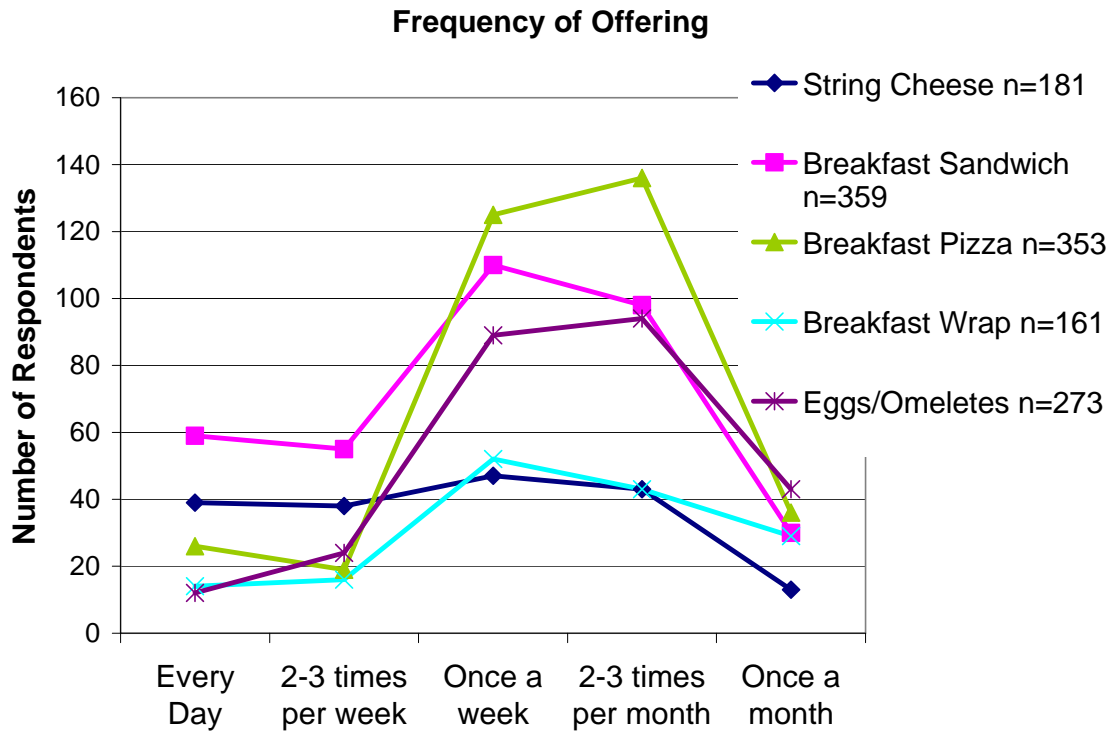
92% of the directors serve breakfast in their districts. The following statistics are based only on the segment of respondents that serve breakfast.

Almost all (95%) have the facilities to heat foods at breakfast. Many different items are served for breakfast that contain cheese. **Breakfast Sandwiches** and **Breakfast Pizza** are the most commonly served breakfast items containing cheese.



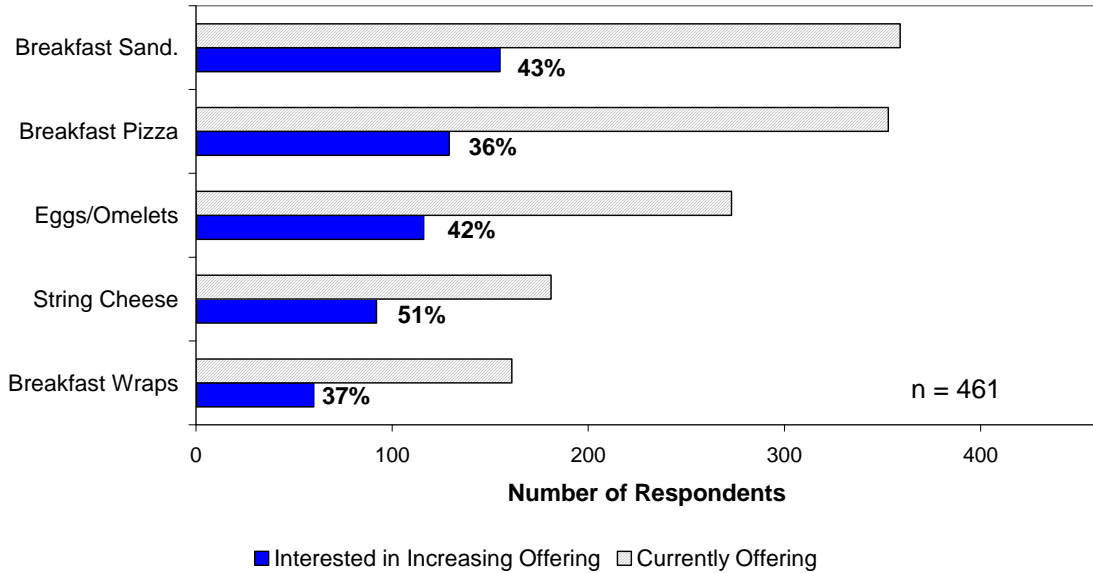
Other items include Breakfast Burritos with cheese (7), Cheese toast (4), Bagel and Cream Cheese (2), Cheese Grits (1), Fresh Fruit with cheese (1), and Cheesy tots (1).

While both Breakfast Sandwiches and Breakfast Pizza are commonly offered, **Breakfast Sandwiches** are served on a more frequent basis than Breakfast Pizza. Of the items that were included it is most common for breakfast items to be served between once a week and 2-3 times per month.



