



FALSE PROMISES:

Food Service Contractors Don't Save Pennsylvania School Districts Money

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Executive Summary

Meeting students' basic food and nutrition requirements is an essential role of public schools and critical to student learning. Yet as with other support services in schools – such as transportation and janitorial services – school boards or school administrators who are worried about the bottom line may turn to outside companies to manage or replace in-house district school food programs. In 2004, about 70% of Pennsylvania school districts self-operated their food service programs. But by 2019, that number dropped to 47%, as more districts chose management companies to run their school food programs.

This report relies on a mix of rigorous statistical analysis and interview-based qualitative research and finds that contracting out food services – their management or the entire operation – does not yield the financial benefits school districts are promised by contractors.

We used quantitative methods to examine data on food service revenues and expenditures in Pennsylvania school districts from 2006 to 2019.

- When analyzing financials from districts who outsourced in this time period, we found that food service management companies provide no cost savings over and above in-house programs.
- Food service management companies do have lower expenditures than in-house programs when they manage *and* employ their own cafeteria staff, but these districts also experienced a decline in food service revenue that wipes out any financial benefit to the district.
- Food service companies who only manage a cafeteria and rely on district-employed staff have *higher* expenditures than fully in-house programs.

In our qualitative analysis, we used interviews to explore the operation and impact of one of several networks of self-operated school district food service program directors formed to improve districts' nutrition programs – the Pittsburgh Regional Food Service Directors (PRFSD) network.

- Through organizing bulk purchases for multiple districts, and building relationships with vendors over many years, PRFSD districts with self-run food programs achieve bulk cost savings and can try new products at reasonable costs.
- PRFSD participants report multiple downsides to contracting out. These include: for-profit management companies pocket the profit, rather than reinvest it back into the program like in-house programs do; first-year guarantees from management companies make contracting out appear more attractive, but then companies can back away from these guarantees after the first year; contractors often tout decreased workload on the district, but nearly half of food service directors' responsibilities remain in place after contracting out.
- PRFSD participants also report invaluable peer learning through their network, including about constantly changing nutritional requirements and how to meet students' and districts' needs.

Implications for school districts considering outsourcing food service management or entire operations.

Food service vendors seeking new contracts routinely claim significant savings for districts with contracting out. Our research shows that the numbers do not back up those claims. One reason for this is simple: private food service companies seek to make a profit. This adds additional costs to food services since districts that self-provide do not extract any profit.

Another important consideration for school districts considering contracting out is a potential loss of “control” over the food options offered to students. With in-house food services, districts and food service directors retain the freedom to align food service fully with their overall educational mission and concern with the health of students.

Introduction

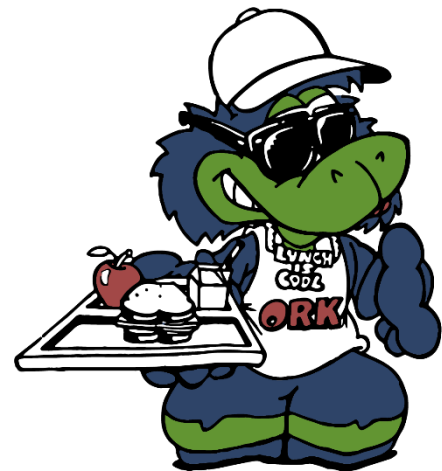
Good nutrition is an integral part of learning and can positively guide the course of any student's day. Free or reduced cost meals can especially impact low-income students' day, as school breakfast and lunch might be the only meals a student eats, or the only times they have access to many or healthy food choices. Better attendance, concentration, and test scores are only some of the factors associated with increased access to breakfast and lunch.¹ While there is much political debate over what should be in a school breakfast or lunch, it is widely accepted and appreciated that school meals are beneficial for students' health and education, and especially for students from low-income families.

In the early 1990s, a Pennsylvania school network introduced Ork, a mascot to teach kids how cool it was to eat at school. The network, today called the Pittsburgh Regional Food Service Directors (PRFSD), used Ork to promote school food across the state and advocate for more funding for school food programs. As more school food service programs turned to management companies and away from their own in-house programs, the PRFSD became even more important as school district food service programs faced pressure to justify keeping a food service program in-house.

Because the state of Pennsylvania underfunds local schools, school districts rely more on local revenue sources to provide for the wide range of services their students need. This means that many Pennsylvania school districts, especially those serving low-income communities, struggle to deliver the full range of services considered necessary for students to meet the Commonwealth's

academic achievement goals.

One department feeling this financial crunch is food service. Food service programs are an essential part of schools and critical to student learning but are sometimes an afterthought. Many students who may otherwise not have access to nutritious, quality meals, can look forward to school days when they can often receive two such meals a day. Nutritious school meals can improve behavior, academic performance, and students' ability to focus.²



"IT'S COOL TO EAT AT SCHOOL!"

Pennsylvania ranks 43rd in the nation for the state share of total K-12 education funding, providing just 39% of total funding for schools compared to the national average of 47%, which creates the financial pressure to find savings in programs like food service.*

*2020 Annual Survey of School System Finances

¹ Judith S. Bartfeld, Lawrence Berger, Fei Men, Yiyu Chen, "Access to the School Breakfast Program Is Associated with Higher Attendance and Test Scores among Elementary School Students." *The Journal of Nutrition*, Vol. 149, Issue 2, February 2019, p. 336-343, <https://doi.org/10.1093/jn/nxy267>.

² Priya Shankar, Rainjade Chung, Deborah Frank, "Association of Food Insecurity with Children's Behavioral, Emotional, and Academic outcomes: A Systematic Review," *Journal of Developmental Behavioral Pediatrics* 38(2), February/March 2017, p. 135-150, https://journals.lww.com/jrnldbp/Abstract/2017/02000/Association_of_Food_Insecurity_with_Children_s.6.aspx; Ernesto Pollitt, "Does Breakfast Make a Difference in School?," *Journal of the Academy of Nutrition and Dietetics*, Vol.95, Issue 10, October 1995, p. 1134-1139, [https://www.jandonline.org/article/S0002-8223\(95\)00306-](https://www.jandonline.org/article/S0002-8223(95)00306-)

School boards or school administrators worried about the bottom line have, in some cases, turned to food service management companies to run their school food programs. Many are enticed by management companies' claims that they can deliver school food in a way that saves school districts money while taking the burden for running complicated and highly regulated programs off school districts' plates. From 2004-2019, Annual Financial Report data that districts provide to the state show that these management companies have gained ground in Pennsylvania. In 2004, about 70% of school districts self-operated their food service programs. But by 2019, that number dropped to 47%, as more districts chose management companies to run their school food programs.

This report seeks to analyze several issues:

- Are food service management companies' claims true – do districts that use food service management companies save money over years in which the district managed their cafeterias in-house?
- How do individual districts' in-house food programs compete with food contractors who have economies of scale?
- For school districts looking to cut cafeteria costs, what factors should be considered before bringing in a management company?

We begin by addressing cost-saving claims made by food management contractors. To better understand those data-driven results, we then present a case study of the Pittsburgh Regional Food Service Directors, a network of in-house food program directors which provides an alternative to outsourcing to a food management contractor. In this section, we present results from interviews with members, who discuss the tools of their trade. We conclude by stressing the importance of due diligence when considering what's right for a school district.

