# Developing Pike, Ohio's Full-Time Fire Department: Solutions for Food Purchasing, Preparation, and Cost Sharing

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May 11, 2021

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# **Executive Summary**

The city of Pike, Ohio has created a full-time fire department manned with 16 firefighters. In the development process, Mayor Maureen Myers has tasked me (assistant) with providing a recommendation on the logistical needs of food purchasing, preparation, and cost sharing. The Mayor had various concerns for the food elements of the new fire department, ranging from dealing with costs to dealing with different tastes. Research was conducted in which consisted exclusively of secondary research in the form of web-based sources.

## **Research Findings:**

- Food purchasing in majority of established fire departments centers on having an entire fire engine crew shop in person at a local grocery store. The entrée for the day is selected through a majority vote.
- Food preparation in majority of established fire departments is handled by the considered-to-be best cook or a shift-based cook.
- Food cost sharing in majority of established fire departments is based on each firefighter inputting an equal amount of cash in the range from 10-20 dollars. They can eat as much as they would like.

## **Proposed solutions:**

- Using an online food retailer for food purchasing needs.
- Using a personal chef, that would be subsidized by the city council, for food prep. needs.
- Using an application named Splitwise to handle cost sharing functions.

#### **Reccomendations:**

Based on the research and analysis conducted, an adaptive management framework should be employed to handle the changing needs of some contexts. If the first option has issues, revert to the traditional method.

#### **Food Purchasing**

• Option one: use an online grocery retailer. Contingency/Traditional: use in-person shopping.

#### **Food Preparation**

• Option one: use a personal chef. Contingency/Traditional: use the best cook on hand or the shift-based cook.

# **Food Cost Sharing**

• Option one: use the Splitwise application. Contingency/Traditional: use in-person cost sharing with a money pool.

# **Developing Pike, Ohio's Full-Time Fire Department:**

# Solutions for Food Purchasing, Preparation, and Cost Sharing

# Introduction, Background, and Problem

The following text will introduce you to the need of this report. In building your understanding of why this text was crafted, I will enlighten you with a background to the problem at hand. Finally, the problem, purpose, and concerns of this report are highlighted.

#### Introduction

Volunteer fire departments consist of volunteers that fulfill the needed firefighting and emergency services of a region. In contrast, career firefighters are salary-based firefighters who work full-time. In the United States, there are 745,000 (67%) volunteer firefighters. Many times, a small city starts to see a higher frequency of emergencies or a shrinkage of available volunteers that cause the city to look at implementing a full-time fire department. In these towns, "the lack of a paid, around-the-clock fire department makes responding to emergency situations difficult as dispatchers scramble to reach as many volunteer firefighters and nearby fire departments as possible." The limiting factor that is an obstacle for a full-time fire department is usually financial based. One city that has successfully fought this financial blockage is of Pike, Ohio who will use state and federal funds to develop a full-time fire department.

The city of Pike, Ohio has begun the development of their full-time fire department. The creation and operation of a full-time fire department comes with it many logistical needs. One of utmost importance to the department is how the men and woman who protect the community will be fed. The mayor, Maureen Myers, has authorized me (assistant) to research various solutions to the food purchase, preparation, and cost sharing aspects of the newly created fire department. In the next portion, you will be briefed on the background of this task.

# **Background**

A small town of Pike, Ohio has decided to create a full-time paid fire department of which will have 16 full-time firefighters enlisted there. The main reason for creation is due to a volunteer pool that has seen shortages of manpower. Due to an availability of funds, the city council has decided to create the department. The development brings with it highly skilled

<sup>&</sup>lt;sup>1</sup> Ben Evarts and Gary P. Stein, "U.S. Fire Department Profile," nfpa.org, February 2020, https://www.nfpa.org/News-and-Research/Data-research-and-tools/Emergency-Responders/US-fire-department-profile#:~:text=Key%20findings,67%25)%20were%20volunteer%20firefighters.

<sup>&</sup>lt;sup>2</sup> Sarah Rafique and Josie Musico, "Rural challenges: Volunteer fire departments the norm, but still struggling in rural towns", Amarillo.com, November 26, 2016, https://www.amarillo.com/news/latest-news/2016-11-26/rural-challenges-volunteer-fire-departments-norm-still-struggling-rural

firefighters with an addition of new skills not possessed before, such as paramedic skills. The already commissioned fire truck houses can be modified to accommodate the full-time force. Most of the aspects needed for a successful transition to the full-time force are being handled by the city council, fire chief, or volunteers. Mayor Maureen Myers has reached out to me (assistant) to identify solutions to the transition and development task of designing a plan to fulfill the food requirements of the full-time fire department. The problem and purpose are explicitly touched on in the next portion of the report.