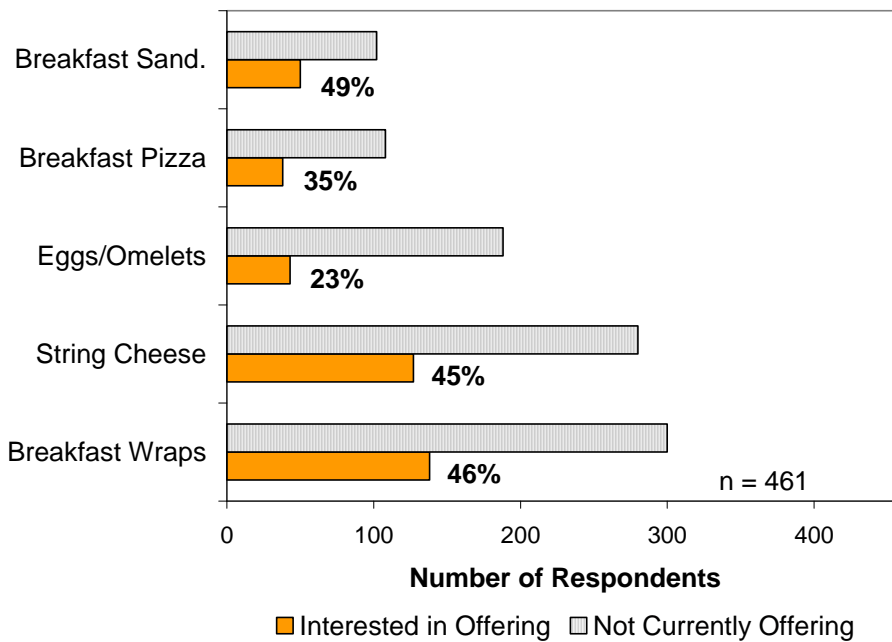
Of those already offering breakfast items containing cheese, there is interest among approximately one-third of directors in offering specific items more frequently. Of those currently serving items, the largest number of directors are interested in increasing their offerings of Breakfast Sandwiches. However, String/Single Serve Cheese has the largest relative amount of interest in increasing the frequency of offerings when compared to current offerings.

Interest in Increasing Breakfast Items that Contain Cheese
(for those currently offering items)



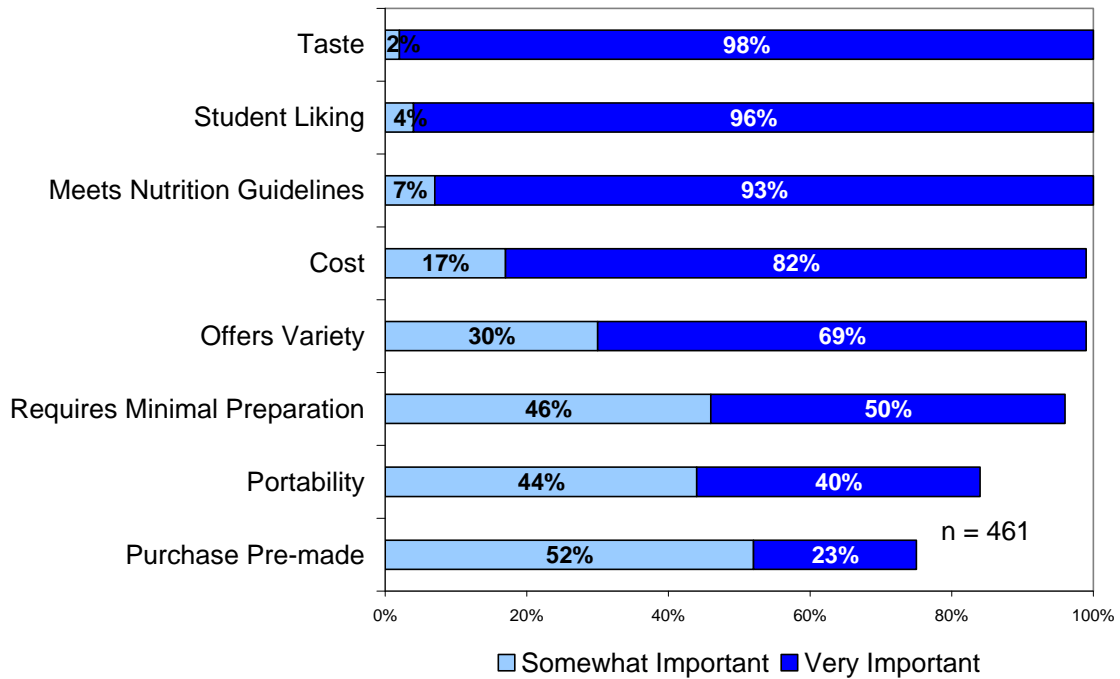
Of directors not currently serving specific cheese items for breakfast, there is the most interest in beginning to offer **Breakfast Sandwiches, Breakfast Wraps, and String/Single Serve Cheese.**

Interest in Offering Breakfast Items that Contain Cheese
(for those who do not currently offer items)



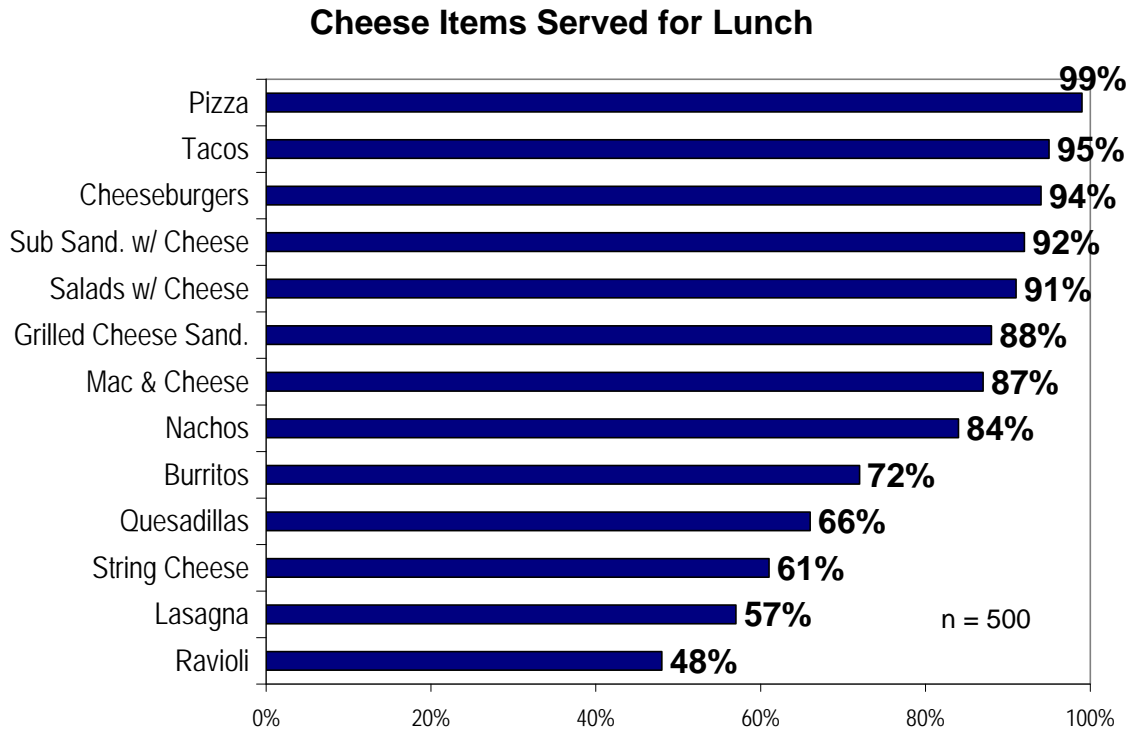
When choosing breakfast menu items, directors indicate that many attributes are important to consider. 75% of directors indicate that all of the attributes included in the survey are at least somewhat important factors to consider. The attributes that were rated the most important include **Taste**, **Student Liking**, and **Meets Nutrition Guidelines**.

