

# Middleboro Ambulance Service Cost Analysis

Submitted by: Rich Pavadore

**PRELIMINARY**

## ***Town of Middleborough, Ambulance Service-Private vs. Public Financial Analysis and Comparison***

*This review was written by Rich Pavadore and has not been approved by the Finance Committee*

*Two options are reviewed in this analysis;*

1. Town financed Ambulance Service through the Fire Department including the funding of a three year Federal SAFER Grant with a maximum amount of \$ 2,196,915.00.
2. Private Ambulance Service through the current contract with Brewster Ambulance Service.

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### **1. Introduction:**

This report is provided to the Town of Middleboro from Rich Pavadore of the Finance Committee as requested by the Board of Selectmen. The information herein is to compare the financial differences (revenues vs. costs) between operating a town run ambulance service within the Fire Department budget and using an outside service operated by Brewster Ambulance Service currently under contract to begin July 1, 2011. The analysis includes the assumption that we accept a three year federal SAFER grant with a maximum value of \$2,196,915.00 that would provide temporary financial assistance for the first two years of service.

In the relatively short time I had to put together this report, I understand that there may be some errors, omissions or differences of opinion. The grant was submitted in the fall of 2010 but the Finance Committee was only made aware of it in late May of this year. We attempted to reach out to all of the proper authorities that could support this effort in an attempt to get the most accurate and up to date information. This includes information supplied to us by the current ambulance provider, AMR, Town Treasurer/Collector, Town Assessor, other members of our committee and many other surrounding towns with this service. I thank them all for their inputs.

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## 2. Summary of Report

- Estimated Salary and annual benefits for 16 hires is \$1.1M in FY2012.
- Estimated Annual Costs for a town Run ambulance is ≈ \$ 1.5M in FY2012
- Estimated Revenues expected from an ambulance service are in the \$600K -900K depending on the source of information.
- Resultant annual cost to town can vary between \$600K and \$900K.
- Surrounding towns average a cost per transport of \$ 440.00. Based on this number and 1460 transports, the gross revenue to the Town would be \$640,940.00.
- Our current provider, AMR quoted us an average per transport cost of \$743.00. Based on this number and 1460 transports, the gross revenue to the Town would be \$1.08M. They also mentioned that they provided more ambulances as needed (6-7) which may have contributed to the higher revenue. No other surrounding town exceeded \$510.00/ transport. (Whitman, MA)
- Reducing the number of hires to decrease spending does not have significant financial impact due to less up front grant funding and loss of ambulance revenues.
- Current Brewster Contract will cost the town \$155,000 per year for the next three years. (\$525k - ≈ \$60K in personal property, real estate and excise taxes.
- Brewster will be housing 1 additional ALS truck and 4 additional BLS ambulances at their new Wareham Street facility. As the retail work grows so will the number of additional resources at that location.
- Any special or sporting event coverage would be an additional ambulance not one from the town
- Brewster estimated in their business model an average per transport receipt in Middleboro for 911 calls to be \$500.00 when combining actual payments, % reimbursements, and actual number of transports. Resultant annual revenue is calculated at \$730,000.00.
- The Grant states the Finance Committee supports the Town run ambulance service. In 2008, the Finance Committee sent a letter to the Board of Selectmen unanimously opposing this change. We have always understood it to have higher year end costs than a private run service.
- The Finance Committee was never consulted, or made aware of this grant request submitted in the fall of 2010 until the receipt of it was made public in May of this year.

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## 3. Summary of Grant Award.

- Amount of Grant: \$ 2,196,915.00 (August 2011 – August, 2013. \$1,098,457 / year of which \$844,967 / year is for actual salaries and \$253,491 is for allowable benefit packages. There is also a third year requirement that Middleboro must maintain this same staffing level in the Fire department which means we must fund a minimum additional cost of \$ 1,098,457 as well as not decrease funding from its current levels. The actual 3<sup>rd</sup> year costs with contractual increases amounts to \$ 1,148,132.00.
- The grant allows for an increase of 10 new hire firefighters and 6 rehires (which are basically also new hires which may result in higher costs depending on their qualifications and rank. Total number of new hires is thus 16 however the grant limits the actual number of new hires to be based on the contractual dollar amount, not the number of hires. Using the grant award payroll results in salary levels of \$52,810 per new employee plus \$15,843.00 for entire benefit package if we hire 16 people. This is far less than the current average salary for a Town Firefighter based on the FY2012 budget. ( $\$1,479,351 / 22 = \$67,243.00$ )
- The stated purpose of the grant is to improve incident scene safety for fire department personnel and citizens. There is an emphasis on increasing or improving volunteer departments as well as recruitment and retention of firefighters. The grant also attempts to train more people in the geographic area for fire protection services and volunteer firefighters and departments are encouraged to expand. The goal is to help communities meet the NFPA and OSHA safety standards by providing financial support for additional firefighters. There is no mention of adding an ambulance service which would /could reduce the safety of fire dept employees.
- In paragraph B5 on page 17 of the grant application, it states that Ambulance services, EMS, rescue squads, and dive teams are NOT eligible to apply for this grant. It is to improve safety standards of fire departments and communities. It is unclear If hiring 16 people and starting a new service would actually improve the safety standards of the Fire Department within the same financial boundaries it currently has.