#### **Problem**

Business problems come in all types of shapes and sizes. Technically, a business problem is an event that needs a path towards being resolved or an objective an individual or organization strives to accomplish. In this case, the business problem associated with Pike, Ohio relates to logistical wants for their newly created full-time fire department. The scope of the problem handled by this report deals with the logistical need for providing a plan to handle the food purchasing, preparation, and cost sharing for the fire department. Stating the problem doubles as an understanding of the following text's purpose. The report will focus on analyzing various solutions to fulfilling the aforementioned food logistics. To successfully provide a recommendation, understanding the concerns at hand is touched on next.

All problems include constraints that will define how one devises a solution for it. In authorizing my analysis of the purchasing, preparation, and cost sharing predicaments associated with the food logistics of the new fire department, Mayor Meyers voiced concerns that should be used to craft an optimal solution. The Mayor's list of concerns is listed below:

- Not all fire fighters are good cooks
- Some may think they are good cooks but others disagree
- Most people have personal, favorite foods and other foods they dislike
- Some fire fighters may have special diets imposed upon them because of health issues
- The city doesn't want to pay for the food since the force would have to eat any way. If it must pay for some of the food, it must be a minimal amount.
- Some people eat more than others
- The amount each person would need to pay for food needs to be equitable
- The on-duty rotation system may create issues (favorite foods being left over just as some fire fighters go off duty, and so on)
- Food variety and wholesomeness should be considered

The above concerns will be factored into the alternatives analysis and affect the subsequent recommendation. With the problem, purpose, and associated concerns explicitly stated, the next portion will highlight the data gathering techniques used.

# **Data Gathering Techniques**

This section communicates to you the research and data gathering techniques employed. Research resources were exclusively based on secondary research. The focus on secondary

research was due to an abundance of it and its cost efficacy. With that, secondary research gave a needed variety to provide innovative solutions. All of the secondary research was gathered through the use of the Internet, thus a highlighting of the various online sources is talked about below. In addition, the factors for evaluating a source are touched on.

#### **Informational Websites**

In the modern era of research, most of the information on the Internet is distributed via websites. Websites offer an amazing abundance of information readily available in seconds, but with this tool comes varying levels of quality. The websites considered to be an "informational" website that were used are attributable to fire departments, firefighter non-profits, and brands' homepages.

# **Digital Articles**

Digital articles are articles hosted on websites. They provide for an easy to access set of words geared towards a specific topic. The research in this report uses a lot of data gathered from various articles.

#### **Online Forums**

An online forum, commonly referred to as a message or discussion board, is a website that facilitates communication between users or people<sup>3</sup>. Most online forums are geared towards a specific topic or niche. Many times, an online forum is effective at providing anecdotal information from professionals. This report uses an online forum dedicated to firefighters to hear personal accounts from said-to-be firefighters or emergency services personnel.

#### **Evaluative Factors**

Information on the internet is easy to access but can be a validity concern. The internet has many websites that offer information with varying amounts of quality. To make sure one is using quality information to not invalidate one's analysis, evaluative factors are used when screening online sources. The characteristics I used to evaluate the above web sources were taken from Wit Library Guides<sup>4</sup> and are listed below:

- Currency, in which one asks if the information is up-to-date
- Accuracy, in which one asks if the information is accurate
- Coverage, in which one asks if the information is covered in a comprehensive way
- Authority, in which one asks if the information is written by a credible entity
- Host, in which one asks if the host platform is reputable
- Objectivity, in which one asks if the information had a bias
- Relevancy, in which one asks if the information related well to the report

<sup>&</sup>lt;sup>3</sup> "Definition of Internet Forum." Accessed May 11, 2021. https://www.pcmag.com/encyclopedia/term/internet forum.

<sup>&</sup>lt;sup>4</sup> "Evaluating Information: Information from the Internet." Library Guides. Accessed May 11, 2021. https://wit-ie.libguides.com/c.php?g=648995&p=4551538.

- Functionality, in which one asks if the information was to easy to navigate and find
- Ads, in which one asks if the content is genuine or filled with underlying agendas

Each source was used only after passing the majority of the tests above. As with many topics, there were some limitations pertaining to the sources, in which are explained in the next section.