Importance when Choosing Breakfast Menu Items



Lunch

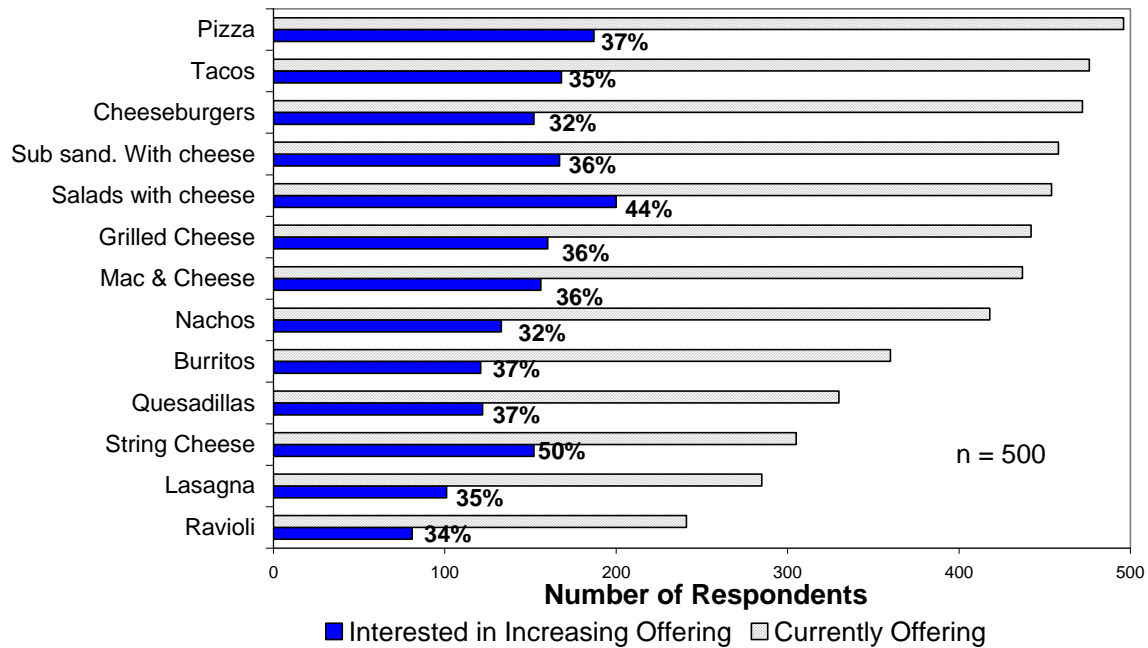
All of the lunch items containing cheese included in the survey were offered by almost half of the directors. The most commonly offered items include **Pizza**, **Tacos**, and **Cheeseburgers**.



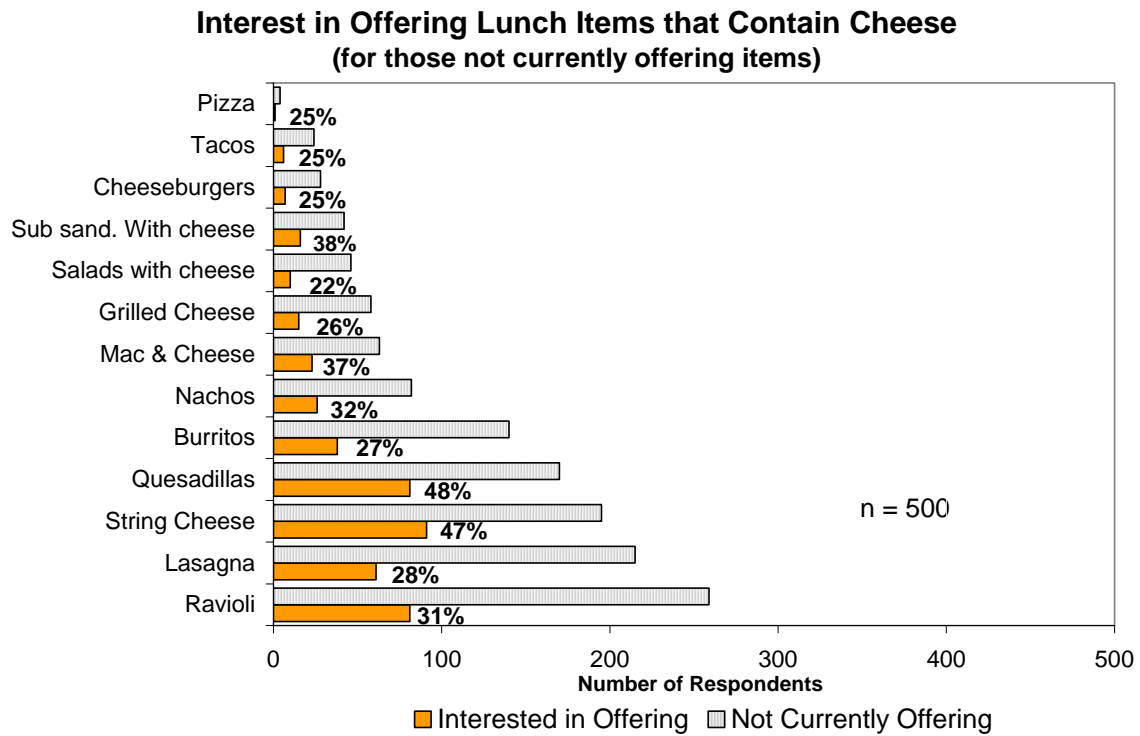
Other commonly mentioned items include Spaghetti/Italian Pastas (19), Cheesy Breadsticks (15), Mozzarella Sticks (13), Casseroles (13), Wraps (11), Other sandwiches (10). Less frequently mentioned items include: Chili, other Mexican dishes, Vegetables with cheese sauce, Eggs, Potatoes, Soup, and Cottage cheese.