[1/fulltext](#); Pattaneeya Prangthip, Yee Mon Soe, Jean Faulan Signar, "Literature review: nutritional factors influencing academic achievement in school age children," *International Journal of Adolescent Medicine and Health*, February 7, 2019, <https://www.degruyter.com/document/doi/10.1515/ijamh-2018-0142/html>; Michael L. Anderson, Justin Gallagher, Elizabet Ramirez Ritchi, "School meal quality and academic performance," *Journal of Public Economics*, Vol. 168, December 2018, p. 81-93, <https://www.sciencedirect.com/science/article/abs/pii/S0047272718301816?via%3Dihub>; Alan F. Meyers, Amy E. Sampson, Michael Weitzman, "School Breakfast Program and School Performance," *American Journal of Diseases of Children*, 1989, Vol. 143, Issue 10, p. 1234-1239, <https://jamanetwork.com/journals/jamapediatrics/article-abstract/514817>.

An analysis of food service contractors in Pennsylvania’s K-12 schools – Does the use of management companies save school districts money?

When schools experience operating deficits, they are faced with the tough decision of how to cut costs. The choice of whether to outsource a school’s cafeteria services – whether by outsourcing management or the entire staff – is a plan that has both interested school districts and has been carried out by many across the country, and Pennsylvania is no exception.³

In 2004, around 70 percent of school districts in Pennsylvania self-operated their food service programs. A decade later, just over 50 percent did. By 2019, that number dropped to 47 percent.⁴ Food Service Management Contractors (FSMC) claim their programs will boost the number of students who buy lunches and save the district money through efficiencies in their services. This is an attractive offer for school administrators who are facing increasingly strict school lunch nutrition standards and rising costs of employee healthcare. Schools that hire an FSMC can choose to retain most of their district staff and just outsource management function to the FSMC or outsource their food program and all (or the majority of) staff to the FSMC.

While there are many drawbacks for local school district employees, especially when (1) contract businesses who aren’t obligated to hire them back and (2) they are replaced with workers who earn lower pay and few or no health benefits or retirement, the impact on workers is not the focus of this analysis.

For this report, we analyzed the economic impact of food service management contractors on Pennsylvania school districts’ total food service revenue, expenditures, point of sale revenue, and revenues from state and federal government. We examined the impact of FSMCs in a district, including whether there is a difference when the FSMC present only manages district staff versus staffs the whole cafeteria. Our primary goal was to explore whether districts that switch to private contractors save money when they run their own food services.

In our analysis of district cafeteria revenues and expenditures from 2006-2019, we found that when a Food Service Management Contractor is engaged, a district’s operating position (its total food service revenue minus food service expenditures) is lower than when that district operates its own food services (Column 3, “Food Services Operating Position” of Table A4.). We found that, compared to district-managed years, years in which an FSMC managed district cafeteria staff saw significantly lower operating positions (column 3, Table A5). Additionally, years in which FSMCs both managed and staffed cafeterias saw lower revenue and expenditures, but ultimately these washed out and provided no statistically significant difference in operating position for these districts, compared to the years when the district managed the cafeteria (Table A5). In both cases, the financial benefits pledged by FSMCs are not borne out in the data.

³ The Pennsylvania Department of Education does not take a position on whether a schools should use a Food Service Management Contractor or self-provide food services.

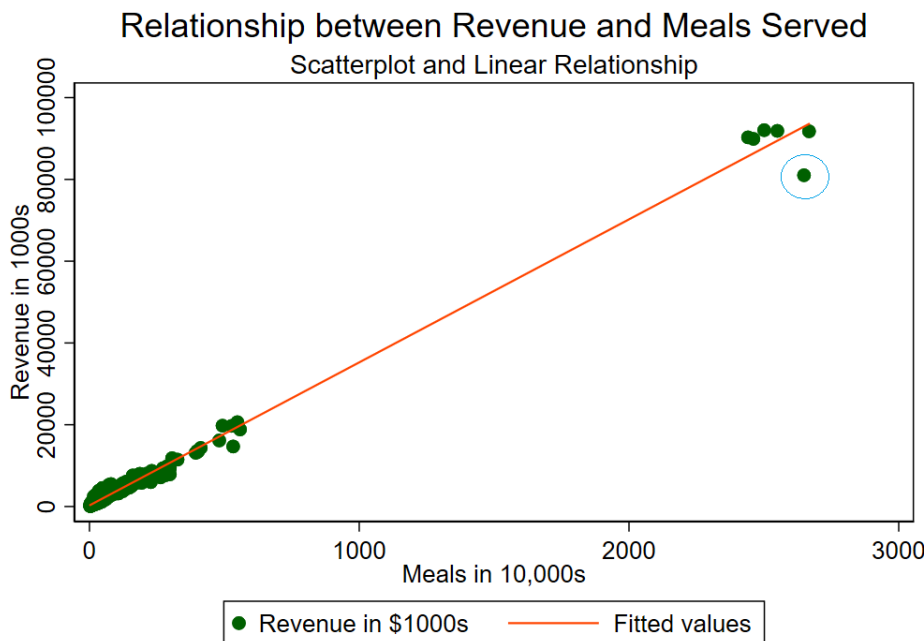
⁴ Based on KRC analysis of Annual Financial Report data submitted by each school district annually to the Pennsylvania Department of Education

Data and Methods

We used Stata 15 for this data analysis with a fixed effects panel regression to estimate how revenues, expenses, and the difference between revenues and expenses change when a district engages a FSMC. We controlled for differences in the district's market value personal income aid ratio (a measure of a district's capacity to raise revenue), average daily membership, year, and the percent of students qualifying for free and reduced-price lunch.

These data were primarily sourced from form PDE-2057, more commonly known as Annual Financial Reports (AFR), which all school districts submit to the Pennsylvania Department of Education.⁵ 2018-2019 school year data is the most recent data we used because a long lag results from the time it takes to collect and make publicly available AFR data. Moreover, the first data from the COVID-19 school years are highly atypical. In the period of our data, three districts (New Hope-Solebury 2012, Eastern Lebanon County 2018, and Steelton-Highspire SD 2017) had missing data on the number of students qualifying for free and reduced lunch in a single year. We imputed these values with high confidence. Additionally, Philadelphia's 2014 observation was dropped due to its disproportionate outlier effect, described here. Figure 1 shows a scatter plot and fitted line of a school district's total revenue in the food service fund adjusted for inflation and the number of breakfast and lunch meals served by that district (in 10,000s). These variables are highly correlated (.99+) as the number of meals a school district serves is a strong predictor of food service fund revenue.

Figure 1



⁵ Annual Financial Reports available here: <https://www.education.pa.gov/Teachers%20-%20Administrators/School%20Finances/Office%20of%20Comptroller%20Operations/Pages/AFR.aspx>

The circled observation is Philadelphia School District in 2014. Between 2014 and 2015, this district reported over a \$10 million increase in revenues (matched by an almost \$10 million increase in expenditures), despite serving fewer than three quarters of one percent⁶ more meals and not changing cafeteria management type. Due to Philadelphia’s large school district size, this observation had a disproportionate outlier effect on our statistical models. The subsequent years of Philadelphia data had nowhere near an increase or decrease of this size, either across years or between any two school years. We estimated all reported models with and without this observation, and *no results* in this report changed in sign or significance. Our report’s results stand with and without this observation included in the data. We ultimately chose to drop this one observation from the data for the results in the report because its exclusion improved the model fit overall for the revenue models, allowing us to make stronger statements about the *magnitude* of the effects we found, rather than just sign and direction. Again, the exclusion or inclusion of this observation does not change any claims made in this report.

