

as fast as he can uses up to 15 per cent more fuel than a driver who accelerates gradually. Other habits that help fuel economy are driving at steady speeds whenever possible, avoiding unnecessary speedups and slowdowns, anticipating stoplights and slowing down gradually, and keeping idle time to a minimum. After starting a cold engine, long warm-up periods should be avoided. It is more economical to drive slowly for a mile or so before reaching cruising speed.

Vacation expenditures

Vacation expenditures depend to a great degree on personal preferences, regions traveled and individual means.

While traveling by car, daily expenditures for two people would break down as follows: \$24.00 for meals, \$25.00 for lodging, and \$5.00 for gas and oil for every 100 miles of travel, with the car averaging 13 miles per gallon.

In addition, there will be expenditures for souvenirs, amusements, admissions to places of interest, recreation, retail purchases and so on. It's wise also to include in the vacation budget a contingency fund for emergencies of one kind or another. Turnpike tolls, depending on the routing, also would be an expense.

AAA points out that the \$25.00 average for lodging would be less in resort areas during the off-season. By picnicking along the way, meal costs could be reduced.

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.



YOUR DRIVING COSTS

1975-76 EDITION

HOW TO FIGURE:

- Operating costs for private passenger cars
- Allowances for cars used on company business
- Economy of compact cars
- Vacation travel costs

PLUS: GAS-SAVING TIPS

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Itemizing car expenses

Car costs may be broken down into two 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.

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, and it is a good idea to have the oil level checked whenever gasoline is purchased.

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 you normally encounter. Repeat the test several times a year if you want great 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. The increasing use of credit cards has made this chore much easier for many motorists.

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 life, it may amount to no more than the cost of the

maintenance program required by the manufacturer to keep the warranty valid. 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. This can be prevented by following the maintenance schedule outlined in the owner's manual. 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 5. But it should be noted that this figure is an average developed for intermediate size cars in the medium price field and represents only routine maintenance.

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, over or underinflation, 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 \$100 to \$300, depending on the size and type of tires he chooses. The average cost per mile for tires is slightly more than one-half cent.

Fixed costs

INSURANCE: The cost of auto insurance 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. Sales or excise 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.

DEPRECIATION: For most motorists, the largest expense of owning a new or recent model automobile is depreciation. It is also the most difficult 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.

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. 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.

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

While many firms provide cars to their full-time travelers, hundreds of corporations have converted to a policy whereby employees use their own cars on company business.

To reimburse employees who use their cars on company business, various methods for computing the allowances are used.

FLAT MILEAGE ALLOWANCE: Many companies give a flat allowance per mile, plus allowances for certain other charges, such as tolls, parking, etc. The principal advantage of the flat mileage allowance system is its simplicity. It 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: Some companies use reimbursement schedules based on the number of miles driven per week and the type of driving. It more accurately reflects operating costs, but can be applied only to cars operated more or less constantly on company business.

STANDARD ALLOWANCES: Runzheimer and Company, Runzheimer Park, Rochester, Wisconsin 53167, provides a service known as The Runzheimer Plan of Automobile Standard Allowances. Their service is now used by more than 500 business firms and governmental agencies in the United States and Canada and their combined fleets cover over 150,000 drivers. Employees under this service receive individual allowance schedules which are the basis of accurate reimbursement of car expenses by their companies.

Organizations operating fleets of 10 or more cars should contact Runzheimer directly if they wish to learn of the greater accuracy that individual schedules provide and which the cost chart shown below cannot offer. Firms with fewer than 10 cars may find the national averages in this chart a helpful guide with their car allowance program.

Details of car costs

Here is a breakdown of the national average cost figures computed by Runzheimer and Company for a 1975 intermediate-size Chevelle, 8 cylinder Malibu Classic hardtop sedan equipped with standard accessories, automatic transmission, power steering, power disc brakes and radio.

Variable Costs	Average per mile
Gasoline and oil.....	4.82 cents
Maintenance.....	.97 cents
Tires.....	.66 cents
	6.45 cents

Fixed Costs	Annually
Fire and theft insurance (\$50 ded.).....	\$ 53.00
\$100 ded. collision insurance.....	141.00
Property damage and liability (\$100/300/25M).....	189.00
License and registration.....	30.00
Depreciation.....	773.00
	\$1,186.00
	(or \$3.25 per day)
For air conditioning, add .20 cents per mile and \$.20 per day.	

For mileage in excess of 15,000 annually, an additional depreciation allowance of \$32.00 per thousand should be added to the fixed costs.

The gas and oil amount reflects the purchase of unleaded gasoline in accordance with the manufacturer's recommendations.

The depreciation amount of \$773.00 is an average annual figure based on car trade-in value of the Chevelle Malibu Classic at the end of four years or 60,000 miles whichever point occurs first. This is the approximate duration of the most economical service period during which the car is expected to deliver the greatest overall cost economy.