Of those currently offering these lunch items, about one-third are interested in increasing the frequency of offering these items for lunch. There is the most interest in increasing the offerings of **String/Single Serve Cheese** and **Salads with cheese**.

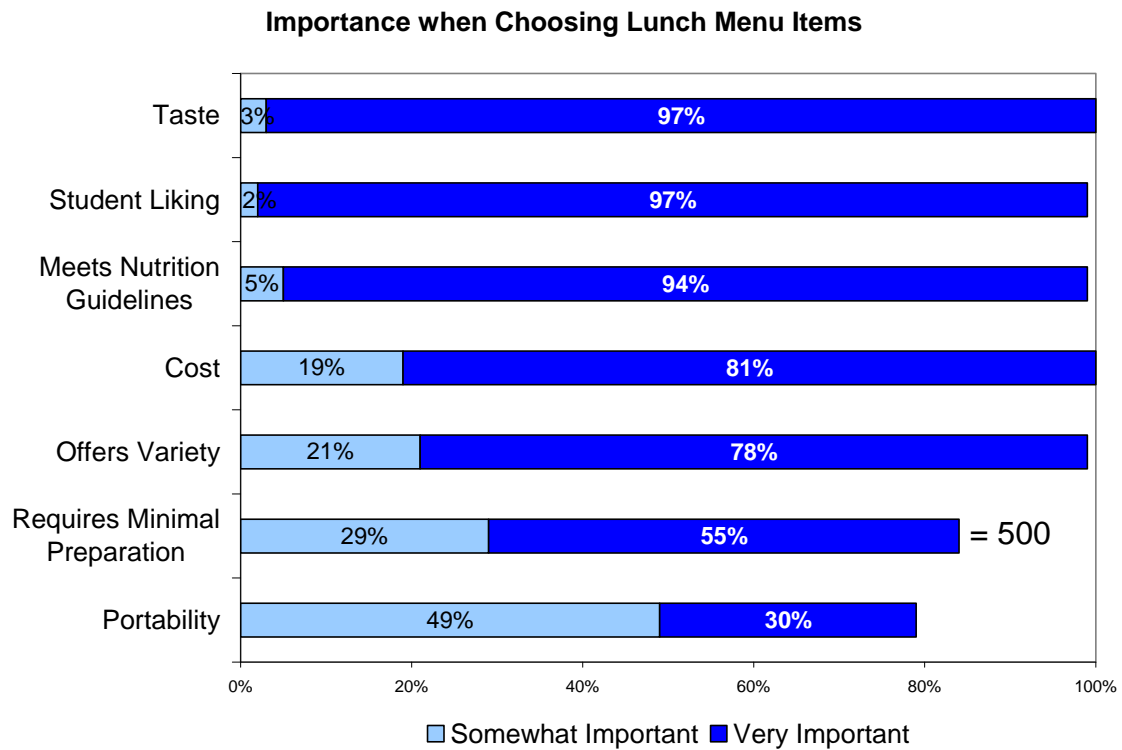
Interest in Increasing Lunch Items that Contain Cheese (for those currently offering items)



Of directors not currently offering these lunch items, there is the most interest in beginning to offer **Quesdillas, String/Single Serve Cheese, and Ravioli**.



As with breakfast, many attributes are important when choosing lunch menu items. However, **Taste**, **Student Liking**, and **Meets Nutrition Guidelines** are the attributes that directors indicate as being the most important. **Portability** and **Minimal Preparation** are relatively less important for lunch items compared to breakfast.

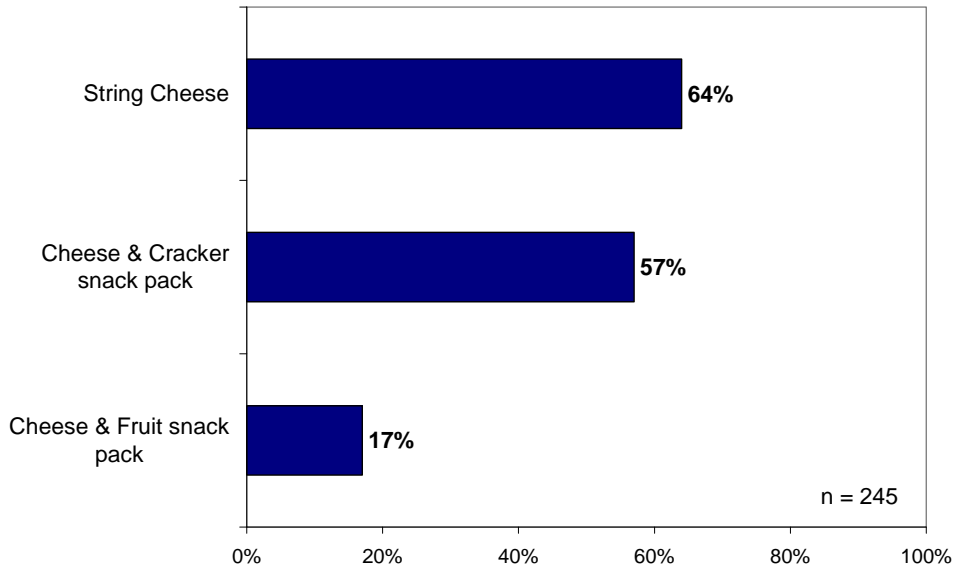


After School Snacks

50% of the directors provide after school snacks in their program. The following statistics are based only on the segment of respondents that provide after school snacks.

