

BAS 2019 Bruins Mutual Case Competition

Sriteja Chavva, Gabby Ignacio,
Jazz Laosirichon, Eva Mars

AGENDA

Part 1

Part 2

Part 3

Part 4

Introduction

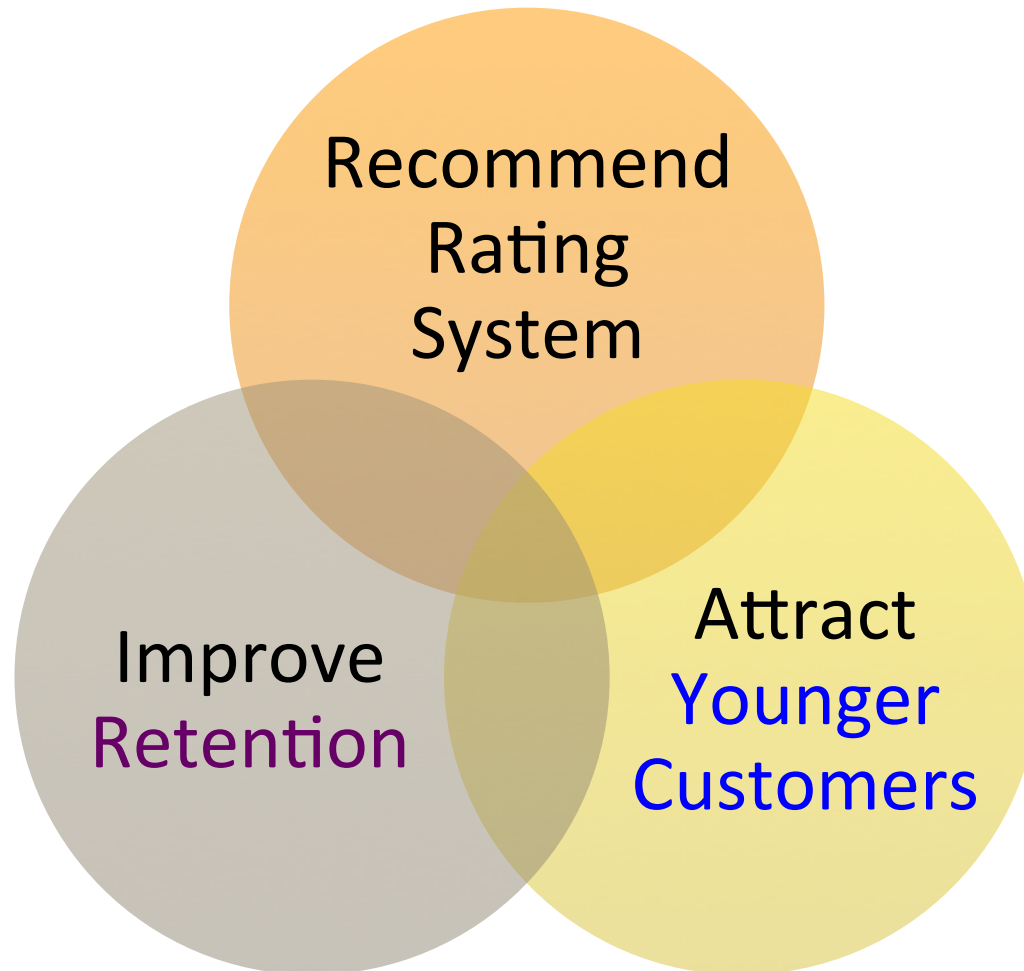
Analyzing a
New Rating
System

Tackling Key
Business
Issues

Conclusion

Introduction

GOALS



Analyzing a New Rating System

NEW RATERS

Vehicle	Rate
V1	\$150
V2	\$260
V3	\$370

Driver	Factor
Mom	0.90
Dad	0.95
Teenager	2.10

Driver	Vehicle
Mom	V1
Dad	V2
Teenager	V3

Driver Averaging

Average driver rate: $(0.90 + 0.95 + 2.10)/3 = 1.32$

$(\$150 + \$260 + \$370) \times 1.32$
= \$1030

Driver Assignment

$\$150 \times 0.90$
 $\$260 \times 0.95$
 $\$370 \times 2.10$

} **\$1159**

WINNERS & LOSERS

Profile	Driver Averaging	Driver Assignment	
1	\$3.1k	\$2.9k	No COMP/COLL for riskiest driver
2	\$3.9k	\$3.6k	Riskiest driver ≠ primary driver
3	\$1.1k	\$1.1k	Only 1 vehicle & driver

