BAS 2019
CSAA Case Competition

Team 18
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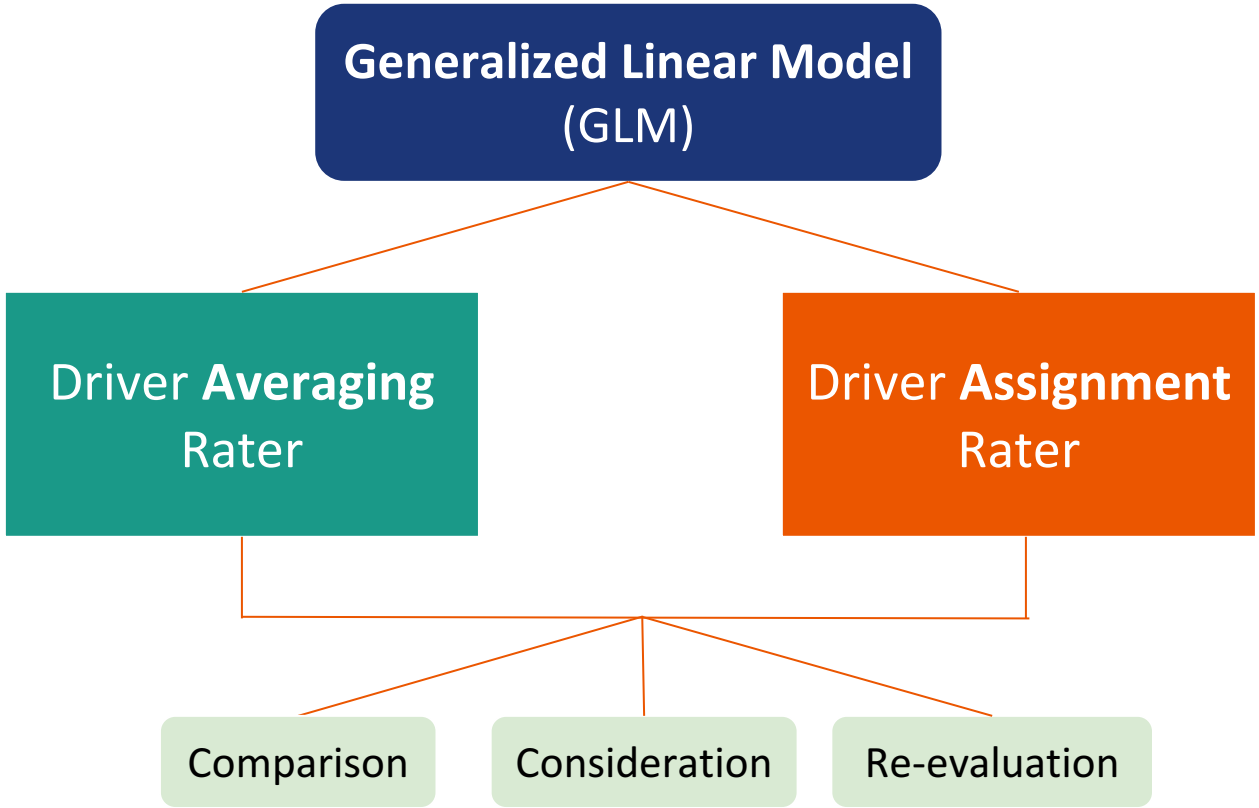
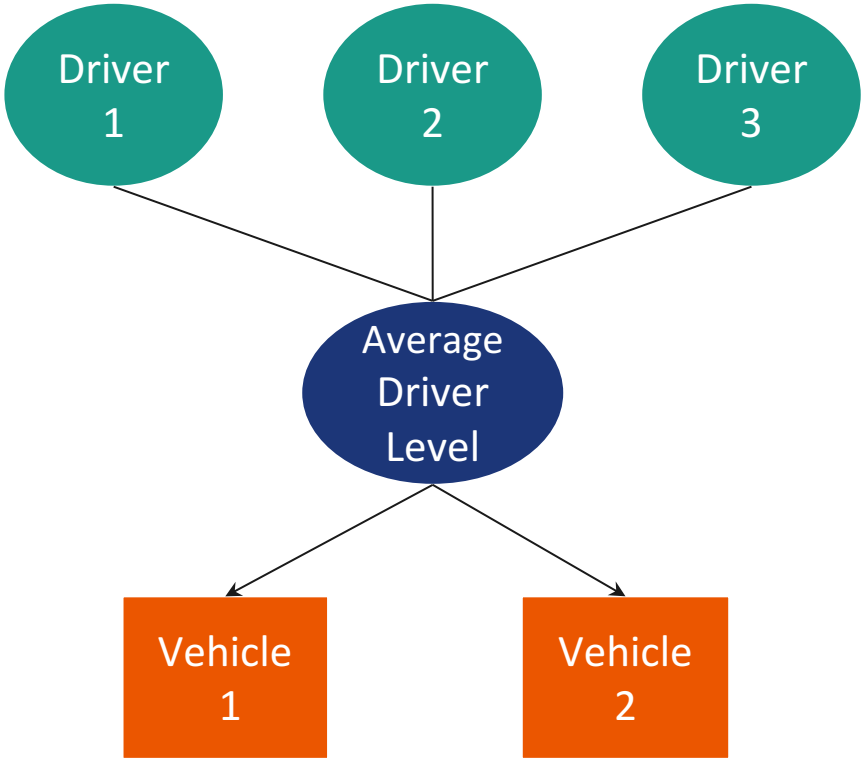
Background and Case Objectives