Full Results

Examining districts’ operating positions – their total revenue minus expenditures—we find that for those years in which districts utilize a Food Service Management Contractor, operating positions are negative and statistically significant overall, controlling for the average daily membership, the percentage of students qualifying for free or reduced lunch, year, and district aid ratios, (see column 3, “Food Services Operating Position,” of Table A4). In short, when compared to years that districts staff their own cafeterias, FSMC presence results in operating positions nearly \$40,000 lower than years with no FSMC presence, on average. To further explore this finding, we analyzed this association for *type* of FSMC present – just an FSMC manager with district staff, or a full FSMC-run cafeteria. We found that presence of FSMC management only (with district cafeteria staff) resulted in *higher* and statistically significant food service total expenditures, as well as significant and negative operating positions, compared to years where districts managed and staffed their own cafeterias (columns 2 and 3 of table A5). For years where FSMCs both managed and staffed food services, overall expenditures were significantly reduced, but total food service revenues also dropped, resulting in a wash for districts’ operating positions. We found no statistically significant difference in operating position in years with fully FSMC cafeterias vs fully district staff (columns 2 and 1 of Table A5).

In every situation we investigated, presence of an FSMC resulted in either no statistically significant difference in operating position over districts fully running their own food service, or resulted in lower and significant operating positions, compared to years where the district operated their own entire food service. We found no evidence to suggest that either FSMC type saves schools money – at best, expenditure savings in fully outsourced districts were offset by accompanying drops in revenue, resulting in no statistically significant difference in operating positions; at worst FSMC management presence resulted in increased expenditures and lower operating positions (Table A5).

Continuing to Table A6, we examined FSMC presence and different revenue types – food service total revenues (the same model from column 1, Table A4), point of sale food service revenue, State Revenue, and Federal Revenue. Districts that use an FSMC do see around a \$47,000 increase in point-of-sale food revenue, but their presence in a district is accompanied by a \$16,000 drop in State Revenue (column 3, Table A6) and a \$57,000 drop in Federal Revenue, (column 4, Table A6) compared to years with no FSMC

⁶more precisely .71 percent.

presence. Effectively, we observe districts that use a Food Service Management Contractor experience declines in Federal and State revenues that effectively wash away any savings from lower expenditures (See Table A6).

When we re-run this revenue-centered analysis and distinguish between Food Service Management Contractors that only manage a cafeteria and those that both manage the cafeteria and employ directly most if not all cafeteria staff, we find a large reduction in State Revenues for fully privatized cafeterias (see Column 3, “Actual State Revenue,” of Table A7). In fact, when districts have an FSMC that is also the employer of record for the cafeteria, they report lower State Revenues than all other cafeteria management types. These results are consistent with the fact that all school districts are reimbursed by the state for at least half of their social security and pension contributions made on behalf of staff. As districts rely on private contractors, they displace district staff and thus a cook employed by a contractor will be billed to the district for their full cost by a contractor, while a cook employed by the district is at least in part subsidized by the State of Pennsylvania. This is at least in part why we see the decline in State Revenue as FSMCs employ more of their own cafeteria staff. (Column 3, “State Revenue,” of Table A7.) Lastly, when compared to years in which a district has no FSMCs, both FSMC-managed and FSMC-fully staffed years see a decline of more than \$53,000-\$58,000 in actual federal revenue.⁷

Cost Savings and Re-Bidding

Food Service Management Contractors could in theory deliver cost savings to school districts by sharing with districts savings derived from bulk purchasing of food⁸, savings from economies of scale⁹ as well as savings from lower cafeteria personnel compensation costs. However, the extent that at least a portion of these theoretical savings might be shared with a district depends on the extent to which competition between Food Service Management Contractors during bidding allows the district to extract a share of these potential savings. Our analysis suggests if these cost savings are present, they are not being passed onto districts in the form of better operating positions.

Examining 18 years of data, districts that use a private contractor rarely switch contractors. The absence of truly competitive bidding could explain why private contractors don't save school districts money.

Examining Pennsylvania Department of Education data collected since 2002 on the presence of a Food Service Management Contractor in a district reveals that of the 293 districts that relied on a contractor during this period only 26% (76) of those districts ever used at least two different contractors in 18 years of data. Examining the 217 districts that relied on a single company we find the median number of years those companies have been with the district to be 13. Just under 40% (84) of those districts have been with the same contractor for 18 years. The Pennsylvania Department of Education does require districts to periodically re-bid cafeteria contracts but doesn't have publicly available data on the number of

⁸ However it is important to note that savings from bulk purchases is also available to school districts to the extent they partner with other districts in making food purchases. For instance districts in the Western half of Pennsylvania are eligible to participate in the Pittsburgh Regional Food Service Directors (<https://www.prfds.com/>) which offers opportunities for districts to bulk purchase.

⁹ A contractor may achieve savings from mass producing lunch and breakfast in offsite kitchens that serve a larger client base.

bidders a school district receives when it issues a request for proposals (RFP) or detailed information on the bids submitted including bid prices. The collection of such information could shed additional light on the failure of subcontracting to meaningfully lower costs by allowing us to test whether the number of bidders and the frequency with which districts solicit bids lowers bid prices. It is also possible that FSMCs are unable to realize cost savings substantial enough to both generate a rate of return on their capital investment and generate surpluses of revenues over expenditures for school districts.

Limitations of this Study

In the models shown in Tables A5 and A7, we included a variable that breaks Food Service Management Contractors into two groups: (1) those that manage a cafeteria, and (2) those that manage a cafeteria AND employ most if not all the cafeteria staff. Cafeteria salary data was used to construct this variable.

In the simplest case, when a district uses an FSMC and reports zero salaries in its cafeteria, we assume the contractor is employing the cafeteria staff. In practice, there might be a few cases where districts still report some salaries even when a contractor is employing the cafeteria staff. This could happen if a district charges all or a portion of the salaries of administrators overseeing the cafeteria contractor to the salary line in food service. This reflects different accounting practices across districts. Our variable was coded using judgement looking at the salary lines and the percentage of all cafeteria expenditures recorded under purchased services. As a result, this variable is coded based on a district-by-district visual inspection of each year's financial data. There are some cases where districts are also not consistent over time in reporting their data; a rule that is engaged for an individual year would have districts sometimes flipping from one category to the next in way that doesn't square with reality. Ideally, it would be better if there was a precise indicator from the Department of Education on whether a Food Service Management Contractor employs all or most cafeteria staff, but the Department maintains no such data in a publicly available format. Ignoring this possible variation and looking at results for the Department of Education variable that just identifies when a contractor is present (FSMC), our results stand. The advantage of the two-part FSMC variable is that it addresses a possible critique which is that the cost savings are only present for districts that fully outsource their entire food service program. This variable illustrates that those fully subcontracted districts do have even lower expenditures, but those gains are offset by comparable losses of revenues which we believe reflects largely the loss of state subsidies for social security and pensions.

Lastly, there may be other factors not observable in our data that decrease revenue when a private contractor is used that we lack a ready explanation for at this time. For example, we have no ready explanation for the decline in Federal Revenue for cafeterias that use Food Service Management Contractors (Column 4 of Table A6 and Table A7.)

There is No Such Thing as a Free Lunch

Our analysis should remind School Boards, Superintendents, and School Business Managers of the adage that there *is no such thing as a free lunch*. Our analysis of Pennsylvania School Districts shows that opting to utilize a Food Service Management Contractor over district staff has not been a strategy that has yielded a net improvement in district finances. While it has shown some reduced expenditures in a fully outsourced cafeteria, these savings are offset by an accompanying drop in total revenue, washing out any significant difference in operating position for these districts. FSMC management presence is associated with *increased* expenditures, resulting in statistically significant and lower operating positions

for these districts, compared to years those districts ran their own food services. Schools interested in engaging an FSMC should carefully consider these findings.

Below we share a case study of a network of in-house food service directors in Western Pennsylvania. This network is both a buying co-op, which has the effect of lowering food costs, and a professional development association through which food service directors share knowledge and experience with each other.