## 4. Financial Effects of a Town Run Ambulance Service

- As in most operations, labor costs are the single highest cost of providing the service. When you compare municipal labor costs to that of the private sector, the cost is substantially higher resulting in either higher cost of services, or reduced coverage.
- The Average salary cost for the Middleboro Fire department personnel is \$79,000.00 (Based on FY2012 data). Removing chiefs, captains and Lieutenants, (which we cannot do) the number drops to \$67,000.00.
- If the Fire Chief determines that a deputy chief or higher ranking members are required to support the new firefighters, there could be an additional cost of \$71,000.00 salary plus 30% benefits totaling \$92,300.00.

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- The grant includes an annual increase of 3% for both salary and benefits. Benefit packages typically increase annually by 10% resulting in a 2<sup>nd</sup> and third year cost increase of \$17,481.00 and \$18,000.00 which would have to be found outside of the grant money.
- These salary figures do not include benefit packages, retirement pensions or other post employment benefits, (OPEB) which are located in other areas of the Towns budget. Mandatory contractual salary increases would outpace the State, Medicare and insurance controlled costs for ambulatory services. The increases would result in a negative revenue to expense curve over time.
- Based on the Matrix Report, the Fire Department has a personnel “leave rate” of 75%. This means that for hiring of 16 employees, we get the benefit of 12 or to get the benefit of 16 employees, we need to hire 21 employees. The Matrix report specified an annual salary requirement of ≈ \$1.1M to support an ambulance service of 17 additional personnel. Based on these 2008 numbers, the current value of this service using the stated 3% annual increase is \$1.24M. Adding 30% benefit allowance brings the new total to \$1.6M. This number is in line with (although even higher) than those provided elsewhere in this report.
- Monthly Cost to town for Employee Health Insurance Benefit plan: these are not included in the Fire department operating budget but are costs that must be absorbed by the town.
  - Family plan HMO: \$ 1219.21; Retiree, Family Plan HMO: \$1219.21; Single plan HMO: \$ 465.33
  - Retirement Cost increases over the last 5 years (FY2007 –FY20120 averages 8.9% per year or a total increase of \$1,260,910 since FY2007. These costs must also be added to the expense side of a town run service. The current OPEB liability for Middleboro is \$91M.
- The grant application submitted states in the narrative on page 21 that a similar Town run ambulance service as requested for Middleboro, (BLS to ALS upgrade with ambulatory transports) was enacted in Randolph, MA and required a proposition 2 ½ override to maintain the service. According to the Grant, our Fire Chief was instrumental in the moving the override to support the ambulance service. This town has a history of not passing overrides and there is no reason to believe any over expense in this area would provide reason to pass an override.
- This change would make the Fire Department the largest General Government department at 30% of the total. Combining the necessity of emergency ambulance services, in conjunction with the responsibilities of a fire department, and with the complex personnel contracts, this budget could very quickly cut into other departments operating budgets should revenues not come in as expected OR if operating costs increase. It would further reduce the limited budgetary flexibility we currently have within general government.

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- The Finance Committees history and past opinion on temporary labor grants that require a town funded mandate following the grant, has shown to cause a hardship on the towns services since it requires money to be allocated that we did not have in the first place. The grant may benefit the individual department but is at the expense of others which do not always benefit the town as a whole. If the town must subsidize the ambulance service budget, the additional monies must come from other areas of general government budget in order to maintain a mandatory balanced budget. The overruns outlined in this proposal could exceed the entire budgets of some of the smaller departments such as the COA, Library or Park Departments.
- Once this type of service is enacted, it would be very difficult to ever review the cost/benefit analysis of private vs public operation in the future due to the complexity of contractual obligations and the nature of a government run department. If it eventually becomes a financial burden on the town, it is politically difficult to revert this service to a private ambulance contractor once enacted.
- The lack of volunteer and on-call firefighters due to contractual requirements that limit the pay of these potential services to such unrealistic low numbers that it is almost impossible to attract candidates to apply. I believe that changing the regulations regarding the training, hiring and use of volunteer/ on call firefighters in a large area town may improve services at a more efficient cost.

## **2. Separate Private Ambulance Service - Brewster.**

- The average salary for an employee at Brewster is \$67,300 (assuming \$25.00/hour at 40 hours per week plus 8 hours overtime).
- Brewster Ambulance Service has estimated an annual loss in our town due to emergency 911 ambulatory services of \$400,000.00. This loss is offset by their ability to offer non-emergency area services such as hospital to hospital transfers, and services to other towns with a locally controlled facility. (similar to the current AMR contract.) A town run ambulance service does not have the ability to provide these additional revenue enhancing services.
- Our current year contract with Brewster costs is \$150,000. (\$525,000 3 years) Within this contract they will provide other ancillary services to our citizens as well as provide other town wide benefits. Some of these are listed here;
  - Providing CPR classes for residents.
  - Training of personnel at no expense to the town.
  - Preferred hiring of Middleboro residents (10 people already hired).
  - Purchasing and renovating a Middleboro building for a local ambulance facility, and providing our town services as needed. The estimated cost of this building is \$250K purchase price with an additional \$100K planned renovations. No expense to the town. Total tax revenue coming back into Middleboro from this facility is estimated at \$20,000 per year. This income effectively reduces the ambulance contract to our town as well as establishes an educated and solid local business that requires minimal town services.
  - Two town ambulances at all times with a new Wareham street location with housing at least 1 additional ALS truck and 4 additional BLS ambulances.
  - They will provide special event/ sporting coverage with an additional ambulance, not one from the town