#### Limitations

This report has high quality information as the basis for analysis, but it does not come without some limiting factors. Firstly, the report's data is gathered exclusively from secondary research. Time, budget, and complexity factors have caused this reality. Furthermore, the extent of the Mayor's concerns causes solutions to vary on how many they address. Although, the norms at other fire departments communicate that the solutions do not need to satisfy every concern. Finally, the recommended design needs to undergo real-world trials at the newly created full-time fire department.

# Findings: Food Purchasing, Preparation, and Cost Sharing

This section covers the research findings found pertaining to the food purchasing, preparation, and cost sharing of other fire departments. Using already established full-time fire departments provides a basis for comparison and an understanding of the norms for food logistics.

### **Food Purchasing**

Understanding how fire departments purchase food leads us to answering an interesting question. Why do you always see a group of firefighters shopping together in a grocery store? The answer to this question is quite simple. The schedules firefighters work can be irregular and demanding, at sometimes lasting 24 hours a day. This coupled with the fact that grocery shopping is the firefighter's responsibility, you will see an entire engine's crew together at a local store. They go as a crew because often the firefighters must "stop shopping, leave the grocery cart where it sits, and respond to a request for assistance from the citizens." It is said that a firefighter's goal is to be up and out of the firehouse or any place they are at in under 90 seconds. With this understanding of how firefighters' shop, let us look at how they determine what to purchase.

From the analysis I completed of how the firefighters determine what to eat, I can say the norm is to have a majority vote. It is said that "as a group [firefighters] decide on what staples to buy — with special requests requiring a majority vote for approval." With this, comes personal

<sup>&</sup>lt;sup>5</sup> "Why Do Firefighters Go to the Grocery Store Together on a Fire Truck While on Duty?" City of Leander Texas. Accessed May 11, 2021.

https://www.leandertx.gov/fire/page/why-do-firefighters-go-grocery-store-together-fire-truck-while-duty.

<sup>&</sup>lt;sup>6</sup> Greg Hardesty, "No. 4: Burning Question Answered: Why Firefighters Buy Groceries Together," Behind the Badge, July 28, 2015, https://behindthebadge.com/burning-question-answered-firefighters-buy-groceries-together/. <sup>7</sup> Greg Hardesty, "Why Firefighters Buy Groceries Together."

insight from a firefighter on Firehouse forums who says, "We usually accommodate people, especially if they arent [disrespectful] about the meal and are in the kitchen with everyone else." So, we can see that the purchasing of food for firefighters rests on a majority vote that tries to accommodate other's tastes. This majority vote is the driver of what an engine rig buys at the store in the beginning of their shift, or "tour", as they call it. The following text will give you an idea of who prepares the meals for the fire crew.

# **Preparation**

Who cooks for firefighters? The answer to this question is varied. Some fire departments have their best cook usually manning the kitchen while others rotate cooks based on shifts. One source states, "Firefighters take turns cooking meals." On the other hand, we have a firefighter by the name of Aaron Smith, who is dubbed as his firehouse's main chef. He says, "There is no cleaning crew or in-house chef — the firefighters do it all." and "I guess they like my cooking." One additional source, from personal insight on Firehouse forums, states, "Natural selection. I don't cook because no one would eat." All these responses from the sources paint a clear picture that the food preparer is varied and usually is the firefighter who is thought to be the best or shift based. Now, the last aspect to consider is how food costs are satisfied.

#### **Cost Sharing**

As with food purchasing, the costs for food are shared in a similar manner from department to department. There is a norm in that most food costs are equally shared amongst those that decided to eat the prepared dish for the day. To cover the food costs, most fire departments have their firefighters pitch in equal amounts of money without thinking about how many plates each will eat. A firefighter by the name of Paul Lagace says, "Typically, a firefighter will donate \$4 to \$5 every shift he or she works for 'staples' [and an additional] \$5 for lunch and \$5 for dinner — for a total of about \$15 for chow during a 24-hour shift." To further explain this cost sharing norm, another firefighter, Aaron Smith, states, "Each firefighter contributes around \$10 a day to a 'chow fund'." These responses communicate that food costs are in a

<sup>&</sup>lt;sup>8</sup> nyckftbl, post to "Info on food in the firehouse needed," Firehouse Forum, April 20, 2009, https://forums.firehouse.com/forum/firefighting/firefighters-forum/93841-info-on-food-in-the-firehouse-needed

<sup>&</sup>lt;sup>9</sup> Greg Hardesty, "Why Firefighters Buy Groceries Together."