Case Study: The Pittsburgh Regional Food Service Directors (PRFSD)

The Pittsburgh Regional Food Service Directors (PRFSD) is a network of self-operated school food service directors in Western Pennsylvania. As the organization’s mission states, “Its members are dedicated to the maintenance and improvement of Child Nutrition Programs for the benefit of students, schools, and food service professionals.”¹⁰ This organization has been around for decades and has a board of directors. Participating food service directors get together approximately six times a year. PRFSD has committees made up of participating food service directors on bidding, industry, legislation and public policy, auditing, marketing, scholarship & charitable giving, technology, and a social & welcoming committee.¹¹ The PRFSD covers the western half of Pennsylvania – any self-operated school food director in this geography is welcome to become a member.

As food service management companies have been sweeping the state promising school districts savings from outsourcing food service, the PRSFD offers an alternative. The experience of PRFSD members is that their network provides many benefits.

Benefits of Being a Member of PRFSD

Food service directors benefit from the network in multiple ways.

Saving Money on Food Purchasing:

A large part of school food service directors’ jobs is to get the best food pricing possible. To do this effectively, they need to make connections with food vendors, get multiple prices for food, negotiate the final and best deal, purchase the food, oversee distribution to schools and ensure food service delivery to students goes smoothly

– a daunting set of tasks for food service directors operating in isolation from their peers. For directors in western Pennsylvania, the Pittsburgh Regional Food Service Directors performs many of these core functions, greatly reducing the responsibilities of individual school districts. The co-op builds relationships and signs contracts with vendors which then serve all participating school districts. Eight months prior to school starting, each participating school district provides the PRFSD with details on how many students and meals are needed, as well as vendors each school district likes or types of foods

Eating away at the purported advantages of outsourcing:

“The number one priority is to secure the best product at the best price. Because the PRFSD is buying in bulk, prices are significantly cheaper than for a school district negotiating on its own.”

¹⁰ See Pittsburgh Regional Food Service Directors webpage on their mission: <https://www.prfsd.com/domain/3>

¹¹ See Pittsburgh Regional Food Service Directors webpage on their committees: <https://www.prfsd.com/domain/12>

that are priorities. The PRFSD starts the procurement process and gets offers from multiple food companies. Collectively, the PRFSD picks the best deal and one that meets the needs of its members.

As Jillian Burge, Vice President of the PRFSD says “The number one priority is to secure the best product at the best price. Because the PRFSD is buying in bulk, prices are significantly cheaper than for a school district negotiating on its own.” She continued: “If you imagine a school district buying 30 cases of Cheerios for its kids vs. buying Cheerios for 130 school districts, we are talking about big dollar savings because of the volume.” In addition to the bulk cost savings for school districts, successful vendors benefit from guaranteed and higher-volume customers and sales for the following year.

Malik Hamilton, who is the Production and Purchasing Coordinator with Pittsburgh School District and Bid Committee Chair with the PRFSD, also shares why putting in a bid together is beneficial: “Cost savings can be huge, especially for smaller school districts. There are some districts in our network that only have 3 or 4 schools. If they had to go out and buy cases of food just for themselves, they’d have to pay so much more for it than they do joining forces with 130 other school districts. The PRFSD’s total procurement is approximately around \$30 million in total buy. If each school district was buying on their own, the money we all spend would be much higher than that.”

Martin Lorenzo is Food Service Director of Gateway School District in Monroeville and Chair of the Proactive and Marketing Committee of PRFSD. This committee works with school districts to help them transition from a management company to self-provision of food service. The committee also creates and distributes promotional materials to school districts that are located in the PRFSD geography but are not yet members of the co-op. The PRFSD claims that the network secures prices in the range of 5% to 8% lower than regional food service management companies. Much of this is due to the size of the PRFSD’s bid, which, according to PRFSD materials, is more than 70% larger than the largest

Private contractors often don’t pass on savings to their customers:

Food service management companies claim to have lower costs, but their costs are higher to the school district because volume discounts and other costs savings they receive are NOT necessarily credited back to the schools themselves.

contracting bid from a food service management company in Pennsylvania.¹² Food service management companies claim to have lower costs, but as documented by the PRFSD, their costs are higher to the school district. This is, in part, because volume discounts and “up-front cost to do business” monies – incentive payments for new customers – that food service management corporations receive are not always credited back to the schools themselves.¹³

Networking and Learning from Peers

Another benefit of membership is the networking and access to learning opportunities for food service directors. Taking part in the co-op allows directors to get to know dozens of other food service directors in the region who are grappling with the same questions and trying to solve similar problems. As Vice President Burge said, imagine dozens “of new colleagues who can help you with your daily job.... I

¹² Pittsburgh Regional Food Service Directors material titled “RFP—Points of Concern: Contracting pitfalls often overlooked in the RFP process.”

¹³ Pittsburgh Regional Food Service Directors promotional material titled “Independent vs. Contacted Food Service Directors.”

started 17 years ago in this position and back then I didn't know all the answers. This group is a very supportive, close-knit group and I can call any other member for support." Learning from other food service directors who have been in their jobs for varying amounts of time is a huge benefit to members. Another networking benefit is getting to know the vendors well so that if individual directors ever face a major challenge, they know who to call. At every membership meeting, school food director members meet and talk with vendors and learn about what they have to offer, which makes every member more informed when putting together a collective bid.

Education is another benefit of the PRSFD. Nutrition requirements are always changing.¹⁴ By staying current, the network makes sure its food service directors comply with these requirements. Directors can also get menu ideas and help with problem solving as issues come up.

During PRFSD meetings, the first half is dedicated to business and education so that the school food directors can get their mandatory continuing education credits. The second half of the meetings are typically structured so that food service directors can interact with vendors and each other. Then, when the PRFSD is putting together its bid during the procurement process – members can identify certain vendors or food they would like to try or they need. There may be other school districts as well that want to try the same vendors and/or food products. The bid is a collective process, and all the school districts can put together their needs and their wants in terms of businesses or food.

Pittsburgh school district, because of its size, is often able to lead on trying new products. Pittsburgh will bring in new products/vendors it would like to try. While others may be unsure about a new product, they can then try it on a small scale but still get a good price, and then find out if it is successful with their students.

Food Services Experience Challenges with Contracting Out Documented in the Research Literature

Research on the costs of contracting out public services has shown there are downsides to outsourcing school food and other public services to for-profit companies. We heard the downsides highlighted in the research literature reiterated during our interviews with food service directors. For example, we know that private for-profit companies' primary goal is to make a profit – while

"For profit" versus "For kids"

Food service management companies' primary goal is to make a profit. In a low-margin business, that profit tends to come at the expense of customers – as reflected in prices and/or quality.

a food service program run in-house can re-invest any profits back into their program, a for-profit company is more likely to pocket these profits. When contracting out public services does save money, moreover, savings often come out of the pockets of workers who already have modest wages and benefits as public employees. Contractors' pay and benefits tend to be less than public sector jobs. If a school district wants to bring food service back in-house, there are costs involved, particularly if the existing food service director and staff with extensive knowledge of the industry were displaced. The transition costs of bringing food service back in house help explain the long tenure of private food service companies discussed earlier and give food service directors leverage to raise prices once locked in as a district's provider. In smaller communities especially, there may be fewer providers, less

¹⁴ A recent proposal aims to limit sugar and sodium in meals. See more here: <https://www.fns.usda.gov/cn/fr-020723>

competition and therefore less pressure to lower bid prices up front or maintain reasonable prices once a provider is in place. And lastly, research has shown that there are costs involved in contracting out and monitoring contractors, which school districts often don't think about upfront.¹⁵ Below, we elaborate how some of the common challenges research documents with government and school district contracting came up during our interviews with food service directors.

