

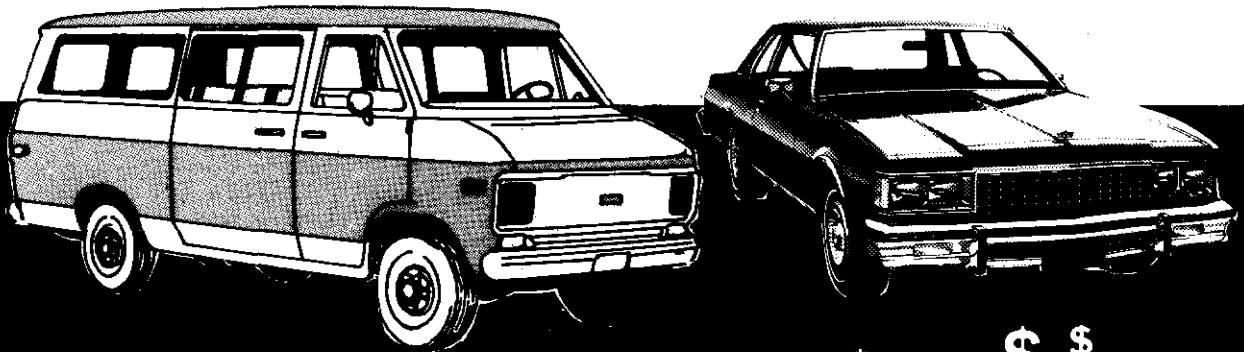


U.S. Department
of Transportation

**Federal Highway
Administration**

Office of Highway Planning
Highway Statistics Division

Cost of Owning and Operating Automobiles and Vans 1982














SUBURBAN-BASED OPERATION

SIZE	TOTAL COSTS: CENTS PER MILE
LARGE	26.6
INTERMEDIATE	23.8
COMPACT	21.4
SUBCOMPACT	18.9
PASSENGER VAN	33.2

Cost of Owning and Operating Automobiles and Vans 1982

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SUBURBAN-BASED OPERATION							
TOTAL COSTS: CENTS PER MILE							
SIZE	 ORIGINAL VEHICLE COST DEPRECIATED	 MAINTENANCE, ACCESSORIES, PARTS & TIRES	 GAS & OIL (EXCLUDING TAXES)	 PARKING & TOLLS	 INSURANCE	 STATE & FEDERAL TAXES	TOTAL COST
LARGE WITH STANDARD EQUIP- MENT, WEIGHT MORE THAN 3,500 LBS. EMPTY 	7.7	6.0	7.3	0.8	3.3	1.5	26.6
INTERMEDIATE WEIGHT LESS THAN 3,500 LBS. EMPTY 	6.2	5.6	6.6	0.8	3.3	1.3	23.8
COMPACT WEIGHT LESS THAN 3,000 LBS. EMPTY 	5.9	5.0	5.3	0.8	3.3	1.1	21.4
SUBCOMPACT WEIGHT LESS THAN 2,500 LBS. EMPTY 	4.7	4.8	4.5	0.8	3.1	1.0	18.9
PASSENGER VAN WEIGHT LESS THAN 5,000 LBS. EMPTY 	10.7	7.2	8.9	0.8	4.4	1.9	33.2

COST OF OWNING AND OPERATING AUTOMOBILES AND VANS

INTRODUCTION

The cost of owning and operating a motor vehicle is of major significance, as Americans experience increasing demands on their incomes. It costs more than \$9,000 to purchase a large-size American car. If it is driven 120,000 miles over a period of 12 years, the total cost to the owner will be \$32,017. During that time it will cost about \$8,604 (excluding taxes) for some 7,059 gallons of gasoline, about \$6,232 for maintenance and repair work, \$3,991 to insure the vehicle, \$939 for parking and tolls, and \$1,787 in taxes. This last item is used primarily for roads on which the vehicle is driven and accounts for only 5.6 percent of the total costs.

This report updates The Cost of Owning and Operating Automobiles and Vans - 1979. It traces selected vehicles in personal use and their costs through a 12-year lifetime of 120,000 miles using mid-1981 data. The user is cautioned against making direct cost comparisons between the costs in this and previous issues. Both methodology changes (detailed below) and improved data (especially insurance costs) will make such comparisons misleading. As with earlier reports, costs are based on operation of typical vehicles in the Baltimore, Maryland suburbs. Although a vehicle will usually pass through three or more owners during its life, the costs resulting from transfer of ownership are not included in this report.

Methodology Changes From 1979: The basic methodology of this study is similar to that used in earlier issues with a few exceptions. The vehicle life for this study has been increased from 10 years to 12 years and the lifetime mileage from 100,000 to 120,000. The average age of an American car (6.6 years) is higher now than it has been at any time since the post-World War II period. Data from the most recent Nationwide Personal Transportation Study show that average annual mileage per vehicle is approximately 10,000 with travel decreasing as the age of the vehicle increases.

The weight classes used have been changed to reflect the general trend toward down-sizing cars in all size classes. Also, for the first time, an intermediate or "mid-size" car has been studied along with the large (previously called standard), compact, and subcompact cars, and the passenger van which were included in the 1979 report.

The cost of the home garage or parking facility has been omitted this year. In a suburban setting, parking facilities range from curb parking to paved driveways to carports to fully-enclosed garages, with an equally wide range in costs. In suburban areas, garage costs are not usually a factor in automobile purchase or use decisions.

VEHICLES USED IN THIS STUDY

Description: The vehicles, repair and maintenance operations, replacement items, insurance, fuel and oil consumption, taxes, and other costs included in the study and the values of the factors used to compute these costs are given in Table 1, Vehicle Costs -Bases for Estimates. As in previous studies, a car is selected to represent each automobile size class and one passenger van is selected. This allows comparison of the costs incurred and shows the various costs in relation to the highway-user taxes paid. The vehicles selected are intended to be typical of new vehicles in each size category, but because of changing technology, they are probably not perfectly representative of older vehicles in their respective size classes.

Five American-made vehicles were chosen for the study: a large-size four-door sedan (Table 2), an intermediate-size four-door sedan (Table 3), a compact car (Table 4), a subcompact car (Table 5), and a 12-passenger van (Table 6). The cars were equipped as described in Table 1. The optional equipment selected is that which the automotive industry reports to be typical for each vehicle size group. For example, data for the large car model selected show that more than 90 percent of that model have air conditioning. The purchase price of each vehicle was considered to be the suggested retail or "sticker" price less an assumed dealer discount. The discounts available depend on many factors--the size of the dealership, the dealer's inventory situation, the time of year, and the ability of the buyer to negotiate. The dealer discount used is based on interviews with dealers in the study area.

Vehicle Life: Many things, such as individual driving habits, climate, garage facilities, type of road, type of use, and sometimes luck, can affect the service life and operating costs of a vehicle. As mentioned earlier, the most recent data show that private passenger vehicles are staying on the road for 12 years and 120,000 miles. The same distribution of these miles over time--14,500 miles the first year, decreasing to 6,700 miles traveled in the twelfth year--has been used for all five vehicles. The complete mileage distribution is shown in Tables 2-6. This decreasing mileage distribution is consistent with the average annual miles driven by age of vehicles, but, in normal circumstances, an individual's need for transportation is relatively stable from year to year. It is unlikely that an only car would be driven successively fewer miles each year. What is more likely is that, as a vehicle ages, it becomes a second or third family vehicle or its ownership is transferred to a household with lower transportation needs.

The average automobile or van is sold or traded two or more times during its life, usually through new or used car dealers. This is usually prompted by the need for or anticipation of repairs. Dealers serve as the quality control judges of the used vehicle trade. They wholesale those vehicles that require very expensive or time-consuming work and make the repairs on the remainder prior to resale. But whether the vehicle needing repairs is owned by an individual or by a dealer, the money spent on repairs and upkeep becomes a part of the cost of owning and operating the vehicle. Battery and tire replacements, brake linings, radiator repairs, body work, and numerous other replacements and repairs are included in the used car or van reconditioning programs of many dealers. The additional work done under dealer warranty does not impose direct out-of-pocket expenditures on the vehicle owner, but these costs are submerged in each vehicle's purchase price. For the purpose of this report, no effort has been made to separate them.

TYPES OF COSTS

Most owners think of costs only in terms of outlays for gasoline, oil, tires and tolls. A more careful examination shows that some costs occur whether or not the vehicle is driven, while others are directly related to the amount of travel. The travel-related group is generally referred to as operating costs and the other group as ownership costs. Analysts often differ on the costs that should be included in each category. The following defines the terms as they relate to this study.

Ownership Costs: Ownership costs include depreciation, insurance, registration and titling fees, scheduled maintenance, and any taxes applied to these items. No matter how little a vehicle is driven, some portion of each of these items is incurred.

1. *Depreciation* is the loss in value of the vehicle during its lifetime due to passage of time, its mechanical and physical condition, and the number of miles it is driven.

National vehicle dealer groups issue vehicle value books for different regions of the country, usually on a quarterly basis. These values are determined by a canvass of vehicle selling prices by make and model year in each geographic area. The values are based on normal travel, so lower or higher odometer readings will be reflected as higher or lower remaining vehicle values. The depreciation costs in this report are based on information from such a publication.

Depreciation is the single greatest cost of owning and operating most passenger vehicles during a 12-year life span. The cost of gasoline, however, is overtaking depreciation cost and exceeds depreciation cost for the intermediate-size vehicle studied. In the majority of cases the age of the vehicle is the most important factor in determining resale or trade-in value. Such factors as mileage, brand popularity, body style, size, and color are also considered. For large cars and vans, by far the largest dollar depreciation occurs in the first few years. For smaller cars, the depreciation is spread more evenly over the years. Since newer vehicles are assumed to be driven more miles than older vehicles, the depreciation cost on a per-mile basis is held down

the first few years. For example, consider depreciation for the large-size car in this report (see Table 2). If the car were bought new for \$9,232 and sold or traded at the end of the first year after being driven 14,500 miles, the depreciation would be \$2,457 or 16.9 cents per mile. At the end of the second year, depreciation totals \$3,878 or 13.8 cents per mile. As a vehicle gets older, the depreciation rate decreases, but the outlay for maintenance and repair rises. As time passes it becomes increasingly difficult and expensive to keep a car in satisfactory operating condition.

2. *Insurance Costs* are determined by the amount and type of coverage selected, the purpose for which the vehicle is used, and the location in which it is operated.

Automobiles are continuously exposed to the possibility of damage, whether on the highway or parked. The large numbers of vehicles on the roads and streets and in parking lots make each vehicle highly susceptible to accident involvement. While the improved bumper design required on most cars protects against damage in collisions at very low speeds, the cost of repairing even minor damage has increased considerably and is reflected in the insurance rates.

