

**UCLA Property and Casualty Assessment
-Automobile Safety-
January 20, 2015**

The Bruinators
Actuary Firm

Agenda

- Summary
- Data and Analysis
 - Risk
 - Operation
 - Finance
 - Marketing
- Alternatives
- Conclusion

Executive Summary

Assumptions:

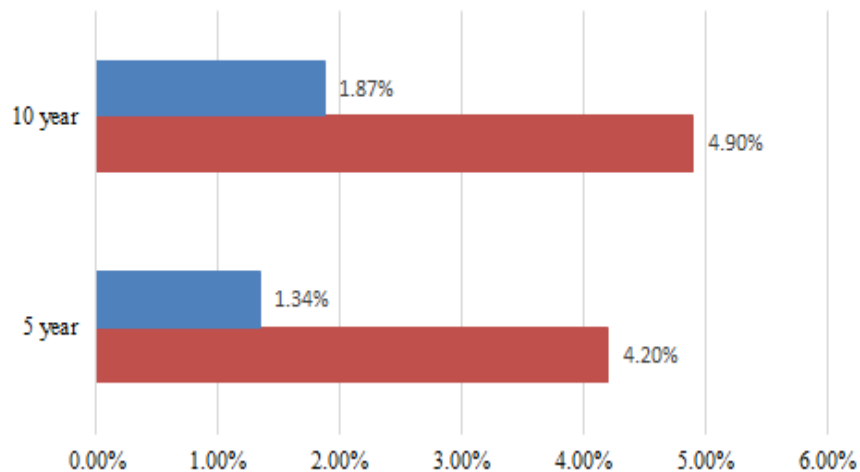
- Severity and frequency estimates are based off of a mixture of mid-sized sedan data.
- Costs are stable over five and ten year depreciation periods.

Analysis:

- Profitability is recognized with the safety features: Collision and Lane Warning, Adaptive Headlights, and Rear View Cameras.

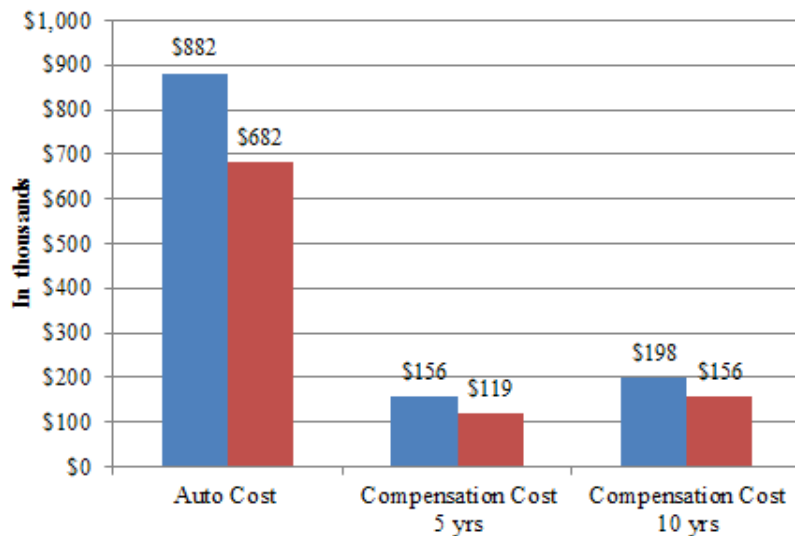
Risk

Comparative Return on Investment



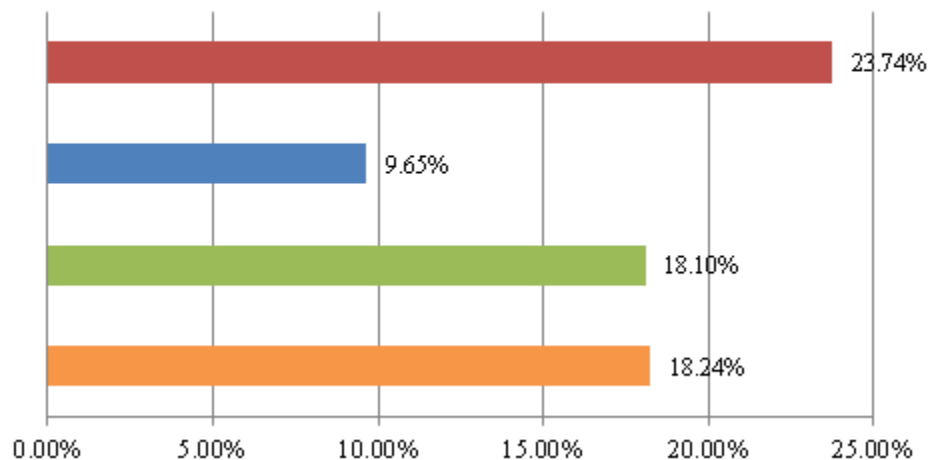
■ Without Technology Adjustments ■ With All Technology Adjustments