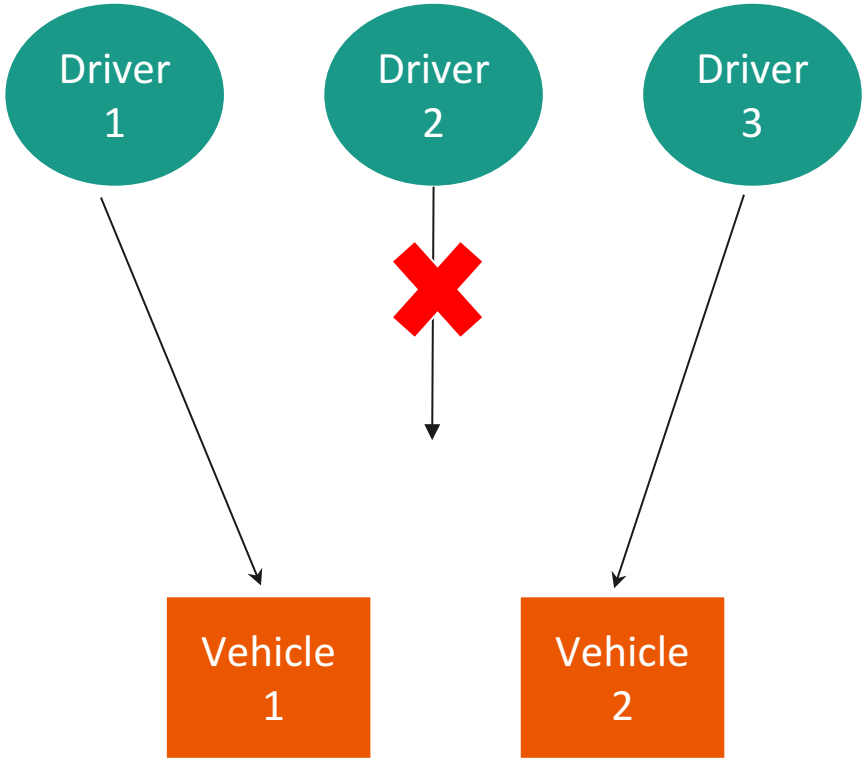


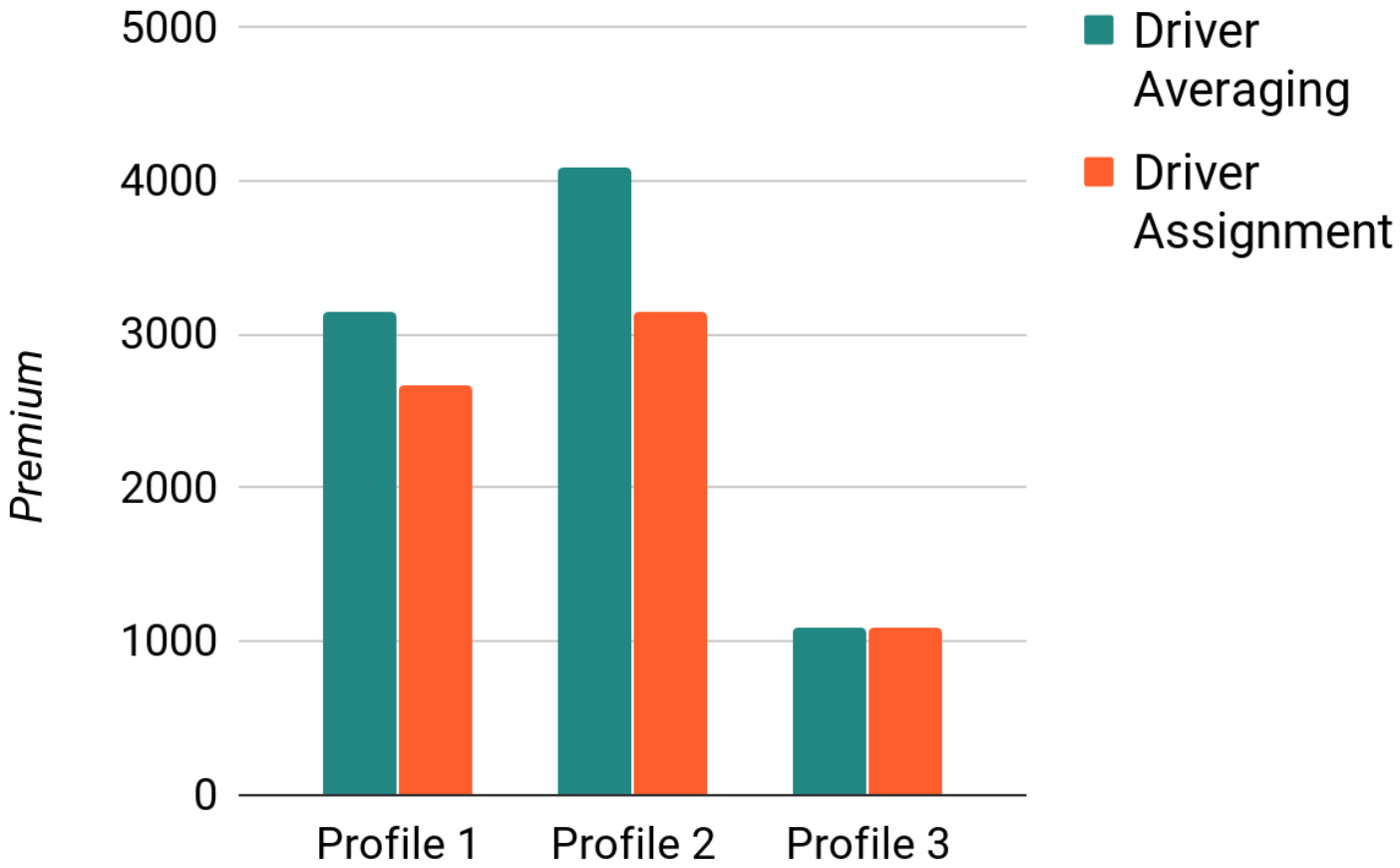
Rating Methods

Driver Averaging Rater



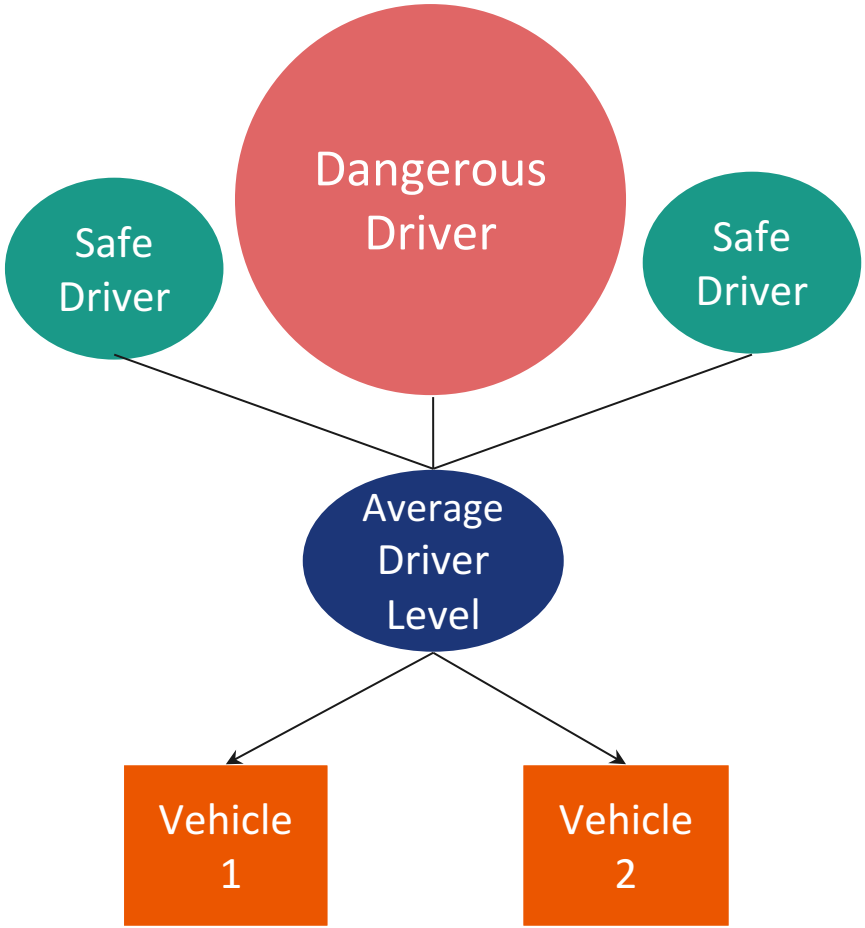
