

Seton Hall University  
**eRepository @ Seton Hall**

---

Theses

---

1999

Volunteer Or Non-Volunteer? A Report On The Feasibility Of Converting The Volunteer West Orange First Aid Squad To A Non-Volunteer Fee-For-Service Organization

Christopher Koh

Follow this and additional works at: <https://scholarship.shu.edu/theses>

---

**Recommended Citation**

Koh, Christopher, "Volunteer Or Non-Volunteer? A Report On The Feasibility Of Converting The Volunteer West Orange First Aid Squad To A Non-Volunteer Fee-For-Service Organization" (1999). *Theses*. 93.  
<https://scholarship.shu.edu/theses/93>

**Volunteer  
Or  
Non-Volunteer?**

A Report on the Feasibility of Converting the  
Volunteer West Orange First Aid Squad to a  
Non-Volunteer Fee-For-Service Organization

Submitted to the  
Center For Public Service  
Master of Healthcare Administration Program  
Seton Hall University


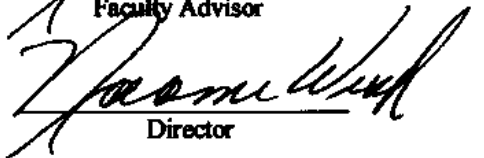
By

Christopher Koh

A Research Project Submitted in Partial Fulfillment  
of the Requirements for the Degree of  
Master of Healthcare Administration

Date: Dec 23, 1999

Date: Dec 23, 1999

Approved:   
Faculty Advisor  
  
Director

### Abstract

The purpose of this research was to explore the feasibility of converting the volunteer West Orange First Aid Squad to a non-volunteer first aid squad that charges for its services through third party billing. The author sought to answer three questions: (a) Is the current West Orange First Aid Squad operating budget cost efficient? Cost efficiency was determined with a comparison between the West Orange First Aid Squad and the Montclair Volunteer Ambulance Unit, a comparable emergency medical services unit. (b) Does the Township of West Orange proposed non-volunteer fee-for-service budget produce more cost savings than the current volunteer West Orange First Aid Squad budget? This was determined via comparison between the proposed non-volunteer fee-for-service budget and the current volunteer West Orange First Aid Squad budget. (c) What are the benefits of being a volunteer organization, and do these benefits outweigh a possible more cost effective non-volunteer emergency medical services unit?

Results of the analysis show that: (a) The current West Orange First Aid Squad budget as compared to the Montclair Volunteer Ambulance Unit budget is cost efficient, as there is only a 2% difference between budgets. (b) Results of the analysis of the cost effectiveness show that a conversion to a non-volunteer fee-for-service squad produces more cost savings. (c) However, because there are numerous benefits of being a volunteer organization, which I outline, I believe that these benefits outweigh the possible cost savings of a conversion to a non-volunteer squad. With a conversion to non-volunteer status, the first aid squad would be subject to many new federal and state regulations, in which it currently has immunity to, being a volunteer organization. Compliance with these regulations would be extremely costly to the township of West Orange and its first aid squad, as it will not only decrease proposed revenue, but would create a loss of membership to the first aid squad.

### Introduction

Emergency Medical Technicians (E.M.T.'s) have been 'front-line' personnel in pre-hospital medicine since the 1950's. They are the medical personnel that you see at car accidents, airplane accidents, the World Trade Center bombing, etc. They are also the people that come to your house when you dial 911 for medical emergencies such as chest pain, difficulty breathing, etc. To become an emergency medical technician, one must go through approximately six months of training and 120 classroom hours, and 48 continuing education units for re-certification every three years.

In the state of New Jersey, EMT's are the personnel that are found on the ambulances. Today, approximately 85% of all townships in New Jersey, provide free emergency medical services via volunteer ambulance squads, first aid squads, and rescue squads. The remaining 15% of the once volunteer squads have converted to the "hot" trend of becoming a non-volunteer squad that charges for its services via third party billing.

Within the past ten years, there has been a drastic decrease in volunteerism. Many believe that third party billing maybe the solution to the dwindling numbers of first aid squad members. With third party billing, revenue can be generated to hire personnel to "man" the ambulances that were once filled with volunteers. Yet, even though third party billing has become a "hot" topic, in recent years, many squads still have not converted. Third party billing has not been proven to be the "fool proof" plan to a struggling volunteer organization, as the rate of return is greatly dependent upon the demographic population. In addition, once the squad has converted to a non-volunteer status, it loses all the rights and privileges of being a volunteer organization, and if that organizations is to fail, it can not return to a volunteer status.

Currently, the township of West Orange, New Jersey, is investigating the possibilities of converting its volunteer first aid squad to a non-volunteer fee-for-service first aid squad. This status change would occur if the township decides to charge for ambulance runs. Under the New

Jersey Traffic Safety Act of 1987 and the National Highway Traffic Safety Act, a volunteer squad is defined as "a first aid, rescue and ambulance squad, which provides emergency medical services without receiving payment for those services." NJSA 27:5F-18. Thus, even though WOFAS is a separate incorporated entity from the Township of West Orange, the township would bill and receive payment for the squad's services, while the squad members would still be volunteering their time.

The membership of WOFAS is against the notion of billing for its services. Not only would this affect the volunteers with regards to liability, insurance coverage, and numerous other benefits of being a volunteer organization, but it mainly affects the township citizens. Township citizens, especially the elderly, would hesitate in dialing 9-1-1 when they know that they would receive a bill for the medical attention that they received. This would lead to more severe medical situations that could have been averted had they called for help earlier.

The objective of this research is to explore the feasibility of this possible conversion to a non-volunteer first aid squad and its possible effects on the membership and the township citizens. This research will be approached in three sections. First, the WOFAS annual budget was analyzed for cost efficiency. The WOFAS budget was compared with the budget of a similar squad, to determine if there are any large discrepancies that are hindering the WOFAS operation. Second, with the data obtained, the current volunteer WOFAS budget was analyzed with a proposed non-volunteer fee-for-service budget, to determine the possible cost savings should the township council decide to convert the WOFAS to a non-volunteer organization. Third, the non-financial differences and benefits were compared between volunteer squads and non-volunteer squads, as these state and federal regulations play a large role in the decision of whether or not an organization should convert to a non-volunteer organization.