Food service management companies often pitch the benefits of outsourcing a school districts' food service. They offer to take the burden of managing food service off school districts' plates. They propose that everything will be taken care of by the nutritionists they have on staff and food service operation will be made easier due to the relationships the management company has with food vendors. They tout themselves as money savers for districts.

Martin Lorenzo, food service director at Gateway School District in Monroeville and Chair of the Marketing Committee at PRFSD, emphasizes that food service management companies' primary goal is to make a profit. In a low-margin business, that profit tends to come at the expense of customers – as reflected in prices and/or quality. By contrast, managers of self-operated school food service programs see themselves as putting the best interests of school children and the school district first. Self-operated programs reinvest any profits they make back into the program. As one of the PRFSD's promotional materials says, "Your food service budget has no room for corporate profit."¹⁶

Lorenzo also notes that food service management companies typically make first-year guarantees that are very beneficial to a school district, but then back away from these guarantees after the first year and once they secure a SD's contract. These companies are typically willing to accept a loss up front to get access to a district's food service program. This type of "low-balling" of initial bids occurs in many types of subcontracting, because, as noted, once the contracting firm is in place, there are transition costs for a school district to shift back to self-provision.¹⁷

Another promise that food service management companies make is a big chunk of money, a year-end guarantee, at the end of the school year if a variety of factors are met. For example, a management company may say that it will give the school district back \$25,000 at the end of the year, but it depends on participation, enrollment, and other variables. This looks good to a school district that needs more resources. But as Vonda Ramp, State Director of Child Nutrition Programs at the PA Department of

¹⁵ Stephen Herzenberg, "Show me the savings! Bipartisan lawmakers back transparency to stop outsourcing that costs school districts more," Keystone Research Center, December 2, 2017, https://krc-pbpc.org/research_publication/show-me-the-savings-bipartisan-lawmakers-back-transparency-to-stop-outsourcing-that-costs-school-districts-more/; Keystone Research Center, "Transparency bills could help school districts avoid outsourcing of public services that lowers quality and raises costs," Keystone Research Center, December 1, 2017, https://krc-pbpc.org/research_publication/transparency-bills-could-help-school-districts-avoid-outsourcing-of-public-services-that-lowers-quality-and-raises-costs/

¹⁶ PRFSD promotional material titled "Independent vs. Contacted Food Service Directors."

¹⁷ In school transportation, the capital cost of having to buy a new bus fleet to bring this function back in house increases transition costs of insourcing, and gives incumbent private bus companies' leverage to raise their prices once they secure a contract with a low-ball offer. Mark Price, Stephen Herzenberg, "Runaway Spending: Private Contractors Increase the Cost of School Student Transportation Services in Pennsylvania," Keystone Research Center, March 13, 2012, https://krc-pbpc.org/research_publication/runaway-spending-private-contractors-increase-the-cost-of-school-student-transportation-services-in-pennsylvania/; Elliot D. Sclar. *You Don't Always Get What You Pay For: The Economics of Privatization*. A Century Foundation Book, 2001.

Education shared, it's often difficult for school districts to monitor. The methodology used to calculate the year-end guarantee must be incorporated into the contract so that those from the school district and the state can track whether the conditions are met for such a payment at the end of the year. Even when they are, sometimes it is difficult for a school district to meet all the criteria to receive such a bonus.

By contracting out food service, there is a decreased workload for the district, but that workload isn't eliminated. The school district now needs to monitor – to serve as a watchdog over – the contractor.

Contractors are not allowed to access the state's computer system (Child Nutrition Program Electronic Application and Reimbursement System, or CNPEARS), yet reimbursement claims, health inspection reports, and other important compliance reports must be managed through this system, including ensuring the

food service department maintains separate financial accounting for food service. School districts also have to review and approve any free or reduced meal benefit applications, complete the Pennsylvania Department of Education's online reports, and conduct annual on-site reviews in all buildings for lunch service.¹⁸ As the Pennsylvania Department of Education makes clear, school districts are "ultimately responsible for the operation of the entire program."¹⁹ With complicated federal nutrition standards, regulations, and rules around free and reduced lunch, this knowledge must still be kept in-house, even if some of the responsibilities are contracted out to management companies.

Martin Lorenzo estimates that nearly half of a food service director's responsibilities remain in place after contracting out, with these responsibilities often shifted onto the District's business office. Vonda Ramp, State Director of Child Nutrition Programs at the PA Department of Education, explains that it is ideal to keep a food service director employed within the school district so that he or she can continue to do all the things required internally to manage school food if a management company were to take over. A concern of hers is that when school districts contract out, they are not always clear about their role in completing all of these tasks required to comply with complicated federal regulations. She has seen instances where a management company is completing tasks that the school district is legally required to do.

The PRFSD also delivers many of the benefits that management companies tout in a different form. In a co-op model all members bring their strengths, knowledge, and experience to the table for the benefit of all members. Many of the members are nutritionists by training, have extensive food service experience, and/or have a background in business or marketing. Food service director members become the experts – the structure of the network allows the network to pool resources and rely on each other's expertise. The cost savings of working and ordering food together also add tremendous benefits of scale, something that the food service management companies may or may not have. The PRFSD

Contracting out doesn't eliminate district administration of food service

Nearly half of a food service director's responsibilities remain in place after contracting out, with these responsibilities often shifted onto the District's business office.

¹⁸ PRFSD promotional flyer titled "Did You Know?"

¹⁹ PA Department of Education memo on February 7, 2014 to School Food Authorities and All Food Service Management Companies. Memo is regarding "School food Authority's Responsibilities When Contracting with Food Service Management Companies."

network has an ever-growing network of relationships with vendors and encourages relationship building among school districts and vendors.

Shifting to management company control of a district's food service may result in decreased labor costs since management companies' pay, benefits and retirement tend to be less. School districts who contract out can hold on to their employees or fire them. When a school district fires their food service staff, they lose that collective knowledge and experience, which leaves them at a disadvantage if they later want to go back to providing their food service programs in-house. It also leaves school food service employees without a job, or in instances when they are rehired by the food service contractor, a loss in income, benefits, and no access to the state's retirement system.

Anecdotal evidence suggests that school districts tend to be more susceptible to contracting companies when a school food service director leaves with little notice. Administrators often get worried they don't know how to deal with school food and so they will contract out the services. In other cases, certain school administrators may prefer management companies because it is what they are used to, and they are swayed by management companies' claims that they are cheaper and easier for school districts to manage. One school food director noticed smaller schools have a greater tendency to contract out.

Part of the problem for in-house school food programs is that the reimbursements provided for meals by the federal government were never intended to fund the entire cost of operating the school food program. Vonda Ramp, State Director of Child Nutrition Programs at the PA Department of Education, said school food programs are an important part of the school day and vital to student learning, but local school boards often do not or cannot provide funding for the program. As a result, many school food programs have been increasingly using à la carte options in their cafeterias to bring in additional money. Programs must offer a certain balance of foods for the school lunch, but they can charge for à la carte items, like a bag of chips, a cookie, a cup of fruit, or even a premium chicken sandwich.²⁰ This sets up a divide within schools where students who can afford it buy the extras while poorer kids receive the standard lunch. One thing to note also is that public schools are not required by law to participate in the national school lunch program, or to offer lunch at all. In Hershey, PA, one high school does not participate in the national school lunch program; instead, they charge for all lunches and no student, eligible or not, can receive free or reduced lunch.

Responding to Pandemic Challenges Underscored the Value of the PRFSD

In the three years since the outbreak of the COVID-19 pandemic, there have been significant issues with the school food supply chain. PRFSD's Bid Committee Chair, Malik Hamilton, identified several reasons for these supply chain issues:

- (1) Workforce issues in manufacturing: Manufacturing has lost workers and is having a hard time attracting, training, and retaining new workers. Hamilton reports that, as a result, he has seen manufacturers streamlining their products and increasing the amount of time they need to get their product out – a company that used to require three weeks lead time to get an order out now takes six weeks. Special orders are being eliminated or are costing more money because the capacity to produce isn't there.