Driver Assignment Rater



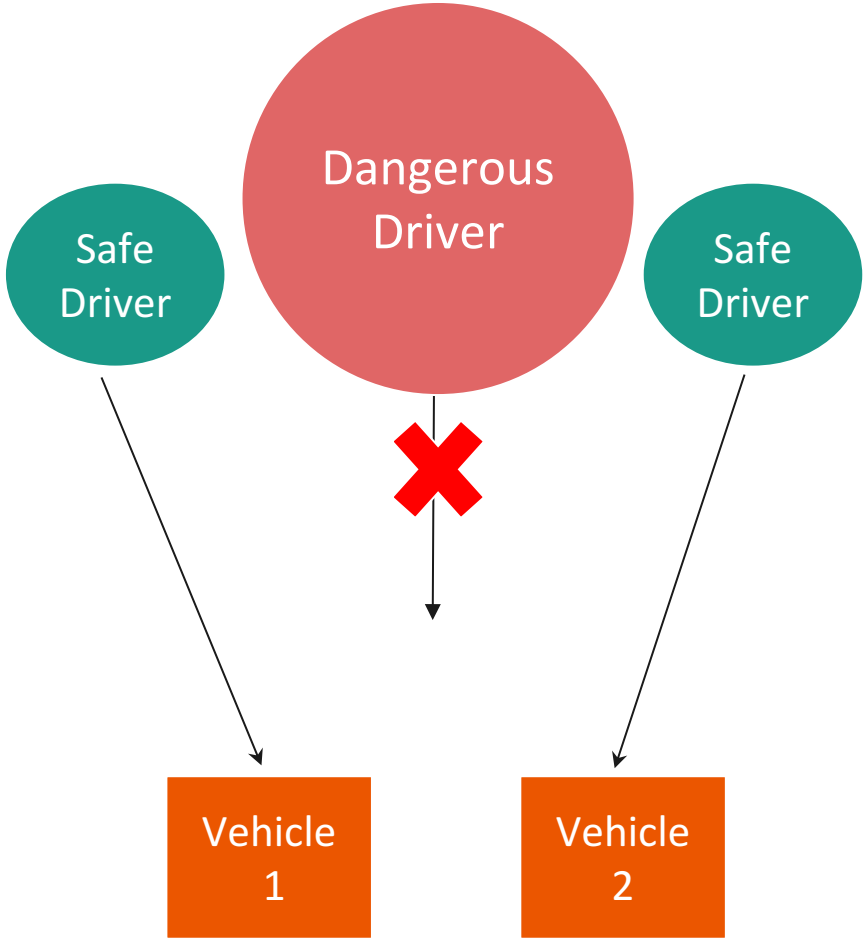


Result: Driver Assignment → Lower Premium

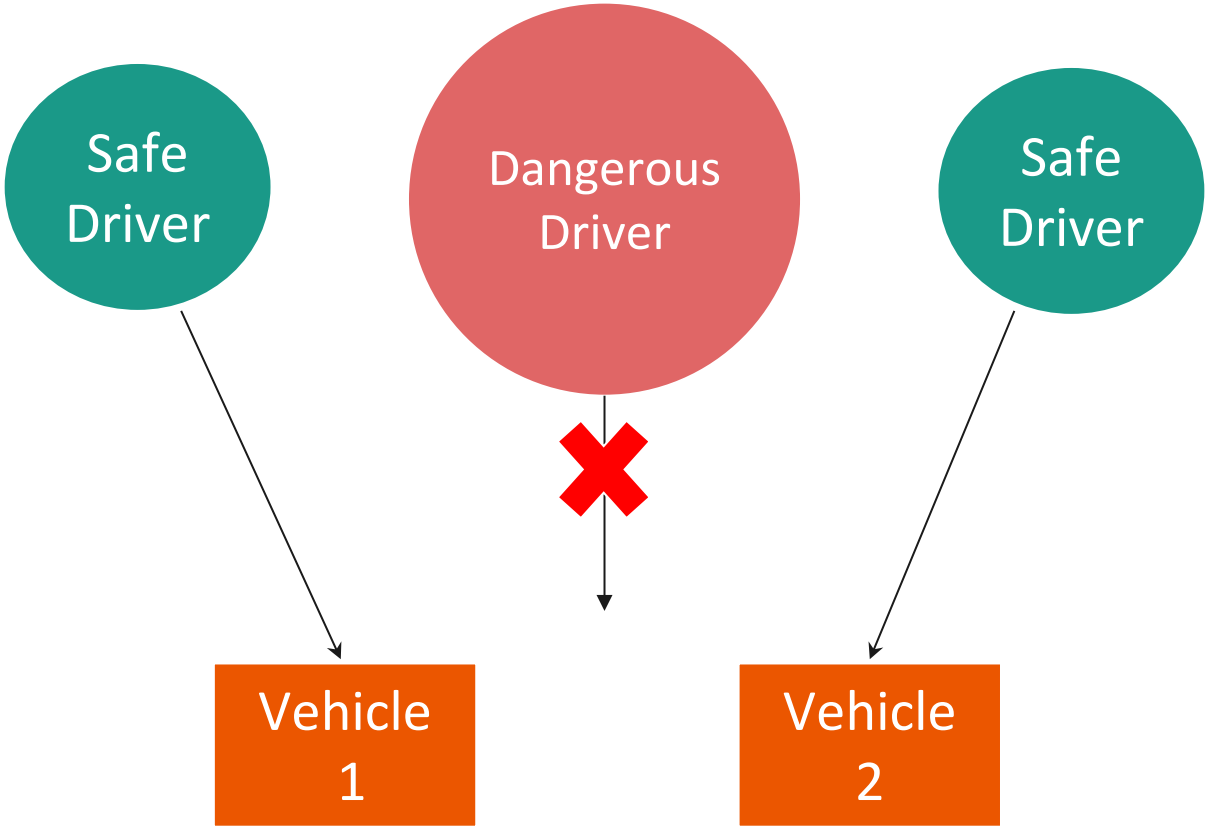
Driver Averaging Rater