The uninsured deductible portion of accident costs is included in the maintenance and repair costs. A spokesman for the insurance industry ventured the opinion that the average motorist will be involved in an accident twice during an 8-year period, and one of these will probably be his fault. If the owner carries collision insurance for the first 5 years of the vehicle's life, his out-of-pocket cost during this period will be the deductible amount (usually \$100). That amount can be considered the minimum he will pay for accidents during the life of the vehicle if he continues this coverage. After his collision insurance is discontinued, he will have to pay the entire cost of any accidents for which he is responsible.

The insurance coverage in this study for automobiles includes \$20,000/40,000 bodily injury, \$10,000 property damage, \$2,500 personal injury protection, \$20,000/40,000/10,000 uninsured motorist and \$50 deductible comprehensive coverage for the 12-year life of the automobile. For the van, the insurance coverage includes \$300,000 single limit liability, \$2,500 personal injury protection, \$50,000 uninsured motorist and \$50 deductible comprehensive coverage for the 12-year life of the van. Both vehicle types include \$100 deductible collision coverage for the first 5 years. Accidents during the 6th-12th years could, therefore, increase the cost of owning and operating a vehicle more than the amounts shown in the accompanying tables. An industry representative said that the trend is toward a deductible comprehensive coverage rather than full comprehensive. There is a considerable saving to the insurance company when a large number of small claims do not have to be processed. The saving is passed on to the insured in lower rates.

It should be noted that the insurance costs shown in Table 6 for a van reflect the assumption that the van would be used in daily commuting to work with passengers who share the expense with the driver.

3. *Registration and Titling or Sales Taxes* are payments to the State in which the vehicle is registered. The registration fee customarily is due each year, and the titling or sales tax is due only once--when the vehicle is purchased. However, in Maryland, which is the base location for this study, a titling tax applied as a percentage of the vehicle's value is invoked each time the vehicle changes hands. The same is true for some other States. Also, some States or their local subdivisions (but not Maryland) levy an annual tangible or personal property tax which is figured as a percentage of the value of certain possessions, including automobiles. In this study, the cost of the registration fee is applied to the year in which it is charged, and the titling tax is applied in the first year of ownership.

4. *Scheduled Maintenance* includes the services shown in the owner's manual. Generally, the suggested maintenance intervals are expressed in miles driven or period of time owned. The services include maintenance of the emissions control and cooling systems, oil changes, safety checks, tune-ups, and lubrication. When the owner's manual recommends that an item (e.g. brakes) be checked for wear, the cost of the labor to make such an inspection is considered scheduled maintenance. If a repair is found to be necessary, the cost of the replacement parts and the labor to install them are included in nonscheduled repairs. Nonscheduled repairs and maintenance are part of the operating costs.

5. *Accessory Costs* cover the value of any add-on feature for a car or van which has no effect on its mechanical operations. These items customarily include extra wheels for snow tires, protective floor mats, seat covers, and miscellaneous items such as litter containers. Accessories, as defined in this analysis, do not include optional equipment such as air conditioning, power steering, or automatic transmissions that are included in the purchase price of the vehicle. The cost of miscellaneous accessories is assigned in equal increments to each year. All other accessory costs are spread over the benefit period based on vehicle usage.

6. *Finance Charges* are not included in the costs shown in the tables in this report since a number of options are available, but they may be approximated with relative ease. Most vehicle buyers either pay interest on money they borrow to buy their vehicles, or they forgo interest they would have earned if they elect to use savings or other investments to pay for the vehicles outright.

Lending institutions and vehicle dealerships have various financing plans available. They may differ regarding the portion of the vehicle cost they are willing to finance, the rate of interest charged, and the length of the loan term. Interest charged should be considered in the cost of owning a vehicle. The lender will provide the total interest charges, which may be divided by the accumulated miles of travel for the length of the loan. For a three-year loan, total interest charges would be divided by 40,700 miles (14,500 plus 13,700 plus 12,500 miles). The computation will give the cost-per-mile figure that should be added to each of the 3-year totals shown on the tables.

The computation of interest lost on savings is more difficult. The cash payment for the purchase of a vehicle, the type of savings plan, the current rate of interest, and the period of time for monthly deposits to equal the cash payment, will vary greatly among purchasers.

Savings institutions will provide the amount of interest that could be earned by the deposit of an amount equal to the cash payment for the selected period of time and the amount of interest that can be earned if equal monthly amounts are paid into the savings account for the same period. The difference between these two interest amounts is the interest lost by paying cash for the purchase of a vehicle.

If \$9,000 cash were needed to purchase a vehicle and 3 years (36 months) were selected as the period of time needed to save this amount, the monthly payment into savings would be \$250 (\$9,000 divided by 36). The difference in interest earned by these payments and the interest earned on \$9,000 on deposit for 3 years is the interest lost by paying cash. At 6 percent interest \$9,000 on deposit for 3 years would earn \$1,760.54 in interest. This would be lost if the money were withdrawn from savings to pay cash for a car. To replace the \$9,000 in savings over 3 years, the purchaser would have to deposit \$250.00 each month. These deposits would earn \$878.70 in interest. The difference between these two interest amounts (\$1,760.54 - \$878.70 = \$881.84) would be the interest cost of paying for the automobile purchase from savings.

Alternative methods of financing a new vehicle purchase can make important cost differences; and merits of different plans should be weighed carefully before a particular plan is selected. Table 7 shows the costs involved in a few of the many alternatives for financing a vehicle purchase.

Operating Costs: Operating costs include repairs and maintenance, gasoline, oil, tires, parking, tolls, and the taxes applied to these items. These costs are each a function of vehicle usage.

1. *Unscheduled Repairs and Maintenance* shown in this report are not taken from records of actual vehicles; however, the vehicles and operating cost factors are considered to be typical for cars of these sizes in the study area. The factors used were selected on the basis of available statistics, discussions with automotive industry personnel, assistance from service managers of major automobile dealers, and research done under contract to the U.S. Department of Transportation.

Services include such items as brake shoes, carburetor overhaul, shock absorbers, and ball joints. Also included are smaller, but no less important items such as fan belts, light bulbs, wiper blades, and washing and waxing. Some of these repairs and replacements must be made more than once in the life of the vehicle. No costs were included for repairs and replacements that would be covered by warranties.

Assumptions were made as to type of repair facility where each service would be provided. Different

labor rates were assumed for dealer garages, independent garages, and service stations. The average labor rate was \$23.42 in the study area. Some maintenance jobs, such as replacement of spark plugs, radiator hoses or fan belts, are relatively easy and present the vehicle owner an opportunity to save by performing them himself, but most vehicle owners are still opting to pay professional mechanics for these services.

2. **Gasoline** is a major cost item for vehicles of all sizes. The difference in gasoline costs alone between the 1981 large-size car and the subcompact over the lives of the vehicles is \$3,380 (excluding taxes). As shown in Tables 2 and 5 respectively, over the first 3 years, gasoline will cost \$1,146 more for the large car than for the subcompact. The difference between the large and compact car is striking, when considering the large car provides only 15 percent more interior space for the 40 percent larger fuel cost.

The typical cost of gasoline in the study area for 1981 is \$1.35 per gallon, including State and Federal taxes. All five vehicles use lead-free regular gasoline. The gasoline costs shown in Tables 2-6 can be adjusted to reflect changes in the price of gasoline. For each 1-cent increase in the cost of a gallon of gasoline, the total cost per mile for the large car would increase 0.0588 cents. This is computed by dividing the total cost per mile of gasoline (7.2 cents) plus State and Federal taxes (0.5 cents and 0.2 cents) by \$1.35 (135 cents), the cost per gallon used in this study. For the intermediate-size car, the figure is 0.0526 cents; for the compact car, 0.0416 cents; for the subcompact car, 0.0357 cents; and for the van, 0.0714 cents. Table 8 shows the gasoline cost per mile, including taxes, for the study vehicles for a selected range of gasoline prices.

3. **Oil costs** for a new or relatively new vehicle are mainly dependent on the car manufacturer's instructions for oil changes, because little, if any, oil is burned by these vehicles. The oil change interval is 7,500 miles for all five study vehicles. The subcompact has a 4 quart capacity; the other cars, 5 quarts; and the van 6 quarts.

4. **Tires** receive 480,000 miles of wear when an automobile is driven 120,000 miles. All four cars have radial tires. The van is equipped with 8-ply bias belted tires. The number of replacement tires is based on a life expectancy of 35,000 to 40,000 miles for radial tires and 30,000 miles for bias belted tires. The Federal excise tax on tires (10 cents per pound) is included in the tax category of operating costs.

5. **Parking and Tolls** include metered curb parking, fees charged in parking lots, and toll charges for using private or public highways, tunnels, and bridges.

6. **Taxes** on gasoline and oil are the primary component of operating cost taxes. These taxes are paid to the government on a per-gallon basis. The Federal gasoline tax is 4 cents per gallon. The Maryland State tax is 9 cents. There is a Federal tax of 6 cents per gallon on oil. Other taxes included are the Federal excise tax on tires and the Maryland sales tax of 5 percent on all retail sales.

ADJUSTMENT OF COSTS TO OTHER LOCALITIES

Using this study, based in suburban Baltimore, the cost of owning and operating a motor vehicle can be approximated for any locality. For example, the price of gasoline used in this study was \$1.35 per gallon. If the cost in another area is \$1.40, persons living there can estimate their own operating costs by adjusting the gasoline cost figure to reflect the higher price. Procedures for accomplishing this are described in the section titled *Gasoline*. Similar adjustments can be made for other cost items.

The costs most likely to change in the short range and need adjustments from one geographic location to another are gasoline price and tax, registration fee, repair labor rate, insurance premium, tolls, and parking charges. Also, the market value of vehicles can differ markedly among regions, and any estimates of interim costs should allow for differences in rates of depreciation.

In general, rural costs are lower than suburban or urban costs. This appears in insurance premiums because vehicles in rural areas are exposed to less traffic and fewer opportunities for accidents. Retail costs and labor rates are usually lower in rural areas too. Operating costs (gasoline, oil, tires, repairs, etc.) for vehicles in rural operation tend to be lower for comparable vehicles in suburban use because there are fewer traffic control devices and less congestion on rural roads.

The worksheet included at the back of this report has been prepared as a guide so that you may produce costs for the first year of your vehicle's life in your own locality. If annual and per mile costs for an older car are desired, the odometer mileage for that vehicle should be compared with the cumulation of the annual mileages shown at the top of each column on Table 2, 3, 4, 5, or 6. When sufficient mileages are added together to match the vehicle's odometer reading, the proper table column can be selected to identify cost factors for everything except depreciation. Since depreciation is dependent on both car age and mileage, local used car prices or "blue book" values should be used.

APPLICATIONS FOR STUDY DATA

Choosing Your Next Car: Choice of an automobile--large, intermediate, compact, or subcompact--is based on more than the consideration of cost. For the motorist who needs the space provided by the large-size car because of a large family, carpool needs, or equipment to be carried, the economic and size advantages of the smaller cars must be forgone. If space needs are not compelling, cost considerations may lead the motorist to choose a smaller car. Depreciation and fuel costs are substantially lower for subcompacts and compacts. Also repair costs are generally lower, tires cost less, and in some States, registration fees are lower for smaller cars. Noncost advantages are maneuverability in city traffic and ease of curb parking. The advantages of larger cars in capacity, comfort, and possibly status can be compared to the dollar costs incurred to obtain these benefits.