<sup>&</sup>lt;sup>10</sup> Ginger Meurer, "Cooking for Firefighters: 'Having a Good Meal Can Make a Bad Day Better'," Review Journal (Las Vegas Review-Journal, January 22, 2016), https://www.reviewjournal.com/uncategorized/cooking-for-firefighters-having-a-good-meal-can-make-a-bad-day-better/.

<sup>&</sup>lt;sup>11</sup> cozmosis, post to "Info on food in the firehouse needed," Firehouse Forum, April 20, 2009, https://forums.firehouse.com/forum/firefighting/firefighters-forum/93841-info-on-food-in-the-firehouse-needed

<sup>&</sup>lt;sup>12</sup>Greg Hardesty, "Why Firefighters Buy Groceries Together."

<sup>&</sup>lt;sup>13</sup> Ginger Meurer, "Cooking for Firefighters."

general price range of 10-20 dollars per firefighter. In the next section, proposed solutions to Pike, Ohio's new full-time fire department are provided.

# Proposed Solutions: Food Purchasing, Preparation, and Cost Sharing

This section goes into depth about the various proposed solutions for the food logistics of Pike, Ohio's new full-time fire department. Solutions will be given separately for food purchasing, preparation, and cost sharing.

# **Food Purchasing**

Food purchasing for fire departments, in its current form, is based on having a majority vote for a specific dish at the beginning of the shift, then having one entire firefighter crew head to the local grocery store for picking up the ingredients. If any firefighter decides they do not like the requested dish, they should not pay and personally cook a dish. Because there is a norm in-place amongst established fire departments, reinventing the wheel for the proposed purchasing solutions will not occur. What will be given, is an innovative purchasing solution using an online grocery retailer as well as a contingency plan relying of the traditional in-person method.

#### **Online Grocery Retailer**

In contemporary times, everything is online. Now a days, one can order their groceries online and have them delivered instead of going in-person. As figure 1 shows, online grocery retailer's sales are skyrocketing. The noting of the sales increase is important because it shows that over time a continued investment from online grocery retailers will increase the reliability and practicableness of their online stores.

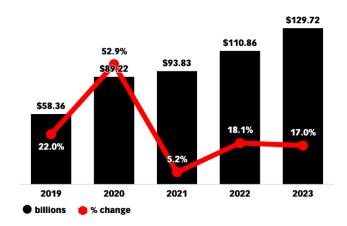


Figure 1: Grocery Retail Ecommerce Sales for 2019-2023

Source: eMarketer, September 2020

Online grocery retailers make shopping for groceries easy. The simple purchasing flow is usually selecting some items, paying for the items at checkout, and then waiting an average of an

hour to receive the ordered items. The plethora of benefits associated with online grocery delivery are shown below<sup>14</sup>:

- Ability to use in-store prices with additional sales
- Ability to buy in bulk with ease
- Ability to cut down on gas and parking costs
- Ability to easily browse an entire store's goods
- Ability to avoid the line
- Ability to avoid making multiple trips

With the aforementioned information on online grocery retailers, we can see how beneficial this purchasing model can be for a fire department. This proposed solution would entail using a popular online grocery retailer to take care of the food purchasing requirement for Pike, Ohio's full-time fire department. In the beginning of the shift or tour, the majority vote on a select dish will guide the purchase decisions of a select firefighter who will use an online grocery retailer's website to place the order. The order placed should on average take around an hour to fulfill, and the firefighter who placed the order should be the one to receive the items. In the text to come, a highlight of the traditional purchasing method occurs.

#### **Traditional Purchasing Method**

As mentioned throughout the report's previous sections, the norm for purchasing food for many fire departments relies on sending an entire fire crew to a local grocery store in person. This method entails having the shift's entire crew stage a majority vote for a dish to be cooked. Depending on the type of dish selected, various ingredients are picked up at the local grocery store. If an emergency occurs while shopping, the shopping cart is placed in a refrigerator by a store employee. Subsequently, the ingredients are brought back to the firehouse. The following text encompasses solutions for food preparation.