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- The contract calls for a full time ambulance located at our fire Station along with a second, or third, or fourth, ambulance as a continual backup should these be called away.
- Brewster emergency response ambulances will have two paramedics on board as opposed to one paramedic and one EMT which is sometimes used by town run departments depending on availability of personnel.
- Brewster has already hired 10 Middleboro residents to work at this facility with Middleboro residents given the priority for all hires. If our town chooses to end this contract, it is possible that Brewster would move to a location that better suits their needs which may not be Middleboro.

### 3. Other Background Information:

- Simultaneous emergencies:
  - For larger emergencies or simultaneous situations, a private ambulance service would be much better equipped to call in more ambulances and personnel to assist our Fire department for emergency care and multiple transports as needed.
  - During a fire response situation, where most of our department is responding, if a medical emergency, 911 call comes in, there would be a need for either calling in an outside service in which case we lose the revenue or call in additional personnel at overtime rates which would negate the effect of the transport. Using the same personnel for fire and ambulatory care could become critical if a fire emergency and ambulance emergency are simultaneously required.
  - Do we IMPROVE our fire services if we hire 16 extra people who now must not only provide essential fire protection services but must also be responsible for 100% of all 911 emergency ambulatory care which currently exceed 1600 per year, (4.4/ day) ? The grant specifies that the funding must be used to IMPROVE FIRE safety for personnel, property and citizens.
- The SAFER grant states (page 21) that the Middleboro Finance Committee, EMS Committee and Matrix Consulting Group, all “vehemently endorsed this endeavor”.
- The Finance Committee voted on this change on December 8<sup>th</sup>, 2008 and voted unanimously against a town run ambulance service. In addition, during the numerous discussions at various meetings, the sentiment expressed by various members of our committee continued to indicate that a town run service would be more costly to the town than a private run ambulance contract. This information is in direct contrast with the grant statement.
- The Matrix Report is based on the opening of a multi-million dollar casino and its associated revenues and services that would fall unto the town. It does not specifically endorse a Town run ambulance service and indicates at best it would operate at a \$400,000 loss. The cost to run an ambulance service (without a casino) is over \$1,000,000 in 2008 dollars with the anticipated annual revenues \$422,000. The Matrix report states that in 2008 dollars the marginal operating costs to provide a town run ambulance service are \$811,552.00. Increasing this cost at 5% per year (salaries plus benefits) brings the additional cost to the town in FY2012 dollars to \$986,446.00.

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- The SAFER Grant specifies that Middleboro has a 17% drop in staffing since 2008. (paragraph 3, page 18.) This staff reduction is in contrast with increased average annual personnel budgets from FY2003 to FY2012 averaging a 2.8% per year. (REF: ≈ \$1.88M in 2003 to \$2.37M in 2012). FY2008 – FY2012 the average annual personnel increase was 1.5% per year. (REF: ≈ \$2.24M in 2008 to \$2.37M in 2012). Reviewing this budget from FY2003 to the present, the Fire Department personnel budget showed decreases in the years, 2008, 2009, and 2012. All other years represented increases for this ledger. This contrast shows that budget increases in proportion to state mandated proposition 2 ½ may not be adequate to sustain a larger department.
- The current Mutual aid between Middleboro and other towns is as follows based on the grant application submitted;
  - Middleboro receives Mutual Aid: 43
  - Middleboro responds to Mutual Aid: 25

Adding an ambulance service could result in further reliability from other towns if multiple EMS calls come in simultaneously with a fire response.

- The Town of Plymouth, Ma, has a larger land area (133 square miles) and roughly double the number of residents (≈ 50,000) as Middleboro. In addition, to support EMS transport revenue, they also have a local hospital. Having a local hospital gives the benefit of faster turn-around times for ambulance transports resulting in the possibility of higher volumes of transports and thus increased revenues. Plymouth currently uses a private ambulance service (I believe AMR) to provide their citizens with this service.

## 4. Surrounding Towns and AMR

Other towns are currently feeling budget issues with regards to lost revenues, aging equipment, or budget problems. Below are a few recent examples from the news. Based on these numbers, the average received revenue per transport is \$439.00. The grant states an estimated number of transports to be 1460 which would realize total revenues of \$642,000.00.

- Current AMR Contract:
  - Mr. Ian Bryant of AMR states that the current ambulance service in Middleboro averages 1750 EMS transports per year and collects a variable amount of revenue between \$1.1 -1.6M. Using the average of \$1.3M, this equates to a per transport revenue of \$743.00. This revenue is higher than any town we researched which may be due to the private business capabilities. The contract calls for “unlimited ambulance” coverage which means they maintain a minimum of 2 ambulances in town at all times and continue sending additional ones as needed until they run out of ambulances in their facility. They have at times sent 5-6 ambulances to support Middleboro. I believe having the additional equipment and services allows AMR to respond to more calls, and maximize revenues that a two-truck operation would not be able to do.

