



N

V

P

A

NEW VISIONS FOR PUBLIC AFFAIRS

VOLUME 5, SPRING 2013

SPECIAL INTERVIEW

FABIAN SOCIALISTS AND RED LIGHT TRAFFIC

CAMERAS: AN INTERVIEW WITH ROBERT WARREN

1

PHILLIP BARNES

IN THIS ISSUE:

INTERSECTIONAL DISADVANTAGES IN THE EMERGENCE
AND TRANSFORMATION OF LEGAL DISPUTES

15

M. KRISTEN HEFNER

CHARACTERISTICS OF INNOVATIVE ENTREPRENEURS:
AN ANALYSIS AT THE LEVEL OF THE INDIVIDUAL, THE
FIRM, AND THE BUSINESS ENVIRONMENT

25

DANIEL P. SMITH

PAY FOR SPRAY FIRE PROTECTION POLICY:
A CASE STUDY OF OBION COUNTY, TENNESSEE

41

NATASHA R. NAU

EDITORIAL BOARD

EXECUTIVE DIRECTOR
JENNIFER FUQUA, PH.D. '14

EDITOR-IN-CHIEF
PAUL RUIZ, M.A. '13

PHILLIP BARNES, PH.D. '14

DAVID BARNES, PH.D. '14

ANTHONY CARIO, M.S. '14

STEPHEN FURMAN, M.A. '13

JESSICA B. GRAHAM, M.A. '14

DAVID P. KARAS, M.A. '14

FACULTY ADVISORY BOARD

MARIA P. ARISTIGUETA, PH.D.

JONATHAN B. JUSTICE, PH.D.

JOHN G. MCNUTT, PH.D.

LELAND WARE, JD

SCHOOL OF PUBLIC POLICY AND ADMINISTRATION
UNIVERSITY OF DELAWARE

<http://www.sppa.udel.edu/nvpa/home>

Pay for Spray Fire Protection Policy: A Case Study of Obion County, Tennessee

Policy Brief

Natasha R. Nau

University of Delaware

Obion County, Tennessee's subscription fire protection policy, "Pay for Spray," has created a dangerous problem in which unincorporated areas of the county do not have a mandatory universal fire protection service. This policy threatens both life and property. Two fires that occurred in September 2010 and December 2011 left residents without fire protection subscriptions homeless. Thirteen policy alternatives are presented and seven are evaluated along four criteria: political feasibility, financial feasibility, economic efficiency and quality of service. After an in-depth evaluation, it is proposed that Obion County make the purchase of fire protection service mandatory through property taxes.

Defining the Problem

Located in the rolling hills of northwest Tennessee, Obion County has a total area of 555 square miles and population of about 31,870 people. There are a total of 14,659 housing units in the county, and 13,077 are occupied (U.S. Census Bureau, 2010a). More than half of the total population (19,588) lives in rural areas with only 12,219 people living inside urban areas (U.S. Census Bureau, 2010c). The median household income (in 2010 inflation adjusted dollars) is \$39,543 and the per-capita income for the county is \$21,235. About 14.9% of the total population lives below the poverty line (U.S. Census Bureau, 2010b). The location of Obion County is shown in Figure 1.

Although there are a total of 52 municipalities, only nine are incorporated: Hornbeak, Obion, Rives, Samburg, South Fulton, Troy, Union City, Woodland Mills and Kenton. There are a total of eight municipal fire departments that are located in Hornbeak, Kenton, Obion, Rives, Samburg, South Fulton, Troy and Union City. Union City Fire Department is the only full-time staffed department in the county and has operated this way for over 47 years. The other seven departments rely on volunteers. Obion County is one of two counties in the state that does not provide fire protection. County residents pay county taxes, but no tax dollars go towards fire coverage. The eight municipal departments are

funded by each of their cities' taxpayers (Statter,, 2010a).

The focus of this policy brief is the City of South Fulton's subscription fire protection policy, more commonly referred to as "Pay for Spray." This policy states that any residents living outside the city limits and not within the purview of any other city or county fire department have the option to pay an annual fee of \$75 for fire protection from the South Fulton Fire Department (SFFD). SFFD responds to about 250 rural fire calls within a 12-month period, accounting for about 75% of its total calls. In addition to SFFD, two other departments, Kenton and Union City, also offer services on a subscription basis in an attempt to help the rural residents. The five remaining departments offer services on an as-needed basis, without a subscription or ability to pay for response. For example, the fire department of Rives does not charge a subscription fee, but sends a \$500 bill after it has rendered services. According to Fire Chief Bob Reavis of Hornbeak, "half of the homeowners fail to pay" (Sisson,

Natasha R. Nau is the Finance Director for London Grove Township in West Grove, Pennsylvania. She earned a B.S. in public administration from James Madison University and an M.P.A. from the University of Delaware. Email: nnau@udel.edu.

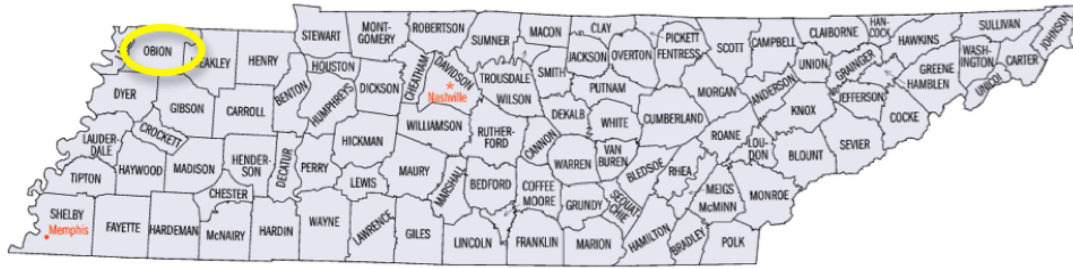


Figure 1: Tennessee Counties

2010). Unfortunately, this is not uncommon. Less than 70% of people pay in communities with subscription fees for firefighting (Sisson, 2010). The reason the three departments charge a fee is because city government officials do not feel it fair to take the city taxpayers' money and service and give it to county residents for free (Statter, 2010a). Union City Fire Chief Kelly Edmison says they get very little help from their own city and zero revenue from the county. Financially, these departments will be forced to either switch to a subscription-based service model or draw back into their respective city limits. If that happens, there will not be any fire protection in three quarters of the county (Statter, 2010a).

