You have been asked to evaluate a prospective acquisition and capital budget for an ambulance company. You can use data provided by the seller to build an annual operating budget. Your operating budget will be utilized to perform specified sensitivity analysis, allocate overhead costs, perform specified sensitivity analysis, create a five year cash flow forecast and evaluate the viability of the proposed purchase price. The “viability” calculation will require demonstration that the acquired company can service its debt and fund capital spending for new vehicles.

Note: You will ignore working capital items, such as receivables, inventories, payables and accrued liabilities for the calculations required to complete this assignment.

Use the following assumptions to build the operating budget.

**Revenue**

Total vehicles, daily utilization and billing rates are set forth below. Assume the Company operates 365 days per annum. Many of these figures in the table will also be utilized to calculate direct and indirect expenses.



**Direct**

**Expenses**

**Labor** – The ambulance crew staffing levels and pay rates are set forth below.



**Fringe Benefits** – Retirement account match and payroll taxes are accrued at the operating unit level. Use 2% of gross crew wage for 401 k match and 7.8% of gross crew wage for payroll taxes.

**Consumable Supplies** – On average, the ambulance crews consume approximately $25 and $350 of supplies on each scheduled call and emergency call, respectively.

**Fuel Expense** – Information relevant to annual fuel expense calculations is set forth below.



**Maintenance Expense** – Annual maintenance expense is based on $0.50 per mile charge.

**Vehicle Depreciation Expense** – The Company currently has 15 vehicles. The average historical vehicle acquisition cost has been $150,000. The Company calculates annual vehicle depreciation expense based on a 5 year useful life for each vehicle and residual value equal to 10% of original cost. Going forward the Company will retire 3 vehicles per annum and purchase three new vehicles. Assume all future vehicle purchases are at $150,000 per vehicle and the Company depreciates those vehicles assuming a five year useful life and 10% residual value.

**Note**: Vehicle depreciation expense is not the only depreciation expense incurred.

**Tax Rate** – Use a 21% Federal tax rate and 6% New York State tax rate, creating a combined tax rate equal to 27%.

**Overhead**

**Expenses**

You will need to calculate then allocate certain indirect overhead expenses. Details for the individual expense categories follow. Instructions on how to estimate allocation statistics will be provided separately.

**Health Plan Premium** – The Company provides a single plan for all its executive, administrative and ambulance crew personnel. The health plan is paid in full by the Company and has an average monthly premium of $441.18 per employee. A summary total corporate headcount is set forth below. The health plan premium is based on an assumed 1.7 dependents per employee.



**Admin Staff Salaries and Fringe Benefits** - Annual average salary for the admin staff is set forth in the table immediately above this paragraph. Assume 7.8% for employee payroll taxes and 5.0% of gross salary for employer retirement account match. For purpose of the cost allocation, combine admin staff salaries and fringe benefits into a single line item.

**Vehicle and Driver Insurance Premium** – The Company purchases insurance for drivers and vehicles. Annual insurance premiums are $2,500 per driver and $5,000 per vehicle.

**Leased Space** – The Company has three separate operating leases for overnight vehicle parking, Westchester maintenance garage and corporate offices. The annual lease expenses are $36,000, $100,000 and $140,000 for the overnight parking, maintenance garage and corporate offices, respectively. Combine all three items into a single figure for cost allocation purposes.

**Other Indirect Expense** – The Company incurs telecommunication and technology costs, audit and legal expenses and other fixed asset depreciation, in annual amounts of $250,000, $150,000 and $100,000, respectively. Combine these into a single item for cost allocation purposes, ***but remember to include the fixed asset depreciation in any EBITDA calculations***.

**Capital**

**Budget**

Assume the Company retires and purchases three ambulances per annum. Assume all future vehicle purchases are at $150,000 per vehicle and the Company depreciates those vehicles over a five year useful life and assumes 10% residual value.

