

**California Private Passenger Automobile Insurance Experience**

**Projection of Return on Net Worth for 2020**

<u>Year</u>	<u>Loss Ratio</u>	<u>Return on Net Worth</u>
2010	59.2%	9.1%
2011	61.4%	5.5%
2012	62.9%	4.8%
2013	63.1%	4.5%
2014	63.2%	5.1%
2015	67.6%	1.7%
2016	72.9%	-1.7%
2017	70.1%	1.5%
2018	65.7%	5.1%
2019	64.5%	6.3%
Average	65.1%	4.2%
2020	52.7%	16.6%

**Return on Net Worth Regression : Time and Loss Ratio**

<u>Regression Statistics</u>	
Multiple R	97.1%
R Square	94.4%
Adjusted R Square	92.8%
Standard Error	0.008051233
Observations	10

**ANOVA**

	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>Significance F</u>
Regression	2	0.007599143	0.003799572	58.61514059	4.247E-05
Residual	7	0.000453757	6.48224E-05		
Total	9	0.0080529			

	<u>Coefficients</u>	<u>Standard Error</u>	<u>t Stat</u>	<u>P-value</u>	<u>Lower 95%</u>	<u>Upper 95%</u>
Intercept	-6.511064	2.328	-2.797	0.027	-12.015	-1.007
X Variable 1	0.003526	0.001	3.005	0.020	0.001	0.006
X Variable 2	-0.844674	0.086	-9.826	0.000	-1.048	-0.641

**Source:**

Loss Ratio and Return on Net Worth Values for 2010 to 2019 from

National Association of Insurance Commissioners Profitability Reports

Loss Ratio for 2020 from California Department of Insurance Market Share Report

Return on Net Worth for 2020 estimated from regression analysis with independent variables of time and loss ratio

$$16.7\% = 0.166 = -6.511064 + 0.003526 \times 2020 - 0.844674 \times 0.527$$