The three subscription-based departments do not respond to fires on rural properties that do not pay for subscription fire service, unless there is a report of someone trapped inside. The State of Tennessee guarantees two services to taxpayers: garbage collection and law enforcement. Chief Edmison states that in this county, "Fire service is not considered that important. What people need to know is the fire problem in Obion County is not a city problem; it is a county problem" (Statter, 2010a).

In Obion County, the average distance traveled from a station to a rural fire scene is 5.07 miles and the average response time is 11.14 minutes (Town of Troy, 2008). This does not include areas that rely on fire departments from outside the county for their fire protection, or the 15 square miles of southwestern Obion County that have no fire protection. According to SFFD Chief David Wilds, this area is sometimes referred to as "Cat's Corner." This policy has created a dangerous problem in which unincorporated areas of Obion County do not have a mandatory universal fire protection service in place – a policy that threatens both life and property. The nine incorporated municipalities, eight fire departments, and seven districts were created from Census tract subdivision data using Geographical Information System (GIS) software, ArcMap. These data have been plotted in Figure 2.

The SFFD Pay for Spray policy was in place for almost 20 years without many notable incidents. However, when the Cranick family home burned to the ground on September 29, 2010, the county policy earned media attention. In response, on September 29, 2010, the Obion County Court voted 15 to 3 in favor of implementing countywide subscriptions. The county would collect fees at the courthouse and distribute them to the eight municipalities. Beginning July 2011, all fire departments in the area required residents to pay an annual fee, including five departments that answered calls at no charge (Statter, 2010b). Fire Chief Bob Reavis of Hornbeak opposed the expansion of the policy arguing that more houses would burn: "It's a public safety issue; subscriptions should be left to newspapers and magazines," Reavis said (Sisson, 2010). Mayor Benny McGuire observed that only one-third of Obion County had access to rural fire service before the vote, and felt that the commission's decision would extend fire protection services to everyone, but at a price. McGuire said it is "probably the best we can do." At the conclusion of the meeting, many firefighters expressed disappointment, but said they will abide by the Commission's rules. "It's not the right thing to do but I've been doing it too long to quit," said Stan Mitchell, a volunteer firefighter with the Rives Fire Department (Sisson, 2010).

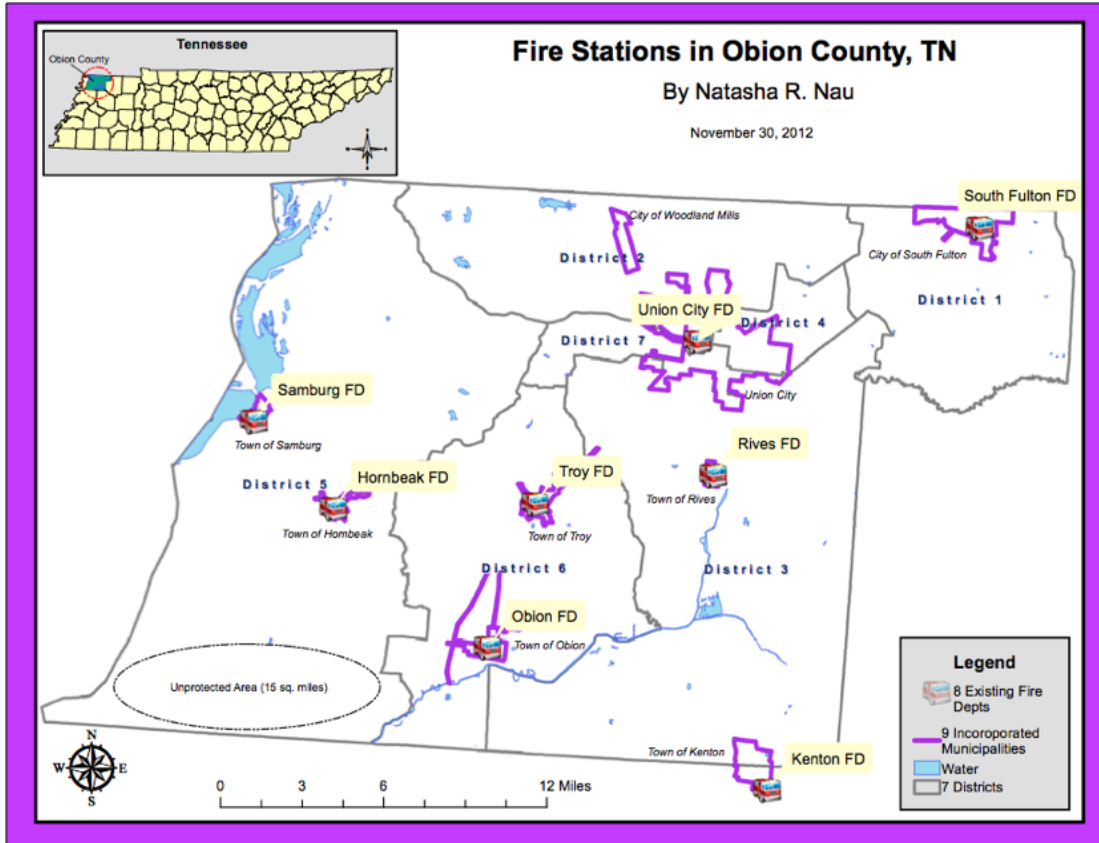


Figure 2: Obion County, Tennessee

Commissioners also approved a fire tax referendum to be placed on the 2012 General Election ballot. The county could petition the state for a “public act” which would allow Obion County to set up its own fee structure independent from Tennessee fire tax code. This is possible and should be investigated (Statter, 2010b).

The subscription expansion was a positive step in attempting to get the necessary funds into the right hands, but then a second devastating fire on December 6, 2011 destroyed the Bell family trailer home, sparking more debate. Due to the tremendous controversy that ensued over these two fires, it is apparent that the countywide subscription decision did not solve the problem. Between the annual frequency of rural fires and the square mileage that needs to be covered, fire departments cannot continue to operate using a subscription-based system. Price conscious residents may be more inclined to take risks and less likely to pay the subscription fee. Two such residents did just that, and later paid the price. The county's mayor, Benny McGuire, said he “sympathized with the families whose houses burned down,” but felt that “it was an economic issue [where] only those who subscribe get served” (Sisson, 2010). This policy brief argues that it is too dangerous to give homeowners the freedom to choose.