²⁰ À la carte items must also meet certain nutritional standards.

- (2) Workforce problems on the distribution side: Distribution employees were also let go due to decreased demand (e.g., from schools), and workers were quarantined more frequently at home due to exposure to COVID-19. Staffing back up in warehousing and trucking has proved difficult in some cases and prolonged supply chain challenges.
- (3) Changing policies from USDA: For obvious reasons, USDA rules around free meals changed during and after the pandemic. Over the course of pandemic infection rate peaks when federal COVID-19 relief funding also peaked, all children in every school district could eat for free. This led, for example, to a 13% increase in kids eating breakfast at school. In a time where food insecurity crept up, this increased access to meals meant that more kids ate school lunch and were not going hungry, which was exactly the intended outcome. An unintended outcome, however, was that this exacerbated school food service supply chain stresses.

Being a part of PRFSD has helped to soften the impacts of supply chain issues. The Bid Committee has both a bid committee chair and a bid liaison who works directly with distributors. This bid liaison has built strong relationships with distributors and as supply chain issues have arisen, has been in constant communication with these distributors, including receiving updates two times a week about what is in stock and needed. Having someone in this position has averted a lot of problems that would be difficult for isolated school district food service directors to manage on their own.

Food Service Networks/Buying Co-ops Like PRFSD Exist Throughout the State

Including the PRFSD, there are six known food service co-ops in Pennsylvania including the Le-Nor-Co Purchasing Cooperative in eastern PA, the Southeastern Pennsylvania Purchasing Group (covering Chester, Montgomery, Bucks and Delaware counties), the Cafeteria and Food Cooperative (eastern PA), the Tri-State Food Service Group (eastern PA), and the Central Pennsylvania Independent School Group (CPIS) in central and eastern PA.

The Pennsylvania Department of Education, via the Child Nutrition Program, actively encourages self-operated school food directors to join a buying co-op because the economies of scale are so beneficial for school districts to keep costs down. While we do not believe the state is keeping track of how many self-operated school food programs are a part of one of these buying co-ops, the benefits are so great that it would be surprising if school districts operated without joining together with others to lower costs.

The Tri-State Food Service Group has about 50 school districts participating from East Stroudsburg to Lancaster and is the second largest buying co-op in the state. The group explains its primary reason for networking is to do procurement together and get good pricing with increased volume. While the networking and support are not as formalized as PRFSD's operation, members learn from each other and support each other in their work. Vonda Ramp, State Director of Child Nutrition Programs at the PA Department of Education, said she saw this support firsthand in the 2021-22 school year as multiple supply chain issues arose. She saw members come together and problem solve – if one school district was able to buy chicken directly from a vendor, it would include other members to make sure more schools got the food they needed. Members also coordinated logistically when they did not have the trucks to pick up an order.

Conclusion

Food service programs are an integral part of the learning experience for countless students. For far too many students, they provide the bulk of the nutrition they receive in a day, regardless of whether the program is in-house or outsourced to a contractor. In this analysis, we captured the current climate of public-school food service programs, the divide between contract and in-house service, and analyzed claims made by contractor services. We did not find evidence to back up claims that food service contractors have made, including the main “selling point” contractors use to persuade school districts to outsource their programs – that outsourcing will save districts money. Our combined quantitative and qualitative analyses draw a stark picture of the recent and current state of food service programs in our public schools. School districts looking for support in their food service programs should be aware that data do not always back up the cost-saving claims that contract groups make, and that networking with other districts to access bulk purchasing and peer learning benefits provides an alternative to contracting – a superior alternative in the view of leaders of those networks.

Policy Recommendations:

- 1) The Department of Education should:
 - a. Better track the number of bidders and the bid amounts.
 - b. Better track when a contractor is just buying and overseeing the production of food and when they also employ all the workers
 - c. Make all this data publicly available.
- 2) Require that in-house programs participate in a buying cooperative with other in-house programs

Technical Appendix:

Table A1.						
Descriptive Statistics						
<i>Variables</i>	<i>Obs</i>	<i>Median</i>	<i>Mean</i>	<i>Std. Dev.</i>	<i>Min</i>	<i>Max</i>
Average Daily Membership	6,975	2,198	3,495	9,182	154.8	207,893
Share of Meals Free/Reduced	6,970	37.6	38.6	19.5	1.2	100.0
Market Value / Personal Income Aid Ratio	6,985	0.6	0.6	0.2	0.1	0.9
Cafeteria Expenditures	6,974	\$1,150,433	\$1,710,744	\$4,099,540	\$138,093	\$101,630,744
Cafeteria Revenues	6,974	\$1,105,739	\$1,690,330	\$4,138,700	\$125,219	\$94,636,088
Cafeteria Revenues Minus Cafeteria Expenses (Operating Position)	6,974	(-\$20,115)	(-\$20,414)	\$335,589	(-\$10,152,248)	\$12,175,404
(Cafeteria Revenues Minus Cafeteria Expenses) / Revenue	6,974	(-1.9%)	(-3.7%)	10.1%	(-147.2%)	44%
Total Expenditures	6,975	\$34,416,380	\$57,311,797	\$147,195,224	\$3,916,095	\$4,250,366,891
Expenditures on Food Service As Share of Total District Expenditures	6,974	3.4%	3.4%	0.9%	0.8%	14.2%
Notes: All dollar figures are adjusted for inflation and in 2018-19 dollars.						
Source. Based on analysis of Annual Financial Report (AFR) data submitted by each school district annually to The Pennsylvania Department of Education 2005-2006 to 2018-2019.						

Table A2			
Percent of school districts managing their own cafeteria, percent employing cafeteria staff using a food service management contractor and percent where the contractor also employs cafeteria staff.			
Year	District Managed Cafeteria	Food Service Management Contractor Present	
		District Employer of Record	FSMC Employer of Record
2006	65.1%	20.2%	14.6%
2007	62.7%	22.2%	15.0%
2008	61.5%	23.4%	15.0%
2009	59.9%	24.8%	15.2%
2010	59.5%	25.1%	15.4%
2011	58.1%	25.3%	16.6%
2012	57.5%	25.3%	17.2%
2013	56.7%	25.3%	18.0%
2014	55.0%	25.7%	19.3%
2015	54.1%	25.5%	20.4%
2016	50.7%	27.1%	22.2%
2017	49.5%	28.1%	22.4%
2018	48.7%	28.5%	22.8%
2019	47.7%	28.7%	23.6%
2006 to 2019	56%	25%	18%

Note. The Pennsylvania Department of Education collects data on whether a Food Service Management Contractor is present at a district, but it does not identify whether the contractor employs cafeteria staff. We identify whether a contractor is the employer of record based on a review of the share of cafeteria expenditures listed as salary in each year as well as the share in purchased professional and other purchased services. Districts with a low share of total cafeteria expenditures in salary and a high share of total cafeteria expenditures in purchased services are classified as Food Service Management Contractors that are the employer of record for cafeteria staff.

Source. Based on analysis of Annual Financial Report (AFR) data submitted by each school district annually to The Pennsylvania Department of Education 2005-2006 to 2018-2019.