# **Preparation**

The preparation of food for fire departments is varied from department to department. Some departments like to have the best cook out of their on-shift firefighters handle the process. For other departments, the cook is shift based in that no one firefighter is always cooking the firehouse's meals. Because the norm for established fire departments is to select whatever the firefighters are comfortable with, the proposed solution will include an innovative solution that relies on a personal chef. With this, a contingency plan is thought of in that the traditional method for food preparation is also listed below.

#### **Personal Chef**

Trained cooks that can be hired when needed for a set fee are considered "Personal Chefs". The personal chef will work to craft a meal plan related to the preferences and dietary

<sup>&</sup>lt;sup>14</sup> "Save Time & Money with the Advantages of Online Grocery Shopping," Foodtown, March 22, 2019, https://www.foodtown.com/articles/advantages-online-grocery-shopping.

<sup>&</sup>lt;sup>15</sup> Ginger Meurer, "Cooking for Firefighters."

needs of the client they work for. Once a meal plan has been crafted, they will shop for the needed ingredients and prepare the meal. In some instances, the personal chef will also be responsible for cleaning up the kitchen. The use of a personal chef allows the client to free up the time used once spent cooking their meal. In the United States, it is said the cost for a personal chef is in the range of 60-80 dollars per hour. Below, benefits of a personal chef are listed: 17

- Can free up time for client
- Takes burden off of inexperienced cooks
- Food cooked to a high quality
- More food choices are able to be implemented
- Can be healthier
- Cost-effective

One of Mayor Meyer's concerns was the cost for food. The Mayor stated that the city council would be open to providing a minimal amount of financial relief to the fire department for food costs. Since the costs for food itself are usually taken care of by the firefighters themselves, this proposed solution for preparation would entail having the city council subsidize the cost for a personal chef for 2 hours every day. The 2-hour threshold is to limit the cost and use the personal chef for preparing dinner only. The personal chef would be tasked with only the preparation of the food, whereas the firefighters would be tasked with cleaning the kitchen. In the next part, the traditional method is looked at once more.

#### **Traditional Preparation Method**

Touched on before, the norm for preparing food in a fire department rests on the shoulders of the men and women who rush to our aid in emergencies. The person selected to prepare the food varies from department to department. In one department, you will find the considered-to-be-best cooks manning the kitchen, and in another you will find that cooks are routinely rotated based on shifts. The traditional method entails selecting a firefighter to cook for the rest, in that the selection is voluntary based. If a firefighter decided to not partake in paying for the meal picked by the majority vote, they are left to prepare their own food. Proposed solutions for cost sharing are looked at next.

# **Cost Sharing**

From department to department, there is a shared norm in that if a firefighter decides to partake in the selected meal for the day, they should put in an equal amount of money usually ranging from 10-20 dollars. If a firefighter decides not to pay for the meal, that firefighter is expected to find a meal on their own. In the following text, a proposed solution for food cost

<sup>&</sup>lt;sup>16</sup> SF Bay Area Personal Chefs, "What Does a Personal Chef Cost?," Bay Area Personal Chefs, November 4, 2020, https://bayareapersonalchefs.com/what-does-personal-chef-cost/#:~:text=These%20fees%20are%20much%20higher,based%20on%20data%20from%20Thumbtack.

<sup>&</sup>lt;sup>17</sup> "The Benefits Of Hiring A Personal Chef," Concierge Julie Hullett | Nashville TN, October 18, 2019, https://juliehullett.com/concierge-blog/the-benefits-of-hiring-a-personal-chef/.

sharing using a software application is highlighted. In addition, the traditional cost sharing method is looked at which doubles as a contingency plan.

#### **Splitwise**

The traditional way of splitting the cost of something centers on a clumsy process relying on human memory. In the modern era of computing, there is an app for everything. With that said, there are apps for taking the work of cost sharing off one's shoulders. Splitwise is just the app. Splitwise is the leading cost sharing software application that allows one to easily and efficiently split the cost of any debt. The debt could be a bill of any sorts, like a grocery bill. The app allows one to create a group of members and split the cost of the bill amongst them in many ways, where an even split is the most common. Once the bill is split, an electronic payment platform, like Paypal, is used. The benefits of this app are listed below:

- Split the cost of anything between any number of users
- Efficiently and accurately record debt payments
- Seamless integration with the leading payment vendors
- Move away from easy to misplace fiat
- Record debt payments in-person with fiat
- View debt payment history with easy-to-follow statements
- Can use Splitwise on Android, IOS, and any computer

It is said that an overwhelmingly 97% of Americans own a smartphone. <sup>19</sup> This statistic shows how accessible smartphone apps are now a days. This paves way to the fact that most firefighters have a smartphone, thus it should not be hard for a firefighter to use Splitwise. The proposed solution for cost sharing entails having the firefighters that are pitching in for food do so through Splitwise. To show how easy it is to use Splitwise, I will give a walkthrough of how to share a cost between a group below.

