

January 3, 2006

**Intern Project, Spring Semester, 2006 for Onondaga County
Department of Water Environment Protection (WEP)
<http://www.ongov.net/WEP/>**

Fleet Operations Assessment Project

The Onondaga County Fleet Management Division is a large operation, employing 20 professionals in the maintenance and repair of over 800 vehicles and gasoline/diesel-powered equipment for the majority of Onondaga County departments. Department management is eager to study existing, historical data for vehicle repairs so that more informed decisions can be made as to the operation of the Fleet Division with the expectation of realizing greater efficiencies and less costs for the taxpayers of Onondaga County.

Contact either Michael J. Lannon, P.E. in WEP at MikeLannon@ongov.net or Kathy Hanna at kathyhanna@ongov.net

This unpaid internship project can accommodate several interns.
Deliverables below can also be divided/ accomplished as discrete projects

1. Data interpretation:

The Fleet Division repairs vehicles and gasoline/diesel-powered equipment for the majority of Onondaga County departments. The data to be analyzed is a relatively large volume of automotive repair data that the OCDWEP Fleet Division maintains for all of the vehicles it services. In a typical year there are over 5,000 work orders processed, for over 800 vehicles, corresponding to more than one (1) million dollars of work being performed. Various pieces of data are associated with a work order, including, vehicle make, year, mileage, and maintenance performed. It is this department's desire to have several years of spreadsheet data, objectively and quantitatively analyzed from the existing spread sheet data, using a variety of statistical tools, so as to provide useful information to department management to enable more informed decisions on maintenance schedules, operational efficiency, and vehicle replacement cycles.

2. Analysis and recommendations:

- Establish life-cycle costs for vehicles, taking into account capital costs, residual values, routine maintenance costs, and other cost data (e.g., accident costs).
- Develop quantifiable recommendations regarding the optimum mileage to trade vehicles and/ or equipment to achieve the best economical advantage for the County.
- Compare the cost and benefits of providing fleet maintenance activities by OCDWEP versus having the services in whole or in part provided by an outside source.
- Identify the most common/ useful repairs and calculate manpower costs/efficiency and associated billable hours. Review fuel mileage efficiencies. Identify improvement opportunities.
- Calculate and evaluate costs-per-mile figures. Evaluate cheaper alternative of providing vehicles to employees or paying mileage for work-related travel.
- Establish breakpoints/triggers for categorical maintenance functions (e.g., vehicle tune-ups).

3. Deliverables: Variety of research, data, recommendations.