Table A3				
Mean cafeteria revenues, expenditures, and revenues minus expenditures by type of cafeteria management				
Variables	Food Services Total Revenue	Food Services Total Expenditures	Food Services Operating Position	Food Services Operating Revenues
Overall	\$1,690,330	\$1,710,744	-\$20,414	-3.74%
District Managed	\$1,804,481	\$1,826,409	-\$21,928	-4.48%
Food Service Management Contractor	\$1,543,297	\$1,561,761	-\$18,464	-2.78%
FSMC- Dist. Employer of Record	\$1,518,346	\$1,557,716	-\$39,370	-4.04%
FSMC- FSMC Employer of Record	\$1,577,436	\$1,567,295	\$10,141	-1.06%
Note: All dollar figures are adjusted for inflation and in 2018-2019 dollars.				
Source. Based on analysis of Annual Financial Report (AFR) data submitted by each school district annually to The Pennsylvania Department of Education 2005-2006 to 2018-2019.				

Table A4.			
<i>Dependent Variable</i> →	<i>Food Services Total Revenue</i>	<i>Food Services Total Expenditures</i>	<i>Food Services Operating Position</i>
	<i>b/se</i>	<i>b/se</i>	<i>b/se</i>
Average Daily Membership	408.7*** (-33.43)	671.9*** (-33.78)	-263.2*** (-14.10)
Pct Stud. Qual. Free/Red Lunch	14,885.7*** (-26.29)	7,537.9*** (-8.18)	7,347.8*** (-8.5)
1st Quartile Aid Ratio	-701.6 (-0.03)	82,200.1 (-1.84)	-82,901.8* (-1.97)
2nd Quartile Aid Ratio	-11,442.5 (-0.55)	9,660.9 (-0.29)	-21,103.5 (-0.67)
3rd Quartile Aid Ratio	-30,534.8* (-2.08)	-6,206.3 (-0.26)	-24,328.6 (-1.08)
Food Service Management Contractor	-23,337.6 (-1.93)	16,320.9 (-0.83)	-39,658.5* (-2.15)
y2007	9,992.6 (-0.75)	12,067.6 (-0.56)	-20,75.0 (-0.10)
y2008	2,905.1 (-0.22)	30,485.0 (-1.41)	-27,579.9 (-1.36)
y2009	35,045.7** (-2.61)	59,924.5** (-2.75)	-24,878.8 (-1.21)
y2010	43,830.9** (-3.2)	62,804.1** (-2.82)	-18,973.2 (-0.91)
y2011	26,601.0 (-1.93)	59,317.5** (-2.64)	-32,716.5 (-1.55)
y2012	-6,738.1 (-0.48)	44,002.5 (-1.94)	-50,740.6* (-2.39)
y2013	-74,919.4*** (-5.26)	10,355.3 (-0.45)	-85,274.7*** (-3.92)
y2014	-85,315.4*** (-5.85)	14,702.0 (-0.62)	-10,0017.4*** (-4.49)
y2015	-69,570.3*** (-4.60)	38,408.0 (-1.56)	-107,978.4*** (-4.67)
y2016	-54,130.2*** (-3.44)	43,262.8 (-1.69)	-97,393.1*** (-4.05)
y2017	-57,200.3*** (-3.55)	45,953.5 (-1.75)	-103,153.8*** (-4.19)
y2018	-77,762.0*** (-4.74)	27,921.1 (-1.05)	-105,683.1*** (-4.22)
y2019	-89,404.3*** (-5.34)	17,612.5 (-0.65)	-107,016.8*** (-4.19)
Constant	-263,259.0*** (-4.99)	-990,487.7*** (-11.54)	727,229.5*** (-9.03)
R-sqr-within	0.243	0.162	0.047
R-sqr-between	0.991	0.989	0.181
R-sqr-overall	0.988	0.981	0.018
N	6,969	6,969	6,969

Notes. * p<0.05, ** p<0.01, *** p<0.001. The 4th Quartile Aid Ratio (districts with low tax capacity and therefore greater eligibility for state aid) and the indicator variable for 2006 were the omitted variables.

Source. Based on analysis of Annual Financial Report (AFR) data submitted by each school district annually to The Pennsylvania Department of Education 2005-2006 to 2018-2019.

Table A5.			
<i>Dependent Variable</i> →	<i>Food Services Total Revenue</i>	<i>Food Services Total Expenditures</i>	<i>Food Services Operating Position</i>
	<i>b/se</i>	<i>b/se</i>	<i>b/se</i>
Average Daily Membership	410.3*** (-33.53)	676.7*** (-34.02)	-266.4*** (-14.26)
Pct Stud. Qual. Free/Red Lunch	14,908.2*** (-26.33)	7,606.0*** (-8.27)	7,302.2*** (-8.45)
1st Quartile Aid Ratio	-2,877.2 (-0.10)	75,619.6 (-1.69)	-78,496.8 (-1.87)
2nd Quartile Aid Ratio	-12,119.7 (-0.58)	7,612.6 (-0.23)	-19,732.3 (-0.62)
3rd Quartile Aid Ratio	-30,516.4* (-2.08)	-6,150.5 (-0.26)	-24,365.9 (-1.09)
FSMC Management	-12,453.8 (-0.97)	49,241.8* (-2.36)	-61,695.6** (-3.15)
FSMC Employer of Record	-62,768.6** (-3.18)	-102,948.4** (-3.21)	40,179.8 (-1.33)
y2007	9,999.4 (-0.75)	12,088.2 (-0.56)	-2,088.8 (-0.10)
y2008	2,791.9 (-0.21)	30,142.7 (-1.39)	-27,350.8 (-1.35)
y2009	34,868.6** (-2.60)	59,388.6** (-2.73)	-24,520.1 (-1.20)
y2010	43,695.9** (-3.19)	62,395.7** (-2.80)	-18,699.7 (-0.89)
y2011	26,850.8 (-1.95)	60,073.3** (-2.68)	-33,222.4 (-1.58)
y2012	-6,207.5 (-0.45)	45,607.3* (-2.02)	-51,814.8* (-2.44)
y2013	-74,088.2*** (-5.20)	12,869.3 (-0.56)	-86,957.6*** (-4.00)
y2014	-84,065.9*** (-5.76)	18,481.5 (-0.78)	-102,547.4*** (-4.61)
y2015	-67,826.0*** (-4.48)	43,684.2 (-1.78)	-111,510.2*** (-4.82)
y2016	-51,880.0*** (-3.29)	50,069.1 (-1.95)	-101,949.2*** (-4.24)
y2017	-54,996.0*** (-3.41)	52,620.8* (-2.00)	-107,616.8*** (-4.37)
y2018	-75,457.1*** (-4.60)	34,892.8 (-1.31)	-110,349.9*** (-4.41)
y2019	-86,822.3*** (-5.18)	25,422.4 (-0.93)	-112,244.7*** (-4.38)
Constant	-265,347.0*** (-5.03)	-996,803.3*** (-11.63)	731,457.1*** (-9.08)
R-sqr-within	0.244	0.164	0.0485
R-sqr-between	0.991	0.989	0.181
R-sqr-overall	0.988	0.982	0.0183
N	6,969	6,969	6,969

Notes. * p<0.05, ** p<0.01, *** p<0.001. The 4th Quartile Aid Ratio (districts with low tax capacity and therefore greater eligibility for state aid) and the indicator variable for 2006 were the omitted variables.

Source. Based on analysis of Annual Financial Report (AFR) data submitted by each school district annually to The Pennsylvania Department of Education 2005-2006 to 2018-2019.