### Literature Review

The definition of volunteer and non-volunteer first aid, rescue, and ambulance squad can be found in New Jersey Law is NJSA 27:5F-20 (New Jersey Highway Traffic Safety Act of 1987). NJSA 27:5f-20.f. states: "Volunteer first aid, rescue and ambulance squad" means a first aid, rescue and ambulance squad which provides emergency medical services without receiving payment for those services. NJSA 27:5f-20.g. describes a "Non-volunteer first aid, rescue and ambulance squad" as a first aid, rescue and ambulance squad which provides emergency medical services on a paid basis. If a squad begins to bill for its services, then under the law it will be considered a non-volunteer squad. In addition, under the law, once a squad starts billing, it can not go backward and be called a volunteer squad. Its decision is final.

Third party billing is defined as "any corporation, insurance company, public, private or governmental entity which is or may be liable in contract, tort, or otherwise, by law or equity to pay all or part of the first party's medical cost of injury, disease or disability"(Aberger, 1997, p.31). Once a non-volunteer squad begins third party billing, it forfeits a multitude of freedoms that a volunteer squad has. Under NJAC 8:40, "a fee-for-service squad is subject to all necessary licensing and regulations that govern non-volunteer squads." This includes the licensing of ambulances, inspection costs, and minimum insurance coverages that must be maintained. In addition, a non-volunteer squad becomes subject to the federal Occupational Safety and Health Administration (OSHA) regulations. Other benefits that would be lost as a result of becoming a non-volunteer squad would include loss of blue lights, death benefits for members, workers compensation, and Title 59 tort immunity which grants volunteers the right to act in good conscience without fear of personal liability.

As a non-volunteer ambulance squad that bills for its services through third party billing, pertinent issues of Medicare arise as, traditionally, the elderly receive most of the medical care given in the United States. Under federal law, "all citizens receiving services from a non-

volunteer squad must be billed the same rate and a good faith effort must be made to collect, even against people that have no insurance and cannot afford to pay themselves." Under the Medicare Billing schedule, which is out of the control of a non-volunteer squad, there is an unknown variable as to the amount of reimbursement for the squad's services. The same applies for no fault insurance policies, which set a base rate for ambulance transports, mileage and oxygen. As for Medicare reimbursement, if paramedics are required for their advanced life support capabilities, the paramedic bill will be paid and not the squad's, as they are both combined into one service.

With all this in mind, Abbey Duke (1998) has published in the Free Press, a Vermont study on the affect of the conversion of numerous squads from volunteer to non-volunteer that charges for their services. From the data accrued in 1998, there are 95 rescue squads in Vermont, which make 40,000-50,000 runs per year. Approximately 15%-20% of these Vermont squads have converted to non-volunteer status, which has shown to significantly improve overall service within the State of Vermont. As stated by Daniel Manz, director of Emergency Management Services for the Vermont Department of Health, "Vermont is one of the most difficult places in the United States to run an efficient ambulance service: Vermont is the most rural state in the country"(Duke, 1998, p. 2). Vermont ambulance services have an approximate response time of ten minutes, but Manz believes that this is a misperception as some response times may take anywhere from three minutes to 30 minutes before there is an arrival of an ambulance. He attributes this to not only staffing, but to the long distances between towns and the sparsely dispersed population. With the hiring of full time employees to staff ambulances, and the charging of services, there have been definite improvements in Vermont EMS. Non-volunteer squads have accrued income to not only pay their employees and hire additional employees, but they have been able to update to new equipment such as defibrillators which are systems used to give electrical shocks to someone in cardiac arrest.

The Vermont study has shown some benefits in billing for services, but these results may not be duplicated in New Jersey and at the West Orange First Aid Squad. As Vermont is predominantly rural, New Jersey has become an urbanized state: not only are towns heavily populated, but there is a steady increase in senior citizens that require nursing homes or assisted living establishments. This study did not elaborate on Medicare reimbursements and percentage of collectability, which is pertinent in the heavily populated state of New Jersey. In addition, the numbers of members on volunteer squads in Vermont averaged at 35, and calls per year per squad averaged at 648. For the West Orange First Aid Squad, one of the busiest squads in New Jersey, last year's numbers are as follows: members = 95, calls: approx. 4200. Therefore, even though this study is revealing in that billing for ambulance services can be successful, these results may not be applicable to New Jersey squads, especially The West Orange First Aid Squad.

In 1998, Robert Byham and Joseph Byham (1998) performed a study on how third party billing was successful for the township of Mount Holly, New Jersey. What was once the Mount Holly First Aid Squad was converted in 1995 to the America Emergency Squad, Inc., a fee for service EMS unit. They claimed to be a "hybrid" squad with 30 volunteers to run second "rig" calls and evening and night duty calls. Thus, they still are able to keep their non-profit 501(c) tax-exempt status. America Emergency Squad, Inc. hired four full-time employees that work at the squad twelve hours a day seven days a week. In this study, the Byham's can only praise the effects of third-party billing. They stated that America Emergency Squad, Inc. has an average rate of 45-65% rate of return. This means that with all the patients that are billed, only a 45-65% of the patients pay their bills. In 1996, they had 1,300 transports with a revenue of \$126,000. In this study, it was unknown if the \$126,000 revenue was gross revenue or net revenue. Even though they are a success with third party billing, they only had 1,300 transports in 1996.

In the above mentioned study, it is unknown if similar revenue can be generated with a call volume of approximately 4,500 calls. This is because an increase in the number of transports also requires an increase in personnel. There is also an increase in Medicare patients, and



increase in non-payment patients as well. In addition, an average 45-65% rate of return should not be sufficient enough to run a fee-for service non-volunteer squad. A 45-65% return which yields a revenue of \$126,000 is barely enough to purchase a new ambulance. Thus, it would be impossible to pay all employees, insurance fees, and maintenance, etc., on just a 45-65% rate of return.