When To Trade In: There is no set answer to the question of when to trade in a car. Monetary consideration is only part of the answer. Vehicle style, size, mechanical features, dependability, as well as the availability of money are also factors in the decision on which vehicle and when to buy again.

A car owner can minimize his depreciation costs by keeping his vehicle longer. The "annual trader" drives a current model car all the time, but depreciation for the large-size car will cost him about \$29,484 over a 12-year period (12 times the first year depreciation). A "2-year trader" pays about \$23,268 in depreciation. This is a saving of \$6,216 from the "annual trader's" costs, and even more can be saved by becoming a "three-year trader." Of course, consideration must be given to the outlays for replacement tires and repairs necessary when the vehicle is kept longer.

The obvious flaw in trying to use the cost tables in this publication to determine when to trade a car is that a family's annual auto usage does not usually match the mileage distribution in the tables. As mentioned before, a family would drive approximately the same number of miles each year, while the tables show a decreasing annual mileage pattern. If the family customarily drives 14,500 miles per year, at the end of three years, its total mileage would be 43,500. Tables 2-6 show the accumulated mileage for years 1-3 to be 40,700. Also, the total miles a car has been driven may not always be a good measure of its wear or condition. A long highway trip is much less wearing than the same number of miles driven around town in stop-and-go traffic, and the condition of roads over which the vehicle is driven is having an increasing influence on the expected operating costs.

The total vehicle cost per mile is lower for the high-mileage drivers because depreciation in the early years of the car's life is determined more by age than by miles and because some of the annual charges, such as insurance do not increase in proportion to mileage. A low-mileage driver sustains about the same depreciation and insurance costs, but they are distributed over fewer miles resulting in a higher cost per mile. On the other hand, most insurance companies charge lower rates for private and recreational uses of vehicles and higher rates for vehicles used directly for work or in relation to business. In addition, many companies apply a surcharge for high-mileage drivers in both categories.

To some degree, the purpose for which a car is used and the circumstances of its use will dictate the vehicle-cost pattern. Once the vehicle-use pattern is determined, the owner may be able to relate his costs to those shown in this report and decide when it will be most advantageous to trade cars. The high-mileage driver may find some repairs and tire replacements moved to earlier years than those shown in this study. Of course, comfort, dependability, and appearance are important to most car owners, and these weigh heavily in the automobile purchasing decision.

Business Use Of Car: Employers commonly reimburse the costs for the use of an employee's personal car for business purposes. If a personal automobile is used only occasionally for business purposes, an amount necessary to cover out-of-pocket costs, tire wear, and general

wear on the vehicle is usually considered sufficient. If the extent or type of use affects the insurance rate, or if it subjects the automobile to unusual loads and operating conditions, the reimbursement should be adjusted upward accordingly. Tolls and parking costs incurred in the course of such use should be paid separately and in full, regardless of per-mile reimbursement. If an employee's job is dependent on obtaining and using a personal vehicle in the employer's behalf, reimbursement on the basis of the employee's overall costs seems appropriate. This is often done on the basis of a flat fee per day to cover the employee's ownership or fixed costs plus a per-mile reimbursement to cover operating or variable costs. If, in addition, the employee's frequency of car purchases, the automobile bought, or other factors of ownership or upkeep are substantially affected by the employer's requirements, the reimbursement should be sufficient to cover all outlays that exceed what the employee would normally spend for personal nonbusiness automobile transportation. Information concerning reimbursement for private automobile use can be obtained from business travel advisory services that have made studies of costs for specific vehicles and groups of vehicles under various conditions of use. The tables may be also be used as a guide for determining reimbursement rates for occasional business use of a vehicle.

OPPORTUNITIES FOR COST SAVINGS

During the first year of operation, the five study vehicles would have daily owning and operating costs of \$13.37 (large size), \$11.12 (intermediate size), \$8.62 (compact size), \$7.37 (subcompact size), and \$19.10 (van). The portion attributable to gasoline costs, including taxes, would amount to \$3.15 for the large size, \$2.82 for the intermediate size, \$2.23 for the compact, \$1.91 for the subcompact, and \$3.83 for the van.

Throughout the 12-year life of these vehicles, gasoline and oil costs, including taxes, would account for about 30 percent of the total cost for large and intermediate-size cars and for passenger vans, and about 27 percent of the total cost for compact and subcompact cars. These figures indicate that substantial savings can be achieved by conserving fuel. This can be accomplished through more efficient driving habits, careful planning to eliminate or combine trips, proper vehicle maintenance, and ridesharing. Fuel efficiency should also be considered when selecting a new car both in determining the size of vehicle and the particular model within a size class. The U.S. Department of Energy has published the "1981 Gas Mileage Guide" containing the Environmental Protection Agency's fuel economy estimates.

Ridesharing is an effective way to reduce automobile expenses. Most people find that commuting trips are the most convenient for ridesharing. Travel to work and back comprises 30.4 percent of all personal travel, providing the opportunity for substantial cost savings by ridesharing. Table 9 shows the cost per mile for all travel when work travel is made on a rideshare basis.

TABLE 1 VEHICLE COSTS - BASES FOR ESTIMATES

ITEM	VEHICLE AND ESTIMATING BASES
Vehicle Description	<p>Large-size automobile-- 1981 model 4-door sedan equipped with V-8 engine, automatic transmission, power steering and brakes, air conditioning, tinted glass, radio, white-wall tires, wheel covers, and remote control left-hand mirror. Purchase price--\$9,232</p> <p>Intermediate-size automobile-- 1981 model sedan equipped with 6 cylinder engine, automatic transmission, power steering and brakes, air conditioning, tinted glass, radio, white-wall radial tires, wheel covers and remote control left-hand mirror. Purchase price--\$7,449</p> <p>Compact-size automobile-- 1981 model 4-door sedan equipped with 4 cylinder engine, automatic transmission, power brakes, air conditioning, tinted glass, radio, white-wall radial tires, and remote control left-hand mirror. Purchase price--\$7,111</p> <p>Subcompact-size automobile-- 1981 model 5-door (hatchback) equipped with 4 cylinder engine, standard equipment plus tinted glass, white-wall radial tires, and wheel covers. Purchase price--\$5,625</p> <p>Passenger van-- 1981 model extended wheelbase 12-passenger van equipped with 8 cylinder engine, automatic transmission, power steering and brakes, dual air conditioning and heating, tinted glass, insulation, radio, carpeting, dual exterior mirrors, interior and exterior packages. Purchase price--\$12,877</p>
Repairs and Maintenance	<p>All vehicles-- Includes routine maintenance such as lubrications, repacking wheel bearings, flushing cooling system, and aiming headlamps; replacement of minor parts such as spark plugs, fan belts, radiator hoses, fuel filter, and pollution control equipment; minor repairs such as brake jobs, water pump, carburetor overhaul, and universal joints; and major repairs such as a complete "valve job." Costs were calculated using updated 1980 parts prices and a per-hour labor rate of \$20.00 for service stations, \$21.25 for independent garages, and \$29.00 for dealer garages.</p>
Replacement Tires	<p>Large-size automobile-- 8 new regular and 2 new snow tires would be purchased during the life of the vehicle.</p> <p>Intermediate-size automobile-- 8 new regular and 2 new snow tires would be purchased during the life of the vehicle.</p> <p>Compact-size automobile-- 8 new regular and 2 new snow tires would be purchased during the life of the vehicle.</p> <p>Subcompact-size automobile-- 8 new regular and 2 new snow tires would be purchased during the life of the vehicle.</p> <p>Passenger van-- 12 new regular and 2 new snow tires would be purchased during the life of the vehicle.</p>
Accessories	<p>All vehicles-- Extra wheels for snow tires and floor mats would be purchased the first year, seat covers the sixth year, and miscellaneous items totaling \$3.07 each year.</p>
Gasoline	<p>Price--\$1.35 per gallon including taxes</p> <p>Gas mileage-- Large-size car - 17 miles per gallon Intermediate-size car - 19 miles per gallon Compact-size car - 24 miles per gallon Subcompact-size car - 28 miles per gallon Passenger van - 14 miles per gallon</p>
Oil	<p>All vehicles-- Consumption is based on manufacturers' recommended oil change intervals. Extra oil consumption is 1 quart every 2,500 miles between 50,000 and 75,000 miles driven and 1 quart every 2,000 miles between 75,000 and 120,000 miles driven.</p>
Insurance	<p>All vehicles-- Coverage for the automobiles includes \$20,000/\$40,000 bodily injury, \$10,000 property damage, \$2,500 personal injury protection, \$20,000/\$40,000/\$10,000 uninsured motorist, and \$50 deductible comprehensive coverage for the 12-year period. \$100 deductible collision coverage for the first 5 years is also included.</p> <p>Coverage for the van includes \$300,000 single limit liability, \$2,500 personal injury protection, \$50,000 uninsured motorist, and \$50 deductible comprehensive coverage for the 12-year period. \$100 deductible collision coverage for the first 5 years is also included.</p>
Parking and Tolls	<p>All vehicles-- Includes toll average of \$7.49 per year and parking fees averaging \$70.80 per year.</p>
Taxes	<p>All vehicles-- Includes Federal excise taxes on tires (10 cents per pound), lubricating oil (6 cents per gallon), and gasoline (4 cents per gallon); plus the Maryland tax on gasoline (9 cents per gallon), titling tax (5 percent of retail price), sales tax (5 percent of retail items), and registration fee (\$20.00 for 3,700 pounds or less shipping weight, or \$30.00 for vehicles over 3,700 pounds).</p>

**TABLE 2 - ESTIMATED COST OF OWNING AND OPERATING
A LARGE-SIZE 1981 MODEL AUTOMOBILE¹**

(TOTAL COSTS IN DOLLARS, COSTS PER MILE IN CENTS)