Using a computer, one can simply go to splitwise.com and create an account. Shown in figure 2, once your account has been created, one can use the "Add an expense" button to create a bill to be split.

 $<sup>^{18}</sup>$  LaToya Irby, "Best Bill-Splitting Apps of 2021," The Balance, accessed May 11, 2021, https://www.thebalance.com/best-bill-splitting-apps-4170968.

<sup>&</sup>lt;sup>19</sup> "Demographics of Mobile Device Ownership and Adoption in the United States," Pew Research Center: Internet, Science & Tech (Pew Research Center, April 26, 2021), https://www.pewresearch.org/internet/fact-sheet/mobile/.



Figure 2: How to add an expense in Splitwise

Source: splitwise.com

As shown in figure 3, one can split a bill with an entire group, in this case "Fire Engine 94" is the group (representing a fire engine from Pike, Ohio), enter a description (dinner), and then enter the amount that will be split amongst the members (\$110). This shows the amount each firefighter will have to pay.

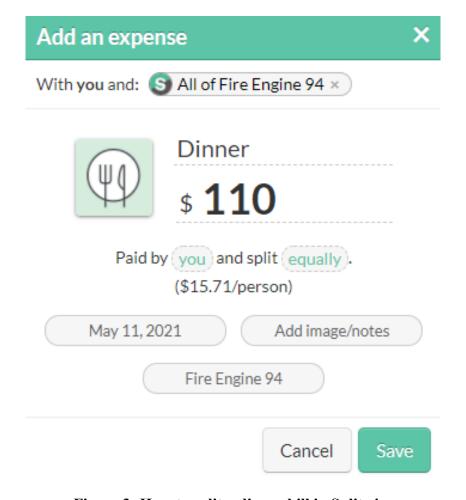


Figure 3: How to split a dinner bill in Splitwise

Source: splitwise.com

So far, a firefighter has added an expense and split the cost for food amongst the other members of the group. Finally, as shown in figure 4, a firefighter can see who has and has not paid their amount. To make a payment, the firefighter can use a leading payment vendor, which is seamlessly integrated in the app. All these steps culminate into an efficient means to share the food costs of the fire department. In following section, the traditional cost sharing method is looked at.



Figure 4: Viewing who owes money for dinner in Splitwise

Source: splitwise.com

#### **Traditional Cost Sharing Method**

The traditional way of sharing costs used in most fire departments, as communicated by the research findings section, is to have all firefighters that want to eat the selected meal throw in an equal amount of money in the range of 10-20 dollars. Money, in the form of physical cash, is thrown into a money pool. This money pool is then used to pick up the needed ingredients at the local grocery store. The firefighters that did not opt in for the meal feed themselves in some way.

# **Evaluation of Solutions: Food Purchasing, Preparation, Cost Sharing**

In this section, an evaluation of the various proposed solutions for each food-logistics category takes place. All of the following comparisons rest on viewing the innovative solutions up against the traditional methods.

#### **Food Purchasing**

The proposed solutions for the food purchasing function of Pike, Ohio's new full-time fire department dealt with an innovative and traditional solution. The solution that was innovative centered on one firefighter using an online retailer to deliver the groceries the firehouse needed for the day. In comparison, the traditional method called on an entire fire engine crew to travel to a local grocery store and shop together. We can see that the using an online grocery retailer removes the need for the firefighters to ever leave and waste time shopping in person. What could be an already stressful day from dealing with life threatening emergencies could be made better from the freed time. Another factor of comparison is the difference in browsing capabilities. The innovative solution provides a more efficient browsing ability as one can efficiently search for the needed items. In contrast, the traditional method, due to being in person, offers a less efficient means to browsing for items. Finally, the one aspect where the traditional method offers a more intuitive purchasing experience is when one needs to be in-person to fully grasp what they need out of a food item. Sometimes the online experience does not allow one to accurately understand the item they are buying.