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 6.45 cents.....	\$ 645.00
365 days at \$3.25.....	1,186.00
	\$1,831.00
	(or 18.3 cents per mile)

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

20,000 miles at 6.45 cents.....	\$1,290.00
365 days at \$3.25.....	1,186.00
5,000 miles at \$32/Thousand.....	160.00
	\$2,636.00
	(or 13.2 cents per mile)

ECONOMY OF COMPACTS: The money-saving appeal of smaller cars — both domestic and foreign — is revealed by these figures developed by Runzheimer and Company for 1975 models.

The figures below apply to a low cost area and to a high cost area. They are indicative of the cost ratio between car categories throughout the nation.

	Sub-Compact (4 cylinder)	
	Per Day	Per Mile
Low Cost Area	\$2.36	4.15¢
High Cost Area	\$3.40	4.90¢
	Compact (6 cylinder)	
	Per Day	Per Mile
Low Cost Area	\$2.44	4.95¢
High Cost Area	\$3.45	5.90¢
	Intermediate (8 cylinder)	
	Per Day	Per Mile
Low Cost Area	\$3.02	5.95¢
High Cost Area	\$4.28	6.90¢
	Standard Size (8 cylinder)	
	Per Day	Per Mile
Low Cost Area	\$3.53	6.60¢
High Cost Area	\$4.72	7.60¢

"Per day" costs include \$50 deductible fire and theft, \$100 deductible collision, \$100/300M Public Liability, \$25M Property Damage, state registration fees and depreciation.

"Per mile" costs include gasoline, oil, maintenance and tires.

Thus, on the basis of 10,000 miles driven annually, the total cost picture shows:

	Low Cost Area	High Cost Area
Sub-Compact	\$ 1,276.00	\$ 1,731.00
Compact	\$ 1,386.00	\$ 1,849.00
Intermediate	\$ 1,697.00	\$ 2,252.00
Standard Size	\$ 1,948.00	\$ 2,483.00

The total per mile cost for an annual mileage of 10,000 is as follows:

	Low Cost Area	High Cost Area
Sub-Compact	12.8¢	17.3¢
Compact	13.9¢	18.5¢
Intermediate	17.0¢	22.5¢
Standard Size	19.5¢	24.8¢

RULE OF THUMB

With gasoline becoming more and more expensive, it may be well to remember that for every 10 cents per gallon increase in the price of gas, the per mile cost of running a car increases by one cent, if the car delivers 10 miles per gallon, or one-half cent if the car delivers 20 miles per gallon.

Gas-saving tips

Because of the rising cost of gasoline and the possibility of supply problems, getting the most fuel economy is of importance to every car owner today. Many factors are involved in the miles per gallon you get from your car.

Weight is the most important. Increases in weight cause the greatest fuel penalty, ranging from one to two per cent for every 100 pounds. In urban and suburban driving, the fuel economy of a 5,000-pound car is about 50 per cent lower than that of a 2,500-pound car.

Air conditioning and automatic transmission further increase the fuel economy penalties. This also is true, but to a lesser extent, of such convenience items as power steering, power brakes, power seats, power windows and power sunroof. They all add weight to the car and use varying amounts of energy as they are operated.

An air conditioner, for example, weighs approximately 100 pounds. When it is running, the engine must produce additional power to drive the compressor. The average loss in fuel economy then is reduced by some nine per cent, but it can be as much as 20 per cent with stop-and-go driving in hot weather.

The automatic transmission is another gas-using option that can reduce fuel economy by as much as 15 per cent.

Tire construction and inflation pressure are important aspects in gasoline consumption. The type of tire construction that appears to have the most beneficial effect on fuel economy is the radial tire. When compared to normal bias ply tires, use of radial tires improves fuel savings from three to as much as 10 per cent. Steel-belted radials generally produce the better mileage than fabric-belted radials.

Underinflated tires reduce fuel economy, and they also wear out more quickly on the edges. Overinflated tires, while giving better fuel economy, tend to wear out faster in the center. Additionally, overinflation cuts tire contact with the road, thus creating a safety hazard. The manufacturer's recommendations should be followed carefully.

High speeds increase gasoline consumption. Observe the 55 mph speed limit.

Lack of, or improper, maintenance cuts down on miles per gallon. The increase in gasoline economy of a well maintained and properly tuned automobile far outweighs any losses caused by emission control devices.

Areas requiring periodic maintenance that can affect gasoline consumption are: air filter, the ignition system (spark plugs, distributor points and ignition timing), carburetor and proper air-fuel mixing, cylinder compression, and lubrication. Gas mileage will suffer if any or all of these items are not in proper working order.

The manner in which a car is driven influences gasoline mileage. A driver who habitually accelerates away from a stop