String/Single Serve Cheese and **Cheese & Cracker snack packs** are the most common types of after school snacks offered that contain cheese. Only 17% offer Cheese & Fruit snack packs.

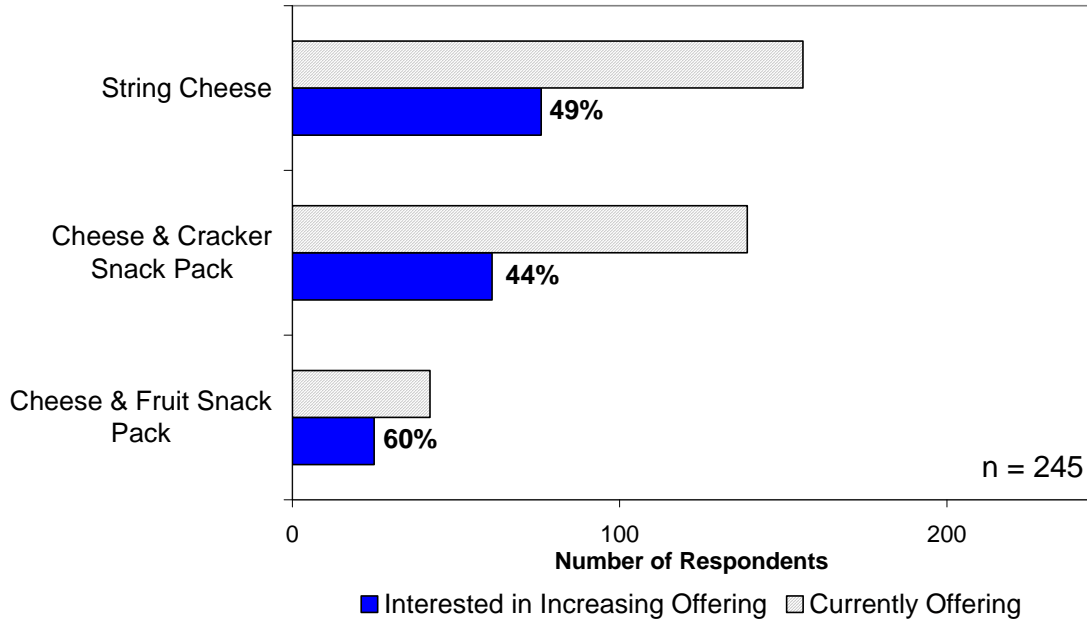
Cheese Items Served for After School Snacks



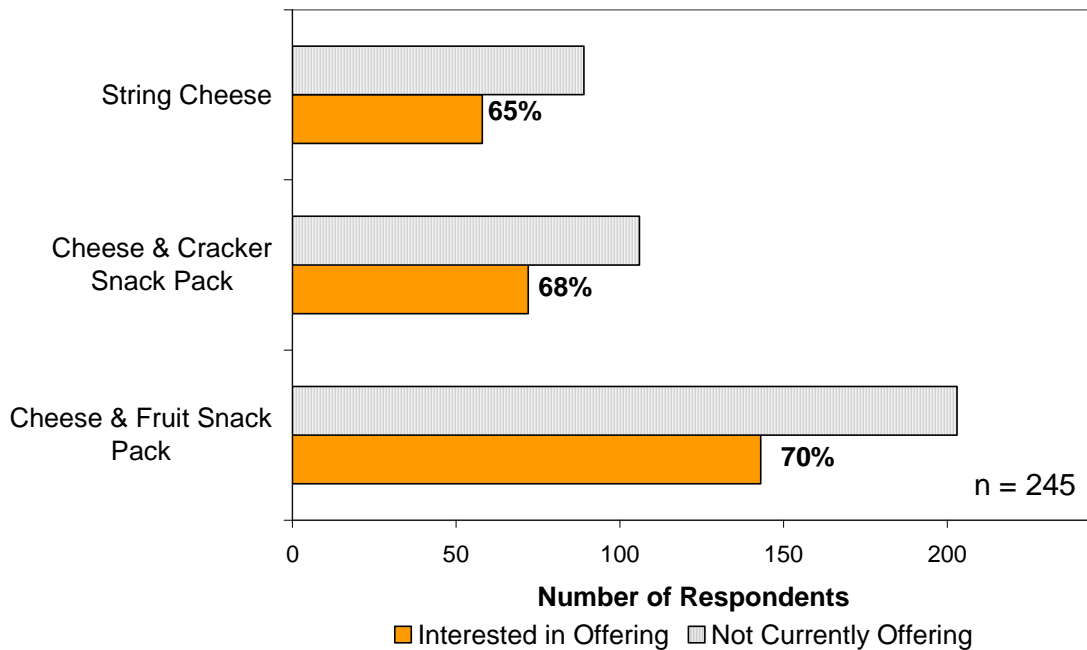
Cheese sandwich were noted by 14 respondents as an after school snack. Nachos, pizza, breadsticks, Mac and cheese, and cottage cheese were also mentioned but not by more than 2 respondents.

Compared to breakfast and lunch items, directors have a higher level of interest in offering after school snack items that contain cheese – especially **Cheese & Fruit snack packs**.

