

Statistics Chapter 4: Performance Task

Role: Insurance Underwriter
Audience: Your Boss
Format: Memo with visuals
Topic: SUV Insurance



Your boss has assigned you the task of reviewing recent SUV insurance records and thinking about how that information may be relevant to your company. You found these data on the web.

HIGHWAY LOSS DATA INSTITUTE (<http://www.iihs.org/>)
OVERALL INSURANCE LOSSES (2011-2013)

Small SUVs		Medium Size SUVs				Large SUVs	
Model	Rating	Model	Rating	Model	Rating	Model	Rating
Kia Sportage 4dr 4WD	87	GMC Terrain 4dr 2WD	93	Nissan Murano 4dr 4WD	79	Buick Enclave 4dr 2WD	86
Mazda CX-5 4dr 2WD	79	GMC Terrain 4dr 4WD	99	Nissan Murano convertible 4WD	100	Buick Enclave 4dr 4WD	94
Mazda CX-5 4dr 4WD	78	Honda Accord Crosstour 4dr 2WD	95	Nissan Pathfinder 4dr 2WD	111	Chevrolet Tahoe 4dr 2WD	72
Mitsubishi Outlander 4dr 2WD	120	Honda Accord Crosstour 4dr 4WD	91	Nissan Pathfinder 4dr 4WD	98	Chevrolet Tahoe 4dr 4WD	72
Mitsubishi Outlander 4dr 4WD	133	Honda Pilot 4dr 2WD	70	Nissan Xterra 4dr 2WD	68	Chevrolet Traverse 4dr 2WD	68
Mitsubishi Outlander Sport 2WD	121	Honda Pilot 4dr 4WD	80	Nissan Xterra 4dr 4WD	62	Chevrolet Traverse 4dr 4WD	72
Mitsubishi Outlander Sport 4WD	122	Hyundai Santa Fe Sport 4dr 2WD	84	Subaru B9 Tribeca 4dr 4WD	80	Dodge Durango 4dr 2WD	93
Nissan Rogue 4dr 2WD	94	Hyundai Santa Fe Sport 4dr 4WD	90	Toyota 4Runner 4dr 2WD	81	Dodge Durango 4dr 4WD	95
Nissan Rogue 4dr 4WD	103	Jeep Grand Cherokee 4dr 2WD	78	Toyota 4Runner 4dr 4WD	82	Ford Expedition 4dr 2WD	75
Subaru Forester 4dr 4WD	78	Jeep Grand Cherokee 4dr 4WD	86	Toyota FJ Cruiser 4dr 2WD	66	Ford Expedition 4dr 4WD	77
Suzuki Grand Vitara 2WD	128	Jeep Wrangler 4dr 4WD	57	Toyota FJ Cruiser 4WD	82	GMC Acadia 4dr 2WD	67
Suzuki Grand Vitara 4WD	127	Kia Sorento 4dr 2WD	74	Toyota Highlander 2WD	76	GMC Acadia 4dr 4WD	79
Toyota RAV4 4dr 2WD	82	Kia Sorento 4dr 4WD	82	Toyota Highlander 4WD	90	GMC Yukon 4dr 2WD	70
Toyota RAV4 4dr 4WD	74	Mazda CX-9 4dr 2WD	93	Toyota Highlander hybrid 4dr 4WD	110	GMC Yukon 4dr 4WD	80
Volkswagen Tiguan 2WD	88	Mazda CX-9 4dr 4WD	100	Toyota Venza 4dr 2WD	94	Nissan Armada 2WD	85
Volkswagen Tiguan 4WD	90	Nissan Murano 4dr 2WD	72	Toyota Venza 4dr 4WD	101	Nissan Armada 4WD	98
						Toyota Sequoia 4dr 2WD	81
						Toyota Sequoia 4dr 4WD	82
						Volkswagen Touareg 4dr 4WD	141

Insurance loss ratings are stated in relative terms. 100 represents average result for all cars. Lower numbers are better. For example, a rating of 122 means insurance losses 22% worse than average and a rating of 91 means insurance losses of 9% better than average.

9%

Write a memo to your boss, including:

- appropriate comparative plots and summary statistics and reasons why you chose them;
- descriptions of the loss ratings for each group of SUVs;
- a comparison of loss ratings for the three sizes of SUVs;
- your recommendation to your boss about your company's insurance policies in decisions related to insuring SUVs.

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