**Final Exam**

The Department of Defense Executive Services Directorate is evaluating a shuttle service to Fort Meade. There are a number of high ranking DoD executives and General Officers that must attend meeting and briefings at the National Security Agency. Currently, the directorate leases two mini-vans that are used on a first come first serve basis. The vans are parked at the Pentagon and require no special licenses to operate. Most meeting attendees travel by private automobile and file for mileage reimbursement.

**Demand**

There are ten SES and GO personnel that account for 95% of the Pentagon-Fort Meade trips. The vans are used almost every day, usually about 3 or 4 times per week. The executives usually travel with one assistant on these trips. The assistants usually drive and park the vehicles. The vans comfortably seat six but are often used with only two or four people for the Fort Meade trips. Reasons cited are schedule conflicts as well as availability of seats.

When polled, executives usually leave the Pentagon between 0830 and 1000. The same executives said they would take a shuttle given a choice between 0830 and 0900 or 0930 to1000. The executives said that they all usually had to attend the same meeting twice a week and usually one or two others. One claimed five trips a week while a couple claimed two meetings per week. The mean and median are both about 3.5, however, it seems a shuttle would have to be available five days/week based on the questionnaires.

Currently, the directorate leases two mini-vans at an annual rate of $5000 each. Maintenance is covered by the cost of the lease and the vehicles have been fairly reliable, breaking down only once or twice a year. New vehicles are leased every four or five years. Scheduled maintenance is conducted on the weekends unless it coincides with unscheduled maintenance. A single secretary is in charge of the keys and tracks who signed out the vehicles. Although the vans can be used to travel to other locations, they are used almost exclusively for the Fort Meade runs.

**Shuttle Bus**

The DoD currently owns a fleet of busses but would likely have to purchase new 26 passenger buses to meet this requirement. A new 26 passenger bus is estimated to cost $70,000. The estimated reliability is estimated as follows:

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Year | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Availability | 99% | 99% | 98% | 97% | 96% | 94% | 93% | 91% | 89% | 86% |

The amortized maintenance cost (scheduled and unscheduled) of the vehicles is estimated at $2500/year with the majority of it occurring later in the vehicle lifecycle. Vehicles are usually scrapped or auctioned off at the ten year mark. Proceeds from the auctions generally do little more than cover the costs related to the auctions. Disposal costs are considered negligible.

The buses average 6 miles/gallon and are stored in a lot approximately 8 miles from the Pentagon. Marginal cost of storage is negligible. The average grade for a shuttle driver in the DC metro area is a WG-6.

In order to mitigate the chance of non-availability, the purchase of a third bus needs to be evaluated.

**Reimbursement**

Upon inspection of a sample of reimbursement claims, the POV reimbursement rate used was $0.55/mile with an average round trip distance of 75 miles.

**Outsourcing**

Recently, the Pentagon has started outsourcing specialized services. The Meade shuttle service could also be outsourced. Companies will provide a scheduled roundtrip services, twice daily. Initial market research concludes that the service would cost about $500/day/bus at four or five days a week. The cost includes full operation of the bus.

**Instructions**

You must complete a CBA to assist the ESD in evaluating how to approach the shuttle bus decision. You have 2.5 hours to complete the analysis and present the recommendation. The CBA can be presented in any format. Any calculations and assumptions must accompany the CBA.

2011 Mini-van Maintenance record

|  |  |  |
| --- | --- | --- |
|   | Van 1 | Van 2 |
| Jan | 15-16 | 15-16 |
| Feb |  |  |
| Mar |  |  |
| Apr | 11-17 | 16-17 |
| May |  |  |
| Jun |  |  |
| Jul | 1-716-17 | 16-17 |
| Aug |  |  |
| Sep |  |  |
| Oct |  | 24-28 |
| Nov | 19-20 | 19-20 |
| Dec |  |  |

AMCOS Lite WG table, Washington DC.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **APPN** | **Category** | **Element** | **WG 2** | **WG 3** | **WG 4** | **WG 5** | **WG 6** | **WG 7** | **WG 8** | **WG 9** | **WG 10** | **WG 11** | **WG 12** |
| Army-Funded Civilian | Compensation | Avg Cost of Base Pay (Civilian) | $28,028.41 | $32,562.42 | $36,612.94 | $40,354.23 | $44,073.27 | $47,809.00 | $51,319.33 | $54,253.65 | $57,309.02 | $60,314.30 | $64,926.57 |
| Army-Funded Civilian | Compensation | Avg Cost of Premium Pay | $857.67 | $996.41 | $1,120.36 | $1,234.84 | $1,348.64 | $1,462.96 | $1,570.37 | $1,660.16 | $1,753.66 | $1,845.62 | $1,986.75 |
| Army-Funded Civilian | Other Benefits | Avg Cost of Miscellaneous Pay | $857.67 | $996.41 | $1,120.36 | $1,234.84 | $1,348.64 | $1,462.96 | $1,570.37 | $1,660.16 | $1,753.66 | $1,845.62 | $1,986.75 |
| Total |   |   | $29,743.75 | $34,555.24 | $38,853.65 | $42,823.91 | $46,770.55 | $50,734.91 | $54,460.07 | $57,573.98 | $60,816.33 | $64,005.54 | $68,900.08 |