In April of 1999, Galloway Township, in New Jersey was converted from a volunteer ambulance squad to a paid non-volunteer squad with paid personnel 24 hours a day-7 days a week (Hui, 1999). The Galloway Township plan was based on the Millville Township and Hammond Township plans. The Emergency Medical Technicians would be paid by billing patients, usually through insurance providers. In addition, the squad would ask residents for a tax-deductible subscription: \$25 for one person and \$50 for a family. This meant that subscribers requiring ambulance services would not be responsible for paying what is not covered by their insurance. For example, Medicare only pays 80% of the cost for an approved transport. Thus, the balance of the cost rests on the patient shoulders. Up to now, Galloway's Ambulance squad is barely breaking even. Galloway Township did not realize that the Medicare caps would prove to be such a problem. With an average EMS call in Galloway costing \$300, the Medicare in New Jersey has a base rate of only \$149, with patients responsible for 20%. As 2,000 of Galloway's annual calls are for senior citizens who are covered by Medicare, their reimbursement problem will continue for years to come. In addition, Galloway Township has had numerous problems in its ability to collect from "non-subscribers." As stated by Chris Gentile, president of the Connecticut-based Certified Ambulance Group, "squads are lucky if they collect 50% of their bills... squads should just hope to break even"(Hui, 1999, p. 3). Therefore, even though Galloway has gained the benefit of a faster response time with staffed ambulances, it is now facing extinction again, as it must now fight to get Medicare reimbursements and payment from non-subscribers. This study is more pertinent to the present study, as the West Orange First Aid Squad has a senior citizen call volume of 2,000-2,300 calls. Yet, it is unknown if their

"subscriber" program is effective and legal. As the law states, a "good faith" effort must be made in collection of the entire bill, without prejudice. Thus, even though this program may have its merits, it may not be legal, which must be explored further.

### Data Collection

This study was performed to determine the feasibility of converting the West Orange First Aid Squad, a volunteer emergency medical service unit, into a non-volunteer fee-for-service unit with third party billing. Data collection involved obtaining materials from published Medicare information regarding EMS service reimbursement and from the New Jersey State Department of Health regarding differences in laws and regulations dealing with volunteer and non-volunteer squads within New Jersey. In addition, various materials were obtained from New Jersey, non-New Jersey, and nationwide fee-for-service EMS units. These materials included operating procedures, revenues, and success rates of current fee-for-service squads.

Within the state of New Jersey, due to the relatively new trend of converting volunteer squads into fee-for-service squads, data could only be collected from a few fee-for-service squads. These squads included: 1. Galloway Township. 2. Mount Holly Township. 3. Monmouth/Ocean County EMS (MONOC). As for non-New Jersey squads, data regarding operations, revenue, and rate of return were obtained from Vermont EMS, and various paid fire department EMS units from various states. With regards to nationwide EMS corporations, data containing revenue and operating procedures were obtained from the four largest EMS providers in the nation: AMR, Rural Metro, and Adamo Medical Service.

As for the specific analysis of West Orange, data were collected from the township council, the West Orange First Aid Squad, the Montclair Volunteer Ambulance Unit, and a prospective third-party billing agency. From the township council, the 1998 annual revenue report was obtained with specificity towards contributions to WOFAS operations. From the West

Orange First Aid Squad, the expense summary (1995-98), the income summary (1995-98), and the operating budget financial summary (1995-98), were obtained for analysis. From the Montclair Volunteer Ambulance Unit (MVAU), a 1998 expense summary was obtained for comparison to WOFAS' expense summary. With regards to the prospective third party billing, CAG (Certified Ambulance Group) a collection agency that solely deals with third-party billing for ambulance services, furnished much data. CAG offered a proposal for a "revenue recovery program for volunteer and non-profit ambulance services." Within this program, financial projections were included based on the current standard operating procedures of the West Orange First Aid Squad.

#### Data Analysis

With regards to the information obtained from Medicare reports and the New Jersey State Department of Health, a comparison was performed regarding the distinct differences in operating procedures between volunteer and non-volunteer squads. This was deemed as necessary as each has benefits and hindrances with regards to providing pre-hospital care to patients. Even though these data are not numerical in nature for statistical analysis, they must be compared as they have great relevance to the daily operating procedure of the West Orange First Aid Squad.

Only the data that were obtained from fee-for-service squads with similarity to the West Orange First Aid Squad were analyzed. The squads that were analyzed were similar with regards to call volume, required personnel, and service capacity. In addition, items of revenue and rate of return were analyzed through the obtained sample, as they can be good predictors of anticipated revenue or lack there-of.

The Montclair Volunteer Ambulance Unit is a volunteer squad that operates in Montclair, N.J. The Township of Montclair borders West Orange to the south, and has similar demographics

and call volumes to that of the WOFAS. A comparison was performed between MVAU's 1998 expense summary and WOFAS' 1998 expense summary. This comparison was performed to ascertain the reliability of the WOFAS budget. This is important, as reliability and non-excessive budgeting is essential in calculating the feasibility and accuracy in comparing a volunteer WOFAS vs. a non-volunteer, fee-for-service WOFAS.

Finally, the specific expenditures obtained from the township of West Orange and the West Orange First Aid Squad were analyzed and compared with the: 1. The proposal provided by CAG, 2. Nationwide fee-for-service ambulance corporations, 3. Other New Jersey squads that have converted to fee-for-service squads. From these data, an annual revenue projection and comparison was performed with regards to the West Orange First Aid Squad billing for its services.

## Results

### Description Of The Sample

The township of West Orange, N.J., spans a 12.4 square mile area located in northeastern New Jersey. It's population is approximately 42,500 with a high population of senior citizens. In addition, West Orange has 10 assisted living/Nursing home facilities, 4 senior housing facilities, the well known Kessler Institute for Rehabilitation, and a 5 mile section of the extremely busy 280 Interstate highway.