Fire service is a basic life and property saving emergency service. After Benjamin Franklin formed the first fire insurance company in 1751, subscription-based fire services were common practice. Large cities formed fire brigades to protect insured structures. Subscribers paid for fire service in advance, and insured structures would receive a fire mark to delineate against uninsured structures. Payments for fire marks directly supported firefighting companies. Volunteer fire departments were also common. Some fire insurers contributed money to volunteer departments, and awarded bonuses to engines that arrived first at the scene of a fire (Murphy, 2010).

According to the U.S. Fire Administration (USFA) (2012), modern subscription-based services insure large fire or medical emergency fees. Fire protection is offered by subscription much less frequently than are emergency medical services (EMS). The Tontitown Area Volunteer Fire Department in Arkansas is an example of a volunteer department that uses subscription fire services. The department covers 35 square miles, protects 2,500 people, and responds to about 125 calls for fire and medical assistance each year. Non-members are charged \$200 for the first hour of fire department operations, and \$100 for each additional hour. These charges are often recovered through insurance payments. The fire department may, under Arkansas law, place a lien against a property for failure to pay, but this has never been necessary. Tontitown's subscription fee structure is split into two components: (i.) an initial fee set at \$100, which covers entry into the fire association and the first year's dues, and (ii.) an annual fee set at \$25 a year to maintain membership. It is estimated that approximately 60 percent of residents are members of the subscription program. The annual subscription fees raise more than \$20,000 for the department, and fund departmental operations out of two stations (USFA, 2012).

The issue of whether or not fire protection is a public or private good underlies this debate. The consumption of fire services does not fit the description of a true public good because its service flow is localized and can be largely captured by the individual consumer. In a sparsely populated area, fire protection benefits the immediate individual or family concerned. In a densely populated community, however, dwellings adjacent to the one in which the fire originated may receive some of the benefits. Therefore, depending upon the density of the community, the consumption of fire services may be considered something between a private and quasi-public good (Ahlbrandt, 1973). In Obion County, access to this "public" good is geographically limited. Fire protection is largely a private good because it is farm homes that often catch fire and leave others unaffected. According to Fire Chief Gary Morris from Arizona, "[People] just want to know that when help is needed it will be there" (Stanek, 2007). The utilitarian philosophy embedded within the pay for spray policy is akin to the "new public management" movement, where citizens are customers and the government is just another type of service provider.

While subscription fee systems have certain advantages - such as a conservation of fire department resources and a lower cost to the residents than property taxes - there are an overwhelming number of disadvantages. When homeowners forget to pay, or choose not to pay, they are endangering their safety. Another flaw in the subscription service model is the possibility of dispatch erring in directing units not put out a fire when the owner actually paid the fee. This would open up the possibility for lawsuits against the county. Different types of liabilities including criminal, strict, foreseeability and negligence can result in lawsuits against the fire department, the municipality, or the county as a whole (Cassidy, 1992). The current subscription provision must be changed because it is a threat to public safety. Something needs to be done to address this issue and it needs to be done quickly before more loss is incurred.

Evaluation Criteria

In evaluating the policy alternatives to the current subscription service for fire protection in Obion County, four criteria have been selected: political feasibility, financial feasibility, economic efficiency and quality of service. In general, a policy is feasible if it is capable of being done or being accomplished. Feasibility is likened to probability, likelihood and suitability. The criteria are discussed in further detail below.

- *Political feasibility* entails the extent to which officials, policymakers and the public are willing to accept and support a particular fire protection policy. This is arguably the most critical criterion because even if a policy appears to be feasible in all other aspects, it will not pass if it cannot garner support with the necessary votes.
- *Financial feasibility* examines whether a fire protection policy is viable after taking into consideration its total costs, such as the construction of new fire stations, the hiring of

personnel, the purchase of equipment and the size of the town, city or county budget. If the associated municipality can fund the costs of the policy in its budget or if it can be supplemented through other resources, then the policy is financially feasible. Financial feasibility is about minimizing risk and eliminating the chance of loss. Simply, can the town or county afford this? Sustainability is considered a sub criterion of financial feasibility in that the organization wants to know whether a policy will be financially feasible in the long run.

- *Economic efficiency* refers to the optimal allocation and use of resources that maximizes the public provision of fire services and minimizes waste. A fire protection policy is economically efficient if it calls for the purchase of resources and the management of personnel in a way that provides its services at the lowest possible cost to the municipality and its residents. One fire protection system is considered to be more efficient than another if it can provide more services for society without using more resources.
- *Quality of service* for local fire operations can be assessed by comparing performance to a standard performance level or benchmark. Benchmarks vary and can be based on comparable technical standards, historical data or specific organizational priorities. A standard performance level is average response time, which is composed of turnout time and travel time. The National Fire Protection Association (NFPA) has three known standards for response time: NFPA 1221, 1710 and 1720. NFPA 1221, the Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems, states that alarm handling and dispatch time should take 1 minute 95 percent of the time and applies to both career and volunteer operations. NFPA 1710 is the Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments. It states that “turnout time,” which involves the notification of alarm, suit up and the apparatus leaving the station should take 80 seconds. The first company on scene should arrive within 4 minutes. All companies assigned on first alarm should arrive within an 8-minute interval. Shorter response times can be expected in urban areas compared to rural areas because of the number of facilities - such as fire stations - within the community. Rural areas often have less access to facilities. This urban and rural difference must be considered when comparing response times across communities. The average distance traveled from a station to a rural fire scene in Obion County is 5.07 miles and the average time is 11.14 minutes (Town of Troy, 2008). The average residents per square mile ranges from 23 to 387 (see Table 3). Accordingly, Obion County currently abides by NFPA’s “Volunteer standard” 1720.

Table 1: Fire Response Times

Population Protected	Minimum Staff	Response Time (mins)
>1,000 people/mile ²	15	9
500 - 1,000 people/mile ²	10	10
<500 people/mile ²	6	14
Travel distance ≥ 8 miles	4	14

Note: NFPA 1720, the Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer Fire Departments, has no standard for turnout time but does implement these standards to estimate travel time (Flynn 2009).

Other Quality of Service variables may include the time taken to control the fire, time spent on scene, and the amount of training and certifications that responding firefighters possess. It is often assumed that a high percentage of responders who complete training and certification provide high-quality service. However, different departments require different levels of training. A department with a fully up-to-date training may not provide as high-quality service if it has fewer requirements for training. In order to limit the scope of this policy brief, Quality of Service will only refer to average response times.