ITEM	FIRST YEAR (14,500 MILES)		SECOND YEAR (13,700 MILES)		THIRD YEAR (12,500 MILES)		FOURTH YEAR (11,400 MILES)		FIFTH YEAR (10,300 MILES)		SIXTH YEAR (9,700 MILES)	
	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE
COST EXCLUDING TAXES:												
DEPRECIATION	2,457.00	16.94	1,421.00	10.37	1,200.00	9.60	1,015.00	8.90	831.00	8.07	708.00	7.30
SCHEDULED MAINTENANCE	(98.85)	(.68)	(194.95)	(1.42)	(287.46)	(2.30)	(155.50)	(1.36)	(163.00)	(1.58)	(236.86)	(2.44)
NONSCHEDULED REPAIRS AND MAINTENANCE	(66.75)	(.46)	(117.55)	(.86)	(430.44)	(3.44)	(275.45)	(2.42)	(498.48)	(4.84)	(693.01)	(7.14)
TOTAL REPAIRS AND MAINTENANCE	165.60	1.14	312.50	2.28	717.90	5.74	430.95	3.78	661.48	6.42	929.87	9.58
REPLACEMENT TIRES	21.01	.14	19.80	.14	29.34	.23	110.27	.97	104.35	1.01	98.28	1.01
ACCESSORIES	11.89	.08	11.37	.08	10.65	.09	9.98	.09	9.34	.09	16.57	.17
GASOLINE	1,039.69	7.17	982.39	7.17	896.33	7.17	817.46	7.17	738.59	7.17	695.56	7.17
OIL	11.25	.08	20.25	.15	20.25	.16	9.00	.08	24.75	.24	15.75	.16
INSURANCE	461.00	3.18	445.00	3.25	445.00	3.56	424.00	3.72	424.00	4.12	256.00	2.64
PARKING AND TOLLS	113.68	.78	107.10	.78	97.71	.78	89.25	.78	80.80	.78	76.10	.78
TOTAL	4,281.12	29.51	3,319.41	24.22	3,417.18	27.33	2,905.91	25.49	2,874.31	27.90	2,796.13	28.81
TAXES AND FEES:												
STATE:												
GASOLINE	76.76	.53	72.53	.53	66.18	.53	60.35	.53	54.53	.53	51.35	.53
REGISTRATION	20.00	.14	20.00	.15	20.00	.16	20.00	.18	20.00	.19	20.00	.21
TITLING	461.60	3.18	-	-	-	-	-	-	-	-	-	-
OPERATING COST SALES TAX 2/	(.09)	-	(.72)	(.01)	(10.33)	(.08)	(7.43)	(.07)	(16.29)	(.16)	(19.94)	(.21)
NONOPERATING COST SALES TAX	(.90)	(.01)	(2.29)	(.02)	(2.78)	(.02)	(1.91)	(.02)	(1.53)	(.01)	(3.18)	(.03)
TOTAL SALES TAX	.99	.01	3.01	.03	13.11	.10	9.34	.09	17.82	.17	23.12	.24
SUBTOTAL	559.35	3.86	95.54	.71	99.29	.79	89.69	.80	92.35	.89	94.47	.98
FEDERAL:												
GASOLINE	34.12	.24	32.24	.24	29.41	.24	26.82	.24	24.24	.24	22.82	.24
OIL 2/	.08	-	.14	-	.14	-	.06	-	.17	-	.11	-
TIRES	4.83	.03	4.57	.03	4.13	.03	3.47	.03	3.13	.03	2.94	.03
SUBTOTAL	39.03	.27	36.95	.27	33.68	.27	30.35	.27	27.54	.27	25.87	.27
TOTAL TAXES	598.38	4.13	132.49	.98	132.97	1.06	120.04	1.07	119.89	1.16	120.34	1.25
OPERATING COSTS	3,511.24	24.21	2,094.61	15.29	1,965.89	15.72	1,626.39	14.28	1,448.87	14.06	1,240.61	12.79
OWNERSHIP COSTS	1,368.26	9.43	1,357.29	9.91	1,584.26	12.67	1,399.56	12.28	1,545.33	15.00	1,675.86	17.27
TOTAL OF ALL COSTS	4,879.50	33.64	3,451.90	25.20	3,550.15	28.39	3,025.95	26.56	2,994.20	29.06	2,916.47	30.06

TABLE 2
(CONTINUED)

ITEM	SEVENTH YEAR (9,200 MILES)		EIGHTH YEAR (8,700 MILES)		NINTH YEAR (8,200 MILES)		TENTH YEAR (7,800 MILES)		ELEVENTH YEAR (7,300 MILES)		TWELFTH YEAR (6,700 MILES)		TOTALS AND AVERAGES (120,000 MILES)	
	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE
COST EXCLUDING TAXES:														
DEPRECIATION	525.00	5.71	429.00	4.93	203.00	2.48	166.00	2.13	150.00	2.05	127.00	1.90	9,232.00	7.69
SCHEDULED MAINTENANCE	(132.50)	(1.44)	(219.20)	(2.52)	(183.86)	(2.24)	(89.35)	(1.15)	(115.60)	(1.58)	(41.08)	(.61)	(1,918.21)	(1.60)
NONSCHEDULED REPAIRS AND MAINTENANCE	(1,232.89)	(13.40)	(477.83)	(5.49)	(329.68)	(4.02)	(68.55)	(.88)	(61.75)	(.85)	(61.75)	(.92)	(4,314.13)	(3.60)
TOTAL REPAIRS AND MAINTENANCE	1,365.39	14.84	697.03	8.01	513.54	6.26	157.90	2.03	177.35	2.43	102.83	1.53	6,232.34	5.20
REPLACEMENT TIRES	93.08	1.01	88.20	1.01	82.83	1.01	79.18	1.02	73.97	1.01	67.89	1.01	868.20	.72
ACCESSORIES	15.87	.17	15.10	.17	14.41	.18	13.88	.18	13.24	.18	12.37	.18	154.67	.13
GASOLINE	659.72	7.17	623.88	7.17	588.05	7.17	559.28	7.17	523.44	7.17	480.41	7.17	8,604.80	7.17
OIL	13.50	.15	33.75	.39	18.00	.22	15.75	.20	18.00	.25	6.75	.10	207.00	.17
INSURANCE	256.00	2.78	256.00	2.94	256.00	3.12	256.00	3.28	256.00	3.51	256.00	3.82	3,991.00	3.33
PARKING AND TOLLS	72.34	.79	67.64	.78	63.88	.78	61.06	.78	57.31	.79	52.61	.79	939.48	.78
TOTAL	3,000.90	32.62	2,210.60	25.40	1,739.71	21.22	1,309.05	16.79	1,269.31	17.39	1,105.86	16.50	30,229.49	25.19
TAXES AND FEES:														
STATE:														
GASOLINE	48.71	.53	46.06	.53	43.42	.53	41.29	.53	38.65	.53	35.47	.53	635.30	.53
REGISTRATION	20.00	.22	20.00	.23	20.00	.24	20.00	.26	20.00	.27	20.00	.30	240.00	.20
TITLING	-	-	-	-	-	-	-	-	-	-	-	-	461.60	.38
OPERATING COST SALES TAX 2/	(31.81)	(.35)	(10.62)	(.12)	(8.42)	(.10)	(.43)	(.01)	(.09)	-	(.09)	-	(106.26)	(.09)
NONOPERATING COST SALES TAX	(1.05)	(.01)	(2.97)	(.03)	(1.92)	(.02)	(1.26)	(.02)	(1.81)	(.02)	(1.27)	(.02)	(22.87)	(.02)
TOTAL SALES TAX	32.86	.36	13.59	.15	10.34	.12	1.69	.03	1.90	.02	1.36	.02	129.13	.11
SUBTOTAL	101.57	1.11	79.65	.91	73.76	.89	62.98	.82	60.55	.82	56.83	.85	1,466.03	1.22
FEDERAL:														
GASOLINE	21.65	.24	20.47	.24	19.30	.24	18.35	.24	17.18	.24	15.76	.24	282.36	.24
OIL 2/	.09	-	.23	-	.12	-	.11	-	.12	-	.05	-	1.42	-
TIRES	2.78	.03	2.65	.03	2.48	.03	2.37	.03	2.22	.03	2.03	.03	37.60	.03
SUBTOTAL	24.52	.27	23.35	.27	21.90	.27	20.83	.27	19.52	.27	17.84	.27	321.38	.27
TOTAL TAXES	126.09	1.38	103.00	1.18	95.66	1.16	83.81	1.09	80.07	1.09	74.67	1.12	1,787.41	1.49
OPERATING COSTS	2,176.57	23.67	1,371.33	15.76	1,156.18	14.10	846.37	10.86	792.73	10.86	722.81	10.79	15,996.55	13.33
OWNERSHIP COSTS	950.42	10.33	942.27	10.82	679.19	8.28	546.49	7.02	556.65	7.62	457.72	6.83	16,020.35	13.35
TOTAL OF ALL COSTS	3,126.99	34.00	2,313.60	26.58	1,835.37	22.38	1,392.86	17.88	1,349.38	18.48	1,180.53	17.62	32,016.90	26.68

1/ THIS ESTIMATE COVERS THE TOTAL COST OF A MEDIUM-PRICED, LARGE-SIZE, FOUR-DOOR SEDAN, PURCHASED FOR \$9,232 AND OPERATED 120,000 MILES OVER A 12-YEAR PERIOD. SEE TABLE 1 FOR A LIST OF ITEMS INCLUDED IN THE PURCHASE PRICE. BALTIMORE AREA PRICES, CONSIDERED TO BE IN THE MIDDLE RANGE, WERE USED.

2/ WHERE COSTS PER MILE ARE LESS THAN .005 CENT, A DASH (-) APPEARS IN THE COLUMN.

**TABLE 3 - ESTIMATED COST OF OWNING AND OPERATING
AN INTERMEDIATE-SIZE 1981 MODEL AUTOMOBILE ¹**

(TOTAL COSTS IN DOLLARS, COSTS PER MILE IN CENTS)