Cost Comparison



Risk

Reduction in Frequency



Collision + Lane Departure Warnings, Adaptive Headlights

Adaptive Headlights, Back-up Camera

Collision + Lane Departure Warnings, Back-up Camera

Collision + Lane Departure Warnings, Adaptive Headlights, Back-up Camera

Reduction in Severity



\$190.50

\$200.00

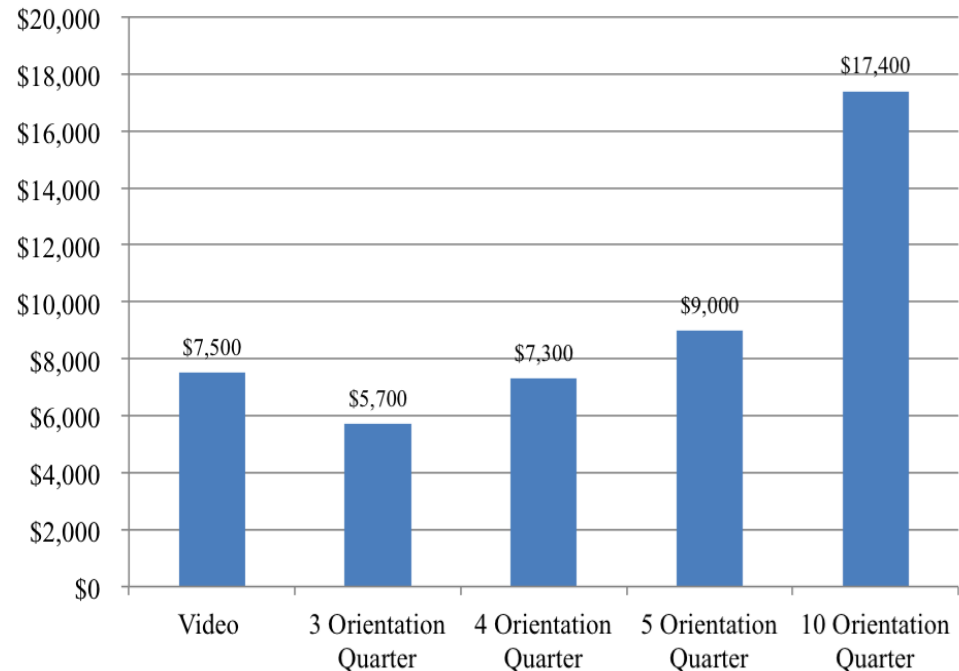
\$29.50

\$210.00

Operations : Trainings

- Options: orientation or training video
- Recommended approach: training video

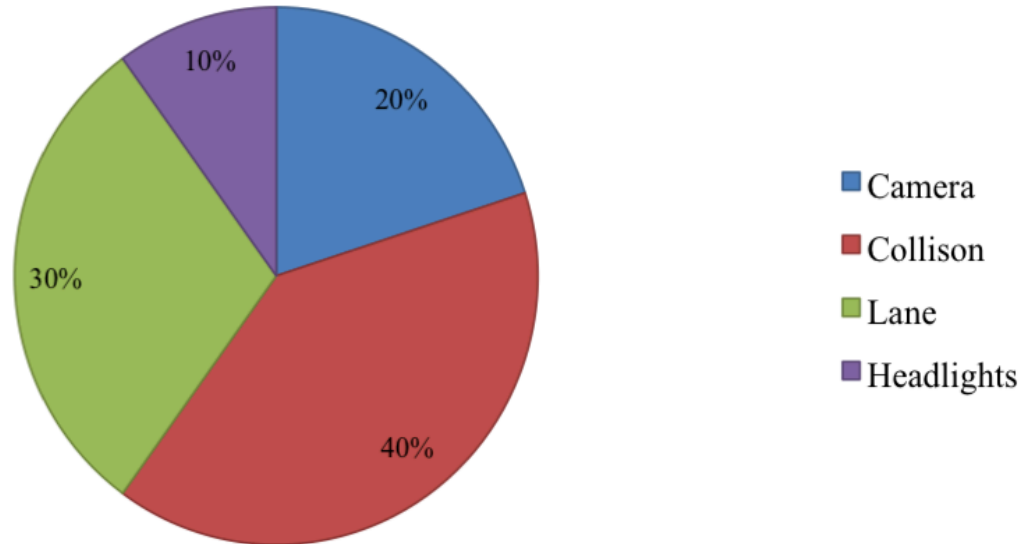
Training Cost Options Projected 10 Years