Policy Alternatives

The following is a list of the thirteen alternative fire protection policies that are being proposed for consideration when searching for a solution to this imminent problem for the South Fulton Fire Department and the other seven departments within Obion County.

1. No change
2. Change the pricing model
3. Get insurance companies to price policies lower
4. Make fire insurance mandatory
5. Set up a "fire insurance" system
6. Create a new career department
7. Create a combination department
8. Create a new volunteer service with a small number of career positions
9. Create a new volunteer department
10. Create a countywide fire department
11. Implement a system of private fire service
12. Expand the territory of an existing department
13. Make purchase of fire protection service mandatory through property taxes

Policy alternatives three through five do not need be considered because they would require extensive participation from the state government, which is beyond the purview of Obion County alone. Homeowners insurance is not required by state law but rather by the mortgage holder or lender in order to protect the investment in a property. If a homeowner does not have a mortgage on their home, they are not required to obtain homeowners insurance.

Alternatives six through eight depend upon the size of the community, the values to be protected, and the number of fire calls to be answered. Larger cities require fully paid fire departments with permanent staff. Smaller communities, residential districts, and rural areas, however, often have fewer fire calls, and usually depend upon volunteer firefighters to completely staff their fire departments. Often times, these communities rely on a skeleton force of fully paid apparatus operators (Bond, 1942). Property taxes would have to be increased dramatically to fund the construction of a new fire station, the purchase of a new apparatus, equipment and supplies, and full-time salaries and benefits. On average, there are three apparatuses in each of the eight municipal fire departments in Obion County. Each apparatus costs about \$250,000 each. The cost to place three new apparatuses in this additional department alone would be at least \$750,000. Among each current department, there is an average of about 23 firefighters on staff who work rotating shifts (Town of Troy, 2008). Their salaries would need to be paid, as would the cost of required training and certifications. In addition to apparatus and personnel costs, the new department would need to be equipped with necessary items such as hoses, nozzles, tools, radios, Self-Controlled Breathing Apparatuses (SCBAs), and personal safety equipment, such as turnout gear. Given the size of Obion County and the population density, a new career or combination department would not be warranted. It must be noted that the current \$75 annual fee only supports a portion of the total cost.

A concern with the combination department would be whether the two groups would get along or if there be disagreements due to different interests at stake (Finley, 2002; Yacovino, 1999). There are often conflicting priorities between career and volunteer personnel (Cullinan,

2009). These conflicts can decrease teamwork and create inefficiency (Lyon, 2006). The departmental options discussed above will not work in Obion County due to funding. Even if a grant were secured to build the station, it would take more than that to sustain operations into the future. Now that six policy alternatives have been eliminated, the remaining seven are summarized in the following table with accompanying descriptions.

Table 2: Evaluation of Policy Alternatives

Policy Alternative	Political Feasibility	Financial Feasibility	Cost Effectiveness	Quality of Service
No change	No	Yes	No	No
Change the pricing model	Maybe	Yes	Yes	Yes
Create a new volunteer fire department	Maybe	Maybe	Yes	Yes
Create a countywide fire department	Maybe	Yes	Yes	Maybe
Implement a system of private fire service	Maybe	Maybe	Maybe	Maybe
Expand the territory of an existing department	Maybe	Yes	Yes	No
Make the purchase of fire suppression “mandatory” through property taxes	Maybe	Yes	Yes	Yes

No change

Keeping Obion County’s subscription service exactly the same does not solve the problem. Now that the subscription policy is being put to the test with two homes burning to the ground in the past year and a half, the media and the public are taking notice. The SFFD has received an onslaught of threats online and by telephone, and the chief was physically assaulted by one of the Cranick family members. The firefighters can endure the retaliation and public hostility to a certain point, but to be afraid to show up to work is unacceptable. If the firefighters fear for their lives with this policy in place, something needs to be done.

Firefighters are required to respond to a fire if a neighbor who has paid the subscription fee expresses concern that the fire will travel and put their property in danger. If the firefighters do not end up spraying a single drop of water, it still costs the department fuel, wear and tear on the apparatus, as well as time driving to the call. This is not an efficient use of fire department resources.

Change the Pricing Model

Another option would be for Obion County to keep its subscription system, but change its pricing model to something that looks more like its neighbor in Blount County, Tennessee. Blount also has a subscription service that charges an annual fee. However, their policy includes additional fees for non-subscribers. The damage from the Cranick and Bell fires would never occur in Blount because the firefighters serve non-subscribers and charge them afterwards. Homeowners can purchase a \$110 subscription annually to cover structure fires, car fires or other emergency situations firefighters would normally respond to throughout the year. For non-subscribers, the fire department charges \$2,200 for the first two hours firefighters are on scene, and \$1,100 for every additional hour (Daily Times, 2011). Fire Chief Doug McClanahan states that, “the department’s first priority is saving lives and property, whether a resident is a subscriber or not. The difference is that a subscriber, in the event of a fire, would be saving thousands of dollars. Having subscribers is a good thing, but to punish people to the point that

you don't do anything for them is wrong" (Daily Times, 2011). This pricing model has been extremely successful for Blount County and would be feasible for Obion. The two counties are similar in square mileage, population size, and rural conditions. There will be times when the full amount is not recovered, but that is the case with any type of collection. The residents who do not want to pay the annual nominal fee can choose to do so, but will pay a higher price if services are needed. Loyal subscribers will be rewarded by not having to pay the extra fees. If separate \$2,000 fees are a cumbersome idea for Obion, another way to change its pricing model is to keep the annual \$75 subscription fee, and add a clause to the policy that requires the homeowner to pay the full cost of extinguishing a fire if they do not to pay the annual fee. On the surface, this option may be attractive because the fire department could guarantee payment by collecting directly, or by billing the homeowner's insurance company. However, when homeowners do not have a mortgage, they are not required to have insurance and fire departments cannot bill non-existent insurance companies. The other option of directly collecting money presents a challenge in stretching valuable staff time and resources. Fire departments would have to add extra personnel to review costs, produce a bill and locate the homeowner. It is also possible that the homeowner will not be able to pay up front, and wasting time and resources chasing overdue bills. Ultimately, if the money is deemed uncollectible, the appropriate authority could place a lien on the house as is done with uncollected property taxes and zoning code fines (USFA, 2012).