Since this is the sole business of AMR, providing maximum service within their capability is essential and cost effective. We have not had the time to audit the actual income received by AMR from actual 911, Middleboro transports to verify these figures.

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- Whitman, MA:
  - The town of Whitman is currently losing \$328,000 in uncollectable bills and their annual lost revenue is about \$40,000 out of the variable \$600 -800K of anticipated revenues from this service. (5-6% annual write off costs). The latest FY2011 income is \$608,000 (6/5/2011 which ends in 6/30/2011) and they have ≈ 1200-1300 billable runs per year making up this revenue. This results in an average cost per transport of \$510.00. In addition, they receive 600 Non-billable runs this year and average about 30-40% of their calls are non-billable. The total number of calls per year is close to 2000. (Ref: Ms. Lisa Riley, Fire Dept, Administrative asst. 781-447-1414)  
[http://www.enterpriseneews.com/news/cops\\_and\\_courts/x1046546090/Whitman-won-t-pursue-unpaid-ambulance-bills](http://www.enterpriseneews.com/news/cops_and_courts/x1046546090/Whitman-won-t-pursue-unpaid-ambulance-bills)
  
- Bridgewater, MA:
  - Total call volume seems to be in the 4000 range. (This is higher due to a College and prison) The billable transport calls are 1700-1800 / year. (Also means they go out another 2000 times without any revenue which can tie up the department.) The Billable average rate is \$900.00 per transport but the average collected rate is \$550.00. Invoice/billing charge by outside billing company is about 3-4% based on the invoice they sent which comes off the top of the \$550.00 reducing it to a net of \$533.00 per transport.
  
- East Bridgewater, MA.
  - The town of East Bridgewater estimates a 10% loss in uncollectable revenues out of their roughly \$500,000 - 600,000 annual revenue stream. Their actual collection costs per year for revenues are slightly over \$500,000.00 with an average transport number of 1200. These figures equate to an average transport cost of \$416.00. They said that most Insurance companies have a fixed rate plan and you must invoice the patient for the remaining costs. East Bridgewater has a standing policy to invoice for the remainder but do not force anyone to pay and typically write off the losses after a three year open invoice. Mass Health, Blue Cross/Blue Shield, Medicare and most insurance companies have a rate plan. Tufts as well as most auto insurance companies are a few that pay in full. (REF: Ms Joy Lovell Fire Dept. administrative Asst., 508-378-1325)  
<http://www.wickedlocal.com/bridgewatereast/homepage/x676138763>
  
- Stoughton, MA:
  - FY2010: Per transport received: ≈ \$490.00 (revenue of \$1,130,000, with 2300 transports, and over 5000 total calls) out of the 1.13M their billing service takes 3% resulting in a net revenue of \$1.1M. (\$476.00 effective revenue per transport)
  - The Town of Stoughton very recently, denied funding for a new ambulance at their Town Meeting due to lack of funds. (This is their third ambulance which they claim is critical in a town much smaller than our geographical area.). (REF: Fire Chief, Mr. Mark Dolloff) [Failed NEW ambulance proposal stalls in Stoughton \\$250K.](#)

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- Westford, MA.
    - Tarsi Velantzas from the Finance Committee Contacted the Business manager from Westford, MA who fairly recently started an ambulance service based on a 4 year grant. The grant is coming due this year and they anticipate an out of pocket expense will be required in order to subsidize the ambulance service. The average annual increase in costs to the town after the grant money is completed is  $\approx$  6% per year.
    - Average revenue to town is \$400,000 -500,000.00. Based on supplied data with BLS service the annual cost to the town is  $\approx$  \$300K, with ALS service, the annual cost to the town is \$100K – 130K. (numbers for 9 paramedics and revenue projections only.)
  - Tewksbury, MA.
    - FY2010: per transport received: \$411.00 (\$827,000, with 2010 calls)
    - FY2011: per transport received: \$350.00 (\$634,000, with 1806 calls)
  - Wareham, MA
    - FY2011: per transport received: \$458.00 (\$1,100,000.00, with 2400 calls)
5. Actual payments by insurance companies, which are less than the invoice in many cases. This would be an adjustment to any invoice sent. Most Insurance companies (Blue/Cross Blue Shield as one), Mass Health, and Medicare/Medicaid, specify what will be paid for a set service. Also, there will be cases of uninsured citizens, uncollected co-payments etc that the town must absorb. The trend of reducing health care costs are driving down the rate structure for ambulance patients and transferring more financial burden to the patient. This will result in lower collectable revenues, higher collection costs and/or larger town write-offs.
- The town would have to amortize the cost of the equipment, ambulances, new technology, training, contractual requirements such as step increases, annual education incentives, shift differentials, overtime, clothing and stipends, each year. Once we delve into this area, we have to maintain all of the technology, equipment, continual education, fire department personnel infrastructure such as supervisory, Lieutenants, captains, . etc. All of these requirements and contractual obligations are in the personnel ledger of the fire department and they all rise at rates faster than fixed and state controlled revenues could keep up.
  - The argument that we would have “in –house control of our ambulance services is in my opinion not accurate. Due to the municipal requirements and employee contracts, I believe the town would actually lose much of its financial control over the cost of this service. This department would require a much larger minimum amount of funding and staffing to support the two very critical town services simultaneously. With an outside private company, you can much easier negotiate costs, monitor performance and change contracts to best suit the needs and revenues of the town and let our Fire Department concentrate its focus on Fire related issues.
6. **Treasurer/Collector:**
- The town Treasurer/Collector attended the Finance Committee Meeting on May 16<sup>th</sup> and indicated that she did not believe the revenues would meet expectations OR that we could control the costs to match what Brewster Ambulance service is providing. She recommended to us that we do not endorse a town run ambulance service. Estimated pension benefits add another 20% minimum to the salary lines which is even higher if OBEB is included but Judy mentioned this is a complex formula to determine. Our analysis uses 20%.

