Can record our whole presentation on powerpoint!!

Do car insurance rates change with age?

Null: Car insurance rates change based on age range

Alternative (Hypothesis): Car insurance rates do not change based on age

Overall

* Myth: Best rates are after turning 25 years of age
* Fact: Best rates are from turning into a mature driver: other reasons Marital status, age, gender, years of driving experience and accident statistics normally are used to classify drivers

( [How Age Affects Car Insurance Costs (valuepenguin.com)](https://www.valuepenguin.com/how-age-affects-auto-insurance-costs)

Teenage drivers ages (16-19):

* Rates are highest in the teen years.

1. Age 16-19 are 4x’s more likely to be in an accident
2. Found statistically less safe on the road in the first few years of driving
3. Rate of accident-related deaths per mile is 3x’s higher than 20 year old
4. Greater tendency to speed
5. Not realize they are in a serious situation
6. ([Car Insurance Rates & Age | DMV.ORG](https://www.dmv.org/insurance/how-age-affects-auto-insurance-rates.php))

TEENS

* **Inexperience.** Teens are more likely than older drivers to not recognize or to underestimate dangerous situations on the road.
* **Nighttime and weekend driving.** In 2019, 40% of fatal car crashes among teen drivers and passengers ages 13 to 19 happened between 9 p.m. and 6 a.m. More than half (52%) of fatal car crashes happened on a Friday, Saturday or Sunday, according to IIHS.
* **Not using seat belts.** Teens and young adults have the lowest seat belt usage compared to other groups. Nearly half (45%) of teen drivers who died in 2019 were unbuckled, according to the National Highway Traffic Safety Administration (NHTSA).
* **Speeding.** In 2019, speed was a factor in 27% of fatal car crashes involving teen drivers between ages 15 to 18, according to NHTSA.

Senior Drivers (60+)

* Impaired vision.
* Poorer cognitive functioning.
* Changes in physical functioning, such as arthritis.
* Use of prescription medications.
* Older adults are likely to sustain more serious and costly injuries as the result of being in an accident.

([Car Insurance Rates & Age | DMV.ORG](https://www.dmv.org/insurance/how-age-affects-auto-insurance-rates.php))

Senior Drivers (60+)

As you reach age 65, you can expect your car insurance rates to start increasing. Our analysis shows that a 75-year-old male driver pays 21% more for car insurance than a 55-year-old male driver. And once you hit your 80th birthday, there’s another spike in rates from age 75 (an average 9% increase for females and 12% for males).

Statistics

* Persons with lower credit scores tend to have higher rates; lower credit scores tend to file more claims
* Many traffic violations, at-fault accident, will have increased rates
* Men are involved in more traffic accidents, have serious traffic violations, and DUI’s: men’s rates will be higher
* City vs rural, will have higher rates

Executive Summary or overview

* An executive summary or overview of the project and project goals:
  + Explain how the project relates to the industry you selected.

**Relevance**: Group-Codename\_Spongebob chose to answer a question related to car insurance premiums.

Consumers pay what is charged for car insurance. It would be helpful to be knowledgeable about what and why we are being charged, and expectations for future rates and possibly why they change.

Goal: Does age contribute to car insurance rates? Yes. OR Does age matter? Yes.

It appears to be common knowledge that car insurance rates are at the highest in the teenage years. Were you aware that they also rise after the age of 60? Rates don’t continue to decrease; they can also increase with age.

Average age of New drivers: 17-18

Average age of Retired drivers: 85+

Myth: Car insurance rates decrease after 25th birthday.

Fact: Best rates are from turning into a mature driver: other reasons Marital status, age, gender, years of driving experience and accident statistics normally are used to classify drivers

* An overview of the data collection, cleanup, and exploration processes:
  + Describe the source of your data and why you chose it for your project.

We chose to use the Allstate.csv based clear age groups and premiums paid

* + Describe the collection, exploration, and cleanup process.
* We chose to use the Allstate.csv based clear age groups and premiums paid
* As a group, we researched several reputable websites and other car insurance sites.
* Reading and interpreting common ground.
* Arranged data by age range from given birthdates into bins
* The approach that your group took to achieve the project goals:
  + Include any relevant code or demonstrations of the application or analysis.

Pandas, bins, average age of insured drivers from All-State Data, etc.

* + Discuss any unanticipated insights or problems that arose and how you resolved them.

The group question was originally too broad. We narrowed our question down based on Statistical Analysis.

* The results/conclusions of the application or analysis:
  + Include relevant images or examples to support your work.
  + If the project goal was not achieved, discuss the issues and how you attempted to resolve them.
* Final data analysis contains ample and complete information in README file (10 points)
* Final repository is acceptable for professional quality presentation (10 points) working on professionalism

**Visualizations (20 points)**

* 6–8 visualizations of data (at least two per question) (10 points) have a couple
* Clear and accurate labeling of images (5 points) accurate thus far
* Visualizations supported with ample and precise explanation (5 points) have explanations for the charts

**Analysis and Conclusion (20 points)**

* Write-up summarizes major findings and implications at a professional level (5 points) working on professionalism, have summaries
* Each question in the project proposal is answered with precise descriptions and findings (5 points)
* Findings are strongly supported with numbers and visualizations (5 points) some
* Each question response is supported with a well-discerned statistical analysis from lessons (e.g., aggregation, correlation, comparison, summary statistics, sentiment analysis, and time series analysis) (5 points)

**Group Presentation (20 points)**

* All group members spoke during the presentation (5 points)
* Group was well prepared (5 points)
* Presentation is relevant to material (5 points)
* Presentation maintains audience interest (5 points) how to WOW the audience??

**Slide Deck (20 points)**

* Slides are visually clean and professional (5 points)
* Slides are relevant to material (5 points)
* Slides effectively demonstrate the project (5 points)
* Slides are clear and maintain audience interest (5 points)