Interest in Increasing After School Snacks that Contain Cheese
(for those currently offering items)

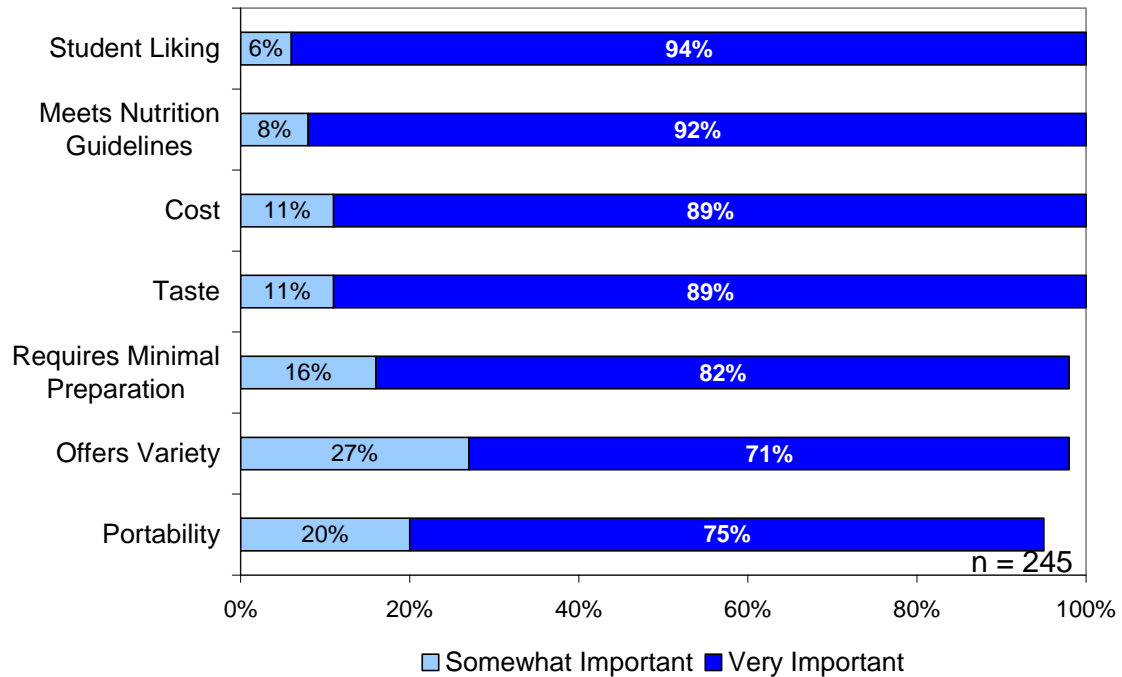


Interest in Offering After School Snacks that Contain Cheese
(for those not currently offering items)



Similar to breakfast and lunch, many attributes are important when choosing after school snack items. **Cost** is a relatively more important attribute in choosing after school snacks for directors compared to breakfast and lunch.

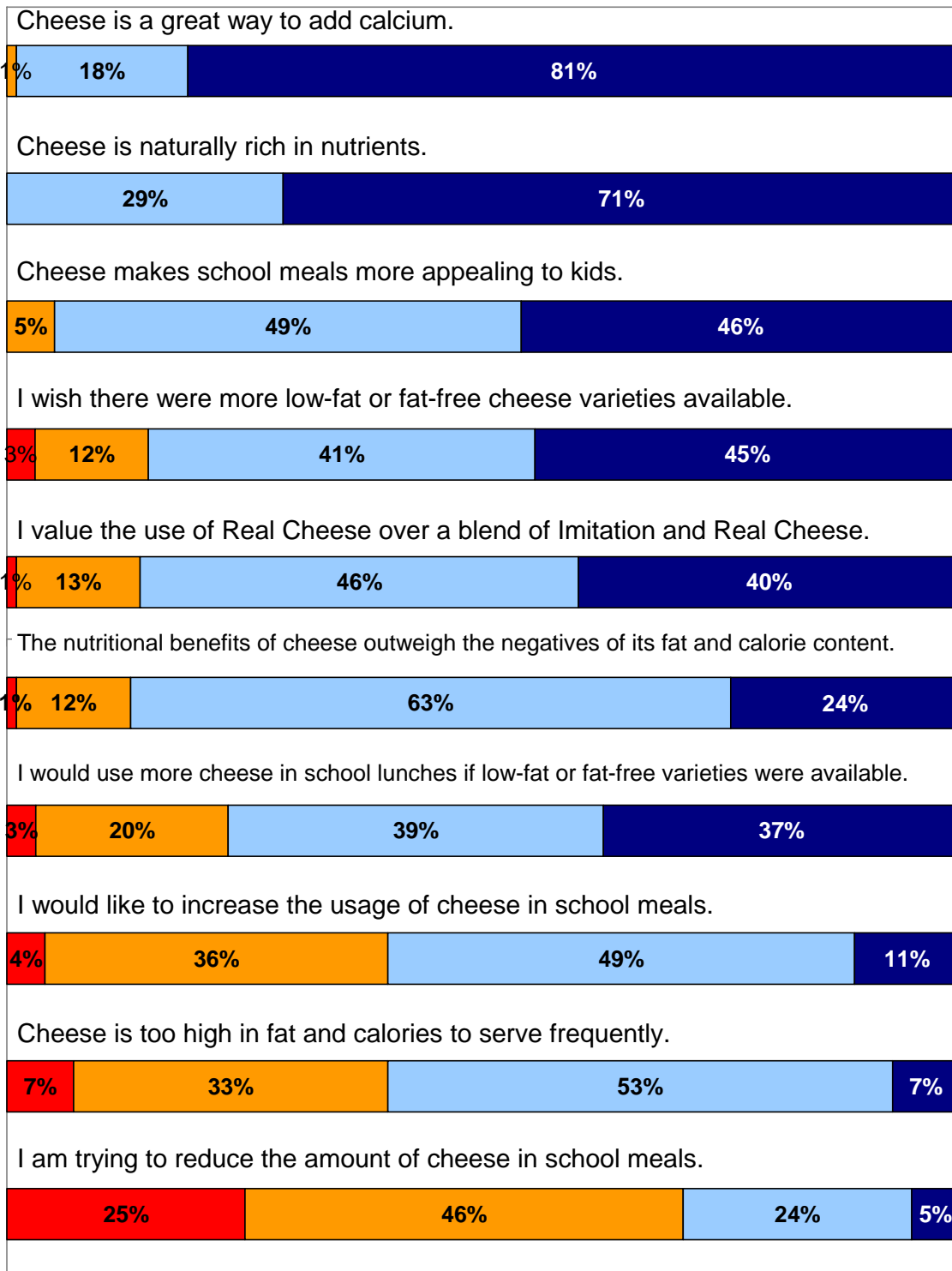
Importance when Choosing After School Snack Items



Real versus Imitation Cheese Blends

Overall directors tend to agree with the positive attitude statement regarding cheese and disagree with the attitude statement of reducing the amount of cheese served.