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Workers Compensation insurance for this type of work is very, very expensive according to our Treasurer/Collector. We are basically self insured for this type of service and any loss under these circumstances would be financially catastrophic. We did not budget any additional amounts into our analysis for workman's compensation.

## 7. Summary of Revenues/Expenses;

- Estimated number of ambulatory transports: This number varies depending on the source but is typically stated at  $\approx$  1460/year. Based on the Grant application from our Fire Dept, (page 10) we have the following data;
  - 2007: 1429 EMS calls out of a total of 2285 Fire Dept. response/calls (62% EMS) 141 or 6% Fire related and false alarm calls.
  - 2008: 1459 EMS calls out of a total of 2466 Fire Dept. response/calls (59% EMS) 155 or 6.2% Fire related and false alarm calls.
  - 2009: 1475 EMS calls out of a total of 3060 Fire Dept. response/calls (48% EMS) 472 or 15% Fire related and false alarm calls but this year had over 4 times the average of normal false alarm calls. Using the average of 80 has this number at 149 or 4.9%.

This data suggests that the vast majority of Fire calls are for ambulatory/EMS responses which with a private service may be avoided. With an in house ambulance service, this number of calls would ( or at least could) reduce the fire safety of our town and spread our already scare resources even further.

- 1<sup>st</sup> revenue option, (data taken from Grant): The average EMS annual calls from these three years is 1454, Out of these it is unclear of the number of transports required which is the only way revenues are generated for an ambulance service. If we assume a 80% transport and/or collection rate at \$600.00/ transport, (both conservative to increase revenues) the resultant annual revenue to the town is \$697,920.00 (Actual estimated transport cost is between \$450.00 – \$550.00, from Brewster Ambulance and multiple other sources)
- 2<sup>nd</sup> revenue option, (Provided by Brewster Ambulance): Estimated reimbursement of emergency transports is \$500.00/ trip. At 100% reimbursement, this equates to \$ 800,000 in revenue to Town.
- 3<sup>rd</sup> revenue option: (Matrix Report): The Matrix report specifies an average revenue generation in 2008 for each transport at \$480.00. Increasing this cost to FY2012 at 5% per year brings the average transport to \$585.00. Using the average EMS calls stated in the current grant of 1454 results in annual revenues of \$ 850,590.00 if 100% recovery. The report specifies an average recovery rate of 70% but for this report and with the current mandatory Massachusetts health care law, we can assume a higher rate of 90%. (conservative based on other towns) At a 90% recovery, the Town annual revenues would be \$765,531.00. (Note this number calculated here is MUCH higher than the calculated 2008 Matrix report of \$ 585,000 and other actual town revenues received)

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- The grant states that the average annual salary increase for all firefighter positions is estimated at 3%. (Page 13). The resultant personnel increase required to satisfy this grant for the third year based on the initial salary of \$844,967 is \$78,351.00. Adding employee benefits brings the third year increase by \$101,857.00 over the first year for a total cost of \$1.2M. In addition, the grant costs include a fixed 3% annual health benefits increase. Our average health insurance benefit package increases 10% annually.
- Brewster Ambulance Service and the SAFER grant, estimates the number of paramedic employees required to service Middleboro is 16. To hire 16 firefighters to run the ambulance service would require annual revenues of 1.2M (salary plus benefits) but does not include post employment benefit packages, workman's compensation, or fixed town assets to run the service.

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## 8. Estimated Costs vs. Revenues.

### **Town Run Service**

#### Estimated Annual Revenues:

\$700,000 - \$900,000 depending on source of information

#### Estimated Annual Expenses:

- 16 firefighters salary plus benefits: \$ 1,200,000.00
- Year 1: 16 firefighters salary plus benefits: \$ 1,082,224.00 (from grant)
- Year 2: 16 firefighters salary plus benefits: \$ 1,114,691.00 (from grant)
- Year 3(Cost to town) : 16 firefighters salary plus benefits: \$ 1,148,132.00 (from grant)
- Training costs for level 1 fire, level 2 fire and EMS certification as stipulated in grant, page 11. (\$7500.00 per person unless all positions are filled with current certified candidates) If we assume 30% require training, this cost is \$36,000.00
- Amortized annual cost of two ambulances and other non-billable assets: \$ 175,000.00
- Estimated annual costs for medical direction, medical billing, liability, etc: \$60,000. (from Matrix Report)
- Estimated retirement/pensions: \$166,000.00
- Estimated OPEB: TBD
- Estimated Workman's Compensation or equivalent insurance: TBD.