ITEM	FIRST YEAR (14,500 MILES)		SECOND YEAR (13,700 MILES)		THIRD YEAR (12,500 MILES)		FOURTH YEAR (11,400 MILES)		FIFTH YEAR (10,300 MILES)		SIXTH YEAR (9,700 MILES)	
	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE
COST EXCLUDING TAXES:												
DEPRECIATION	1,849.00	12.75	1,050.00	7.66	915.00	7.32	735.00	6.45	665.00	6.46	460.00	4.74
SCHEDULED MAINTENANCE	(102.85)	(.71)	(193.20)	(1.41)	(286.58)	(2.29)	(153.75)	(1.35)	(162.00)	(1.57)	(211.23)	(2.18)
NONSCHEDULED REPAIRS AND MAINTENANCE	(66.75)	(.46)	(115.55)	(.84)	(438.69)	(3.51)	(279.95)	(2.46)	(485.85)	(4.72)	(642.08)	(6.62)
TOTAL REPAIRS AND MAINTENANCE	169.60	1.17	308.75	2.25	725.27	5.80	433.70	3.81	647.85	6.29	853.31	8.80
REPLACEMENT TIRES	14.02	.10	13.21	.10	12.05	.10	43.34	.38	62.24	.60	58.52	.60
ACCESSORIES	12.11	.08	11.59	.08	10.84	.09	10.16	.09	9.49	.09	16.72	.17
GASOLINE	930.34	6.42	879.02	6.42	801.98	6.42	731.40	6.42	660.82	6.42	622.30	6.42
OIL	11.25	.08	20.25	.15	20.25	.16	9.00	.08	24.75	.24	15.75	.16
INSURANCE	461.00	3.18	445.00	3.25	445.00	3.56	424.00	3.72	424.00	4.12	256.00	2.64
PARKING AND TOLLS	113.68	.78	107.10	.78	97.71	.78	89.25	.78	80.80	.78	76.10	.78
TOTAL	3,561.00	24.56	2,834.92	20.69	3,028.10	24.23	2,475.85	21.73	2,574.95	25.00	2,358.70	24.31
TAXES AND FEES:												
STATE:												
GASOLINE	68.69	.47	64.90	.47	59.21	.47	54.00	.47	48.79	.47	45.95	.47
REGISTRATION	20.00	.14	20.00	.15	20.00	.16	20.00	.18	20.00	.19	20.00	.21
TITLING	372.45	2.57	-	-	-	-	-	-	-	-	-	-
OPERATING COST SALES TAX 2/	(.09)	-	(.72)	(.01)	(10.75)	(.09)	(7.66)	(.07)	(14.41)	(.14)	(16.92)	(.17)
NONOPERATING COST SALES TAX	(.92)	(.01)	(2.01)	(.01)	(2.55)	(.02)	(1.63)	(.01)	(1.04)	(.01)	(2.91)	(.03)
TOTAL SALES TAX	1.01	.01	2.73	.02	13.30	.11	9.29	.08	15.45	.15	19.83	.20
SUBTOTAL	462.15	3.19	87.63	.64	92.51	.74	83.29	.73	84.24	.81	85.78	.88
FEDERAL:												
GASOLINE	30.53	.21	28.84	.21	26.32	.21	24.00	.21	21.68	.21	20.42	.21
OIL 2/	.08	-	.14	-	.14	-	.06	-	.17	-	.11	-
TIRES	3.25	.02	3.06	.02	2.81	.02	2.55	.02	2.31	.02	2.17	.02
SUBTOTAL	33.86	.23	32.04	.23	29.27	.23	26.61	.23	24.16	.23	22.70	.23
TOTAL TAXES	496.01	3.42	119.67	.87	121.78	.97	109.90	.96	108.40	1.04	108.48	1.11
OPERATING COSTS	1,238.68	8.54	1,232.79	9.00	1,469.91	11.76	1,241.21	10.89	1,401.82	13.60	1,500.32	15.46
OWNERSHIP COSTS	2,818.33	19.44	1,721.80	12.56	1,679.97	13.44	1,344.54	11.80	1,281.53	12.44	966.86	9.96
TOTAL OF ALL COSTS	4,057.01	27.98	2,954.59	21.56	3,149.88	25.20	2,585.75	22.69	2,683.35	26.04	2,467.18	25.42

TABLE 3
(CONTINUED)

ITEM	SEVENTH YEAR (9,200 MILES)		EIGHTH YEAR (8,700 MILES)		NINTH YEAR (8,200 MILES)		TENTH YEAR (7,800 MILES)		ELEVENTH YEAR (7,300 MILES)		TWELFTH YEAR (6,700 MILES)		TOTALS AND AVERAGES (120,000 MILES)	
	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE
COST EXCLUDING TAXES: DEPRECIATION SCHEDULED MAINTENANCE NONSCHEDULED REPAIRS AND MAINTENANCE	350.00 (136.50)	3.80 (1.48)	308.00 (212.45)	3.54 (2.44)	298.00 (187.98)	3.63 (2.29)	290.00 (89.35)	3.72 (1.15)	276.00 (113.85)	3.78 (1.56)	253.00 (41.08)	3.78 (.61)	7,449.00 (1,890.82)	6.21 (1.58)
	(1,099.21)	(11.95)	(483.83)	(5.56)	(337.93)	(4.12)	(68.55)	(.88)	(61.75)	(.85)	(61.75)	(.92)	(4,141.89)	(3.45)
TOTAL REPAIRS AND MAINTENANCE	1,235.71	13.43	696.28	8.00	525.91	6.41	157.90	2.03	175.60	2.41	102.83	1.53	6,032.71	5.03
REPLACEMENT TIRES	55.50	.60	52.49	.60	69.88	.85	71.03	.91	66.17	.91	60.95	.91	579.40	.48
ACCESSORIES	16.02	.17	15.24	.18	14.54	.18	14.00	.18	13.35	.18	12.47	.19	156.53	.13
GASOLINE	590.24	6.42	558.18	6.42	526.12	6.42	500.40	6.42	468.34	6.42	429.82	6.42	7,698.96	6.42
OIL	13.50	.15	33.75	.39	18.00	.22	15.75	.20	18.00	.25	6.75	.10	207.00	.17
INSURANCE	256.00	2.78	256.00	2.94	256.00	3.12	256.00	3.28	256.00	3.51	256.00	3.82	3,991.00	3.33
PARKING AND TOLLS	72.34	.79	67.64	.78	63.88	.78	61.06	.78	57.31	.79	52.61	.79	939.48	.78
TOTAL	2,589.31	28.14	1,987.58	22.85	1,772.33	21.61	1,366.14	17.52	1,330.77	18.25	1,174.43	17.54	27,054.08	22.55
TAXES AND FEES: STATE:														
GASOLINE	43.58	.47	41.21	.47	38.84	.47	36.95	.47	34.58	.47	31.73	.47	568.43	.47
REGISTRATION	20.00	.22	20.00	.23	20.00	.24	20.00	.26	20.00	.27	20.00	.30	240.00	.20
TITLING	-	-	-	-	-	-	-	-	-	-	-	-	372.45	.31
OPERATING COST SALES TAX 2/	(28.97)	(.31)	(11.88)	(.14)	(8.83)	(.11)	(.43)	(.01)	(.09)	-	(.09)	-	(100.84)	(.08)
NONOPERATING COST SALES TAX	(1.06)	(.01)	(2.43)	(.03)	(1.93)	(.02)	(1.27)	(.02)	(1.53)	(.02)	(1.27)	(.02)	(20.55)	(.02)
TOTAL SALES TAX	30.03	.32	14.31	.17	10.76	.13	1.70	.03	1.62	.02	1.36	.02	121.39	.10
SUBTOTAL	93.61	1.01	75.52	.87	69.60	.84	58.65	.76	56.20	.76	53.09	.79	1,302.27	1.08
FEDERAL:														
GASOLINE	19.37	.21	18.32	.21	17.24	.21	16.42	.21	15.37	.21	14.10	.21	252.61	.21
OIL 2/	.09	-	.23	-	.12	-	.11	-	.12	-	.05	-	1.42	-
TIRES	2.06	.02	1.95	.02	2.59	.03	2.64	.03	2.45	.03	2.26	.03	30.10	.03
SUBTOTAL	21.52	.23	20.50	.23	19.95	.24	19.17	.24	17.94	.24	16.41	.24	284.13	.24
TOTAL TAXES	115.13	1.24	96.02	1.10	89.55	1.08	77.82	1.00	74.14	1.00	69.50	1.03	1,586.40	1.32
OPERATING COSTS	1,924.86	20.91	1,269.48	14.59	1,083.43	13.21	773.34	9.92	724.18	9.92	660.11	9.85	14,520.13	12.10
OWNERSHIP COSTS	779.58	8.47	814.12	9.36	778.45	9.48	670.62	8.60	680.73	9.33	583.82	8.72	14,120.35	11.77
TOTAL OF ALL COSTS	2,704.44	29.38	2,083.60	23.95	1,861.88	22.69	1,443.96	18.52	1,404.91	19.25	1,243.93	18.57	28,640.48	23.87

1/ THIS ESTIMATE COVERS THE TOTAL COST OF A MEDIUM-PRICED, INTERMEDIATE-SIZE SEDAN, PURCHASED FOR \$7,449 AND OPERATED 120,000 MILES OVER A 12-YEAR PERIOD. SEE TABLE 1 FOR A LIST OF ITEMS INCLUDED IN THE PURCHASE PRICE. BALTIMORE AREA PRICES, CONSIDERED TO BE IN THE MIDDLE RANGE, WERE USED.
2/ WHERE COSTS PER MILE ARE LESS THAN .005 CENT, A DASH (-) APPEARS IN THE COLUMN.

**TABLE 4 - ESTIMATED COST OF OWNING AND OPERATING
A COMPACT-SIZE 1981 MODEL AUTOMOBILE ¹**

(TOTAL COSTS IN DOLLARS, COSTS PER MILE IN CENTS)

ITEM	FIRST YEAR (14,500 MILES)		SECOND YEAR (13,700 MILES)		THIRD YEAR (12,500 MILES)		FOURTH YEAR (11,400 MILES)		FIFTH YEAR (10,300 MILES)		SIXTH YEAR (9,700 MILES)	
	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE
COST EXCLUDING TAXES:												
DEPRECIATION	1,206.00	8.32	984.00	7.18	730.00	5.84	698.00	6.12	572.00	5.55	480.00	4.95
SCHEDULED MAINTENANCE	(66.10)	(.46)	(172.10)	(1.26)	(208.60)	(1.67)	(133.40)	(1.17)	(203.74)	(1.98)	(60.60)	(.62)
NONSCHEDULED REPAIRS AND MAINTENANCE	(67.00)	(.46)	(117.80)	(.86)	(360.87)	(2.89)	(255.13)	(2.24)	(471.68)	(4.58)	(741.51)	(7.64)
TOTAL REPAIRS AND MAINTENANCE	133.10	.92	289.90	2.12	569.47	4.56	388.53	3.41	675.42	6.56	802.11	8.26
REPLACEMENT TIRES	13.85	.10	13.05	.10	11.91	.10	42.82	.38	61.49	.60	57.83	.60
ACCESSORIES	14.44	.10	13.78	.10	12.84	.10	12.00	.11	11.15	.11	18.28	.19
GASOLINE	736.52	5.08	695.81	5.08	634.86	5.08	579.03	5.08	523.19	5.08	492.72	5.08
OIL	11.25	.08	20.25	.15	20.25	.16	9.00	.08	24.75	.24	15.75	.16
INSURANCE	461.00	3.18	445.00	3.25	445.00	3.56	424.00	3.72	424.00	4.12	256.00	2.64
PARKING AND TOLLS	113.68	.78	107.10	.78	97.71	.78	89.25	.78	80.80	.78	76.10	.78
TOTAL	2,689.84	18.56	2,568.89	18.76	2,522.04	20.18	2,242.63	19.68	2,372.80	23.04	2,198.79	22.66
TAXES AND FEES:												
STATE:												
GASOLINE	54.38	.38	51.37	.37	46.87	.37	42.75	.38	38.63	.38	36.38	.38
REGISTRATION	20.00	.14	20.00	.15	20.00	.16	20.00	.18	20.00	.19	20.00	.21
TITLING	355.55	2.45	-	-	-	-	-	-	-	-	-	-
OPERATING COST SALES TAX 2/	(.10)	-	(.73)	(.01)	(6.25)	(.05)	(6.32)	(.06)	(14.10)	(.14)	(18.68)	(.19)
NONOPERATING COST SALES TAX	(1.00)	(.01)	(1.27)	(.01)	(2.32)	(.02)	(.90)	(.01)	(2.75)	(.03)	(.91)	(.01)
TOTAL SALES TAX	1.10	.01	2.00	.02	8.57	.07	7.22	.07	16.85	.17	19.59	.20
SUBTOTAL	431.03	2.98	73.37	.54	75.44	.60	69.97	.63	75.48	.74	75.97	.79
FEDERAL:												
GASOLINE	24.17	.17	22.83	.17	20.83	.17	19.00	.17	17.17	.17	16.17	.17
OIL 2/	.08	-	.14	-	.14	-	.06	-	.17	-	.11	-
TIRES	2.99	.02	2.83	.02	2.57	.02	2.35	.02	2.13	.02	2.00	.02
SUBTOTAL	27.24	.19	25.80	.19	23.54	.19	21.41	.19	19.47	.19	18.28	.19
TOTAL TAXES	458.27	3.17	99.17	.73	98.98	.79	91.38	.82	94.95	.93	94.25	.98
OPERATING COSTS	1,024.02	7.07	1,031.91	7.54	1,202.26	9.62	1,045.71	9.19	1,234.11	11.99	1,457.25	15.02
OWNERSHIP COSTS	2,124.09	14.66	1,636.15	11.95	1,418.76	11.35	1,288.30	11.31	1,233.64	11.98	835.79	8.62
TOTAL OF ALL COSTS	3,148.11	21.73	2,668.06	19.49	2,621.02	20.97	2,334.01	20.50	2,467.75	23.97	2,293.04	23.64