Agreement with Statements on the Nutritional Quality and Use of Cheese in School Meals



Strongly Disagree
Somewhat Disagree
Somewhat Agree
Strongly Agree

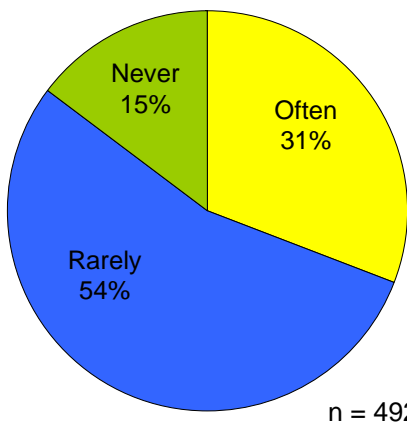
n = 493

Most directors (86%) agree with the idea of using real cheese over imitation blends of cheese. Directors report **heating quality, student preference, and nutritional value** of real cheese as the reasons for their agreement with this statement.

Reasons for Using Real cheese over imitation blend of cheese
(n = 419, only those directors who agreed with statement)

Real cheese is superior in heating	29%
Kids prefer real cheese	26%
Nutritional Value	24%
Real cheese is superior in holding quality	11%
Other	10%

Use of Imitation Cheese



While only 15% indicate that they never use imitation cheese or cheese blends that contain imitation cheese, 54% of directors indicate they are rarely using it. The main reasons reported for using imitation cheese and imitation cheese blends are the lower fat content (48%) and lower cost (40%) of these products.

Reason for Using Imitation Cheese

n = 155 (only respondents who indicated using Imitation Cheese or Cheese Blends)
(Respondents picked one)

Lower Fat Content	48%
Cost	40%
Student acceptance	7%
Superior heating quality	3%
Superior holding quality	2%

14% of directors report that students and/or parents are aware that imitation cheese blends are being used.

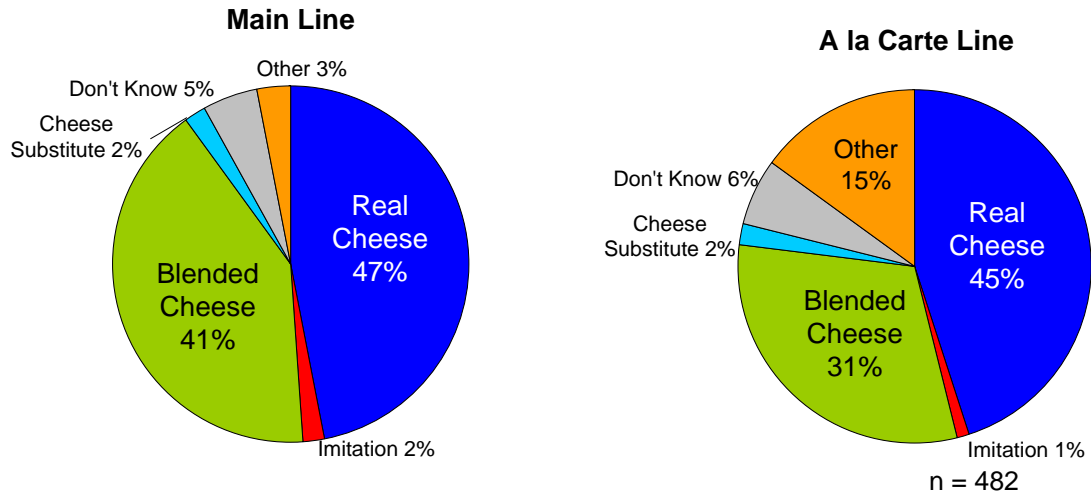
Awareness of the Use of Imitation Cheese

n = 155 (only respondents who indicated using Imitation Cheese or Cheese Blends)

	Student Awareness	Parent Awareness
Aware	14%	14%
Not Aware	48%	42%
Unsure	38%	44%

Of the pizza that is offered on the main or a la carte lines, 47% and 45% use real cheese respectively. Price is the most common factor considered when selecting pizza offerings.

Type of Cheese Used in Pizzas



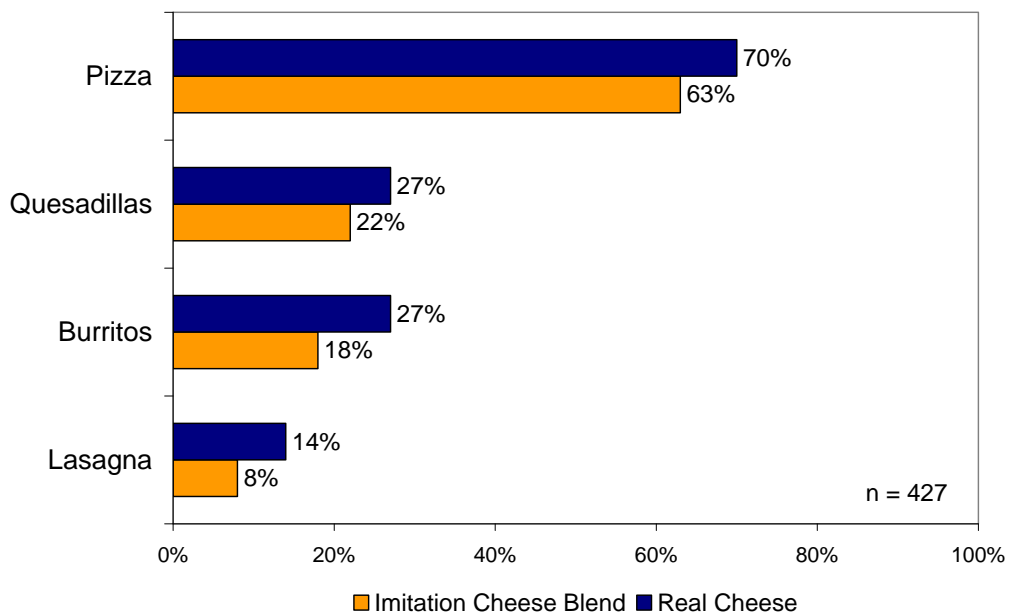
Factors Considered when Selecting Pizza Offering

n = 479

Price	77%
Fat Content	67%
Percent nutrients to calories	57%
Cheese type (real, imitation, blend)	48%