### **Net Cost to town: (If ambulance service starts immediately, January, 2012**

- Annual cost over the Five year period : \$862,000 or \$173,000 per year. Includes Grant money of \$ 2,196,915.00.
- Annual cost after expiration of Grant: \$ 300,000.00 in FY2014 increasing to ≈ \$900,000.00 per year starting in FY2015.

### **Private/ Brewster Run service:**

#### Estimated Annual Revenues:

Real Estate, Personal Property and Excise taxes: \$ 20,000.00

#### Estimated Annual Expenses:

- Contract: \$525,000.00 (3 years)
- FY2012: \$150,000.00
- FY2013: \$175,000.00
- FY2014: \$ 200,000.00

### **Net Cost to town:**

≈ \$ 155,000 per year over three years. (Average cost over the three year contract period)

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## 9. Recommendations:

- The Town continues to use Brewster Ambulance Service to provide all ambulatory and EMS services as detailed in the current contract. The average cost for the three year contract is \$155,000 per year, (\$150,000.00 for FY2012). This is a fixed, known cost that can be budgeted annually. At the very least, the various numbers calculated and proposed in various Town Run ambulance reports indicate large discrepancies in the hundreds of thousands of dollars and could devastate the town budget if overruns occur.
- The town and BOS should review what we can expect to afford for NEW and/or additional firefighters in the third year of the grant which is sustainable and acceptable for our town and fire Department. From this number we should accept only that amount of grant funding to match this figure. This will give us the maximum increase in Fire Safety as specified in the grant, allow us to use as much money from the grant as possible, and maintain a fiscally responsible and sustainable Fire Department budget.
  - From this baseline, based on a long term town subsidy of \$200,000 per year starting in FY2016, we could hire 9 Fire personnel at the salaries and benefits provided by the Chief. This scenario would only work IF the current Fire Department along with 9 total new hires could maintain the SAME ambulance revenue as 16 hires as proposed in the grant, ( $\approx$  800,000.00/year). This annual subsidy will rise similar to town budgets at a faster rate than the anticipated revenues. Estimated increases would be approximately 5-10% per year.
  - If we assume the town is willing to subsidize the fire department by \$200,000 per year after the grant, so that we can maximize the benefit of the grant while providing better fire services to our town, (without the ambulance service), we could increase our staff by 3 people. The grant would thus cover these new hires for 2 years of salaries and benefits and then the town would be responsible for subsidy of this amount for a minimum of one additional year.
- From this analysis and multiple viewpoints depicted in this report it can be concluded that the cost of adding 16 firefighters to our current budget is over \$1.1 million dollars without including pensions, OPEB and other employee costs. Adding these costs increase the town liability to  $\approx$  \$ 1.35 – 1.4M. Adding an ambulance service adds another \$250,000 of assets, insurance, and management costs to the budget bringing it to an annual value of 1.57 million dollars increasing anywhere from 3-5% annually. Maximizing the expected revenues range between \$700,000 - 900,000 leaves us in an annual deficit of 700,000 - \$900,000 after the grant, which would increase by 3- 5% per year due to contractual requirements. As mentioned earlier, the insurance company payment /reimbursement trend is heading downward, thereby increasing the gap further.

Respectfully submitted by  
Richard Pavadore  
Finance Committee

# Middleboro Ambulance Service Cost Analysis

Submitted by: Rich Pavadore

**PRELIMINARY**

## 10. Revenue/Expense Spreadsheets

### 16 New Hires; Long term cost to town: ~ \$900,000.00 annually.

Below is a spreadsheet showing the 5 year Revenue/Expense forecast assuming we accept the full amount of the Federal grant, hire 16 firefighters, and begin an ambulance service with annual revenues of at least \$876,000.00 starting in January, 2012.