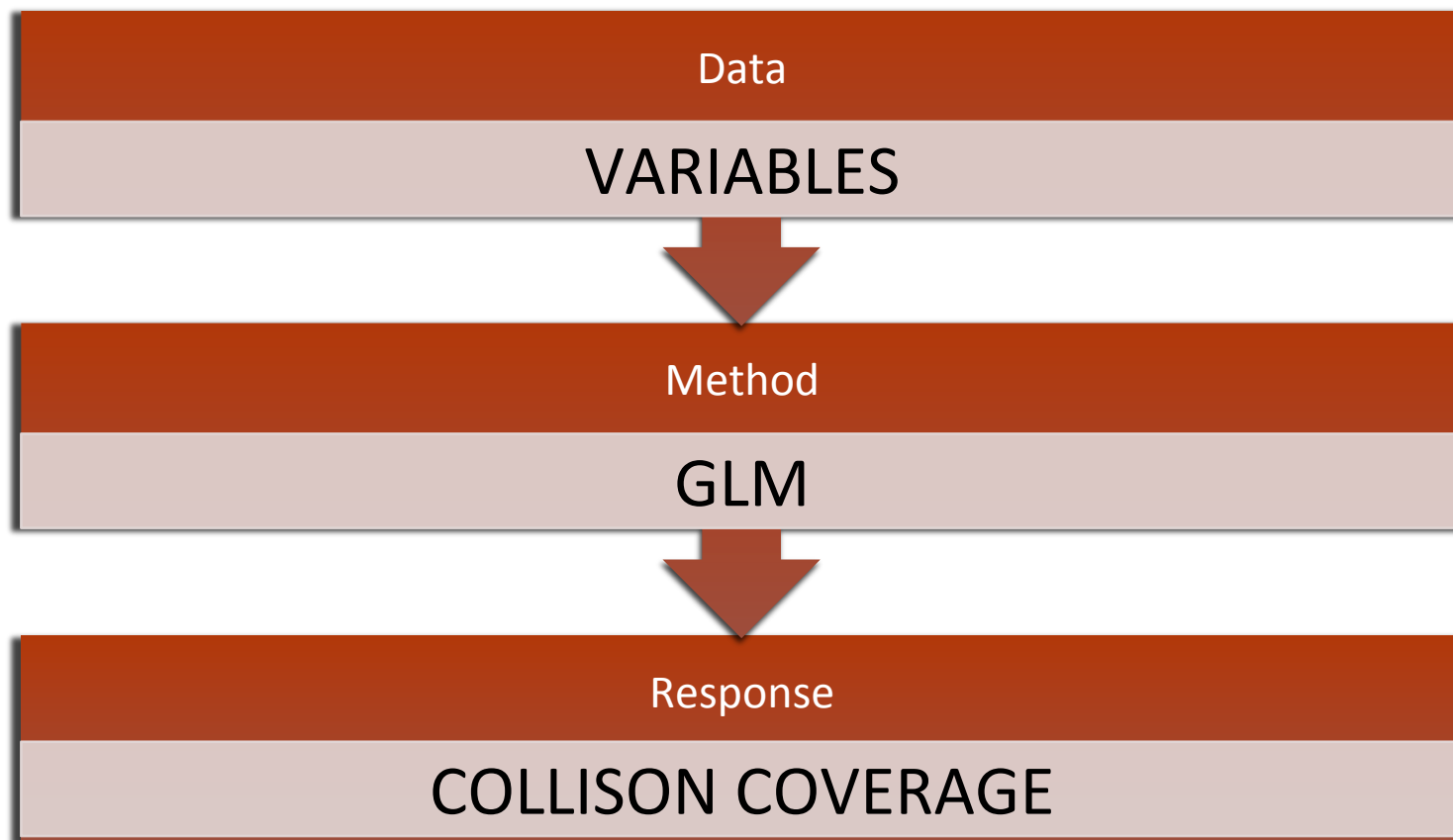
CONSIDERATIONS FOR RATER SYSTEM

Policyholder
mix

Manipulation
from agents/
customers

Price
fluctuations
from switch

Generalized Linear Model