Driver Assignment Rater



Driver Assignment Rater → Lower Premium



Considerations

Customer Behaviors

Reducing Loss Ratio

Minimized Risk

Less Amount of Work

Driver Averaging

Reasonable Pricing

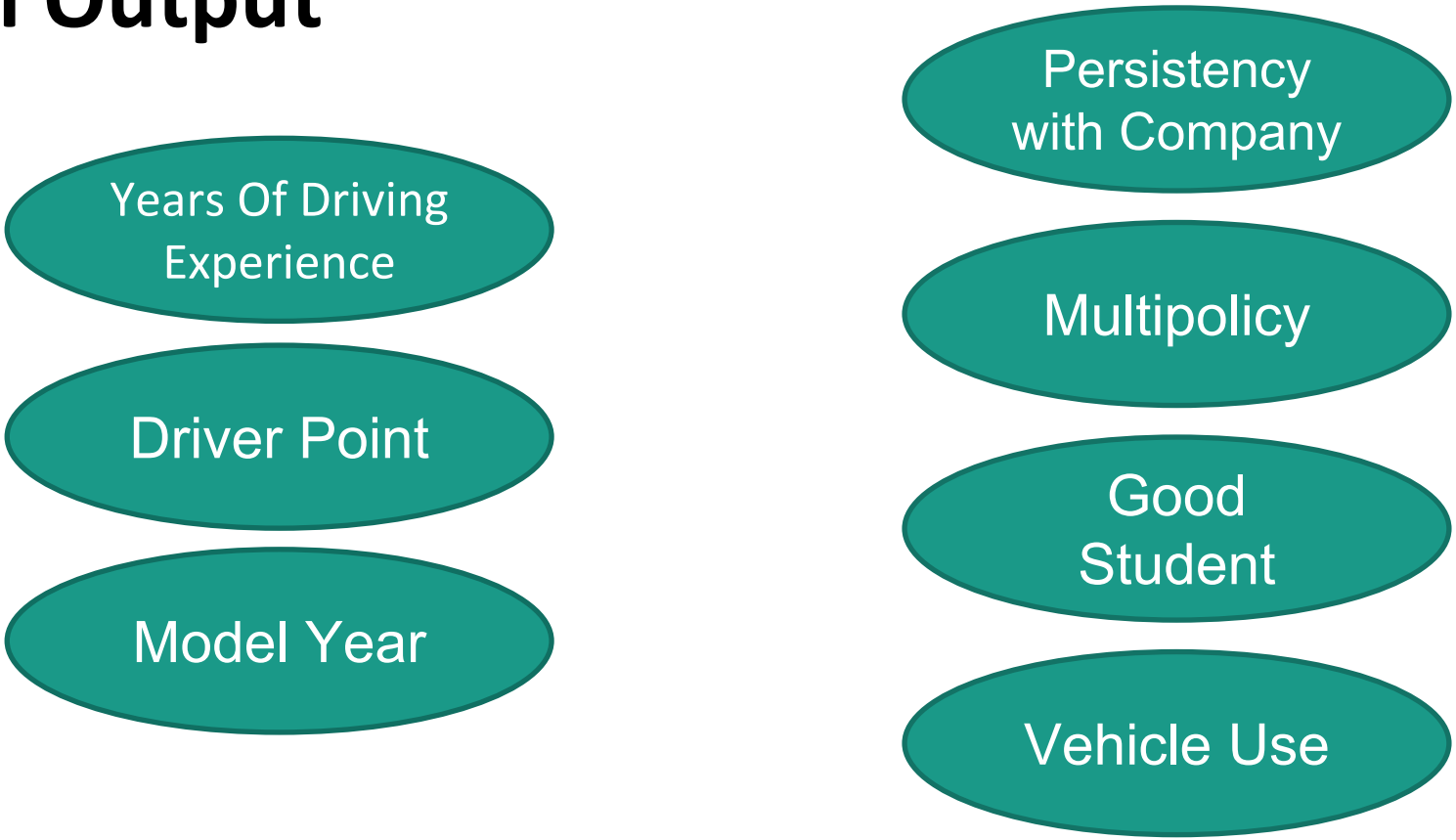
Driver Assigning

Data Evaluation

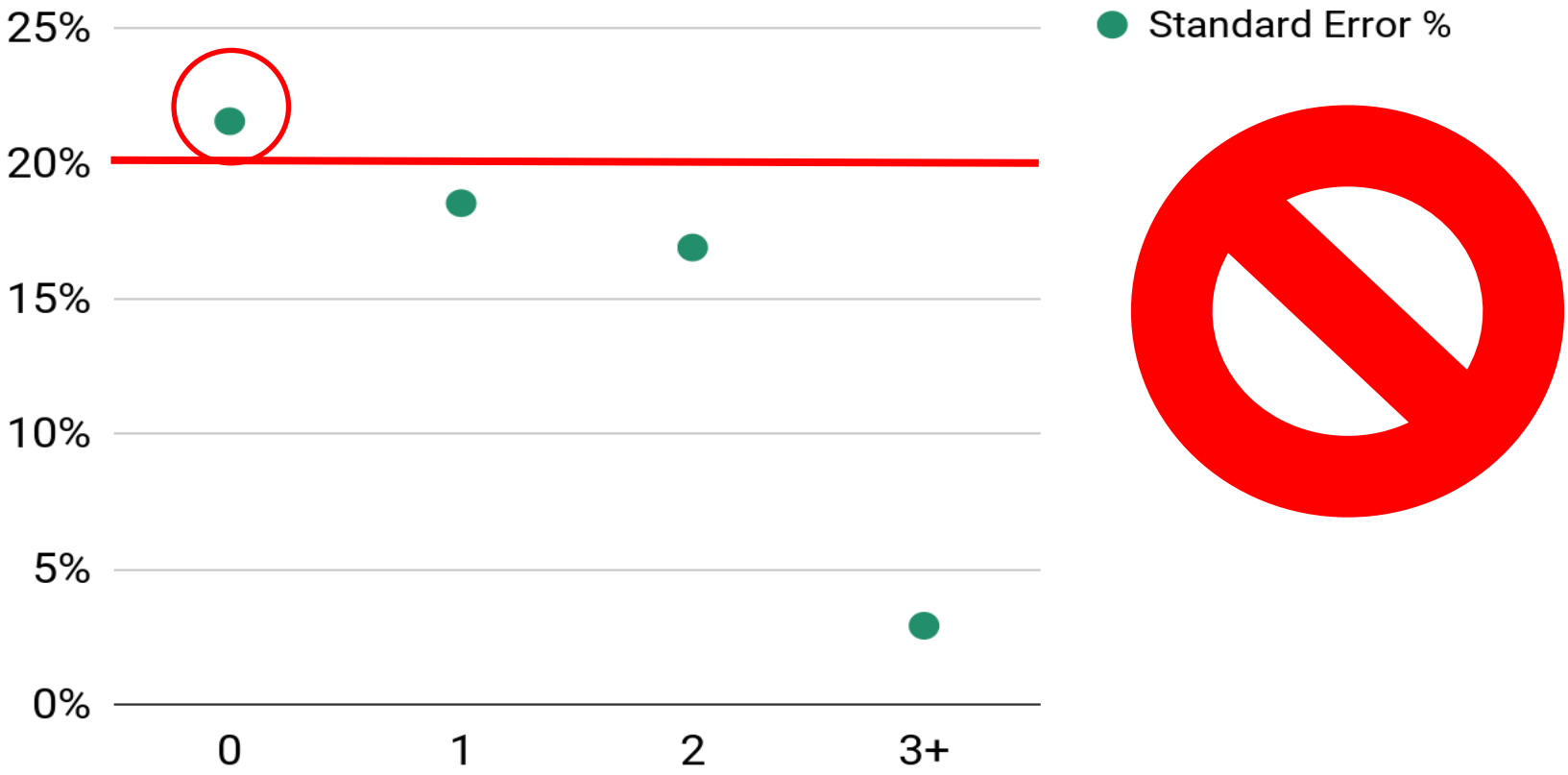
Generalized Linear Model (GLM) & Application