Aside from the difficulties of collection, instituting this type of policy would take away any incentive of paying the \$75 annual fee. Why pay the fee if the fire department is guaranteed to put out the fire? In economics, this issue describes the free rider problem where someone consumes a resource without paying for it. The free riding issue describes why the SFFD stood by and watched two recent controversial fires. While many residents criticized firefighters for being cruel and heartless, the firefighters were instructed to do nothing by the city and county. The effective purpose was to send a message to non-subscription paying residents that free riding was unacceptable. Union City Fire Department Chief Kelly Edmison commented: "If they had tried to put it out, the chief would have been fired, the firefighters terminated, and there wouldn't have been anybody left to help fight fire for the majority of the rural residents in their area who do pay the annual fee" (Statter, 2010a). The disincentive to pay has the potential to take away the small amount of money that the fire departments are currently receiving from loyal subscribers.

Other funding alternatives range from small fees for special services to benefit assessments, which can pay for as much as 40 percent of the budget. There are also impact development fees in which private developers pay for all new fire stations and their associated apparatus and equipment costs. To motivate safe behaviors and achieve better compliance with codes, departments are using a variety of fees and citations for repeat inspections, false alarms, and code violations. Some fire departments are defining the basic services covered by taxes to include only a small house fire, and charge for "additional services" such as dealing with emergency medical service responses, hazardous materials incidents, extinguishing larger fires, standing by at events, pumping flooded basements, and providing other technical services. Some fire departments charge for fire suppression, knowing that household insurance policies often cover fees associated with fire protection (USFA, 2012).

Create a New Volunteer Service

A new volunteer fire department with an entirely unpaid staff would certainly reduce financial strain, but will also encounter issues with recruitment and retention (Cullinan, 2009). Most firefighters are passionate about what they do and have an intrinsic motivation to serve the public, but there is never a guarantee that the necessary number of volunteers will show on every call. After all, volunteer firefighters do not receive monetary compensation and are not contractually obligated to show up. Ultimately, they cannot be penalized or fired. While the County's \$75 fee is small, it should cover most of the training costs. The National Volunteer Fire Council estimates the cost of equipping and training a firefighter at \$27,095 (Sisson, 2010).

Other revenue options include fundraising and grants. Using the previous GIS map as a base, U.S. Census Bureau 2010 data and other data acquired from the Tennessee Spatial Data Server and Geo Community were utilized. A summary is provided in Table 3.

Table 3: Fire Department Population, Area & Population Densities

District	Fire Department	Population	Area (sq.mi.)	Pop. Density (pop./sq. mi.)
1	South Fulton FD	4,459	50.77	87.84
2	Union City FD	5,110	66.58	76.75
3	Rives FD & Kenton FD	4,245	145.08	29.26
4	None	4,891	12.66	386.33
5	Samburg FD & Hornbeak FD	4,342	186.19	23.32
6	Obion FD & Troy FD	4,507	82.05	54.93
7	None	4,253	12.18	349.17
	Total	31,807	555.51	

Note: Data adapted from the U.S. Census Bureau, the Tennessee Spatial Data Server and GeoCommunity.

The following geoprocessing techniques were utilized: “Buffering,” “Clipping,” a “Weighted Overlay” and “Cost Distance.” A constant 5.07-mile buffer was drawn around each of the existing fire departments to show how the average response distances covered the County. The “Weighted Overlay” and “Cost Distance” analysis tools were used because they answer questions related to attributes and the spatial relationships between existing populations and distances that did or did not have certain qualities to locate suitable sites (Ormsby et al., 2010). These tools provided an unexpected result: they determined that the location possessing the highest level of need for a new rural fire station is in the northeast portion of the County in District 4 as depicted by it being in the middle of the darkest shade of blue/green. See Figure 3.

The 386.33 people per square mile and distance meet the specified conditions in this area of Obion County where they overlap. District 4 has 4,891 people and an area of 12.66 square miles. Interestingly enough, this is one of the two districts that possess zero fire departments (refer back to Table 3); the other is District 7. By placing a new station in part of District 4, the County would be using its resources in the most efficient manner because it would be able to provide a higher quality of service by reducing the average response time of 11.14 minutes. At the same time, this new rural station would assist in improving Union City Fire Department and South Fulton Fire Departments’ operations by supplementing service. Placing a new station in this location has the potential to help better prevent fires in Obion County.

According to Sisson (2010), the Obion County volunteer departments feel the financial strain, and bake sales, fish fries and donation drives only go so far in meeting minimum operating expenses. One cost option involves a federal grant application to construct a new fire station. In 2009, President Barack Obama signed the American Recovery and Reinvestment Act (ARRA) Station Construction Grant (SCG). This act included an additional \$210 million in firefighter assistance grants for modifying, upgrading or constructing state and local fire stations, provided that five percent be allocated for program administration and no grant exceed \$15 million. ARRA SCG’s are administered once a year and there is no cost-share requirement. Eligible applicants are non-federal fire departments that provide fire protection services to local communities. DHS/FEMA received 6,025 SCG applications for \$9.9 billion in federal funds in 2009. As of June 2010, 112 SCG grants had been awarded, totaling \$200.8 million to fire departments within the United States (Kruger, 2010). Obion County could apply for such a grant to pay for the construction of a new volunteer fire station to service the rural unincorporated areas. If the grant was awarded, the county could incur zero up-front costs, but sustainability would be an issue. Over time, Obion County may not be able to fund the maintenance of this station and its equipment through subscription fees alone.