Operations : Repairs

- Annual allocated fund for repairs
- \$50/car/year
- \$238,000 over 10 years

Expected Repair Costs (10 Years)



Finance

- Overall funds of UCLA
- Highest Return on Investment
- Alternative Investment: US treasuries
- Spent \$9,884,000 on US treasuries for 1% ROI, only a fraction of that needed to fund this project

Finance

| | 5 years | | 10 years | | Safety Features |
|--------------------|-------------|-------------|--------------|--------------|--------------------|
| Safety Costs | \$974,000 | \$0 | \$1,948,000 | \$0 | No Safety Features |
| Loss Costs | \$3,411,000 | \$4,408,000 | \$6,821,000 | \$8,816,000 | |
| Repair Costs | \$119,000 | \$0 | \$238,000 | \$0 | |
| Training Costs | \$7,500 | \$0 | \$7,500 | \$0 | |
| Compensation Costs | \$594,000 | \$779,000 | \$1,508,0800 | \$1,976,000 | |
| Total Costs | \$5,105,500 | \$5,187,000 | \$10,522,500 | \$10,792,000 | |
| Difference | | -\$82,000 | | -\$270,000 | |

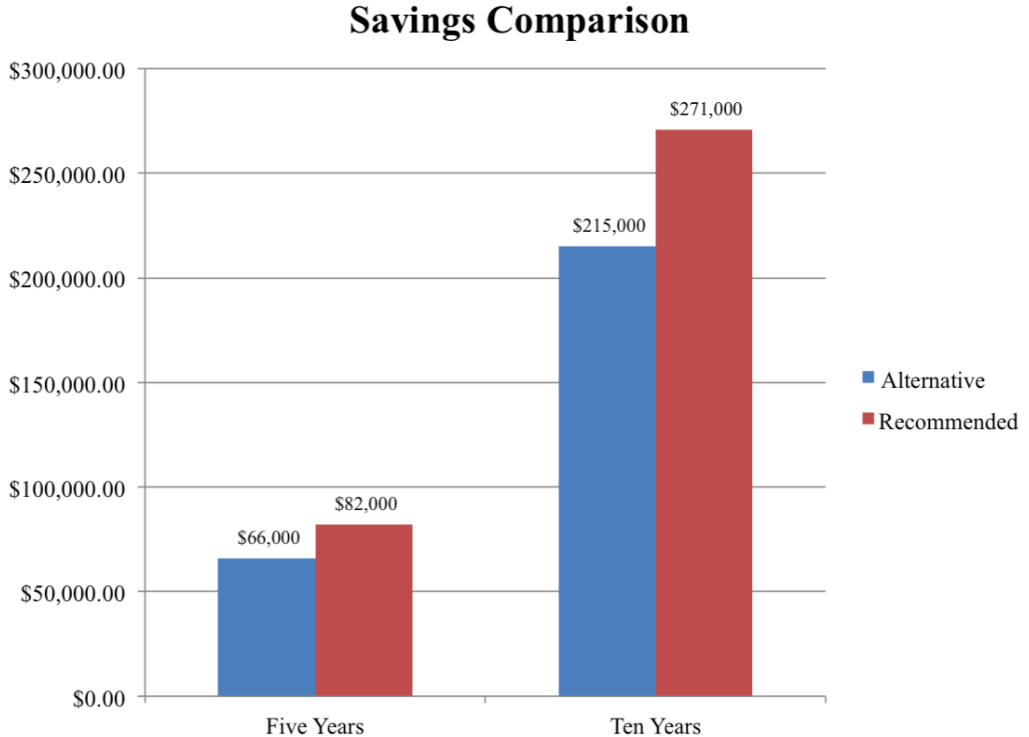
Marketing

- UCLA Safety Campaign
- Potential increase in applicants
- Securing UCLA's spot as a top public university
- Possible Partnership with National Highway Traffic Safety Administration (NHTSA)



Alternatives

- Have safety features apply only to new vehicles
- Lower initial investment



Concluding Remarks

- Safety features added to both new and old vehicles is most profitable
- Alternatively, only enhancing new vehicles is also solvent