The West Orange First Aid Squad (WOFAS) currently is a volunteer, 24 hours a day-7 days a week, in-house squad, that is run entirely by volunteers. WOFAS currently has 95 riding members, 7 administrative members, and 12 trustees. The township of West Orange has furnished 31 members of the squad with township owned "two-way pager radios," where members that are not in-house may respond to emergency calls should additional personnel be required. The squad has five vehicles which it runs, four of which are ambulances, and one pager

vehicle which is a 4X4 Chevrolet Suburban which is fully equipped with life saving equipment and personnel transport but does not have the capability for patient transport. The WOFAS owns all of the EMS equipment on all of the vehicles. Currently, the township owns three of the ambulances and the squad owns one ambulance and the pager vehicle.

My first task was to analyze the cost efficiency of the current West Orange First Aid Squad operating budget. A comparison was performed in efforts to measure the current expenditures of WOFAS to ascertain if its budget was excessive as compared to other New Jersey Squads with similar call volume. For this task, the Montclair Volunteer Ambulance Unit (MVAU) was selected. Montclair, N.J. is a neighboring town to West Orange, and is demographically very similar. MVAU has a similar EMS call volume to that of WOFAS, in 1998, MVAU had 4125 calls where WOFAS had 4175 calls. MVAU's operating procedure is very similar to that of WOFAS' except for one distinct difference. Due to lack of volunteerism in Montclair, MVAU has difficulty in outfitting its ambulance with EMT's during the daytime. Thus, as seen in chart 1, item 15, through MVAU's own budget, and not the township's, MVAU has hired two full-time day employees to work in conjunction with the volunteers to "man" its ambulances. The employees are hired on a 7am-7pm shift and have a benefit package as well.

In the expense comparison between MVAU and WOFAS, MVAU's overall budget was \$135,500 greater than that of WOFAS. This is attributed to the fact that MVAU has paid employees (chart 1 item 15). MVAU's paid employees cost \$140,000 annually. Thus, with the analysis between MVAU and WOFAS without the paid employee segment, the budgets become more similar and comparable.

Additional discrepancies between WOFAS and MVAU are that of vehicle expenses (item 5), office supplies (item 7), utilities and telephones (item 11), and vehicle maintenance (item 13). With regards to vehicle expenses (item 5) and vehicle maintenance (item 13), MVAU only has three ambulances, where WOFAS has four. Thus, the costs are less for MVAU in vehicle expenses because MVAU has one fewer ambulance to equip. Yet, MVAU spends an extra

\$4,800 in vehicle maintenance. This is because with only three ambulances, MVAU's ambulances experience more "wear and tear" with the excess usage and similar call volume as compared with WOFAS. MVAU's excess in office supplies (item 7) as compared to WOFAS are due to the required paperwork and supplies required by the state for paid employees. Finally, with regards to item 11, utilities and telephones, WOFAS spends an excess of \$7,200 as compared to MVAU. This can be attributed to two factors. First, the WOFAS building is twice as large as the MVAU building, hence the excess utilities. Second, the paid employees at MVAU are not allowed to make personal calls on the MVAU phone line. They are required to use their own personal calling cards. For the WOFAS members, they are allowed to make phone calls while they are the "in-house" on-duty crew, and it is deemed as a "member perk."

Thus, without MVAU's paid employees, the WOFAS annual expenditure is \$192,800.00 and MVAU's expenditure is \$188,300.00 (chart 1 item 17). When these two expenditures were compared, (without MVAU's paid employees) the WOFAS expenditure was greater by \$4,500.00 (item 18), which is a 2% difference in annual budgeting between the two squads, as shown on chart 1 item 19.

My second task was to determine if a fee-for-service non-volunteer squad produces more cost savings than the current volunteer West Orange First Aid Squad. The current WOFAS operating budget was compared with the township proposed budget of a conversion of the WOFAS to a non-volunteer squad that bills for its services via third party billing. From WOFAS, the income summaries (chart 2) and expense summaries (chart 3) were obtained from the years spanning from 1995-1998. From these data, a financial summary of operating budgets from 1995-1998, chart 4, was tabulated. The average WOFAS income, as seen in charts 2 and 4, is \$96,601.05 and the average expense, as seen in charts 3 and 4, is \$53,442.75, yielding an average net of \$40,158.30 (chart 4). One interesting note of the WOFAS income summary is that of the annual Mayerick donation (chart 2 item 1). The Mayerick family is a very prominent family that

resides in the township of West Orange. For the past ten years, they have donated \$40,000 annually to the WOFAS. Additional information was obtained from medicare, and various other paid EMS services, and the third party billing agency (CAG) regarding the costs and reimbursements for ambulance transports. Finally, anticipated non-volunteer expenses were obtained from the township of West Orange and other sources (see chart 5 footnotes). All obtained information was organized and tabulated to explore the revenue benefits of converting WOFAS to a non-volunteer, fee-for-service squad, as shown in chart 5. All large discrepancies between the volunteer budget and the proposed non-volunteer budget in chart 5 are explained in the chart 5 footnotes.

Financially, the WOFAS is funded about 65% by the township of West Orange and approximately 35% through voluntary contribution. The township provides liability coverage and workers compensation coverage. At present, the squad's expenses exceed its revenue by \$173,500.00 (chart 5, column A, item V). This excess is carried by the town through direct and in-kind contributions. Aside from the township, the squad's other source of revenue is approximately \$90,000.00 in annual donations, as shown in charts 3, 4, and chart 5, column A, item IV. Thus, with a non-volunteer billing WOFAS, it is estimated that the WOFAS would generate an estimated \$338,200.00 (chart 5, column B, item I total) in revenue and net revenue of -\$15,780.00 (chart 5, column B, item V). It is assumed that the squad's expenses would increase primarily because of increased costs associated with being non-volunteer (see chart 5 footnotes). Based on these projections, as shown in chart 5, a non-volunteer WOFAS would experience a cost savings of \$157,720.00 (chart 5, column B, item V).