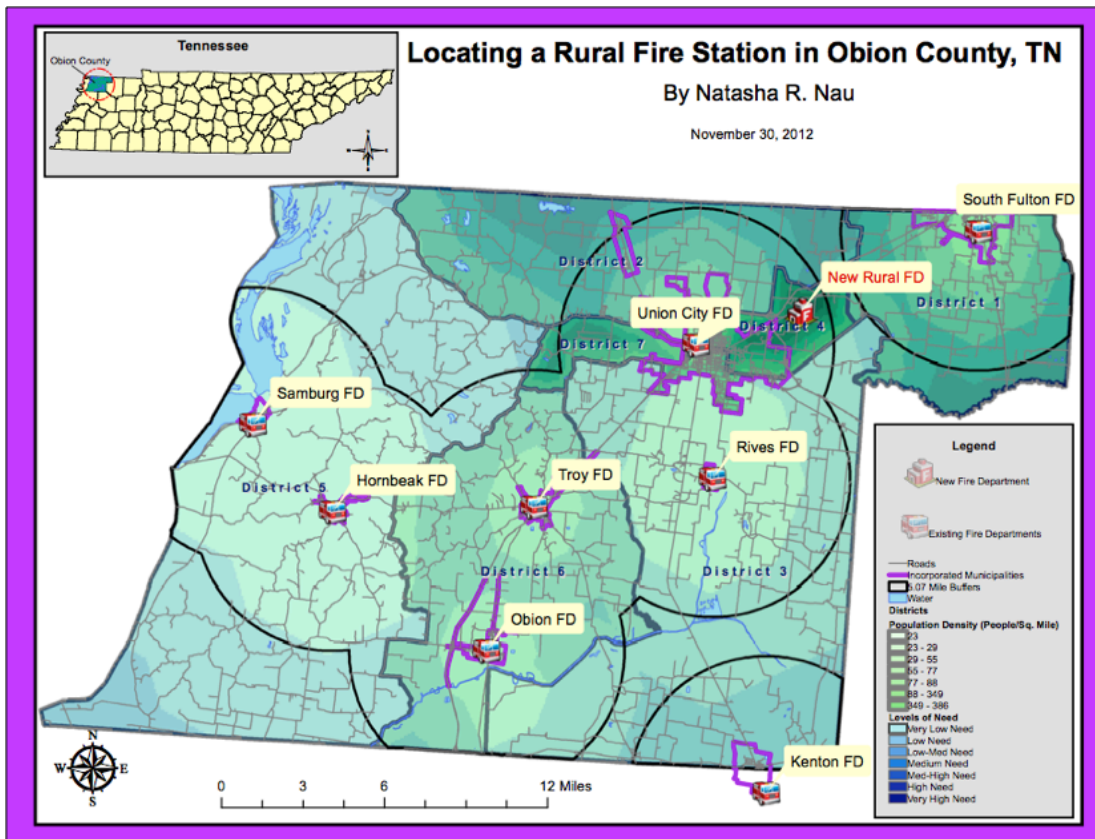


Figure 3: Locating a New Volunteer Fire Department

Create a Countywide Fire Department

Funding is a constant struggle in rural areas and fire chiefs are always attempting to find creative ways to solve this problem. In 1987, Richard Chestean created a comprehensive countywide plan that would give everyone in the county fire protection. The plan divided the county into fire districts and appointed a fire chief, but funding divided the leaders. The county commissioners at the time voted in full support of the fire district plan, but would not raise taxes to pay for a service offered for free by nearby cities. Chestean states, “they never paid because the firefighters came out anyway” (Murphy, 2010). Chestean’s plan was then stalled for 23 years and the debate on whether to tax or offer subscription service continued while houses burned to the ground.

The Town of Troy gave a presentation on adopting this same type of countywide policy in 2008, but nothing was done to follow up. The 2008 plan proposed using the resources of the current eight municipal departments at the onset, and constructing additional stations in the future as needed. This policy option requires departments to share resources in order to extend services to unincorporated areas. Moreover, the countywide plan has very few up-front costs and is an excellent example of doing more with less. The issue of sustainability, however, is a concern. If the optional subscription fees were kept in place, residents would receive guaranteed fire protection at a low cost, but political tensions may arise between a countywide department and municipal departments. By taking the steps to make the county fire department operational, Obion County could apply for grants such as the FEMA Assistance to Firefighters Grants (AFG) and Community Development Block Grants (CDBG), which could be a good source of funding (Town of Troy, 2008). While these types of grants can go to small, existing municipal

fire departments, it is more likely to be awarded to a start-up effort such as this that demonstrates great need.

Implement a System of Private Fire Service

Fire protection services in Obion County could be shifted to the private sector by providing it on a contractual basis. The use of private firefighters is longstanding practice in Arizona, where the Scottsdale-based Rural/Metro runs 37 fire stations. Rural/Metro is the second-largest fire department in the state. Established in the 1950s, the company employs 8,000 people in 24 states. Rural/Metro provides services to municipal, residential, commercial and industrial customers in about 400 communities. The company has also filled a niche by providing fire services in unincorporated areas that otherwise would not have been protected. Some service is provided to fire districts with taxing powers, but most is provided on a subscription basis to property owners. Rural/Metro Fire Chief Gary Morris states that "rates are typically below what it would cost for a fire district to offer the service." Subscription revenue is the primary means of funding. The other is a standard charge for service that is delivered to non-subscribers. "We don't say no; we just go," Morris said. "Dispatchers have no idea if a caller is a subscriber or not. We frequently go well outside service areas to assist on fire or medical emergencies." Morris said Rural/Metro prides itself on customizing service to communities as well as on its training (Stanek, 2007).

While private fire protection has been very successful in Arizona, instituting the practice in Obion County may be challenging. Municipal firefighters would lose jobs, and that would cause uproar from fire unions. Depending on the county's funding structure, private services may be more expensive or cheaper. The county would have to study this issue further. Last, Obion County does not regularly track and monitor their Level of Service (LOS). It would be difficult to predict how economically efficient private fire protection would be.

Expand the Territory of an Existing Service

Elected officials and local government leaders could expand the territory of an existing municipal department. Each of the eight departments cover a designated area that is demarcated by a preexisting boundary line. These areas could be widened to include unincorporated parts of the county. While expanding the boundaries would not entail the construction of a new station, it may affect the quality of services. For example, if a fire department's territory were to be expanded, firefighters would have travel longer distances to get to certain locations. Burning homes may be in jeopardy if firefighters cannot get to them quicker. One way to supplement an expansion is for departments to enter into an "automatic" or "mutual" aid agreement. This type of agreement is instituted for certain jurisdictions that take longer to reach. The department that is closer to that municipal boundary is dispatched to assist the other department (Rusboldt, 1998). This policy alternative facilitates coordination, and minimizes waste. Mutual aid agreements are set up in municipalities that have the resources to overlap services as a precaution.

Make Purchase of Fire Protection Service Mandatory through Property Taxes

Typically collected by local property taxes or through a "fire tax," mandatory fire protection is the most heavily utilized policy in the United States. Mandatory purchase of fire protection services would provide 100 percent coverage for all residents. Obion County's eight fire chiefs heavily support the tax and fee policy. As it was stated earlier, county commissioners voted 17 to 1 in October of 2010 to place a fire tax and fee referendum on the ballot in 2012. According to the Town of Troy (2008) report, property taxes would only need to be increased 0.13 of a cent on each household to generate the necessary funds. This would increase revenue by about \$546,000 for the county. The significant number of delinquent taxes, however, remain a concern. This issue may be addressed by placing a lien on a property until the taxes are paid (USFA 2012).