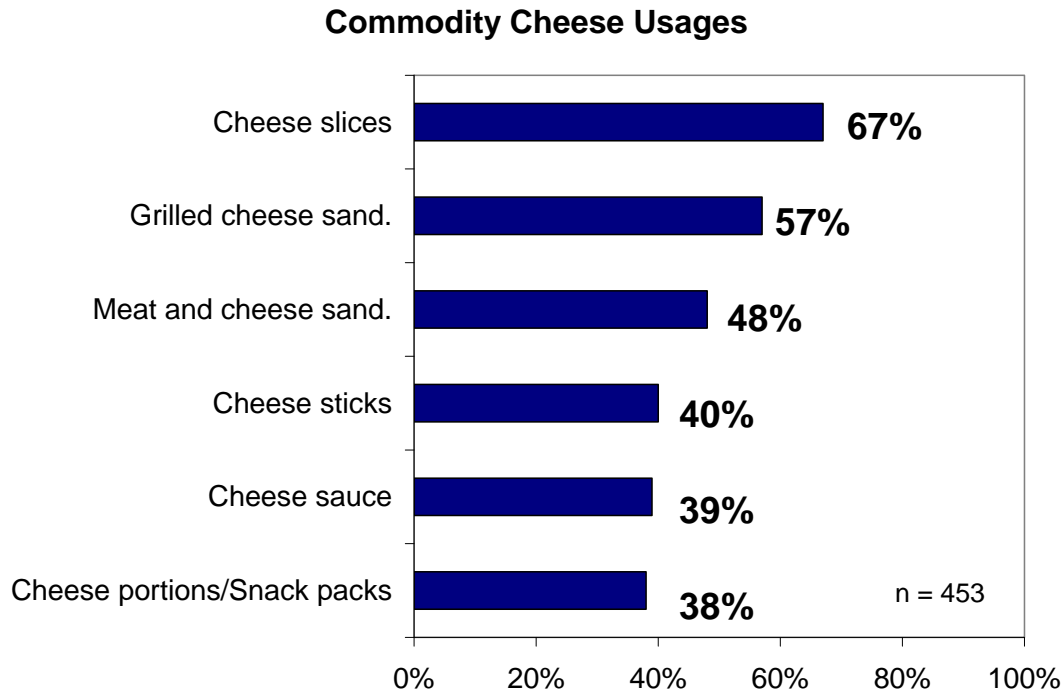
Pizza is the most commonly purchased ready-made item that contains either real or imitation cheese blends. Across these ready-made products purchased by directors, real cheese is found in these items slightly more often than imitation cheese blends.

Cheese Types for Ready-Made Products



Commodities

94% of directors use commodity cheese in their program. Directors report using their commodity cheese allotment in many different types of commercial products, but the most commonly use is **Cheese Slices**.



Respondents also indicated "other" usages for commodity cheese. *Pizza (60), Grated/Shredded (25), Mac & Cheese (15), Mexican Foods (15)* were all indicated by at least 15 respondents. Other usages with fewer responses include *Salads, Italian-style pasta entrees, Mozzarella sticks, and Omelets/Breakfast sandwiches*.

Local School Wellness Policies

Just 1% of the directors indicate that they do not have a local school wellness policy. Only 8% indicate that the nutrition standards in their local wellness policies require that they reduce the amount of cheese used in school meals and that cheese is not exempted from these standards. Of those that do not have to reduce the amount of cheese used in school meals, only 5% have specifically exempted cheese. The remaining do not exempt cheese and/or it is not restricted in their policies.

Conclusions

School nutrition directors are incorporating cheese in a variety of menu items for breakfast, lunch, and the after school snack program. The results of this survey demonstrate that the nutritional benefits of cheese are recognized and do impact menu decisions to offer entrees that contain cheese. The primary factors in choosing menu items at both breakfast and lunch are taste, student preference, and meeting nutrition guidelines. Cheese is a highly popular item among students as well as a nutritious product.

Based on this research, the nutrition guidelines established in local school wellness policies do not tend to explicitly or implicitly require reducing the amount of cheese served in school meal programs. This aligns with findings from **A Foundation for the Future: Analysis of Local Wellness Policies from the 100 Largest School Districts**, an SNA report analyzing the types of guidelines being included in local school wellness policies.

The superior heating quality, student preference, and nutritional value of real cheese are recognized as important reasons to menu items that contain real cheese. Despite 85% reporting that imitation cheese was used, only 14% of those using imitation cheese indicate that parents and/or students are aware that it is being used. Items that contain imitation cheese are offered by a significant percentage of respondents, either alone or blended with real cheese. Approximately 85% reported using imitation cheese or cheese blends. While only 31% frequently use imitation cheese, the primary reasons for its use is lower fat content and lower cost compared to real cheese.

Many of the most commonly offered items identified for breakfast, lunch, and for after school snacks in this study, align with findings from other SNA research on popular school meal menu items not exclusive to cheese.

Opportunities exist to offer new menu items as well as to further market existing menu items that contain cheese for breakfast, lunch, and after school snack programs. The largest opportunities for growth are in breakfast and after school snacks, due to the relatively larger number of respondents who are not currently serving some of the cheese containing items researched in this study. While most districts are serving several items containing cheese, there is an opportunity to introduce and encourage the use of new products to districts, particularly with Mexican and Italian entrees (e.g. quesadillas, lasagna, ravioli, burritos).

For breakfast, lunch, and after school snacks, directors indicate a relatively strong interest in offering string or single serve cheese. This presents a particularly unique opportunity because it can be offered across all of these meal/snack occasions. Additionally, directors showed a high degree of interest in offering cheese and fruit snack packs for after school snack items.