TABLE 4
(CONTINUED)

ITEM	SEVENTH YEAR (9,200 MILES)		EIGHTH YEAR (8,700 MILES)		NINTH YEAR (8,200 MILES)		TENTH YEAR (7,800 MILES)		ELEVENTH YEAR (7,300 MILES)		TWELFTH YEAR (6,700 MILES)		TOTALS AND AVERAGES (120,000 MILES)	
	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE
COST EXCLUDING TAXES:														
DEPRECIATION	450.00	4.89	430.00	4.94	420.00	5.12	414.00	5.31	410.00	5.62	317.00	4.73	7,111.00	5.93
SCHEDULED MAINTENANCE	(133.40)	(1.45)	(236.94)	(2.72)	(60.60)	(.74)	(121.50)	(1.56)	(88.94)	(1.22)	(10.00)	(.15)	(1,495.92)	(1.25)
NONSCHEDULED REPAIRS AND MAINTENANCE	(872.76)	(9.49)	(404.26)	(4.65)	(256.11)	(3.12)	(68.80)	(.88)	(62.00)	(.85)	(62.00)	(.93)	(3,739.92)	(3.12)
TOTAL REPAIRS AND MAINTENANCE	1,006.16	10.94	641.20	7.37	316.71	3.86	190.30	2.44	150.94	2.07	72.00	1.08	5,235.84	4.37
REPLACEMENT TIRES	54.86	.60	51.86	.60	69.04	.84	70.18	.90	65.38	.90	60.23	.90	572.50	.48
ACCESSORIES	17.50	.19	16.63	.19	15.85	.19	15.25	.20	14.52	.20	13.55	.20	175.79	.15
GASOLINE	467.24	5.08	441.89	5.08	416.53	5.08	396.18	5.08	370.82	5.08	340.34	5.08	6,095.13	5.08
OIL	13.50	.15	33.75	.39	18.00	.22	15.75	.20	18.00	.25	6.75	.10	207.00	.17
INSURANCE	256.00	2.78	256.00	2.94	256.00	3.12	256.00	3.28	256.00	3.51	256.00	3.82	3,991.00	3.33
PARKING AND TOLLS	72.34	.79	67.64	.78	63.88	.78	61.06	.78	57.31	.79	52.61	.79	939.48	.78
TOTAL	2,337.60	25.42	1,938.97	22.29	1,576.01	19.21	1,418.72	18.19	1,342.97	18.42	1,118.48	16.70	24,327.74	20.29
TAXES AND FEES:														
STATE:														
GASOLINE	34.50	.38	32.63	.38	30.75	.38	29.25	.38	27.38	.38	25.13	.38	450.02	.38
REGISTRATION	20.00	.22	20.00	.23	20.00	.24	20.00	.26	20.00	.27	20.00	.30	240.00	.20
TITLING	-	-	-	-	-	-	-	-	-	-	-	-	355.55	.30
OPERATING COST SALES TAX 2/	(22.43)	(.24)	(8.23)	(.09)	(4.13)	(.05)	(.44)	(.01)	(.10)	-	(.10)	-	(81.61)	(.07)
NONOPERATING COST SALES TAX	(1.18)	(.01)	(3.02)	(.03)	(.79)	(.01)	(1.34)	(.02)	(1.25)	(.02)	(.68)	(.01)	(17.41)	(.01)
TOTAL SALES TAX	23.61	.25	11.25	.12	4.92	.06	1.78	.03	1.35	.02	.78	.01	99.02	.08
SUBTOTAL	78.11	.85	63.88	.73	55.67	.68	51.03	.67	48.73	.67	45.91	.69	1,144.59	.96
FEDERAL:														
GASOLINE	15.33	.17	14.50	.17	13.67	.17	13.00	.17	12.17	.17	11.17	.17	200.01	.17
OIL 2/	.09	-	.23	-	.12	-	.11	-	.12	-	.05	-	1.42	-
TIRES	1.89	.02	1.80	.02	2.39	.03	2.43	.03	2.26	.03	2.08	.03	27.72	.02
SUBTOTAL	17.31	.19	16.53	.19	16.18	.20	15.54	.20	14.55	.20	13.30	.20	229.15	.19
TOTAL TAXES	95.42	1.04	80.41	.92	71.85	.88	66.57	.87	63.28	.87	59.21	.89	1,373.74	1.15
OPERATING COSTS	1,554.94	16.91	1,056.79	12.15	874.62	10.66	657.20	8.43	615.54	8.44	560.46	8.37	12,314.81	10.27
OWNERSHIP COSTS	878.08	9.55	962.59	11.06	773.24	9.43	828.09	10.63	790.71	10.85	617.23	9.22	13,386.67	11.17
TOTAL OF ALL COSTS	2,433.02	26.46	2,019.38	23.21	1,647.86	20.09	1,485.29	19.06	1,406.25	19.29	1,177.69	17.59	25,701.48	21.44

1/ THIS ESTIMATE COVERS THE TOTAL COST OF A MEDIUM-PRICED, COMPACT-SIZE SEDAN, PURCHASED FOR \$7,111 AND OPERATED 120,000 MILES OVER A 12-YEAR PERIOD. SEE TABLE 1 FOR A LIST OF ITEMS INCLUDED IN THE PURCHASE PRICE. BALTIMORE AREA PRICES, CONSIDERED TO BE IN THE MIDDLE RANGE, WERE USED.
2/ WHERE COSTS PER MILE ARE LESS THAN .005 CENT, A DASH (-) APPEARS IN THE COLUMN.

TABLE 5 - ESTIMATED COST OF OWNING AND OPERATING

A SUBCOMPACT-SIZE 1981 MODEL AUTOMOBILE

(TOTAL COSTS IN DOLLARS, COSTS PER MILE IN CENTS)

ITEM	FIRST YEAR (14,500 MILES)		SECOND YEAR (13,700 MILES)		THIRD YEAR (12,500 MILES)		FOURTH YEAR (11,400 MILES)		FIFTH YEAR (10,300 MILES)		SIXTH YEAR (9,700 MILES)	
	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE
COST EXCLUDING TAXES:												
DEPRECIATION	956.00	6.59	776.00	5.66	580.00	4.64	551.00	4.83	450.00	4.37	383.00	3.95
SCHEDULED MAINTENANCE	(96.85)	(.67)	(177.85)	(1.30)	(205.53)	(1.64)	(138.40)	(1.21)	(152.15)	(1.48)	(122.28)	(1.26)
NONSCHEDULED REPAIRS AND MAINTENANCE	(67.00)	(.46)	(113.80)	(.83)	(304.98)	(2.44)	(212.63)	(1.87)	(459.55)	(4.46)	(653.35)	(6.74)
TOTAL REPAIRS AND MAINTENANCE	163.85	1.13	291.65	2.13	510.51	4.08	351.03	3.08	611.70	5.94	775.63	8.00
REPLACEMENT TIRES	12.40	.09	11.68	.09	10.65	.09	38.32	.34	55.01	.53	51.75	.53
ACCESSORIES	14.96	.10	14.27	.10	13.29	.11	12.41	.11	11.52	.11	18.63	.19
GASOLINE	631.32	4.35	596.46	4.35	544.16	4.35	496.25	4.35	448.47	4.35	422.26	4.35
OIL	9.00	.06	18.00	.13	18.00	.14	9.00	.08	22.50	.22	13.50	.14
INSURANCE	415.00	2.86	401.00	2.93	401.00	3.21	373.00	3.27	373.00	3.62	243.00	2.51
PARKING AND TOLLS	113.68	.78	107.10	.78	97.71	.78	89.25	.78	80.80	.78	76.10	.78
TOTAL	2,316.21	15.96	2,216.16	16.17	2,175.32	17.40	1,920.26	16.84	2,053.00	19.92	1,983.87	20.45
TAXES AND FEES:												
STATE:												
GASOLINE	46.61	.32	44.04	.32	40.18	.32	36.64	.32	33.11	.32	31.18	.32
REGISTRATION	20.00	.14	20.00	.15	20.00	.16	20.00	.18	20.00	.19	20.00	.21
TITLING	281.25	1.94	-	-	-	-	-	-	-	-	-	-
OPERATING COST SALES TAX 2/	(.10)	-	(.53)	-	(6.98)	(.06)	(4.68)	(.04)	(11.07)	(.11)	(13.93)	(.14)
NONOPERATING COST SALES TAX	(1.06)	(.01)	(1.67)	(.01)	(1.66)	(.01)	(1.27)	(.01)	(1.19)	(.01)	(1.89)	(.02)
TOTAL SALES TAX	1.16	.01	2.20	.01	8.64	.07	5.95	.05	12.26	.12	15.82	.16
SUBTOTAL	349.02	2.41	66.24	.48	68.82	.55	62.59	.55	65.37	.63	67.00	.69
FEDERAL:												
GASOLINE	20.72	.14	19.57	.14	17.86	.14	16.28	.14	14.72	.14	13.86	.14
OIL 2/	.06	-	.12	-	.12	-	.06	-	.15	-	.09	-
TIRES	2.33	.02	2.20	.02	2.00	.02	1.82	.02	1.65	.02	1.56	.02
SUBTOTAL	23.11	.16	21.89	.16	19.98	.16	18.16	.16	16.52	.16	15.51	.16
TOTAL TAXES	372.13	2.57	88.13	.64	88.80	.71	80.75	.71	81.89	.79	82.51	.85
OPERATING COSTS	903.22	6.22	913.50	6.66	1,042.64	8.34	904.93	7.94	1,127.03	10.93	1,277.58	13.17
OWNERSHIP COSTS	1,785.12	12.31	1,390.79	10.15	1,221.48	9.77	1,096.08	9.61	1,007.86	9.78	788.80	8.13
TOTAL OF ALL COSTS	2,688.34	18.53	2,304.29	16.81	2,264.12	18.11	2,001.01	17.55	2,134.89	20.71	2,066.38	21.30