CONSIDERATIONS FOR GLMs

Countrywide

- More data
- Protection from sudden fluctuations
- Simpler

vs

Statewide

- State laws
- Point system
- Driving conditions
- Market share

GLM OUTPUT ISSUES

Good student

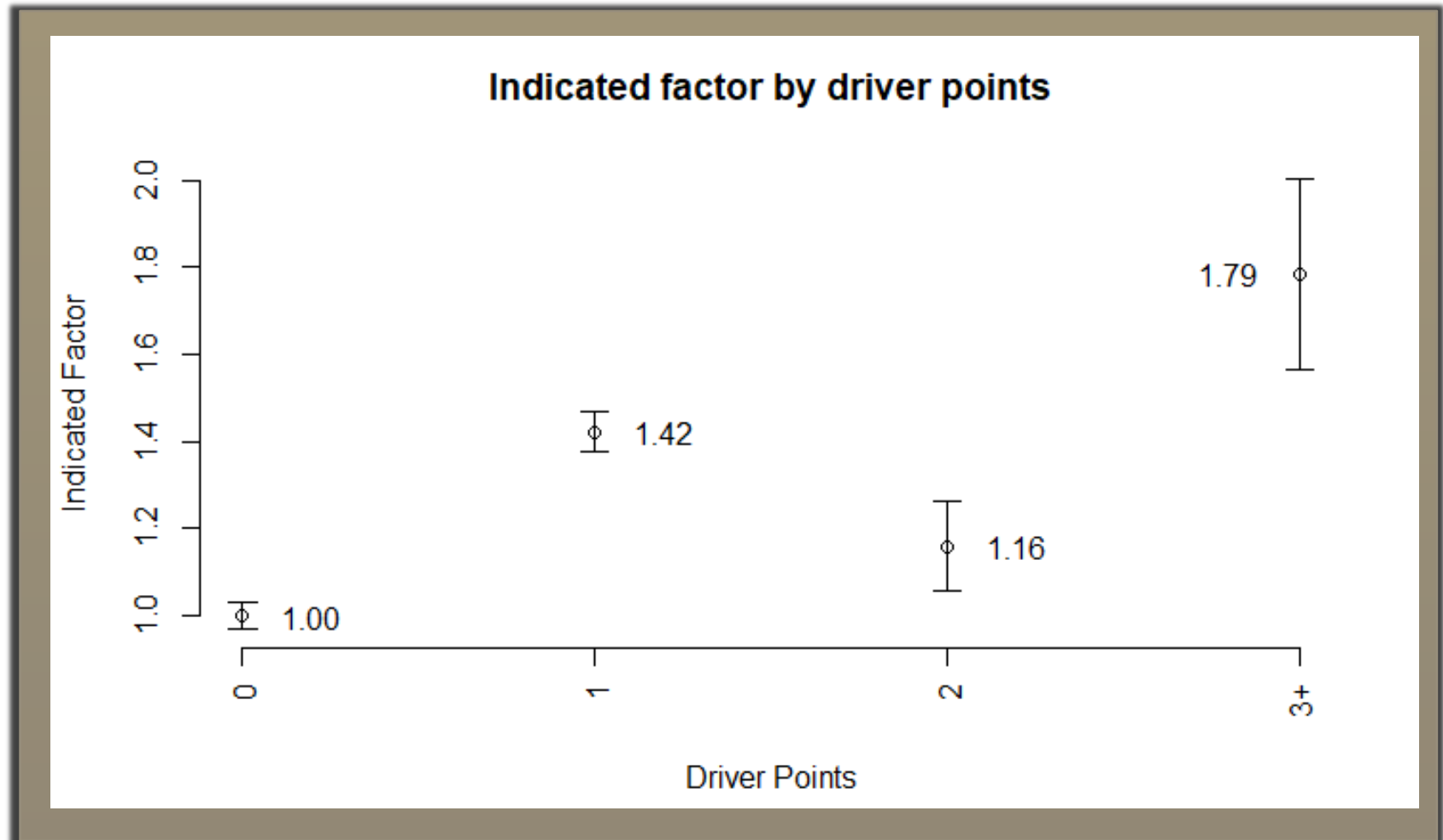
- Needs to be recategorized

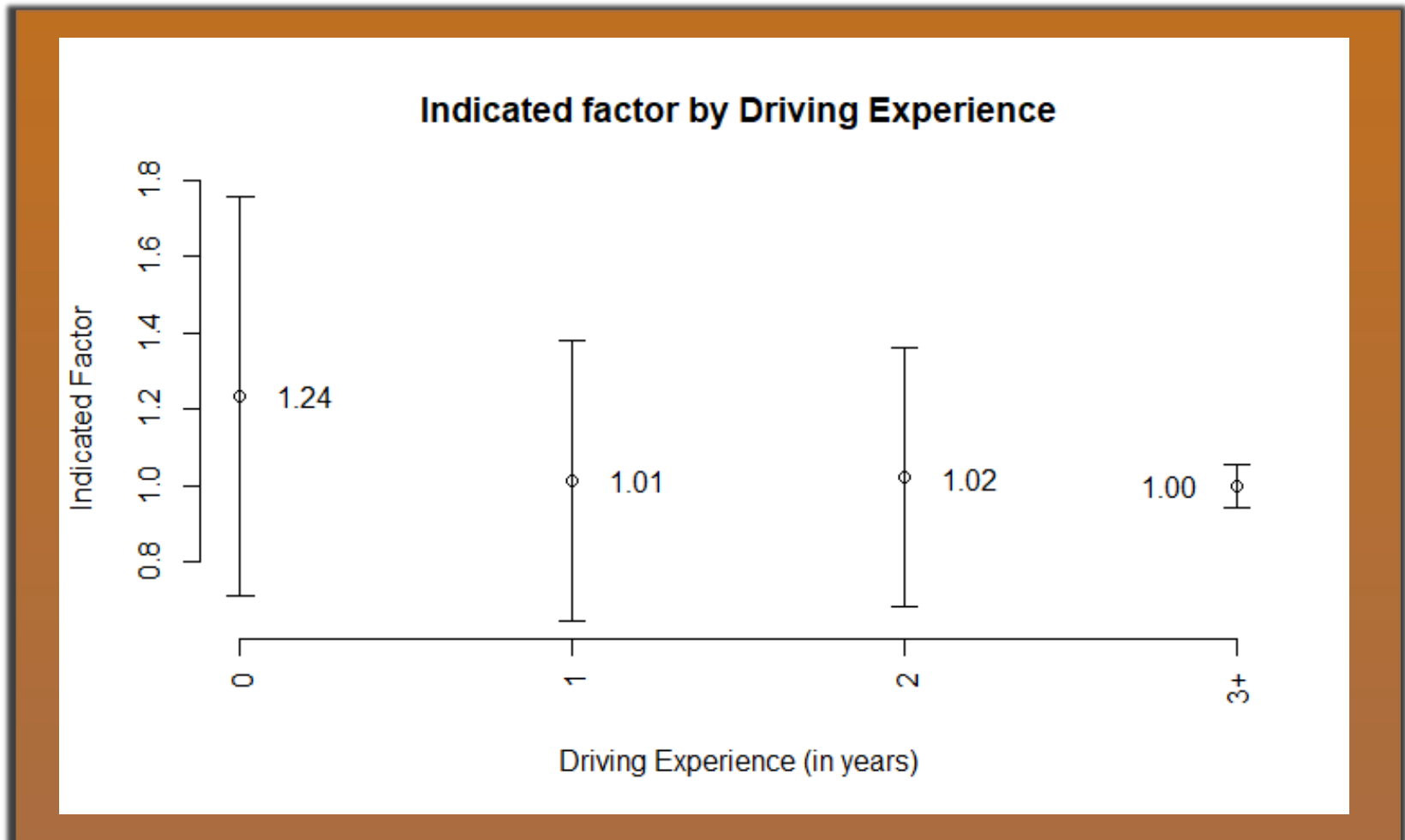
Driver points

- Indicated factor (1 point > 2 points)