Table A6.				
<i>Dependent Variable</i> →	<i>Food Services Total Revenues</i>	<i>Point of Sale Food Service Revenue</i>	<i>Actual State Revenue</i>	<i>Actual Federal Revenue</i>
	<i>b/se</i>	<i>b/se</i>	<i>b/se</i>	<i>b/se</i>
Average Daily Membership	408.7*** (-33.43)	304.8*** (-34.58)	86.1*** (-21.98)	34.8* (-2.45)
Pct Stud. Qual. Free/Red Lunch	14,885.7*** (-26.29)	-8,366.4*** (-20.38)	888.8*** (-4.90)	22,252.6*** (-33.81)
1st Quartile Aid Ratio	-701.6 (-0.03)	61,637.4** (-3.11)	20,349.2* (-2.31)	-83,591.5** (-2.62)
2nd Quartile Aid Ratio	-11,442.5 (-0.55)	57,251.6*** (-3.82)	6,516.3 (-0.98)	-76,649.6** (-3.19)
3rd Quartile Aid Ratio	-30,534.8* (-2.08)	23,260.0* (-2.18)	2,997.6 (-0.64)	-58,365.6*** (-3.42)
Food Service Management Contractor	-23,337.6 (-1.93)	46,920.3*** (-5.36)	-15,922.5*** (-4.12)	-56,979.5*** (-4.06)
y2007	9,992.6 (-0.75)	6,187.0 (-0.64)	146.7 (-0.03)	1,381.5 (-0.09)
y2008	2,905.1 (-0.22)	-7,393.7 (-0.76)	6,606.3 (-1.54)	-3,751.2 (-0.24)
y2009	35,045.7** (-2.61)	7,061.6 (-0.72)	5,620.3 (-1.31)	24,451.8 (-1.57)
y2010	43,830.9** (-3.20)	6,751.0 (-0.67)	10,109.4* (-2.29)	36,007.0* (-2.26)
y2011	26,601.0 (-1.93)	-3,223.5 (-0.32)	13,261.7** (-2.99)	27,859.0 (-1.73)
y2012	-6,738.1 (-0.48)	-20,716.0* (-2.06)	8,298.7 (-1.86)	15,357.5 (-0.95)
y2013	-74,919.4*** (-5.26)	-63,798.4*** (-6.21)	4,417.0 (-0.97)	-3,544.0 (-0.21)
y2014	-85,315.4*** (-5.85)	-73,902.9*** (-7.02)	13,675.0** (-2.92)	-12,172.4 (-0.72)
y2015	-69,570.3*** (-4.60)	-80,951.6*** (-7.41)	18,140.2*** (-3.74)	6,935.1 (-0.39)
y2016	-54,130.2*** (-3.44)	-87,044.2*** (-7.66)	27,615.9*** (-5.47)	21,316.8 (-1.16)
y2017	-57,200.3*** (-3.55)	-100,206.0*** (-8.60)	32,966.3*** (-6.37)	23,639.1 (-1.26)
y2018	-77,762.0*** (-4.74)	-108,930.8*** (-9.20)	35,847.9*** (-6.82)	3,699.7 (-0.19)
y2019	-89,404.3*** (-5.34)	-107,040.5*** (-8.85)	37,409.9*** (-6.97)	-9,782.4 (-0.50)
Constant	-263,259.0*** (-4.99)	-56,794.4 (-1.50)	-248,869.4*** (-14.71)	-29,675.9 (-0.48)
R-sqr-within	0.243	0.456	0.103	0.316
R-sqr-between	0.991	0.154	0.969	0.566
R-sqr-overall	0.988	0.149	0.934	0.526
N	6,969	6,872	6,935	6,949

Notes. * p<0.05, ** p<0.01, *** p<0.001. The 4th Quartile Aid Ratio (districts with low tax capacity and therefore greater eligibility for state aid) and the indicator variable for 2006 were the omitted variables.

Source. Based on analysis of Annual Financial Report (AFR) data submitted by each school district annually to The Pennsylvania Department of Education 2005-2006 to 2018-2019.

Table A7.				
<i>Dependent Variable→</i>	<i>Food Services Total Revenues</i>	<i>Point of Sale Food Service Revenue</i>	<i>Actual State Revenue</i>	<i>Actual Federal Revenue</i>
	<i>b/se</i>	<i>b/se</i>	<i>b/se</i>	<i>b/se</i>
Average Daily Membership	410.3*** (-33.53)	305.0*** (-34.57)	87.4*** (-22.38)	34.7* (-2.44)
Pct Stud. Qual. Free/Red Lunch	14,908.2*** (-26.33)	-8,362.3*** (-20.36)	907.4*** (-5.02)	22250.4*** (-33.8)
1st Quartile Aid Ratio	-2,877.2 (-0.10)	61,223.9** (-3.08)	18,514.6* (-2.11)	-83,370.6** (-2.61)
2nd Quartile Aid Ratio	-12,119.7 (-0.58)	57,118.1*** (-3.81)	5,973.8 (-0.90)	-76,581.1** (-3.18)
3rd Quartile Aid Ratio	-30,516.4* (-2.08)	23,254.1* (-2.18)	3,018.3 (-0.65)	-58,368.2*** (-3.42)
FSMC Management	-12,453.8 (-0.97)	48,898.4*** (-5.27)	-6,587.6 (-1.61)	-58,087.5*** (-3.90)
FSMC Employer of Record	-62,768.6** (-3.18)	39,644.4** (-2.77)	-49,922.7*** (-7.91)	-52,970.3* (-2.31)
y2007	9,999.4 (-0.75)	6,199.1 (-0.64)	156.0 (-0.04)	1,380.8 (-0.09)
y2008	2,791.9 (-0.21)	-7,411.8 (-0.76)	6,519.0 (-1.53)	-3,740.7 (-0.24)
y2009	34,868.6** (-2.60)	7,033.4 (-0.72)	5,474.3 (-1.28)	24,469.3 (-1.57)
y2010	43,695.9** (-3.19)	6,721.9 (-0.67)	10,035.8* (-2.29)	36,020.2* (-2.26)
y2011	26,850.8 (-1.95)	-3,155.4 (-0.32)	13,512.2** (-3.06)	27,832.9 (-1.73)
y2012	-6,207.5 (-0.45)	-20,596.1* (-2.05)	8,766.4* (-1.97)	15,301.3 (-0.94)
y2013	-74,088.2*** (-5.20)	-63,622.9*** (-6.19)	5,160.9 (-1.13)	-3,631.0 (-0.22)
y2014	-84,065.9*** (-5.76)	-73,650.1*** (-6.99)	14,781.1** (-3.17)	-12,302.1 (-0.72)
y2015	-67,826.0*** (-4.48)	-80,607.4*** (-7.37)	19,674.7*** (-4.06)	6,754.9 (-0.38)
y2016	-51,880.0*** (-3.29)	-86,605.4*** (-7.60)	29,589.0*** (-5.87)	21,085.0 (-1.15)
y2017	-54,996.0*** (-3.41)	-99,775.3*** (-8.55)	34,901.4*** (-6.76)	23,411.9 (-1.25)
y2018	-75,457.1*** (-4.60)	-108,481.3*** (-9.15)	37,870.7*** (-7.22)	3,462.1 (-0.18)
y2019	-86,822.3*** (-5.18)	-106,540.4*** (-8.79)	39,672.5*** (-7.4)	-10,048.1 (-0.51)
Constant	-265,347.0*** (-5.03)	-57,170.9 (-1.51)	-250,739.4*** (-14.88)	-29,462.9 (-0.48)
R-sqr-within	0.244	0.456	0.109	0.316
R-sqr-between	0.991	0.154	0.971	0.564
R-sqr-overall	0.988	0.149	0.936	0.524
N	6,969	6,872	6,935	6,949

Notes. * p<0.05, ** p<0.01, *** p<0.001. The 4th Quartile Aid Ratio (districts with low tax capacity and therefore greater eligibility for state aid) and the indicator variable for 2006 were the omitted variables.

Source. Based on analysis of Annual Financial Report (AFR) data submitted by each school district annually to The Pennsylvania Department of Education 2005-2006 to 2018-2019.