TABLE 5
(CONTINUED)

ITEM	SEVENTH YEAR (9,200 MILES)		EIGHTH YEAR (8,700 MILES)		NINTH YEAR (8,200 MILES)		TENTH YEAR (7,800 MILES)		ELEVENTH YEAR (7,300 MILES)		TWELFTH YEAR (6,700 MILES)		TOTALS AND AVERAGES (120,000 MILES)	
	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE
COST EXCLUDING TAXES:														
DEPRECIATION	354.00	3.85	337.00	3.87	332.00	4.05	330.00	4.23	323.00	4.42	253.00	3.78	5,625.00	4.69
SCHEDULED MAINTENANCE	(126.90)	(1.38)	(196.85)	(2.26)	(110.78)	(1.35)	(85.75)	(1.10)	(102.10)	(1.40)	(40.18)	(.60)	(1,555.62)	(1.30)
NONSCHEDULED REPAIRS AND MAINTENANCE	(916.89)	(9.97)	(335.13)	(3.85)	(218.38)	(2.66)	(68.80)	(.88)	(62.00)	(.85)	(62.00)	(.93)	(3,474.51)	(2.90)
TOTAL REPAIRS AND MAINTENANCE	1,043.79	11.35	531.98	6.11	329.16	4.01	154.55	1.98	164.10	2.25	102.18	1.53	5,030.13	4.20
REPLACEMENT TIRES	49.08	.53	46.42	.53	61.79	.75	62.81	.81	58.50	.80	53.89	.80	512.30	.43
ACCESSORIES	17.84	.19	16.94	.19	16.13	.20	15.53	.20	14.78	.20	13.79	.21	180.09	.15
GASOLINE	400.56	4.35	378.74	4.35	357.05	4.35	339.61	4.35	317.79	4.35	291.71	4.35	5,224.38	4.35
OIL	13.50	.15	31.50	.36	15.75	.19	15.75	.20	15.75	.22	6.75	.10	189.00	.16
INSURANCE	243.00	2.64	243.00	2.79	243.00	2.96	243.00	3.12	243.00	3.33	243.00	3.63	3,664.00	3.05
PARKING AND TOLLS	72.34	.79	67.64	.78	63.88	.78	61.06	.78	57.31	.79	52.61	.80	939.48	.78
TOTAL	2,194.11	23.85	1,653.22	18.98	1,418.76	17.29	1,222.31	15.67	1,194.23	16.36	1,016.93	15.20	21,364.38	17.81
TAXES AND FEES:														
STATE:														
GASOLINE	29.57	.32	27.96	.32	26.36	.32	25.07	.32	23.46	.32	21.54	.32	385.72	.32
REGISTRATION	20.00	.22	20.00	.23	20.00	.24	20.00	.26	20.00	.27	20.00	.30	240.00	.20
TITLING	-	-	-	-	-	-	-	-	-	-	-	-	281.25	.23
OPERATING COST SALES TAX 2/	(20.76)	(.23)	(6.89)	(.08)	(4.73)	(.06)	(.44)	(.01)	(.10)	-	(.10)	-	(70.31)	(.06)
NONOPERATING COST SALES TAX	(.97)	(.01)	(2.04)	(.02)	(1.19)	(.01)	(1.17)	(.02)	(1.32)	(.02)	(1.07)	(.02)	(16.50)	(.01)
TOTAL SALES TAX	21.73	.24	8.93	.10	5.92	.07	1.61	.03	1.42	.02	1.17	.02	86.81	.07
SUBTOTAL	71.30	.78	56.89	.65	52.28	.63	46.68	.61	44.88	.61	42.71	.64	993.78	.82
FEDERAL:														
GASOLINE	13.14	.14	12.43	.14	11.72	.14	11.14	.14	10.43	.14	9.57	.14	171.44	.14
OIL 2/	.09	-	.21	-	.11	-	.11	-	.11	-	.05	-	1.28	-
TIRES	1.48	.02	1.39	.02	1.86	.02	1.89	.02	1.76	.02	1.62	.02	21.56	.02
SUBTOTAL	14.71	.16	14.03	.16	13.69	.16	13.14	.16	12.30	.16	11.24	.16	194.28	.16
TOTAL TAXES	86.01	.94	70.92	.81	65.97	.79	59.82	.77	57.18	.77	53.95	.80	1,188.06	.98
OPERATING COSTS	1,517.41	16.50	908.31	10.43	761.63	9.27	586.68	7.52	547.21	7.49	499.84	7.47	10,989.98	9.16
OWNERSHIP COSTS	762.71	8.29	815.83	9.36	723.10	8.81	695.45	8.92	704.20	9.64	571.04	8.53	11,562.46	9.63
TOTAL OF ALL COSTS	2,280.12	24.79	1,724.14	19.79	1,484.73	18.08	1,282.13	16.44	1,251.41	17.13	1,070.88	16.00	22,552.44	18.79

1/ THIS ESTIMATE COVERS THE TOTAL COST OF A MEDIUM-PRICED, SUBCOMPACT-SIZE SEDAN, PURCHASED FOR \$5,625 AND OPERATED 120,000 MILES OVER A 12-YEAR PERIOD. SEE TABLE 1 FOR A LIST OF ITEMS INCLUDED IN THE PURCHASE PRICE. BALTIMORE AREA PRICES, CONSIDERED TO BE IN THE MIDDLE RANGE, WERE USED.
2/ WHERE COSTS PER MILE ARE LESS THAN .005 CENT, A DASH (-) APPEARS IN THE COLUMN.

TABLE 6 - ESTIMATED COST OF OWNING AND OPERATING

A 1981 MODEL PASSENGER VAN ¹

(TOTAL COSTS IN DOLLARS, COSTS PER MILE IN CENTS)

ITEM	FIRST YEAR (14,500 MILES)		SECOND YEAR (13,700 MILES)		THIRD YEAR (12,500 MILES)		FOURTH YEAR (11,400 MILES)		FIFTH YEAR (10,300 MILES)		SIXTH YEAR (9,700 MILES)	
	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE
COST EXCLUDING TAXES:												
DEPRECIATION	3,983.00	27.47	1,846.00	13.47	1,361.00	10.89	847.00	7.43	696.00	6.76	665.00	6.86
SCHEDULED MAINTENANCE	(96.85)	(.67)	(177.85)	(1.30)	(205.53)	(1.64)	(138.40)	(1.21)	(152.15)	(1.48)	(122.28)	(1.26)
NONSCHEDULED REPAIRS AND MAINTENANCE	(67.50)	(.47)	(161.53)	(1.18)	(626.81)	(5.01)	(186.09)	(1.63)	(632.59)	(6.14)	(819.04)	(8.44)
TOTAL REPAIRS AND MAINTENANCE	164.35	1.14	339.38	2.48	832.34	6.65	324.49	2.84	784.74	7.62	941.32	9.70
REPLACEMENT TIRES	15.12	.10	14.24	.10	59.72	.48	94.96	.83	85.82	.83	80.84	.83
ACCESSORIES	18.09	.12	17.28	.13	16.13	.13	15.11	.13	14.08	.14	43.91	.45
GASOLINE	1,262.92	8.71	1,192.91	8.71	1,088.45	8.71	992.63	8.71	896.82	8.71	844.65	8.71
OIL	13.50	.09	24.75	.18	24.75	.20	11.25	.10	29.25	.28	18.00	.19
INSURANCE	585.00	4.03	567.00	4.14	567.00	4.54	544.00	4.77	544.00	5.28	360.00	3.71
PARKING AND TOLLS	113.68	.78	107.10	.78	97.71	.78	89.25	.78	80.80	.78	76.10	.78
TOTAL	6,155.26	42.44	4,108.66	29.99	4,047.10	32.38	2,918.69	25.59	3,131.51	30.40	3,029.82	31.23
TAXES AND FEES:												
STATE:												
GASOLINE	93.21	.64	88.07	.64	80.36	.64	73.29	.64	66.21	.64	62.36	.64
REGISTRATION	30.00	.21	30.00	.22	30.00	.24	30.00	.26	30.00	.29	30.00	.31
TITLING	643.85	4.44	-	-	-	-	-	-	-	-	-	-
OPERATING COST SALES TAX 2/	(.13)	-	(1.65)	(.01)	(16.69)	(.13)	(2.63)	(.02)	(16.16)	(.16)	(20.57)	(.21)
NONOPERATING COST SALES TAX	(1.21)	(.01)	(1.82)	(.01)	(1.81)	(.01)	(1.41)	(.01)	(1.31)	(.01)	(3.16)	(.03)
TOTAL SALES TAX	1.34	.01	3.47	.02	18.50	.14	4.04	.03	17.47	.17	23.73	.24
SUBTOTAL	768.40	5.30	121.54	.88	128.86	1.02	107.33	.93	113.68	1.10	116.09	1.19
FEDERAL:												
GASOLINE	41.43	.29	39.14	.29	35.72	.29	32.57	.29	29.43	.29	27.72	.29
OIL 2/	.09	-	.17	-	.17	-	.08	-	.20	-	.12	-
TIRES	6.53	.05	6.18	.05	5.63	.05	5.14	.05	4.64	.05	4.37	.05
SUBTOTAL	48.05	.34	45.49	.34	41.52	.34	37.79	.34	34.27	.34	32.21	.34
TOTAL TAXES	816.45	5.64	167.03	1.22	170.38	1.36	145.12	1.27	147.95	1.44	148.30	1.53
OPERATING COSTS	1,613.71	11.13	1,635.74	11.94	2,036.01	16.29	1,487.89	13.04	1,841.92	17.88	1,953.77	20.14
OWNERSHIP COSTS	5,358.00	36.95	2,639.95	19.27	2,181.47	17.45	1,575.92	13.82	1,437.54	13.96	1,224.35	12.62
TOTAL OF ALL COSTS	6,971.71	48.08	4,275.69	31.21	4,217.48	33.74	3,063.81	26.86	3,279.46	31.84	3,178.12	32.76

TABLE 6

(CONTINUED)