Driver experience

- Minimal difference





ADJUSTMENTS

Driving
experience

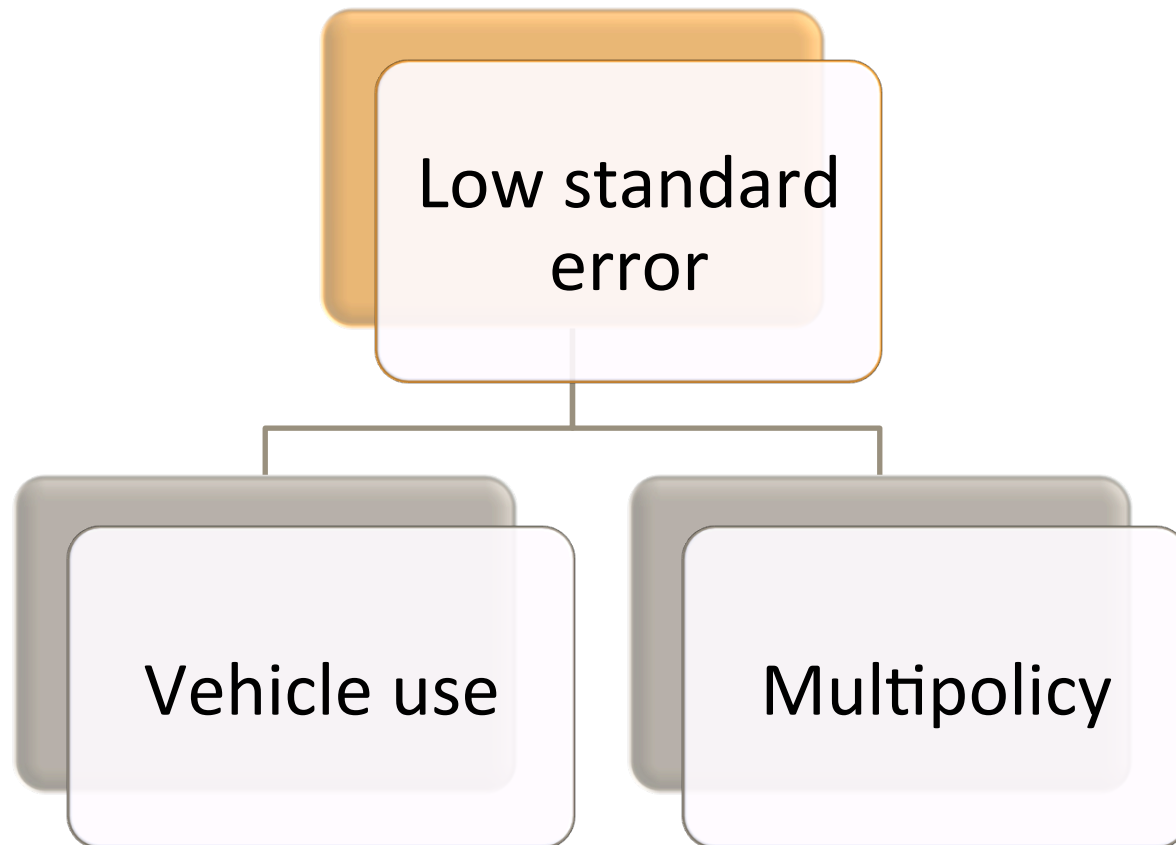


Model
year



Combine
categories

ADDITIONAL VARIABLES TO CONSIDER



Tackling Key Business Issues

RETENTION



Persistency with
company



Accident forgiveness



Full pay discount

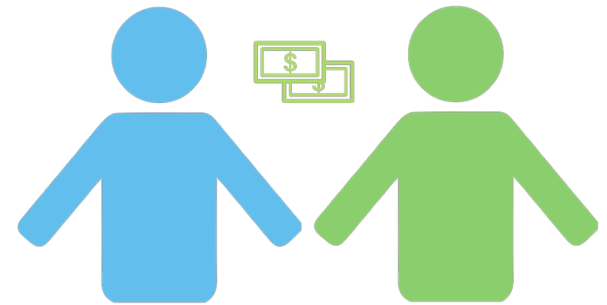
YOUNG CUSTOMERS



Good Student



Mobile app



Referral program

Conclusion

SHORTCOMINGS

➤ More variables



➤ Not given policy holder data to make concrete business decisions

THANK YOU