Mandatory payment through utility bills is another way for the county to collect revenue. In rural Alabama, fire departments partner with utility companies and include the fire fee within the monthly utility bill at a rate of about five dollars each month. Electricity, for example, is often

considered to be a necessity that is not “forgotten.” This policy option would take choice away from the residents to pay, or not pay, for fire protection. It would also reduce the stigma of a “separate fee.” By “hiding” the fee within a utility bill, some are concerned that a small percentage of people who would intentionally choose not to purchase electricity. Residents who cannot afford it may also be dissuaded from purchasing electricity.

Policy Recommendation

Of the seven policy alternatives evaluated, it is recommended that Obion County make the purchase of fire protection services mandatory through property taxes. Before the Cranick fire, Obion County fire chiefs submitted a proposal to implement a fire tax. Instead, the county went in the opposite direction and expanded the subscription service (Statter, 2011). For over four years, the eight fire chiefs have been trying to convince the county to implement a fire tax, similar to the system implemented in most U.S. most counties (Statter, 2010a).

Transforming the current pay for spray policy into a mandatory fire tax protects rural residents. A large proportion of the population has expressed an unwillingness to pay the subscription fee. If the county wants to avoid further scrutiny and possible litigation, it should take the choice out of the residents’ hands. All property owners are required to pay taxes by law. Therefore, including a fire fee within county taxes would better ensure payment and partially support the cost to deliver fire service.

As discussed previously, the subscription fee revenues do not actually support the cost of delivery. If the county decided to do away with the pay for spray policy and include fire protection services within taxes, the fee amount would have to be determined. Would the cost to residents increase, decrease, or remain at \$75? For this policy option to be politically acceptable, the county would probably want to keep the cost at \$75, but the fee is already low in comparison to other Tennessee counties. Blount, for instance, utilizes subscription services and charges \$110. According to Union City Fire Chief Edmison, if it was a tax and 100 percent of residents were compliant, the tax could probably be reduced to \$55 or \$60. It is not often that a politician has the opportunity to pass a tax: 70 percent of the population favors it, and it saves residents \$15 or \$20 per year (Statter, 2011). “The chiefs are not looking at the subscription program as the ‘goal.’ [It is] merely a step in what we hope will eventually ‘fix the problem,’” said Edmison (Statter, 2011).

California, a state renowned for wildfires, recently instituted a fire tax in August 2012 that would cover up to \$150 and protect rural areas. Homeowners already pay local fire districts for fire protection. Soon California residents will receive a \$35 reduction, which will bring the fee to \$115 per habitable structure. State fire officials estimate that 95 percent qualify for the reduction (Reddy, 2012). This fee, however, is controversial and has faced constant opposition from its inception. In justifying the fee, state officials point to the increase in the number of homes in rural areas, which also increases the cost of fighting fires in those areas (Reddy 2012). According to the State of California website (2012), the fee will “fund a variety of important prevention services [such as] brush clearance around communities [and] along roadways and evacuation routes.” The state website claims that these preventative measures “improve forest health so it can better withstand wildfire.”

Clearly, Obion County would incur a loss from the small percentage of residents who avoid paying the tax. However, fire departments would not be overburdened with extra paperwork if the fee were included within taxes either because enforcement would be the responsibility of the county government. With the exception of South Fulton, which collects its own fee, the county collects subscription fees for all other departments (Statter, 2011).

After speaking with Chief David Wilds at SFFD, it was discovered that county commissioners attempted to make fire protection mandatory by including it within taxes many years ago (personal communication, November 20, 2012). Farmers were vehemently opposed to the plan, and threatened to vote the commissioners out of office if the proposal went through. The commissioners wanted to get re-elected so they conceded to the farmer’s demands. Wilds

noted that the ordeal was humorous because farm properties are tax exempt, and would be unaffected by a mandatory fire tax in the first place (personal communication, November 20, 2012).

Fire can happen at any time, in any place, and to anyone. The next time a house catches fire in Obion County there could be more serious consequences than just property damage alone. In communities with firefighting subscription fees, fewer than 70 percent pay them (Daily Times, 2011). Obion County needs to make a change, and at this point something is better than nothing at all. The county has long ignored the local fire chiefs and their pleas to institute some type of fire tax (Statter, 2012).

Obion County recently made a drastic change to its pay for spray policy in April 2012, using alternative number three from this paper: it changed the pricing model. The new policy still provides for a subscription service, but those homeowners who are unwilling to pay the annual \$75 fee will be able to receive fire protection services. The firefighters now respond to all reported fires within the relevant fire department's jurisdiction, but bills non-subscribers \$3500 for the response (Statter, 2012). It is not a perfect system, but it is a step in the right direction. Firefighters must no longer watch a home burn because the owner did not pay the subscription fee.

County firefighters remain concerned over two related information-flow issues. First, it is almost impossible to know whether someone is trapped in a burning building, especially if a fire company does not respond to the scene. Second, the database of subscribers is imperfect. Town of Obion Fire Chief Jamie Evans said he is required to check the computer database before responding to a county fire. While he is not responsible for putting names in the database, Evans fears that under the new county contract, he would be responsible if someone is left out: "I can't edit it [...] I can't do anything but access and look at it, so I really don't think it should be my responsibility to take the blame" (Statter, 2012). According to the local television station, WPSD-TV, County officials told the fire chiefs that if there is a time that more than 70 percent of county residents became fire protection subscribers, a special election would be called to determine if there should be a fire tax. Although Chief Evans said it has reached that point, there is no word on a special election thus far (Statter 2012).

Two additional fires occurred within two weeks of one another around the time that the County changed its pricing model, and two homes burned to the ground. Each fire occurred prior to the implementation of the new policy. The first, on April 12, was located off Cemetery Road, due north of the Town of Obion. The homeowner did not pay the fee. Firefighters responded because the resident, a mother and her three children, were trapped inside (Hibbs, 2012). The second fire, on April 24, occurred on Highway 22, ten miles west of Union City. This residence, however, was "covered under the rural fire subscription program" (Bowden, 2012).

