Case Study: Your First Car

What would you pay to protect a car of your own?

Background

Sweet 16 indeed. Your parents aren’t usually good at keeping secrets, but this time they succeeded mightily. Whereas you thought you were simply going to have the traditional birthday celebration out at your favorite restaurant (concluded by a candle-topped dessert with the always-embarrassing birthday sing-along), this time the family-filled car stopped by a car dealership. Your parents present you with a blank check and say take your pick. You can’t believe it! No way. This has got to be too good to be true.

Your father explains that his parents did it for him, so they’re doing the same for you. The only things you have to take care of are the gas and insurance for the car. “Nice,” you think. “Nice.”

Well, almost.

On the back of your birthday card, there is one last catch. Your parents stipulate that, before they give you the money to buy the car, you must detail, step-by-step, the process by which you made your decision of which car to choose. It can be in outline form, but it has to persuade them that you have thought of everything.

After going to a couple of different car dealerships, taking a few test drives, and imagining yourself pulling up to school with all your friends jealously watching, your parents remind you about the gas and insurance requirements. They note that the “everything” referred to on the back of your card means you’ll need to provide them with a breakdown of the estimated costs for gas and insurance and how you’re going to pay for
those items before they’ll buy you the car. You’re not too worried because you’ve always worked in the summer, and made about $2,000 last summer doing lawn care. You also know a few people who work at the local supermarket, and so could always make a little money during the year, if necessary. Of course, you also know you’re involved in a few extracurricular activities after school and could realistically only work on the weekends.

You do some research on a few cars and come across the following information. It’s the first time you have looked at anything like this. You aren’t sure you fully understand it, but it nevertheless quickly makes you rethink your strategy for choosing a car.

<table>
<thead>
<tr>
<th>CAR</th>
<th>YEAR</th>
<th>MPG</th>
<th>$ PER GALLON OF GAS*</th>
<th>INSURANCE (ANNUAL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMW 7 Series</td>
<td>New</td>
<td>28</td>
<td></td>
<td>$5,200</td>
</tr>
<tr>
<td>Porsche 911</td>
<td>New</td>
<td>22</td>
<td>$3.63</td>
<td>$5,600</td>
</tr>
<tr>
<td>Dodge Charger</td>
<td>New</td>
<td>23</td>
<td></td>
<td>$4,700</td>
</tr>
<tr>
<td>Cadillac Escalade</td>
<td>New</td>
<td>25</td>
<td></td>
<td>$4,200</td>
</tr>
</tbody>
</table>

*Average price as of 6/24/13. Data collected from the U.S. Energy Information Administration.

**Dilemma**

Decisions, decisions. You do a little research on working during the school year, and find out that your friends make $10/hr. You also try to figure out how many miles you’d drive so you can calculate how much gas you would need over the course of the year. Your school is 5 miles away from your house, and downtown—where you’d likely drive to visit your friends—is 3 miles away. It’s currently April, so summer is not too far away. How much money could you potentially make during the school year and in the summer? Would that be enough to pay for insurance on any of your dream cars? You also are aware that the more you work during the school year, the less time you’ll have for your studies—which could have huge implications on grades and where you eventually are accepted to college.

- **Additional Information:** Sensing that you’re having a difficult time making a decision, your parents provide you some additional information to help. First, they remind you that used or nonluxury cars are also an option for you to think about. In fact, insurance rates for used or nonluxury cars can be half of those for your dream cars. Second, smaller or hybrid cars get better gas mileage than your dream cars do. Finally, the insurance premiums you were quoted were for $250 deductibles. If you increase your deductible, you can lower your annual insurance premium.
• **Making sense of deductibles:** A deductible is “The amount you have to pay out-of-pocket for expenses before the insurance company will cover the remaining costs” (Investopedia.com). A deductible is a common tool used by insurance companies to keep customers from submitting claims for really small things, such as scratches and minor dents. An insurance policy could have a $0 deductible, or any amount up to, theoretically, the value of the car. Therefore, if a person has a $1,000 deductible on their insurance policy, they would have to pay the first $1,000 towards repairing the damages to the car before the insurance company would then step in to cover the remaining costs—which of course would logically mean the total damages to the car would need to cost more than $1,000 to fix. (Otherwise, you would just choose to fix the car yourself.) The higher the deductible you have on a policy, the lower your annual insurance premium will be. Your parents provide you with the following chart to show you how much a change in the deductible would affect your annual insurance premiums:

<table>
<thead>
<tr>
<th>DEDUCTIBLE</th>
<th>CHANGE IN ANNUAL INSURANCE PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0</td>
<td>50 %</td>
</tr>
<tr>
<td>$250</td>
<td>No Change*</td>
</tr>
<tr>
<td>$500</td>
<td>−15 %</td>
</tr>
<tr>
<td>$1,000</td>
<td>−25 %</td>
</tr>
<tr>
<td>$1,500</td>
<td>−35 %</td>
</tr>
<tr>
<td>$2,000</td>
<td>−50 %</td>
</tr>
<tr>
<td>$5,000</td>
<td>−60 %</td>
</tr>
</tbody>
</table>

* The original quotes you located were for policies with a $250 deductible.

You now have a lot to consider. If you choose to have a higher deductible, you would have an easier time paying for insurance. However, you would have to (1) pay for any minor repairs to your car if they were less than the deductible, and (2) save up in order to pay the entire deductible if your car incurred any damage greater than the deductible. If you didn’t have enough money to pay for the deductible, your parents have assured you that they would *not* help, which means your car would sit in the garage until you saved up enough money to pay the deductible.

You think you know yourself and how much of a risk-taker you are (but you probably overestimate how good of a driver you are).¹ You also know how important school

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¹ Motor vehicle crashes are the leading cause of death for U.S. teens. Additionally, teenage drivers are 3 times more likely to have a wreck than drivers over 20. (Centers for Disease Control and Prevention)
is and the amount of time you spend on extracurricular activities. What additional information do you think you need before making a decision you can defend to your parents? You’ve heard older friends talking about drivers education classes and how participating in those classes can lower your insurance premiums. Of course, those classes are after school and cost money, not to mention that they would get in the way of any after-school employment opportunities. You also start wondering what other factors influence insurance costs.

**Task**

What should you do about getting a car? Should you choose a used car or a new car? Should you choose a car based on its MPG? What would be the ideal amount you would choose to pay—and consequently, how much would you be willing to work during the school and over the summer? Once you’ve decided, document your decision process, including factors you have considered and options you have ruled out. Conclude with a plan for your parents outlining the type of car you want, how much the car costs based on the deductible that you choose, and how you are planning to pay for it (and don’t forget the gas money!).

**Epilogue**

Read this *after* completing the plan for your parents. No peeking!

As your parents look over your plan, they offer one additional proposal. Instead of making the car a sweet-16 present, they will give you the car as either a high school or college graduation present. If you take it as a high school graduation present, your parents will provide you with the car plus $5,000 in cash. If you wait until after you graduate college, they will give you the car plus $15,000 in cash. What do you tell them? Give them your rationale. You know they’ll ask for it.

**Terms**

- Asset
- Automobile insurance
- Budgeting
- Deductible
- Gross wages
- Net pay
- Premium
- Profit
- Risk
- Taxes

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Resources

**U.S. Energy Information Administration**
A U.S. Department of Energy agency that “collects, analyzes, and disseminates independent and impartial energy information to promote sound policymaking, efficient markets, and public understanding of energy and its interaction with the economy and the environment.”

http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=pet&s=emm_epm0_pte_nus_dpg&f=a

**Centers for Disease Control and Prevention: Teen Drivers: Fact Sheet**
Facts on U.S. teen drivers.

http://www.cdc.gov/motorvehiclesafety/teen_drivers/teendrivers_factsheet.html

**Investopedia: 12 Car Insurance Cost-Cutters**
Tips for decreasing the cost of auto insurance.

http://www.investopedia.com/articles/pf/08/car-insurance-costs.asp

**New York State Department of Financial Services**
Automobile insurance information for consumers.

http://www.dfs.ny.gov/insurance/cauto.htm

**Kelley Blue Book**
Online pricing resource for all cars, both new and used.

http://www.kbb.com