**CHART 1**

**Comparison of West Orange and Montclair Operational Expenses**

1. Expenses		
2.		
3. Insurance	1,700.00	2,500.00
4. Training	5,000.00	3,000.00
5. Medical Supplies	19,000.00	20,000.00
6. Membership	1,000.00	750.00
7. Vehicle Expenses	10,000.00	7,500.00
8. Equipment	6,000.00	5,000.00
9. Office Supplies	2,000.00	6,000.00
10. Events	1,000.00	1,250.00
11. Uniforms and Equipment	6,000.00	4,500.00
12. Bank Fees	600.00	600.00
13. Utilities and Telephone	13,700.00	6,500.00
14. Insurance-Liability	19,600.00	18,700.00
15. Vehicle Maintenance	15,200.00	20,000.00
New Ambulance Purchase	92,000.00	92,000.00
16. Paid Employees & Benefits	0	140,000.00
17. <b>Total-Expenses</b>	<b>192,800.00</b>	<b>328,300.00</b>
18. Expenses without paid employees	192,800.00	188,300.00
Difference between MVAU and WOFAS		
19. without paid employees (MVAU)	4,500.00	
% difference in budget between MVAU and WOFAS	2%	



CHART 2

West Orange First Aid Squad
Income Summary 1995-1998

Year	Fund Drive	Other Contributions	Event Donations	Bank Reconciliations	NonProfit Donations	Old Equipment sell off
1998	27,448.00	19,409.00	588.00	245.00	3,624.00	750.00
1997	17,945.00	19,309.00	97.20	267.00	3,313.00	350.00
1996	19,760.00	28,271.00	-	-	2,007.00	-
1995	37,749.00	25,156.00	3,758.00	339.00	539.00	3,500.00
Average	25,725.50	23,036.25	1,105.80	212.75	2,370.75	1,150.00
(1) Mayerick Donation SUM						
1998	40,000.00	92,044.00				
1997	40,000.00	81,281.20				
1996	40,000.00	90,038.00				
1995	40,000.00	111,041.00				
Averages	40,000.00					
					Total Sum	374,404.20
					Total Ave.	83,601.05

CHART 3

West Orange First Aid Squad  
Expenses Summary 1995-1998

Year	Insurance	Training	Medical Supplies	Membership	Vehicle Expenses	Equipment	Office Supplies
1998	1,832.00	6,048.00	13,952.00	1,255.00	6,273.00	4,284.00	2,155.00
1997	1,843.00	4,700.00	14,805.00	1,023.00	5,152.00	7,253.00	2,010.00
1996	1,596.00	4,856.00	28,177.00	998.00	14,935.00	5,014.00	1,963.00
1995	1,926.00	4,589.00	20,116.00	902.00	12,580.00	9,268.00	1,944.00
Averages	1,749.75	5,048.25	19,237.50	1,044.50	9,735.00	6,454.75	2,018.00
Year	Events/Parades	Uniform/Equipment	Bank Fees	SUM			
1998	485.00	12,757.00	889.00	49,840.00			
1997	569.00	5,512.00	1,023.00	43,690.00			
1996	1,403.00	2,365.00	620.00	61,927.00			
1995	1,744.00	5,228.00	15.00	58,314.00			
Averages	1,052.75	6,485.50	636.75				

\* This data does not include the purchases of ambulances.

**CHART 4**

<b>West Orange First Aid Squad</b>
<b>Operating Budgets FINANCIAL SUMMARY 1995-1998</b>

Year	Annual Totals Income	Annual Totals Expense	Annual Net
1998	92,044.00	49,840.00	42,204.00
1997	81,281.20	43,690.00	37,591.20
1996	90,038.00	61,927.00	28,111.00
1995	111,041.00	58,314.00	52,727.00
Ave. Income	Ave. Expense	Ave. Net	
93,601.05	53,442.75	40,158.30	
Total Income	Total Expense	Total Net	
374,404.20	213,771.00	160,633.20	

\* This data does not include the purchase of ambulances.

**CHART 3**

Footnotes 1

**WOFAS Non-Volunteer**

**WOFAS Volunteer**

<b>I. Income</b>		
A. Medicare Transports		
1. Gross Transports (1500 X \$138.98)	208,470.00	2
2. Oxygen (1500 X \$33.63 X 55%)	27,745.00	3
3. Discount - 10%	(23,615.00)	4
Total Medicare Revenue	<u>212,600.00</u>	
B. Non-Medicare Transports		
1. Gross Transports (1500 X \$200)	300,000.00	5
2. Oxygen (1500 X \$50 X 55%)	41,200.00	6
3. Uncollectible - Assumed 50%	(170,600.00)	7
Total Non-Medicare Revenue	<u>170,600.00</u>	
<b>TOTAL - Medicare and Non-Medicare Revenue</b>	<u>383,200.00</u>	

**II. Expenses**

A. Insurance	1,700.00	8,9
B. Licensing and Inspections	0.00	9
C. Training	5,000.00	8,10
D. Medical Supplies	19,000.00	8
E. Membership	1,000.00	8,11
F. Vehicle Expenses	10,000.00	8
G. Equipment	6,000.00	8
H. Office Supplies	2,000.00	8,12
I. Events	1,000.00	8
J. Uniforms and Equipment	6,000.00	8,13
K. Bank Fees	600.00	8
L. Depreciation - Equipment	125,000.00	14
M. Depreciation - Building and Furnishings	37,700.00	15
N. Utilities and Telephone	13,700.00	8
O. Insurance-Liability	19,600.00	8,16

**Chart 5 (cont)**

**WOFAS Volunteer**

P. Vehicle Maintenance 15,200.00  
Q. Salary of Administrator 0.00  
R. Billing and Collection (15% X Total Revenue) 0.00

TOTAL - Expenses 263,500.00

(iii) Net Revenue Total Revenue less Total Expenses -263,500.00

(iv) Contributions 90,000.00

(v) Net Revenues after Contributions -173,500.00

Net cost savings as a Result of WOFAS becoming a Non-Volunteer Squad (Cost Savings)