According to SFFD Fire Chief David Wilds, there is also an additional charge for subscribers with the policy change. Subscribers who pay the \$75 fee also have to pay \$750 for response. In Wilds' opinion, this was a smart move by the county, and he is pleased with the system thus far (personal communication, November 20, 2012). The selection of this policy alternative seems reasonable because it parallels other fees that are customarily assessed to property owners, such as school taxes, water and sewer fees and trash collection fees. When people do not pay these bills, the county or city assesses a tax lien on the property as a sanction until the fee is paid. It is probable that the two recent fires will serve as "focusing events" (Birkland, 1998) due to the outrage they have provoked at the national level. These focusing events not only change the dominant issues on the agenda in policy sense, but also lead to interest group mobilization in a political sense.

Conclusion

Stimulated by local budget pressures, fire and emergency medical service departments in the United States use a wide array of fundraising approaches beyond traditional methods. Subscription programs for fire protection have created controversy when departments refuse to extinguish fires in non-subscribing households. Communities that are considering subscription programs need to inform key constituencies about the planned rules to reduce misconceptions (USFA, 2012). Each agency providing fire-related services must consider the range of policy options based on local and state budgetary constraints. Funding influences the amount of resources available, and within the scope of prevention activities, influences life and death emergency responses (USFA, 2012).

Funding for protective services raises fundamental questions about equity and governance in general. Is it too dangerous to give homeowners the freedom to choose? Obion County decided to change the pricing model in mid-April 2012. This choice reflected a more libertarian sentiment than a paternal one. Libertarian-minded commissioners allow residents to choose subscription fire services. Paternalism, alternatively, emphasizes the control of public services, whenever it is beneficial to the community. This is the stance that should be adopted when making policy decisions regarding fire protection, and other emergency services for that matter. Many Americans do not feel the need to purchase health insurance when hospitals are required to treat patients. Subscription-based fire protection is similar. In Obion County, residents are under the misinterpretation that firefighters will come regardless of their subscription status. Unfortunately, as it was seen with the two fires in the County back in 2010, this is not the case. Despite the fires over the past two years, residents still choose to opt out of fire protection, and remain inclined to take the risk.

The county promised to call a special election if 70 percent of residents bought fire protection (Hibbs, 2012). Property taxes would not be raised significantly. In 2008, it was estimated that taxes would increase by 0.13 of cent on each household (Town of Troy, 2008) to generate the \$546,000 of necessary funding. This comes out to a total of about \$42 per household, or \$546,000/13,077 of occupied households, which is actually lower than current subscription fees. It is highly recommended that the County include the fire protection fee within local property taxes. As of 2012, 70.1 percent of county residents paid for the subscription fee. Fire chiefs are waiting to see if this issue makes it on the next ballot (Hibbs, 2012). The local fire chiefs have pushed for this change for many years. Commissioners should look past the political controversy and seriously consider including the costs of fire protection within property taxes for the safety of Obion County residents.

References

- Ahlbrandt Jr., R. (1973). *Municipal fire protection services: Comparison of alternative organizational forms*. Beverly Hills, CA: Sage Publications.
- Birkland, T. A. (1998). Focusing events, mobilization, and agenda setting. *Journal of Public Policy*, 18(1), 53-74.
- Bowden, K. (2012, April 25). Fire claims another home in rural Obion County. *The Messenger*
- Cassidy, K. (1992). Liability and fire prevention. *Fire safety and loss prevention* (pp. 101-122). Boston, MA: Butterworth-Heinemann.
- Cullinan, J. M. (2009). Combination or competition. *National Fire Academy*, Spotsylvania, VA.
- Finley Jr., P. J. (2002). Stress management in combination fire departments: Are we protecting our most valuable resource. *National Fire Academy*, Vineland, NJ.
- Flynn, J. D. (2009). Fire service performance measures. *National Fire Protection Association: Fire Analysis and Research Division*, Quincy, MA.
- Funding alternatives for fire and emergency services*. (2012). (No. FA-331). Washington, D.C.: Federal Emergency Management Agency.
- Hibbs, J. (2012, April 18). County policy puts blame for 'pay for spray' mistakes on firefighters. *WPSD 6*

- Kruger, L. G. (2010). *Assistance to firefighters program: Distribution of fire grant funding*. (No. RL32341). Washington, D.C.: Congressional Research Service.
- Lyon, T. B. (2006). Gig Harbor fire: Survival of a combination department in a rapidly growing community. *National Fire Academy*, Gig Harbor, WA.
- Murphy, J. K. (2010, October 12). Fire subscription services: A legal and moral conundrum. *Fire Engineering*
- National Association of Insurance Commissioners (2010). *A consumer's guide to home insurance*.
- Nau, N. (2012). *Using GIS to locate a fire department*. Unpublished manuscript.
- Obion County Fire Department. (2008). *The Obion County Fire Department: A presentation regarding the establishment and implementation of a countywide fire department*.
- Obion County home burns as firefighters watch. (2011, December 6). *Daily Times*
- Ormsby, T., Napoleon, E., Burke, R., Groessl, C., & Feaster, L. (2010). *Getting to know ArcGIS Desktop*. Redlands, CA: ESRI Press.
- Reddy, R. (2012, August 13). California starts sending out fire protection bills. *Sacramento Bee*, pp. 1B.
- Rusboldt, J. (1998). Change of fire protection delivery in the Manitowoc fire department. *National Fire Academy*, Manitowoc, WI.
- Sisson, C. K. (2010, October 20). Tennessee county expands its pay firefighting policy. *Time Magazine*
- Stanek, S. (2007, February 1). Private firefighters are popular in arizona. *The Heartland Institute*, State of California (2013). Fire prevention fee.
- Statter, D. (2010a, October 8). Another chief providing subscription service in Obion County TN writes to Statter911.com.
- Statter, D. (2010b, December 18). Update: Obion County, TN officials vote to expand subscription fire service after South Fulton controversy.
- Statter, D. (2011, December 9). Local fire chief gives update on Obion County TN 'Pay for Spray' policy.
- Statter, D. (2012, April 19). Making a bad situation worse. Obion County, TN wants firefighters to be on the hook if county makes mistake in the 'Pay for Spray' subscription list.
- U.S. Census Bureau. (2010a). *2010 demographic profile data: Obion County, TN*.
- U.S. Census Bureau. (2010b). *2006-2010 American Community Survey 5-year estimates*.
- U.S. Census Bureau. (2010c). *2010 census: Urban and rural universe: Total population*.
- Yacovino Jr., M. (1999). Recruiting and retention of volunteer firefighters. *National Fire Academy*, Canton, CT.