Town of Middleboro		PRELIMINARY 16 Firefighter hires				
Prepared By Rich Pavadore Latest Revision Date: 6/10/2011		FISCAL YEAR AMBULANCE REVENUE / EXPENSE ANALYSIS				
Description	FY2012	FY2013	FY2014	FY2015	FY2016	
Firefighter salary (16)	\$832,480.00	\$857,454.40	\$883,178.08	\$909,673.37	\$936,963.57	
Firefighter annual Benefits 16 at (30%)	\$249,744.00	\$274,718.40	\$302,190.24	\$332,409.26	\$365,650.19	
Deputy Fire Chief and/or promotions			\$95,000.00	\$98,800.00	\$102,752.00	
EMS and Fire level 1 training. \$7500.00 each at 30% of hires required	\$36,000.00	\$30,000.00	\$24,000.00	\$24,000.00	\$24,000.00	
Medical Direction, billing costs, liability insurance, etc. (Ref: Matrix report)	\$60,000.00	\$62,400.00	\$64,896.00	\$67,491.84	\$70,191.51	Strenuous contract. New ambulance required every 2 years.
Ambulance/ assets (later years to include amortization of upgrading equipment)	\$500,000.00	\$100,000.00	\$160,000.00	\$170,000.00	\$180,000.00	
Retirement and OPEB (20% estimated from Treasurer/collector)	\$166,496.00	\$171,490.88	\$176,635.61	\$181,934.67	\$187,392.71	
<b>Total Cost of NEW Fire Department Services.</b>	<b>\$1,844,720.00</b>	<b>\$1,496,063.68</b>	<b>\$1,705,899.88</b>	<b>\$1,784,309.15</b>	<b>\$1,866,949.99</b>	Assumes 1/2 year revenues if we start by 1/1/2012
<b>REVENUES</b>						
Amount of Grant (\$ 2,198,915.00)	\$1,098,457.50	\$1,098,457.50	\$0.00	\$0.00	\$0.00	The assumed transport receipt of \$600.00 is 20% higher than all surrounding towns received. Average is less than \$500.00
Estimated Ambulance Revenue (Based on \$600.00 per transport receipts)	\$400,000.00	\$876,000.00	\$902,280.00	\$929,348.40	\$957,228.85	Two years of revenue profit shows effect of Grant.
Carry over revenues	\$0.00	\$0.00	\$478,393.82	\$325,226.06		
<b>Net cost to town with grant</b>	<b>(\$346,262.50)</b>	<b>\$478,393.82</b>	<b>(\$325,226.06)</b>	<b>(\$1,380,386.81)</b>	<b>(\$909,721.14)</b>	
<b>Net cost to town without grant</b>	<b>(\$1,444,720.00)</b>	<b>(\$420,063.68)</b>	<b>(\$803,619.88)</b>	<b>(\$1,380,386.81)</b>	<b>(\$909,721.14)</b>	
<b>Net Gain or Loss over five year period with grant</b>	<b>(\$2,283,002.69)</b>					This cost includes the SAFER grant funding.
<b>Average Annual Town Subsidy over 5 years including Grant</b>	<b>(\$456,600.54)</b>					Average annual cost to town in the next 5 years including the \$2.2M Grant funding
<b>Average Annual town subsidy over 5 years after Grant expires (estimated from FY2015)</b>	<b>(\$900,000.00)</b>					This is the long term annual cost after the "effects" of the grant have dissipated. It takes a few years for the lack of the grant money to level off the costs. This number will increase by ~ 2-5% per year.

# Middleboro Ambulance Service Cost Analysis

Submitted by: Rich Pavadore

**PRELIMINARY**

**10 New Hires; Long term cost to town: ≈ \$350,000.00 annually.**

Below is a spreadsheet showing the 5 year Revenue/Expense forecast assuming we accept a partial amount of the Federal grant to hire 10 firefighters, and begin an ambulance service with annual revenues of at least \$876,000.00 starting in January, 2012. (assumes 10 new firefighters with current Fire Department staff providing the new service)

Town of Middleboro  
Prepared By Rich Pavadore  
Latest Revision Date: 6/10/2011

**PRELIMINARY**  
**10 Firefighter Hires- Same Revenues**

Description	FISCAL YEAR AMBULANCE REVENUE / EXPENSE ANALYSIS				
	FY2012	FY2013	FY2014	FY2015	FY2016
Firefighter salary (10)	\$520,300.00	\$535,909.00	\$551,986.27	\$568,545.86	\$585,602.23
Firefighter annual Benefits 16 at (30%)	\$156,000.00	\$171,699.00	\$188,868.90	\$207,755.79	\$228,531.37
Deputy Fire Chief and/or promotions			\$95,000.00	\$98,800.00	\$102,752.00
EMS and Fire level 1 training - \$7500.00 each at 30% of hires required	\$16,000.00	\$30,000.00	\$24,000.00	\$24,000.00	\$24,000.00
Medical Direction, billing costs, Liability insurance, etc. (REF: Matrix report)	\$60,000.00	\$62,400.00	\$64,896.00	\$67,491.84	\$70,191.51
Ambulance/ assets (later years to include amortization of upgrading equipment)	\$500,000.00	\$100,000.00	\$160,000.00	\$170,000.00	\$180,000.00
Retirement and OPFB (20% estimated from Treasurer/collector)	\$104,060.00	\$107,181.80	\$110,397.25	\$113,709.17	\$117,120.45
<b>Total Cost of NEW Fire Department Services.</b>	<b>\$1,376,450.00</b>	<b>\$1,097,189.80</b>	<b>\$1,295,148.42</b>	<b>\$1,250,302.66</b>	<b>\$1,308,197.56</b>
<b>REVENUES</b>					
Amount of Grant (\$ 2,195,915.00)	\$686,535.00	\$686,535.00	\$0.00	\$0.00	\$0.00
Estimated Ambulance Revenue (Based on \$800.00 per transport receipts)	\$400,000.00	\$876,000.00	\$902,280.00	\$929,348.40	\$957,228.85
Carry over revenues	\$0.00	-\$289,914.00	\$265,432.20	-\$27,436.22	-\$348,390.48
<b>Net cost to town with grant</b>	<b>(\$289,914.00)</b>	<b>\$265,432.20</b>	<b>(\$27,436.22)</b>	<b>(\$348,390.48)</b>	<b>(\$699,359.19)</b>
<b>Net cost to town without grant</b>	<b>(\$976,490.00)</b>	<b>(\$421,103.80)</b>	<b>(\$292,668.42)</b>	<b>(\$348,390.48)</b>	<b>(\$699,359.19)</b>
<b>Net Gain or Loss over five year period with grant</b>	<b>(\$1,099,667.70)</b>				
<b>Average Annual Town Subsidy over 5 years including Grant</b>	<b>(\$215,933.54)</b>				
<b>Average Annual town subsidy over 5 years after Grant expires (estimated from FY2015)</b>	<b>(\$350,000.00)</b>				

