

PAK Exam Aid

Group and Health Design and Pricing (DP) Exam
Spring 2024 Edition



2.*(11 points)*

- (a) (1 point) List data sources that may be available for analyzing an insurer's claim experience.

ANSWER:

You are an actuary for LMN Consulting, working on a plan for your client, HIJ Group. You have been given the following for the upcoming plan year:

Deductible	Value of Claims over deductible	Value of deductible
0.00	3000.00	0.00
200.00	2872.42	127.58
400.00	2806.36	193.64
500.00	2772.26	
600.00	2738.15	261.85
800.00	2677.03	322.97
1000.00	2621.36	378.64
1200.00	2564.34	435.66
2000.00	2307.49	692.51
2400.00	2215.63	784.37
2500.00	2193.51	
2600.00	2171.69	828.31
2800.00	2128.90	871.10
3000.00	2087.13	912.87
3200.00	2046.30	953.70

- The plan covers 0% up to the deductible, 80% of the next \$2,000 in claims, and then 100% of any charges above the deductible plus the next \$2,000 amount of claims.
- Current participation is at 100, with enrollment expected to remain level for the upcoming year.
- The 100 participants are made up of:
 - 15 participants will select the \$0 deductible plan.
 - 50 participants will select the \$500 deductible plan.
 - 35 participants will select the \$1,000 deductible plan.

2. Continued

- (b) (5 points) Calculate the total estimated plan cost for the upcoming year. Show your work.

The response for this part is to be provided in the Excel spreadsheet.

Further analysis shows that an age and gender claim cost factor analysis should be completed. You are given the following information for the current year and the projected values for the upcoming year:

- The claim cost factor for males is expected to be 10% higher in the projection than the current values.
- The claim cost factor for age bands 30-39 and 40-49 are expected to be 5% lower in the projection than the current values.

Gender	Age Band	Claim Cost Factor	Current Experience	Projected Experience
Male	20-29	0.470	12.5%	17.5%
Male	30-39	0.550	12.5%	7.5%
Male	40-49	0.860	12.5%	15.0%
Male	50+	2.000	12.5%	10.0%
Female	20-29	0.750	12.5%	12.5%
Female	30-39	1.100	12.5%	7.5%
Female	40-49	0.800	12.5%	12.5%
Female	50+	1.500	12.5%	17.5%

- (c) (4 points) Calculate:
- The Claim Cost Factor for each gender and age band combination for the projected experience.
 - The Composite Factor for both the Current Experience and the Projected Experience.

Show your work.

The response for this part is to be provided in the Excel spreadsheet.

- (d) (1 point) Describe what the ratio of Projected Composite Factor over Current Composite Factor means for the expected claim costs.

ANSWER: