

Total cost for gasoline and oil: \$271.07, or about three cents per mile.

MAINTENANCE: This cost varies from car to car even more than the cost per mile of gas and oil. During the first year of a new car's use, it may cost the owner no more than five or six lubrication jobs and a gallon of anti-freeze. At the other extreme, some motorists may find it necessary to spend hundreds of dollars for mechanical repairs, replacement of parts, and repair of body damage. Money saved by neglecting needed repairs will usually show up in the form of increased depreciation. The only way to determine accurately the cost of maintenance is to keep a record of all expenditures. However, since most motorists don't want to bother with this chore, they can use the figure on page six. But it should be noted that this figure is an average developed for cars in the low-priced field used for business purposes. At best, it is only a rough approximation for privately operated passenger cars.

TIRES: Tire costs, like fuel costs, also vary from car to car. The type of driving and the type of driver are both factors. High speeds, warm climates, hard cornering, rapid acceleration and quick stops all contribute to fast tire wear and increased costs of car operation. A conservative motorist who buys a new car each year may spend nothing extra on tires. If the tires on the car he trades are in good condition, he will lose nothing in added depreciation. On the other hand, the motorist who must replace a set of tires every year may spend from \$60 to \$200, depending on the size and type of tires he chooses. According to the study by Runzheimer and Company, the average cost per mile for tires on cars almost exclusively for business is slightly over one-half cent.

Fixed costs

INSURANCE: The majority of motorists carry insurance, and the cost of premiums is definitely a part of total operating costs. There is nothing uniform about insurance premiums; they are listed under fixed costs because they do not fluctuate with the number of miles driven. To determine insurance costs simply add the premiums of all policies you carry that are directly related to car operation, such as public liability, property damage, collision, fire and theft, and medical payment.

TAXES: Taxes paid regularly, such as property and use taxes, are fixed annual costs. Federal and state excise and sales taxes, which are paid only when the vehicle is bought, should be considered a part of the total purchase price, but they should not be prorated in calculating annual operating costs.

LICENSE AND REGISTRATION FEES: These fees should be treated in the same way as taxes. No two states use exactly the same schedules. Merely determine what you spend for license and registration fees and add the total to your fixed costs.

4

DEPRECIATION: For most motorists, the largest single expense of owning a new or recent model automobile is depreciation. It is also the most difficult cost to determine. Depreciation is merely the difference between the purchase price of your car and its selling price. If all car sales were on a cash basis, and no trade-ins were involved, depreciation could be determined easily. But such exchanges have become the exception rather than the rule. In recent years, about sixty percent of both new and used cars have been sold on an installment basis, and in an equal percentage of instances a trade-in was involved. The trade-in allowance complicates figuring depreciation.

As anyone who has shopped around for a new auto knows, the trade-in value of your car depends on the kind and price of the vehicle you buy. Here is an example of how the same car might produce several depreciation figures:

Assume you paid \$3,000 three years ago for your car, and today similar vehicles are being offered in the classified section of the local paper for \$1,500, which indicates a depreciation of \$1,500 for your auto, or an average of \$500 per year. Thinking you would be in a better bargaining position if you offered cash for a new car, you try to sell your car to a used car dealer. He offers you the wholesale price, say \$1,200, which means your car has depreciated at an average rate of \$600 per year. However, before making the deal, you shop at several new car agencies. One has a car listed at \$4,200 fully equipped and offers you \$2,400 for your car in trade. That sounds much better; your car has depreciated only \$600 in three years. Another dealer, who sells a standard model of another make with no optional equipment for \$2,900 will give you only \$1,300 for the old car—just \$100 over the wholesale price.

Looking back over your figures, you find that your car has depreciated at an average annual rate of either \$500, \$600, \$200 and \$533—depending on how and where you dispose of it. Obviously, there is no pat formula for determining depreciation. However, one method the average motorist might use to figure depreciation is to determine the cash outlay necessary to replace his car with a new one in the same price class and with the same optional equipment. (It is interesting to note that most business firms owning automobiles depreciate them at 25 percent each year for tax purposes, but a private motorist would probably find this a very unrealistic figure to use on a year-to-year basis.)

To summarize, the private motorist who wishes to compute the cost of operating his own car must calculate two types of expense—running costs and fixed costs. Running costs include: gasoline and oil, tires, and maintenance. Fixed costs include: insurance, licenses, taxes, and depreciation.

Car allowances

To compensate employees who use their cars on company business, several methods for computing the allowance

5

are used, depending on the circumstances, such as if the vehicle is used constantly or occasionally, in cities or rural areas, or if it is driven in an area where operating costs are higher than average. Here are methods of compensation generally used:

FLAT MILEAGE ALLOWANCE: A flat mileage allowance of so many cents per mile is usually paid by companies to employees who use their private automobiles occasionally for company business. During the post-war years, most companies raised the reimbursement rate. Today, the prevailing rate is eight cents per mile—up one full cent from two years ago. Here are the latest rates paid by companies according to the Dartnell Corporation, a Chicago management consulting firm, which makes annual surveys of automobile operation compensation:

5 percent of companies surveyed pay	6 cents per mile
2 " " " " " "	6½ " " "
31 " " " " " "	7 " " "
6 " " " " " "	7½ " " "
44 " " " " " "	8 " " "
1 " " " " " "	8½ " " "
6 " " " " " "	9 " " "
5 " " " " " "	10 " " "

The principal advantage of the flat mileage allowance system is its simplicity. It is readily understood by the car owner and involves a minimum of bookkeeping and office control. The big disadvantage is that it frequently results in over-payment or under-payment compared to actual costs.

WEEKLY ALLOWANCES: A compensation schedule based on the number of miles driven per week and the type of driving has also been developed by the Dartnell



Corporation. It more accurately reflects operating costs, but it can be applied only to cars operated more or less constantly on company business. More information may be obtained from the Dartnell Corporation.

COMBINATION ALLOWANCES:

Runzheimer and Company has developed a service known as the Runzheimer Plan of Automobile Standard Allowances now used by over 200 companies in the United States, Canada and Mexico and their combined sales fleets totaling in excess of 20,000 drivers. Salesmen under this service receive individual allowance schedules which are the basis for accurate reimbursement of fixed and variable car expenses to the drivers by their companies.

6

Companies operating fleets of 15 or more cars should contact Runzheimer and Company directly if they wish to learn of the greater accuracy that individual schedules provide, and which the attached Runzheimer Cost Chart (shown below) cannot offer. Companies with sales fleets of under 15 cars may find the national averages in this chart a helpful guide with their car allowance programs.

Details of car costs

Following is a breakdown of the national average cost figures computed by Runzheimer and Company for a 1957 Chevrolet, 6 cylinder, 210 Series, 4-door Sedan:

Variable costs	Average Per Mile
Gasoline and Oil	2.39 cents
Maintenance79 cents
Tires59 cents
	<hr/>
	3.77 cents
Fixed costs	Annually
Fire and Theft Insurance	\$21.37
Property Damage and Liability (\$25,000 and \$50,000)	95.35
License and Registration	19.16
Depreciation	565.42
	<hr/>
	\$701.30
	(or \$1.92 per day)

For mileage in excess of 18,000 annually, an additional depreciation allowance of \$12.91 per thousand should be added to the fixed costs.

Using the above figures, it is fairly easy to compute annual driving costs, and it can be shown that the amount of driving has a direct relationship to the cost per mile of driving. For example, the average motorist drives about 10,000 miles a year, which results in the following approximate costs:

10,000 miles at 3.77 cents	\$ 377.00
365 days at \$1.92	701.30
	<hr/>
	\$1,078.30
	(or 11 cents per mile)

In contrast, a car driven twice as far during the same period of time would cost:

20,000 miles at 3.77 cents	\$ 754.00
2,000 miles at \$12.91 per thousand miles over 18,000	25.82
365 days at \$1.92	701.30
	<hr/>
	\$1,482.12
	(or 7.4 cents per mile)

7

Vacation budgeting

Overall vacation costs are entirely a matter of individual preference and means. The scope of this publication precludes advising where to go, or how much to spend once the traveler has arrived at the vacation spot of his choice. However, it may be helpful to know the approximate costs of motor travel en route.

The AAA suggests a vacation budget of close to \$36 per day for two people driving 300 miles each day. A breakdown of the daily budget for a couple shows they will spend approximately \$9.00 on car operation expenses, \$10.00 on meals, \$9.00 on lodging, \$1.50 on tips, \$2.00 for admissions, amusements and tolls along the route, and \$4.50 for incidentals, souvenirs and emergencies.

The allowance for driving costs is based on three cents a mile for gas and oil at the recommended daily maximum distance of 300 miles. Thus, for a trip of 1,000 miles, \$30 would be needed to cover car expenses. No provision has been made for maintenance or tire costs as it is assumed that the car is in top condition before the trip is started.

The cost of meals is figured on a per-person basis of \$1.00 for breakfast, \$1.50 for lunch and \$2.50 for dinner. Obviously, one could get by for less, or spend considerably more.

For accommodations, a couple can plan on spending about \$9.00 a night, although they might spend anywhere from \$6.00 to \$15.00 for reasonable sleeping facilities, depending on type and locality. If traveling with children, you may find some hotels and motor courts will set up a cot or two in your room at a slight extra charge. Admissions, amusements, and tolls will cost about \$1.00 a day for each member of the family in visiting such places as caverns, historic shrines and scenic attractions along the route. Allowance for roadside refreshments and incidentals should be covered by the 15 per cent emergency fund carried with you.

As a final aid in planning vacation trips, the AAA offers the following tips on stretching your vacation dollar:

1. Drive during the early part of the day and stop in the late afternoon with plenty of time to find the type of accommodations you want at a price you can afford to pay.
2. Visit travel attractions that offer you something worthwhile for your money—avoid tourist traps.
3. If possible plan your trip in the spring or autumn—avoid peak travel seasons when roads and overnight accommodations are crowded and prices high.
4. Consult your local AAA travel counselor for specific advice and guidance on getting the most for your money.

The addresses of the research firms are:

Dartnell Corporation
4660 Ravenswood Avenue
Chicago 40, Illinois

Runzheimer and Company
332 South Michigan Avenue
Chicago 4, Illinois

1957

8

your driving costs

HOW TO FIGURE:

- * Operating costs for private passenger cars
- * Allowances for cars used on company business
- * Vacation travel costs



AMERICAN AUTOMOBILE ASSOCIATION

1712 G Street, N.W., Washington 6, D.C.

1957



Cost of driving

The cost of owning and operating an automobile is a major expense for most of America's fifty million car owners. For some, it might be their largest single expense, for many it is second only to food and housing. In 1956 alone, more than sixty billion dollars were spent on car purchases, automotive taxes, gasoline, parts, accessories, and car insurance. How many more billions were spent on service, repairs and incidentals is almost impossible to estimate.

The average motorist has only a passing interest in what *all* motorists spend, rather, he wants to know how much it costs him to drive his car. Unfortunately, this is a difficult question to answer, for almost every car operating cost item is variable.

While it is possible to compute mean estimates, average costs are merely indicative, and many adjustments must be made to arrive at a reasonable calculation for an individual case. In this report, three methods used by private companies to compensate employees for use of personal automobiles are outlined, and in some cases these methods may be applied by individuals to determine approximate costs of driving. However, for accurate determination of car costs, it is best to use personal records.

Itemizing car expenses

Car costs may be broken down into two broad categories, variable and fixed. Variable items are directly related to the number of miles driven, how hard the car is used, and how much is spent on service and repair. Fixed costs, though they may vary from car to car, and from place to place, are generally established by agencies and business conditions beyond the control of the motorist, and they change little with the amount and type of driving. Fixed costs generally include insurance, taxes (license and registration fees, use and property taxes), and depreciation.

2

Variable costs

GASOLINE AND OIL: The cost of fuel and lubricant varies tremendously: even for the same make and model it may vary by as much as 50 percent. Much depends on how a car is driven, the type of driving (city, flat country, mountains), the loads carried, and the general condition of the vehicle. Even tire pressure affects gasoline mileage. Oil consumption is equally variable from car to car. On a trip where fairly high speeds are sustained, a car in good condition may require a quart of oil every 500 miles. The same car driven only in slow-moving city traffic might use virtually no oil in a thousand or even two thousand miles.

The best way to determine your gas and oil operating costs is to develop your own figures. Here's an easy way to do it: fill your gas tank until you can see the gas in the filler neck, and record the mileage on your odometer. Drive normally until the tank is nearly empty; then have it refilled to the same point as when you started. Divide the number of miles driven since the test started by the number of gallons required to refill the tank: the result is the number of miles per gallon you are getting from your car. If you normally drive in the city, don't wait until you go on a trip to make the test. Mileage on the open highway is usually better than in traffic. Make the test under the conditions which you normally encounter. Repeat the test several times a year if you want greater accuracy. You can test for oil consumption in the same way, but remember to add the complete cost of an oil change each time you have it done.

Here is an example of how one motorist might figure the cost of gas and oil for one year's driving:

Gasoline consumption:

Tank filled	— odometer reading	9968.8 (miles)
Tank refilled	— odometer reading	10171.4
		10171.4
		— 9968.8
		202.6
Miles driven		202.6

Gallons to refill tank 16.3

Miles per gallon = $\frac{\text{Miles driven}}{\text{Gallons used}} = \frac{202.6}{16.3} = 12.4$

Miles driven during year 9,269

Gallons used during year = $\frac{9,269}{12.4} = 747.5$

Cost per gallon \$0.35

Cost per year for gasoline = $0.35 \times 747.5 = \$261.62$

Oil consumption:

One change every 3,000 miles

Oil capacity: 5 quarts

Cost per qt.: 45 cents

Cost per change: $5 \times .45 = \$2.25$

Oil added between changes: 2 qts.

Total cost for oil: $\$2.25 \times 3 = \$6.75 + \$2.70 = \9.45

3