*Annotations:*

- Assumes 1/2 year revenues if we start by 1/1/2012
- The assumed transport receipt of \$800.00 is 20% higher than all surrounding towns received. Average is less than \$580.00
- Two years of revenue profit shows affect of Grant
- This cost includes the SAFER grant funding.
- Average annual cost to town in the next 5 years including the \$1.2M Grant funding
- This is the long term annual cost after the "effects" of the grant have dissipated. It takes a few years for the lack of the grant money to level off the costs. This number will increase by ≈ 3-5% per year.

# Middleboro Ambulance Service Cost Analysis

Submitted by: Rich Pavadore

**PRELIMINARY**

**8 New Hires; Long term cost to town: ≈ \$900,000.00 annually.**

Below is a spreadsheet showing the 5 year Revenue/Expense forecast assuming we accept a partial amount of the Federal grant to hire 8 firefighters, and begin an ambulance service with REDUCED annual revenues of at least \$450,000.00 starting in January, 2012. (Shown to see if a reduced level of hires with reduced grant money and revenues can reduce required government annual subsidy)

**Town of Middleboro**

Prepared By Rich Pavadore  
Latest Revision Date: 6/10/2011

**PRELIMINARY**  
**8 Firefighter hires-adjusted Revenues**

**FISCAL YEAR AMBULANCE REVENUE / EXPENSE ANALYSIS**

Description	FY2012	FY2013	FY2014	FY2015	FY2016
Firefighter salary (8)	\$416,240.00	\$428,727.20	\$441,589.02	\$454,836.69	\$468,481.79
Firefighter annual Benefits 16 at (30%)	\$124,872.00	\$137,359.20	\$151,095.12	\$166,204.63	\$182,825.10
Deputy Fire Chief and/or promotions			\$95,000.00	\$98,800.00	\$102,752.00
EMS and Fire level 1 training. \$7500.00 each at 30% of hires required	\$36,000.00	\$30,000.00	\$24,000.00	\$24,000.00	\$24,000.00
Medical Direction, billing costs, Liability insurance, etc. (REF: Matrix report)	\$60,000.00	\$62,400.00	\$64,896.00	\$67,491.84	\$70,191.51
Ambulance/ assets (later years to include amortization of upgrading equipment)	\$500,000.00	\$100,000.00	\$160,000.00	\$170,000.00	\$180,000.00
Retirement and OPEB (20% estimated from Treasurer/collector)	\$83,248.00	\$85,745.44	\$88,317.80	\$90,967.34	\$93,696.36

Brewster contract. New ambulance required every 3 years.

<b>Total Cost of NEW Fire Department Services.</b>	<b>\$1,220,360.00</b>	<b>\$844,231.84</b>	<b>\$1,024,897.94</b>	<b>\$1,072,300.50</b>	<b>\$1,121,946.75</b>
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Assumes 1/2 year revenues if we start by 1/1/2012

REVENUES					
Amount of Grant (\$ 2,196,915.00)	\$549,229.00	\$549,229.00	\$0.00	\$0.00	\$0.00
Estimated Ambulance Revenue (Based on \$600.00 per transport receipts)	\$250,000.00	\$450,000.00	\$463,500.00	\$477,405.00	\$491,727.15
Carry over revenues	\$0.00	-\$421,131.00	(\$266,133.84)	-\$827,531.78	-\$1,422,427.27

The assumed transport receipt of \$600.00 is 20% higher than all surrounding towns reviewed. Average is less than \$500.00

<b>Net cost to town with grant</b>	<b>(\$421,131.00)</b>	<b>(\$266,133.84)</b>	<b>(\$827,531.78)</b>	<b>(\$1,422,427.27)</b>	<b>(\$2,052,646.88)</b>
<b>Net cost to town without grant</b>	<b>(\$970,360.00)</b>	<b>(\$815,362.84)</b>	<b>(\$561,397.94)</b>	<b>(\$1,422,427.27)</b>	<b>(\$2,052,646.88)</b>

This cost includes the SAFER grant funding.

Net Gain or Loss over five year period with grant	<b>(\$4,989,870.77)</b>
Average Annual Town Subsidy over 5 years including Grant	<b>(\$997,974.15)</b>

Average annual cost to town in the next 5 years including the reduced Grant funding for 8 hires