1. Linear Regression
2. Link Function
3. Dependent Variable Error

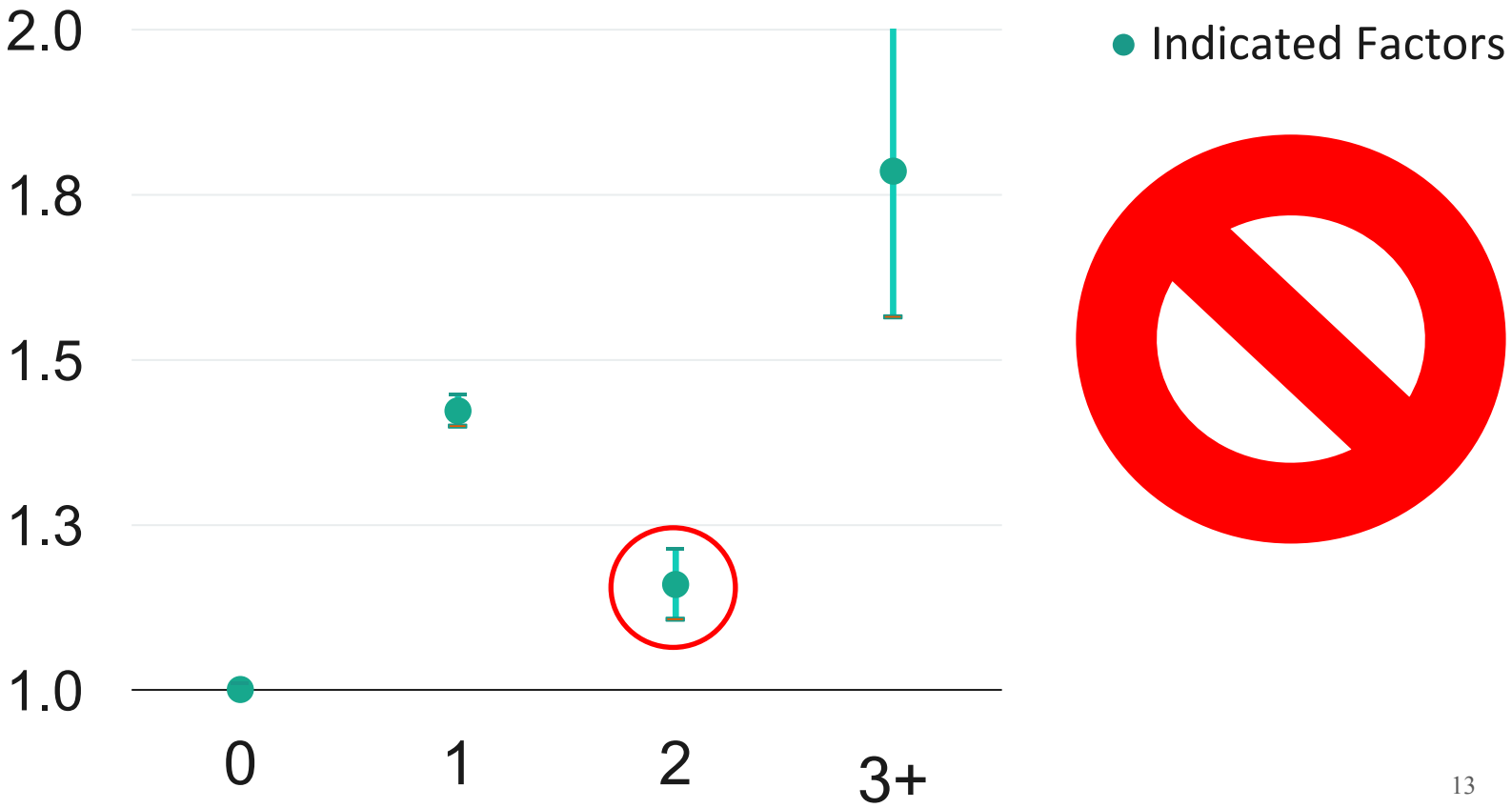
GLM Output


Years Of Driving Experience
Driver Point
Model Year
Persistency with Company
Multipolicy
Good Student
Vehicle Use