ITEM	SEVENTH YEAR (9,200 MILES)		EIGHTH YEAR (8,700 MILES)		NINTH YEAR (8,200 MILES)		TENTH YEAR (7,800 MILES)		ELEVENTH YEAR (7,300 MILES)		TWELFTH YEAR (6,700 MILES)		TOTALS AND AVERAGES (120,000 MILES)	
	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE	TOTAL COST	COST PER MILE
COST EXCLUDING TAXES:														
DEPRECIATION	647.00	7.03	643.00	7.39	618.00	7.54	541.00	6.94	528.00	7.23	502.00	7.49	12,877.00	10.73
SCHEDULED MAINTENANCE	(126.90)	(1.38)	(196.85)	(2.26)	(110.78)	(1.35)	(85.75)	(1.10)	(102.10)	(1.40)	(40.18)	(.60)	(1,555.62)	(1.30)
NONSCHEDULED REPAIRS AND MAINTENANCE	(1,156.96)	(12.58)	(664.79)	(7.64)	(476.21)	(5.81)	(110.13)	(1.41)	(105.00)	(1.44)	(62.50)	(.93)	(5,069.15)	(4.22)
TOTAL REPAIRS AND MAINTENANCE	1,283.86	13.96	861.64	9.90	586.99	7.16	195.88	2.51	207.10	2.84	102.68	1.53	6,624.77	5.52
REPLACEMENT TIRES	76.71	.83	72.47	.83	68.22	.83	87.58	1.12	113.70	1.56	105.20	1.57	874.58	.73
ACCESSORIES	41.83	.45	39.64	.46	37.57	.46	35.95	.46	34.07	.47	31.51	.47	345.17	.29
GASOLINE	801.00	8.71	757.49	8.71	713.97	8.71	679.10	8.71	635.59	8.71	583.41	8.71	10,448.54	8.71
OIL	15.75	.17	38.25	.44	20.25	.25	18.00	.23	20.25	.28	5.75	.10	240.75	.20
INSURANCE	360.00	3.91	360.00	4.14	360.00	4.39	360.00	4.62	360.00	4.93	360.00	5.37	5,327.00	4.44
PARKING AND TOLLS	72.34	.79	67.64	.78	63.88	.78	61.06	.78	57.31	.79	52.61	.79	939.48	.78
TOTAL	3,298.49	35.85	2,840.13	32.65	2,468.88	30.12	1,978.57	25.37	1,956.02	26.81	1,744.16	26.03	37,677.29	31.40
TAXES AND FEES:														
STATE:														
GASOLINE	59.14	.64	55.93	.64	52.71	.64	50.14	.64	46.93	.64	43.07	.64	771.42	.64
REGISTRATION	30.00	.33	30.00	.34	30.00	.37	30.00	.38	30.00	.41	30.00	.45	360.00	.30
TITLING	-	-	-	-	-	-	-	-	-	-	-	-	643.85	.54
OPERATING COST SALES TAX 2/	(29.29)	(.32)	(10.25)	(.12)	(11.66)	(.14)	(1.55)	(.02)	(.13)	-	(.13)	-	(110.84)	(.09)
NONOPERATING COST SALES TAX	(2.17)	(.02)	(3.17)	(.04)	(2.26)	(.03)	(2.19)	(.03)	(2.28)	(.03)	(1.96)	(.03)	(24.75)	(.02)
TOTAL SALES TAX	31.46	.34	13.42	.16	13.92	.17	3.74	.05	2.41	.03	2.09	.03	135.59	.11
SUBTOTAL	120.60	1.31	99.35	1.14	96.63	1.18	83.88	1.07	79.34	1.08	75.16	1.12	1,910.86	1.59
FEDERAL:														
GASOLINE	26.28	.29	24.86	.29	23.43	.29	22.28	.29	20.86	.29	19.14	.29	342.86	.29
OIL 2/	.11	-	.26	-	.14	-	.12	-	.14	-	.05	-	1.65	-
TIRES	4.15	.05	3.92	.05	3.70	.05	4.74	.06	6.15	.08	5.69	.08	60.84	.05
SUBTOTAL	30.54	.34	29.04	.34	27.27	.34	27.14	.35	27.15	.37	24.88	.37	405.35	.34
TOTAL TAXES	151.14	1.65	128.39	1.48	123.90	1.52	111.02	1.42	106.49	1.45	100.04	1.49	2,316.21	1.93
OPERATING COSTS	2,241.73	24.37	1,695.86	19.50	1,434.17	17.50	1,034.70	13.27	1,006.06	13.78	878.55	13.11	18,860.11	15.72
OWNERSHIP COSTS	1,207.90	13.13	1,272.66	14.63	1,158.61	14.14	1,054.89	13.52	1,056.45	14.48	965.65	14.41	21,133.39	17.61
TOTAL OF ALL COSTS	3,449.63	37.50	2,968.52	34.13	2,592.78	31.64	2,089.59	26.79	2,062.51	28.26	1,844.20	27.52	39,993.50	33.33

1/ THIS ESTIMATE COVERS THE TOTAL COST OF A PASSENGER VAN PURCHASED FOR \$12,877 AND OPERATED 120,000 MILES OVER A 12-YEAR PERIOD. SEE TABLE 1 FOR A LIST OF ITEMS INCLUDED IN THE PURCHASE PRICE. BALTIMORE AREA PRICES, CONSIDERED TO BE IN THE MIDDLE RANGE, WERE USED.
2/ WHERE COSTS PER MILE ARE LESS THAN .005 CENT, A DASH (-) APPEARS IN THE COLUMN.

TABLE 7 - COST OF VARIOUS FINANCING PLANS

AMOUNT BORROWED OR WITHDRAWN FROM SAVINGS	LOAN INTEREST AT 18 PERCENT		SAVINGS INTEREST COST AT 6 PERCENT	
	36 MONTH LOAN	48 MONTH LOAN	36 MONTH PAYBACK PERIOD	48 MONTH PAYBACK PERIOD
\$ 1,000	\$ 302	\$ 410	\$ 98	\$ 137
2,000	603	820	196	274
3,000	905	1,230	294	411
4,000	1,206	1,640	392	548
5,000	1,508	2,050	490	685
6,000	1,809	2,460	588	822
7,000	2,111	2,871	686	959
8,000	2,413	3,281	784	1,096
9,000	2,714	3,692	882	1,233
10,000	3,016	4,102	980	1,370

**TABLE 8 - GASOLINE COST PER MILE (EXCLUDING TAXES)
AT VARIOUS GASOLINE PRICES**

(CENTS PER MILE)

VEHICLE	GASOLINE PRICE PER GALLON										
	1.30	1.31	1.32	1.33	1.34	1.35	1.36	1.37	1.38	1.39	1.40
LARGE CAR	6.88	6.94	6.99	7.05	7.11	7.17	7.23	7.29	7.35	7.41	7.46
INTERMEDIATE CAR	6.15	6.21	6.26	6.31	6.36	6.42	6.47	6.52	6.57	6.63	6.68
COMPACT CAR	4.87	4.91	4.95	5.00	5.04	5.08	5.12	5.16	5.20	5.25	5.29
SUBCOMPACT CAR	4.18	4.21	4.25	4.28	4.32	4.35	4.39	4.43	4.46	4.50	4.53
PASSENGER VAN	8.35	8.42	8.49	8.56	8.64	8.71	8.78	8.85	8.92	8.99	9.06

VEHICLE	GASOLINE PRICE PER GALLON										
	1.41	1.42	1.43	1.44	1.45	1.46	1.47	1.48	1.49	1.50	1.51
LARGE CAR	7.52	7.58	7.64	7.70	7.76	7.82	7.88	7.94	7.99	8.05	8.11
INTERMEDIATE CAR	6.73	6.78	6.84	6.89	6.94	6.99	7.05	7.10	7.15	7.20	7.25
COMPACT CAR	5.33	5.37	5.41	5.45	5.50	5.54	5.58	5.62	5.66	5.70	5.74
SUBCOMPACT CAR	4.57	4.60	4.64	4.67	4.71	4.75	4.78	5.14	5.17	5.21	5.25
PASSENGER VAN	9.14	9.21	9.28	9.35	9.42	9.49	9.56	9.64	9.71	9.78	9.85

**TABLE 9 - COST PER PASSENGER MILE FOR ALL TRAVEL
WHEN WORK TRAVEL IS ON A RIDESHARE BASIS**

(CENTS PER MILE)

VEHICLE	NUMBER OF OCCUPANTS									
	1	2	3	4	5	6	8	10	12	
LARGE CAR	26.6	22.6	21.2	20.5	20.1	19.9	-	-	-	-
INTERMEDIATE CAR	23.8	20.2	19.0	18.4	18.0	17.8	-	-	-	-
COMPACT CAR	21.4	18.1	17.1	16.5	16.2	-	-	-	-	-
SUBCOMPACT CAR	18.9	16.0	15.1	14.6	-	-	-	-	-	-
PASSENGER VAN	33.2	28.2	26.5	25.6	25.1	24.8	24.4	24.1	23.9	-

WORKSHEET TO CONVERT COSTS TO ANY LOCALITY

Costs in Your Locality

- | | | |
|-----|--|----------|
| 1. | Amount Paid for your car | \$ _____ |
| 2. | Cost of accessory items | \$ _____ |
| 3. | Cost of a tire to fit your car | \$ _____ |
| 4. | Price of gasoline per gallon (including tax) | \$ _____ |
| 5. | Price of oil per quart (including tax) | \$ _____ |
| 6. | Annual cost of your insurance | \$ _____ |
| 7. | Estimated cost of your daily parking | \$ _____ |
| 8. | State registration fee for your car | \$ _____ |
| 9. | Sales/titling, and/or personal property tax | \$ _____ |
| 10. | Mechanics labor charge per hour | \$ _____ |
| 11. | Monthly interest cost (Monthly payment x Number
of months for loan less Amount of loan / Number
of months for loan | \$ _____ |
| 12. | Term of your auto loan | \$ _____ |
| 13. | Your mileage for the year | \$ _____ |

Estimated First Year Cost^{1/}

Ownership Costs (First Year)

	Total	Cost per mile (Total Column / line 13)	
14.	Depreciation (25% ^{2/} of line 1)	\$ _____	cents
15.	Accessories (line 2 / 12).....	\$ _____	cents
16.	Insurance (line 6)	\$ _____	cents
17.	Registration fee (line 8)	\$ _____	cents
18.	Financing (12 x monthly interest cost)	\$ _____	cents
19.	Sales/titling, and/or property tax (line 9) ..	\$ _____	cents

Operating Costs^{3/} (First Year)

20.	Gasoline (Annual gallons used x line 4)	\$ _____	cents
21.	Oil (line 13 / owners manual change requirements x line 5)	\$ _____	cents
22.	Snow tires (2 x line 3 x .25)	\$ _____	cents
23.	Maintenance and Repair (line 10 / 23.42 x First Year Repairs and Maintenance from Table 2, 3, 4, 5, or 6)	\$ _____	cents
24.	Parking (250 x line 7) or actual days parked x daily cost	\$ _____	cents
25.	Tolls	\$ _____	cents
26.	Total Cost (Add lines 14-25)	\$ _____	cents

^{1/}If you wish to compute your costs for other than the first year, note additional instructions in section titled "Adjustment of Costs to Other Localities."

^{2/}Use 15 percent for compact or subcompact cars, 30 percent for vans.

^{3/}All maintenance and repair, both scheduled and nonscheduled, are included in operating costs.