**WOFAS Non-Volunteer**

15,200.00  
30,000.00  
57,480.00

423,980.00

-40,780.00

25,000.00

-15,780.00

157,720.00

### CHART 5 FOOTNOTES

#### Volunteer vs. Non-Volunteer

1. A volunteer first aid squad is one which does not charge for services. A non-volunteer first aid squad is one which provides medical services on a paid basis. NJSA 27:5F-20g.
2. Based upon information supplied by the WOFAS, they receive approximately 4,000 calls annually, resulting in 3,000 transports. Of the 3,000 transports the squad estimated that approximately 50% would qualify for Medicare reimbursement. The squad members stated that due to a change in status from volunteer vs. non-volunteer, the Medicare transports could decrease significantly. Nursing homes which do not receive timely responses from their contracted transportation provider often call the WOFAS for support. If the squad charges for its services, they may not call the squad for assistance as often. The reimbursement rate is the amount currently paid by Medicare per the WOFAS.
3. The reimbursement rate is the amount currently paid by Medicare per the WOFAS. WOFAS estimated that 55% of transports receive oxygen.
4. Due to increased scrutiny of medical necessity by Medicare, the WOFAS members believed that it was appropriate to claim a discount. Approximate reimbursement rate from private carriers per WOFAS.
5. WOFAS estimated that 55% of transports receive oxygen. Approximate reimbursement rate from private carriers.
6. Estimated per WOFAS.
7. Collection rates vary from community to community based upon residents and recipients insurance coverage. Estimated per WOFAS.
8. Estimated by the WOFAS based upon history of the squad's operating budget.

9. Increased licensing expenses anticipated due to NJAS 8:40.
10. Per the WOFAS 48 hours of continuing education units are needed every 3 years. Average cost per hour is deemed to cost \$16. A member of a volunteer squad generally is not required to pay for CEU, while non-volunteer squads must pay for education.
11. Awards and miscellaneous items.
12. Estimated increase in supplies such as forms, files, etc.
13. Per WOFAS, will be an increase in cost due to the necessity to comply with OSHA standards.
14. The squad currently has 4 ambulance which it replaces every four years.
15. Buildings and furnishings.
16. No increase in liability insurance was assumed. This should be investigated in greater detail before changing to a non-volunteer squad.
17. It is assumed that an employee will be needed to take care of the additional paperwork and filing that would be required from becoming a non-volunteer squad.

### Discussion

The purpose of this research is to compare the finances of the WOFAS as it is presently comprised with the estimated projections of the fee-for-service WOFAS. At present, the squad's expenses exceed its revenue by \$173,500.00 (as shown in chart 5, column A, item V). This financial burden is carried by the town through direct and inkind contributions. Aside from the township, the squad's other source of revenue is approximately \$90,000.00 in annual donations (chart 5, column A, item IV). Thus the volunteer squad operates on a yearly loss of \$83,500.00.

Based on the estimates generated from the data collected, which are detailed and explained in the chart 5 footnotes, a non-volunteer WOFAS would generate approximately \$383,200.00 in revenue (chart 5, column B, item I Total). The squad's expenses, however, would increase primarily because of the increased projections, a non-volunteer WOFAS would operate at a \$15,780.00 loss (chart 5, column B, item V). Thus, if donations remained the same, the township would save \$67,720.00.

Financially, the township would experience more cost savings from a non-volunteer fee-for-service first aid squad. However, question # 3 remains unanswered. By continuing as a volunteer first aid squad, the WOFAS will benefit from many financial and non-financial state and federal regulations that non-volunteer fee-for-service organization does not. Along with the financial cost savings, these factors must be taken into account, as they not only affect possible future revenues, but quality of care as well. These factors include the following:

#### Number of members

Presently, the WOFAS has about 95 members, approximately 25% of which are not West Orange residents who donate their time and services to this community. This number naturally fluctuates. The squad is concerned that as a result of the conversion to a non-volunteer status, membership may decrease. Thus, per members expenses such as training and equipment would



decrease from the before mentioned projections. However, the ability to adequately serve a busy township like West Orange would be affected by having fewer members.

#### **Office Supplies**

More research must be conducted into the minimum requirements necessary to conduct a Medicare/Medicaid billing operation. A computer system connection to a federal database may be required at a cost that is presently unknown. Additionally, there will no doubt be high costs, at least initially, for the necessary forms and other supplies, including postage, that will have to be acquired to carry out a billing operation.

#### **Salary of Administrator**

Although an estimate is given based on other fee-for-service squads, considering the responsibility and nature of this position, a higher compensation package may have to be considered.

#### **Billing and Collection**

The third party billing charge, estimated at 15%, is of course subject to fluctuation.

#### **Medicare Billing Schedule**

Another variable that is out of the control of the squad or the township of West Orange is the amount Medicare will reimburse for the squad for its services. The same applies for No Fault insurance policies, which set a base rate for ambulance transports, mileage and oxygen. If these rates decrease or remain level for long periods of time, the squad will be faced with a tougher financial situation. Should these rates increase regularly, revenue will increase.

#### **Rate of Return**

The research has projected a 15% non-collectible rate on Medicare transports and 50% non-collectible rate on all other transports. From the accumulated N.J. research alone, it is believed that 32% of all ambulance transports in New Jersey are unpaid. Naturally, this rate will vary in accordance with the demographics of the citizenry served by the squad. Given West

Orange's demographic composition, the township feels that its non-collection rate estimate is reasonable.

#### **Increased Downtime**

A non-volunteer squad has a great deal more paperwork than a volunteer squad. As a result, both the squad members or paid administration will spend more time dealing with these necessities. Members will be required to do more paperwork as well. For example, a non-volunteer WOFAS will not be permitted to leave St. Barnabas Medical Center without completing the necessary paperwork. This will prevent that EMS crew from immediately responding to other calls in West Orange.

#### **Loss of Donations**

There is a large concern that the conversion to a non-volunteer squad will significantly decrease the donations to the WOFAS. From the data collected, it is estimated that in the first year of operation as a non-volunteer squad, donations would decrease from \$90,000.00 to \$25,000.00. Both the township and the squad are concerned that donations may decrease.