**Answer the questions set forth below.**

1. **Complete the separate tabs for revenue, direct operating expense and indirect overhead expense. You will need to calculate separate figures for Westchester, Manhattan and Long Island revenue and direct operating expense.**
2. **Prepare a one-year operating budget. Use the format provided in the spreadsheet, which matches the format set forth below. Link output from the tabs built in section A. You do not need to fill in “interest expense” and “principal payment” in this tab.**



1. **Cost Allocation** – Complete the table, which is located in the cost allocation tab. The tab also contains a table for you to insert allocation statistics and perform the cost allocation calculations.



**Allocation Statistics**. You will need to estimate allocation statistics, based on the following guidelines. Health plan is allocated via step down distribution. All other indirect costs are allocated via direct distribution. Within the table in the accompanying spreadsheet, you will need to input a number for an allocation statistic in each of the highlighted cells.

Health Plan. Use the percentage of total headcount to allocate the indirect cost of health plan expense to Admin Staff Salaries, Westchester, Manhattan and Long Island.

Admin Staff Salaries, Lease Expense and Other Indirect Expenses are allocated based on percentage total revenue generated at Westchester, Manhattan and Long Island.

Vehicle / Driver Insurance is allocated based on percentage of total miles driven at Westchester, Manhattan and Long Island.

1. **Flexible Budgets** - Using the one year budget forecast, prepare flexible budgets for the following assumptions embedded in the forecast. Note: The flexible budgets are for the entire Company. Put your output in the data tables provided within the spreadsheet.
* **Fuel Expense**. Calculate the average price paid per gallon then calculate the impact on EBIT, EBITDA and Free Cash Flow of a 10%, 20% and 30% increase in price per gallon for fuel.
* **Health Plan Premium**. The forecast assumes $441.12 per month per insured life, which is based on an assumed average actuarial value of $5,500 per annum per insured life, a $1,000 plan deductible and an 85% medical cost ratio. Recalculate the monthly premium per insured life assuming a $2,000, $3,000 and $4,000 annual deductible. Report the total EBIT, EBITDA and Free Cash Flow.
* **Consumable Supplies**. Calculate the impact on EBIT, EBITDA and Free Cash Flow assuming a 20% decrease and 20% increase in average consumable supply expense per emergency call. Keep the consumable supply expense per scheduled call constant at $25 per call.
1. **Breakeven Analysis**. Calculate the breakeven volume separately for Westchester, Manhattan and Long Island.
2. **Purchase Price**. Calculate the enterprise value, assuming you were to pay 6x the EBITDA amount you calculated in the one-year operating budget.
3. **Debt Financing**. Assume you borrow 60% of the purchase price to fund the acquisition. Further assume the terms for the borrowed money are a 7.5% fixed rate coupon, 7 year final maturity and quarterly loan payments. First, calculate the quarterly loan payment amount. Second, estimate the amount of associated with principal and interest, i.e. how much of each quarterly payment represents interest expense and how much of each quarterly payment is attributable to principal amortization. Summarize the annual amounts for interest expense and principal amortization in the table provided in the spreadsheet and include the amounts for interest expense and principal amortization in the appropriate places in your forecast model.
4. **Forecast**. Use the one year operating budget as “Year 1” of a five year forecast. Adjust the following line items in the forecast period.
* Billing Rate / Call – Increase scheduled and emergency by 3% per annum.
* Labor Rate – increase Driver and EMT salaries by 3% per annum. Hold Admin Staff salaries constant during the forecast period.
* Health plan – increase by 5% per annum for Drivers and EMTs. Make no adjustment to Admin Staff health plan premium costs. Include the additional expense in direct operating expense

Use the format provided in the spreadsheet to present your forecast. Below the forecast you will find certain ratios you need to calculate in order to answer the following questions.

EBITDA Margin – does EBITDA margin increase or decrease during the forecast period?

EBITDA / Interest Expense – what is this ratio at the end of Year 5

Debt / EBITDA – what is this ratio at the end of Year 5

Cash Balance – what is the cash balance at the end of Year 5

1. Internal Rate of Return. Use the IRR function to calculate the return on invested equity. Follow the instructions in the internal rate of return tab.