# **Preparation**

The proposed solutions offered for food preparation were based on an innovative and traditional variant. In the innovative solution, we see a personal chef being pushed. On the other hand, the traditional method called for selecting the food preparer based on the most skilled firefighter or rotation based on shifts. The innovative solution relies on having the city council subsidize the cost of the personal chef. If easily supported, the personal chef solution offers a leg up on the traditional method in a few areas. The personal chef allows firefighters to free up time that was once spent cooking. It also allows for food that is expected to be cooked at a high quality. Furthermore, more food choices that are healthier can be incorporated into the diets of the firefighters. With the traditional method, we see firefighters wasting time cooking food that could be subpar in nature. In addition, the food might not be healthy and could decrease performance in the field.

# **Cost Sharing**

The cost sharing solutions come in an innovative and traditional version. The proposed innovative solution centered on using the Splitwise smartphone and computer application. The traditional method entailed a group of firefighters manually splitting the cost of food and putting it into a money pool. Using Splitwise to share the costs came with many benefits over the

traditional method. Having an efficient and easy to follow recording of the food costs is a step above the traditional hand method. Using Splitwise comes off as more professional as the application provides detailed statements of the costs shared. In general, the traditional method might be quicker, but it can be a hassle. When a firefighter's day could last up to 24 hours, of which might be filled with life-or-death emergencies, forgetting simple things like food cost sharing is easy. Thus, the Splitwise helps firefighters remember the costs they shared amongst one another.

#### Recommendation

Mayor Meyers tasked me with the research of the food purchasing, preparation, and cost sharing aspects of the newly created full-time fire department of Pike, Ohio. Along with this research came analysis of the various solutions that could be used to satisfy the food logistics of the fire department. In the following, I will state the proposed solution that should be used to satisfy the food logistics elements. Before diving into the detailed solution, a few points are stressed in the following text.

The Mayor stressed concerns of which were plentiful. When looking and analyzing established full-time fire departments' norms, most tried to satisfy the majority. What this means is that most decisions for food-based aspects are based on a majority vote or shift-based rotations. The selection of food is one example of this. If a firefighter does not like what is served, then they are free to make what they want. Essentially, most fire departments decide to strive for simplicity rather than complexity in that the majority is served with the others left to choose if they want to partake or not. Next, I talk about the recommended plan.

The first aspect that should be included as the basis for the recommended solution is decision making based on adaptive management. Adaptive management is said to be "an intentional approach to making decisions and adjustments in response to new information and changes in context."<sup>20</sup> That is, in the case that an element of this recommended solution is unsatisfactory given a specific context, the contingency solution should be employed. This is why most traditional methods listed for purchasing, preparing, and cost sharing were dubbed to be contingency elements. Next is food purchasing.

The second aspect of the recommended solution is centered on the food purchasing function. I recommend that food purchasing's first option be to use an online grocery retailer to order all needed food items. The needed food is based on the majority vote for the day's entrée. If some do not enjoy the entrée, then they are free to not pay-in and should make their own meal. One firefighter will place the order at an online grocery retailer and will be the one to receive the groceries when at the firehouse. If any technical issue occurs, the contingency plan is to use the

<sup>&</sup>lt;sup>20</sup> Learning Lab, "What Is Adaptive Management?," USAID Learning Lab, March 6, 2019, https://usaidlearninglab.org/lab-notes/what-adaptive-management-0.

traditional method of having the entire fire engine crew travel in-person to a local grocery retailer. Next, the third aspect of food preparation is detailed.

The third aspect of the recommended solution details the food preparation element. This solution relies on the city council approving the subsidization of the cost for a personal chef. The personal chef has a max limit of 2 hours in which they will focus on cooking dinner for the firehouse. The personal chef will not clean the dishes as to remain cost effective. If the chef subsidy falls through, the contingency plan of using the traditional methods of picking the best cook or shift-based cooks are used. The following text touches on the last aspect of the recommended plan.

The fourth and final aspect of the recommended solution details the cost sharing predicament. Here the first option to share food costs is to use the Splitwise application on either a smartphone or computer. One firefighter will handle using the app at the majority vote for an entrée to split the costs amongst the entered members. At this moment, each firefighter who entered can login to the application and pay using an electronic payment vendor. In the event of technical issues, the contingency plan is to use the traditional method for cost sharing in that all entered members for an entrée manually input their equal cash amount into a money pool. Again, any firefighter that does not wish to participate in eating the served meal will not pay and should cook their own food.

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