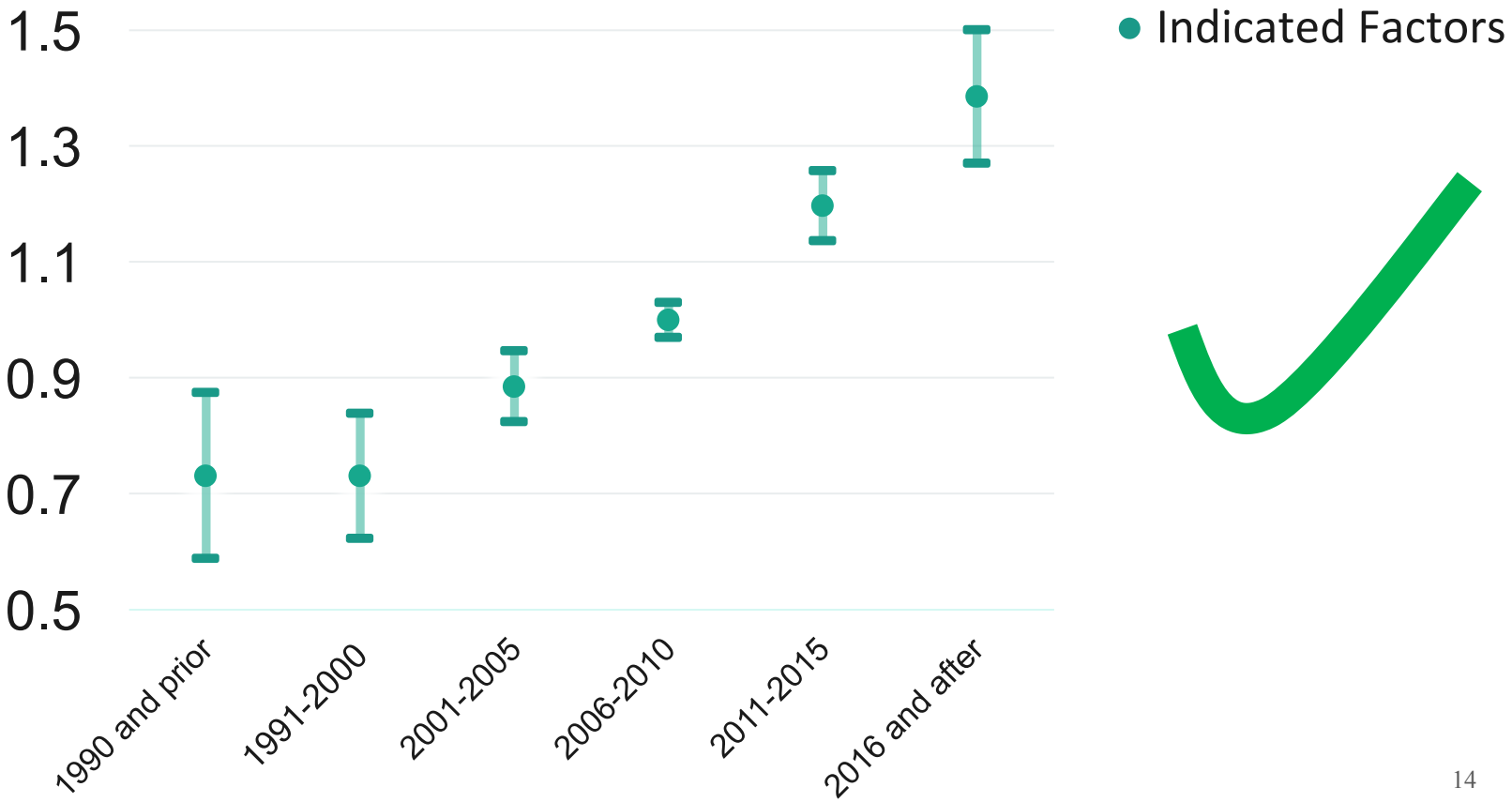
Rating Variables: Driving Experience



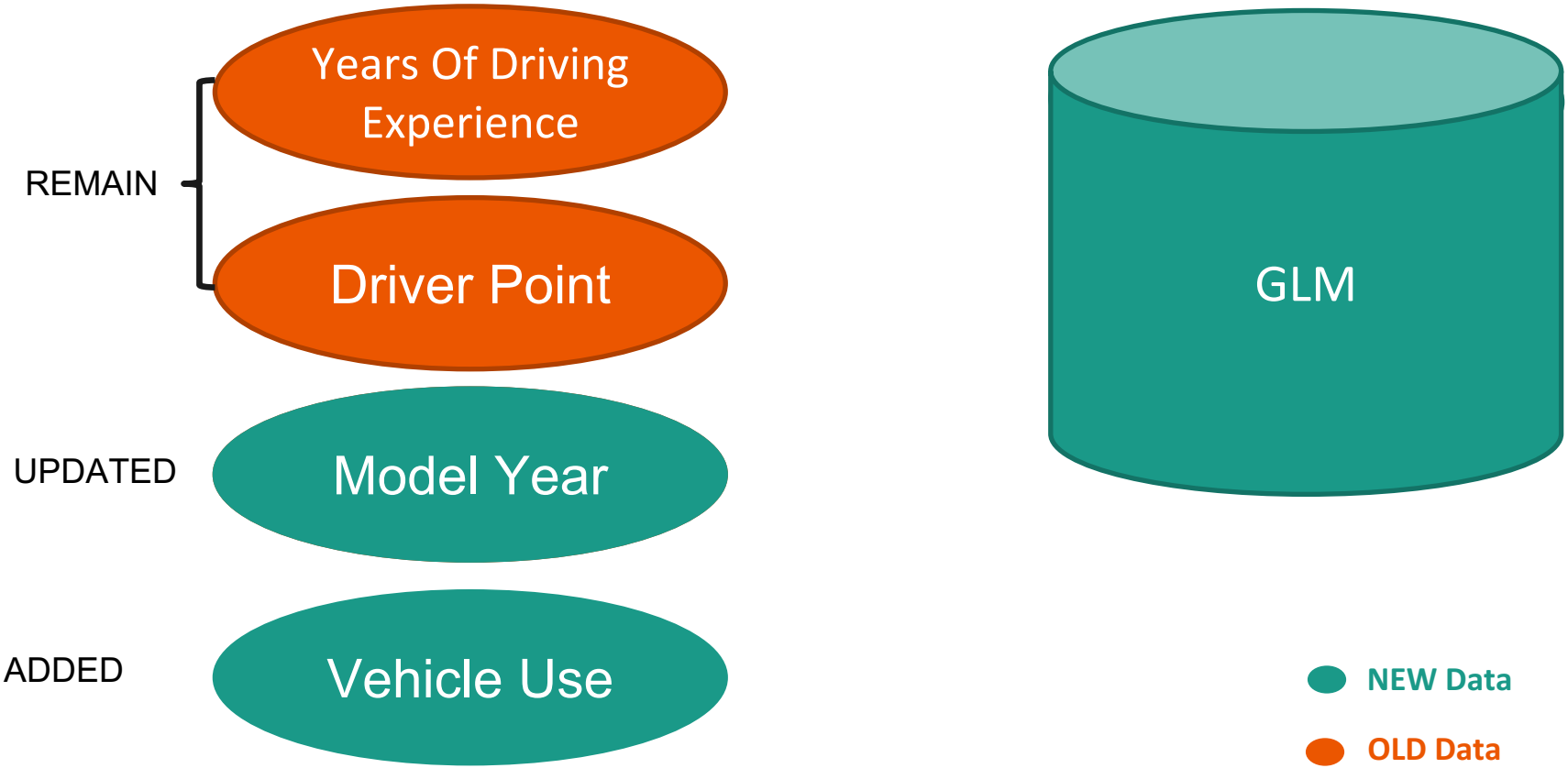
Rating Variables: Driver Points



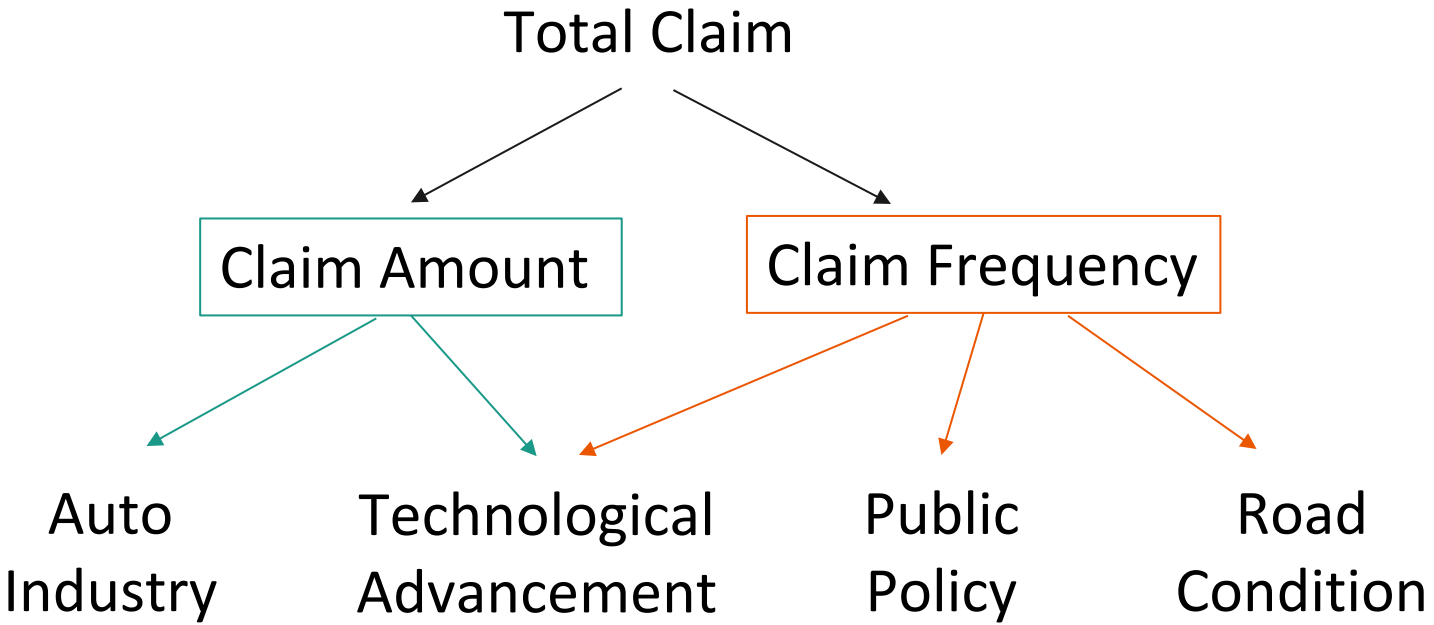
Rating Variables: Model Year



Solution

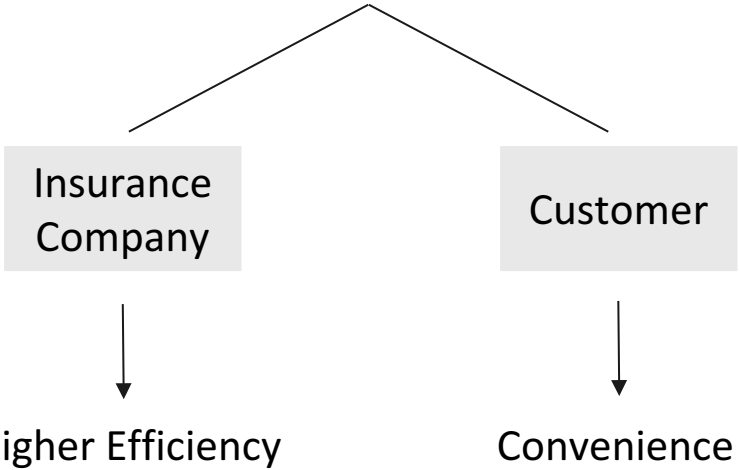

Years Of Driving Experience
REMAIN
Driver Point
UPDATED
Model Year
ADDED
Vehicle Use
GLM
NEW Data
OLD Data

Selecting Time Period of the Data

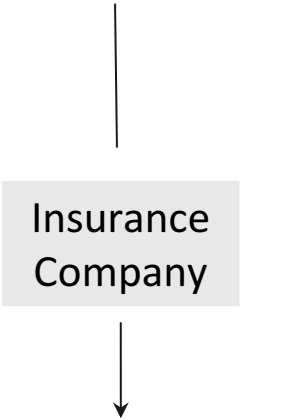


Countrywide Model

Pros



Cons



Business Challenges

New Issues


High Loss Ratio
Rate ↑
Retention ↓
Persistency with Company
Expand Youth Driver Market
Low Close Ratio
Good Student

Non-Rating Strategies

YOUTH MARKET EXPANSION	DROPPING RETENTION RATE	OTHER OPTIONS
● Mobile App ● Marketing in College	● Customer Loyalty Program	● Policymaker Collaboration

THANK YOU!

Appendices

Appendix A – Merging – Driving Experience

Years	Original	Combine 0 and 1	Combine 0, 1, 2
0	21.60%	21.54%	19.70%
1	18.54%		
2	16.89%	16.89%	
3+	2.91%	2.91%	2.91%

Appendix B –Youth Driver Market