Aside from the numerical data analyzed in this study, there exist distinct differences which yield specific benefits between a volunteer squad versus a non-volunteer squad. Even though these benefits can not be quantified, they must be taken into account. These qualities should be weighted equally when making the decision of whether or not to convert the WOFAS to a fee-for-service squad, as ignoring them can result in dire consequences which may decrease overall operations as well as the proposed revenue. These benefits include:

#### **Title 59 Tort Immunity**

Volunteer squads and their members currently enjoy the benefits of Title 59 tort immunity. Title 59 tort immunity grants volunteers the right to act in good faith without fear of liability. This is a great attraction for EMT's who want to help others, but have a family and/or can not afford a lawsuit from someone that they provided an emergency medical service to. Aside from the obvious legal benefit this provides, Title 59 immunity contributes to keep the cost

of liability insurance down. Also, this surely acts as an incentive to individual squad members who do not have to fear personal liability. It is unclear whether the loss of this immunity will drastically effect WOFAS liability premiums. There is an option that provides EMT malpractice insurance coverage for individual members at approximately \$200.00 per member per year. More investigation is needed in this regard.

The loss of immunity to individual members will subject these volunteers to a potential liability that may cause them to reconsider their membership status with the squad. A loss of members may result. Perhaps, if the squad became a separate department within the municipality, members would continue to be protected by tort immunity. This option, however, would have to be explored in greater detail and is not analyzed in the present study.

#### **N.J. State Licensing Requirements**

Another benefit that would be lost by converting to non-volunteer status is the exemption from NJ State licensing requirements. However, if the township is the licensee, the state waives much of these requirements, thus lowering the estimated \$6000 expense to about \$500 per year. As a fee-for-service squad, the WOFAS would be subject to N.J.A.C. 8:40, which sets forth all necessary licensing and regulations that govern non-volunteer squads. This includes licensing the ambulances, inspection costs and minimum insurance coverage that must be maintained. Although WOFAS has voluntarily complied with many of these requirements in an effort to provide optimum service, mandatory compliance would subject the squad to increased costs and monetary sanctions of \$500 dollars per day of non-compliance for any subsequent violations.

#### **OSHA Regulations**

Similarly, as a non-volunteer squad, the WOFAS would be subject to federal Occupational Safety and Health Administration (OSHA) regulations, their New Jersey equivalent and state Department of Labor standards. At present, the WOFAS members are not equipped and uniformed in accordance with some of the OSHA standards. If such compliance were required, squad members would obviously be better protected from the dangers inherent in their work, but

the financial costs would be significant. Compliance can be accomplished either by providing minimally required personnel protective equipment or by allocating a "uniform allowance" to each member. Although it may seem that this cost would only be significant in the first year, this is not so. As standards are raised, new equipment will have to be purchased and as old equipment becomes soiled or worn out, it must be replaced. As set forth in data in the results section, it is estimated that \$20,000.00 per year would be necessary to maintain compliant equipment. The initial "start-up" costs to reach compliance initially will be somewhat higher.

Another result of being subject to OSHA standards may be the loss of the WOFAS "Youth Squad," which is presently comprised of about 15 members under the age of 18 years old, and is a unique program within Essex county. If applicable, state laws may prohibit these members from certain duties. The township has recognized the significance of the youth squad and the education and scholarship opportunities it provides its members as well as the importance of the community and volunteer spirit it fosters.

#### **Mutual Aid Agreements**

An additional consideration is the state of West Orange's mutual aid agreements. Presently, WOFAS has these agreements with neighboring volunteer squads. Mutual aid agreements are understood agreements where one volunteer agency would aid and assist another volunteer agency should the need arise. Should WOFAS become a fee for service squad, these mutual aid agreements may become null and void as a matter of law and have to be renegotiated. It is not clear that neighboring volunteer squads would negotiate a mutual aid agreement with a fee for service squad.

#### **Loss of Blue Lights**

Members of volunteer fire departments and first aid squads may display warning lights on their vehicles and are entitled certain rights-of-way. "An active member in good standing of a volunteer fire department or a volunteer first aid or rescue squad recognized by and rendering service in any municipality may display on a motor vehicle owned by him or by a member of his

household an emergency warning light or lights as provided in this act”(NJSA 39:3-54.7). In addition, blue light permit cards (NJSA 39:3-54.11) and other drivers yielding right-of-way (NJSA 39:3-54.12) are limited to volunteer squads. Non-volunteer squad members are not included in this statute. In a township the size of West Orange, the ability to travel through traffic without these benefits has a serious negative impact on response time.

#### **The Good Samaritan Law**

The Good Samaritan statutes (NJSA2A:53A-12 through 31.1) protect individual volunteer first aid or rescue squad workers, and volunteer first aid or rescue squads, from civil liability arising from their acts or omissions occurring in an attempt to render emergency medical aid to ill or injured persons. This immunity is granted specifically to volunteer fire, first aid and rescue workers and their respective volunteer organizations.

#### **Leasing or transferring land to the squad**

N.J.S.A.40A:12-15 allows governmental subdivisions to lease or transfer land to first aid squads for 50 years. This law, however, does not qualify squads as volunteer or non-volunteer.

#### **Death Benefits for Members**

N.J.S.A. 43:12-28.1 states that a municipality may provide pension benefits to a widow or minor children of a first aid squad worker who dies in the line of duty. This law, however, specifically applies only to volunteer squads. The same holds true for N.J.S.A. 18A:71-77, which provides for scholarships for surviving children and spouses.

#### **Workers' Compensation**

The municipality will no longer be required to provide and pay for Workers' Compensation insurance if WOFAS becomes a non-volunteer squad.

#### **EMT Training funds**

The Emergency Medical Technician fund is a pool of money established for volunteer squads through collecting \$.50 from every moving violation in the state and distributing the money to EMS training facilities. This provides training to volunteer squad members free of

charge. The loss of this benefit accounts for the large increase in training costs on the projections included in the result section of this paper.

### **Fundraising**

Although this method of fundraising is not utilized by WOFAS, a non-volunteer squad would no longer be exempt from N.J.S.A. 5:8-51, the law which requires licenses for Legalized Games of Chance.

### **Conclusion**

In summary, the analysis of the possible conversion of the volunteer West Orange First Aid Squad to a non-volunteer fee-for-service squad has answered three questions. First, the current WOFAS operating budget is cost efficient, as compared with a similar squad with similar capacity. Second, through financial analysis alone, the township would experience a cost savings with a conversion of the WOFAS to a non-volunteer fee-for-service organization. Finally, I have outlined the benefits of remaining a volunteer organization, as these factors should be weighted equally with the possible financial cost savings stated in the second question.

The West Orange First Aid Squad has had a long history of providing competent and effective emergency medical services to the citizens of West Orange. The squad has been and continues to be active in the community and its individual members have always been important, respected, and involved members of the community. Additionally, many township citizens, especially the elderly enjoy the services of the WOFAS and have developed a good relationship with the squad and its members.

Aside from the possible savings, it is believed that the change to fee-for-services by WOFAS will cause concern to many citizens. Probably, the most concerned and most affected would be the elderly. It is believed that a consequence of billing may be a possible "chilling

effect" in that some residents might hesitate to call WOFAS knowing that they would receive a bill for the service. This could lead to more severe medical situations for such individuals.

The impact on the squad members themselves may also be serious. A large concern has been raised that squad members must be reassured that their concerns will be addressed, e.g. loss of tort immunity, increased equipment costs, increased paperwork hassle, loss of collegiality, remaining a semi-autonomous entity, etc. The township council is concerned that squad members would be less inclined to donate their time and efforts if the municipality charges for their services. This loss of morale and manpower would have a serious impact on the squad's operations and the community's image of the squad, which has always been positive. In fact, on July 29, 1999, the township council met with approximately 35-40 WOFAS members to discuss the possible effects of a fee-for-service squad. The members expressed their great satisfaction, pride and non-monetary rewards from providing volunteer medical services to the community. The members stated that they would not derive the same personal benefits and rewards of providing these services from volunteering for a fee for service entity that would bill the West Orange community. In a straw poll taken that night, the members present unanimously indicated that they would not volunteer their services to a fee-for-service WOFAS.

On the other hand, the conversion to a non-volunteer status may result in an estimated cost savings of \$157,720.00. This represents a significant savings to the township. Although more research must be done to ensure the accuracy of this figure, it is good starting point for the Township Council to begin its deliberation of this issue.

It is my recommendation that the West Orange First Aid Squad remain as it currently exists, a free volunteer emergency medical service. Even though there is a savings that may benefit the township, I feel that the benefits of a volunteer organization outweigh the possible cost savings. The current annual Township of West Orange budget is approximately \$65 million dollars. When compared with \$65 million, a cost savings of \$157,720.00 does not seem significant enough to warrant a change in volunteer status. The conversion to a non-volunteer

squad may not only sacrifice the health of the elderly, as they have concerns of cost, but the quality of patient care as well. This includes response time, down time at hospitals, and loss of membership and numerous other facets mentioned earlier. Since patient care and quality of care are the primary goals in EMS, West Orange should not convert to a non-volunteer fee-for-service organization, as this conversion will jeopardize these primary goals.



### References

1. Aberger, J. (1997). The high price of third party billing. The Gold Cross – The Magazine of the New Jersey State First Aid Council, Inc., 68(3), 30-39.
2. Besemer, C. (1994, December). Managed care and the pace of growth of managed care is picking up, and EMS. Emergency, 28-33.
3. Bourn, S. (1996, July). Rough road ahead. Journal of Emergency Medical Services, 80-82.
4. Byham, J., & Byham, R. (1998, April 13). Third party billing works for Mount Holly. New Jersey Municipalities, 20-29.
5. CAG Associates, Inc. (1999). A Proposal Prepared for the West Orange First Aid Squad, Inc. Wethersfield, CT: Author.
6. CAG Associates, Inc. (1991, May 15). Volunteer ambulance service is not free. The Aesculapen Messenger, 10-15.
7. Cohen, H. (1997, November). Is this trip covered? Emergency Medical Services, 21-22.
8. Delroy, J. (1994, Nov/Dec). Kentucky volunteers charge for service. Rescue, 13.
9. Duke, A. (1998, Sept. 28). Rescue squads charging fees. The Vermont Free Press, 1-5.
10. Garza, M. (1995, April). Ambulance service Medicare cuts planned. Journal of Emergency Medical Services, 19-25.
11. Garza, M. (1999, June). Cities sued for EMS Medicare fraud. Journal of Emergency Medical Services, 21-24.
12. Garza, M. (1995, Oct.). Congress may require emergency care reimbursement. Journal of Emergency Medical Services, 18.
13. Hui, T.K. (1999, Feb 8). Ambulance rides could be followed by a bill. Atlantic City Press, 2-5.
14. Jansen, R.A. (1992, June 29). An ambulance fee is justified. The Hartford Courant, 113.
15. Ludwing, G. (1998, Nov/Dec). Privatization in the EMS industry. 9-1-1 Magazine, 113.
16. Manz, D. (1998). To bill or not to bill – Vermont Department of Health. Vermont EMS Today, 3-6.
17. Montclair Volunteer Ambulance Unit. (1999, February). 1998 Budget and Expenditures. Montclair, N.J.: Author.
18. Spivak, M. (1998, October). Legislatng EMS “EMS efficiency act of 1998” Aims to improve prehospital services. Emergency Medical Services, 20-22.

19. Township of West Orange. (1999). [Conversion of the WOFAS to a fee-for-service non-volunteer organization]. Unpublished raw data.
20. U.S. Department of Labor. (1987). Volunteers – Rules and regulations. (Federal Register publication Vol. 52 No. 11, part 2). Washington, D.C.: U.S. Government Printing Office.
21. West Orange First Aid Squad, Inc. (1999, February). 1998 Budget and Expenditures. West Orange, N.J.: Author.