Reading: Werner 07: Other Expenses
Model: 2017.Fall #7
Problem Type: Premium-Based Expense Projection Method

Find Calculate the underwriting expense ratio using the premium-based projection method.

Given

	($000s)	% fixed	notation
Written Premium	24,600	--	WP
Earned Premium	23,620	--	EP
Agency Commission	2,730	0%	CB
Other Acquisition Cost	2,090	75%	OthAcq
Premium Tax & Licensing Fees	690	20%	TLF
General Expense	1,750	70%	Gen
LAE	1,200	0%	LAE

Step 1 separate each expense category into its fixed and variable components

		% total before split		% fixed		fixed expense ratio		variable expense ratio
CB / WP	====>	11.1%	x	0%	====>	0.0%	====>	11.1%
OthAcq / WP	====>	8.5%	x	75%	====>	6.4%	====>	2.1%
TLF / WP	====>	2.8%	x	20%	====>	0.6%	====>	2.2%
Gen / EP	====>	7.4%	x	70%	====>	5.2%	====>	2.2%
						12.1%		17.7%

variable = (% total) - (% fixed)

Step 2 sum the fixed and variable component to get the total underwriting expense ratio

total	=	fixed	+	variable
	=	12.1%	+	17.7%
	=	29.8%		
		(final answer)		

Note that in a ratemaking analysis, you often need the %fixed and %variable components separately.

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Model: 2017.Fall #7
Problem Type: Premium-Based Expense Projection Method

Find Calculate the underwriting expense ratio using the premium-based projection method.

Given

	($000s)	% fixed	notation
Written Premium	39,300	--	WP
Earned Premium	40,090	--	EP
Agency Commission	3,930	0%	CB
Other Acquisition Cost	4,560	65%	OthAcq
Premium Tax & Licensing Fees	940	15%	TLF
General Expense	3,090	85%	Gen
LAE	1,200	0%	LAE

Step 1 separate each expense category into its fixed and variable components

		% total before split		% fixed		fixed expense ratio		variable expense ratio
								= (% total) - (% fixed)
CB / WP	====>	10.0%	x	0%	====>	0.0%	====>	10.0%
OthAcq / WP	====>	11.6%	x	65%	====>	7.5%	====>	4.1%
TLF / WP	====>	2.4%	x	15%	====>	0.4%	====>	2.0%
Gen / EP	====>	7.7%	x	85%	====>	6.6%	====>	1.2%
						14.5%		17.3%

Step 2 sum the fixed and variable component to get the total underwriting expense ratio

total	=	fixed	+	variable
	=	14.5%	+	17.3%
	=	31.7%		
		(final answer)		

Note that in a ratemaking analysis, you often need the %fixed and %variable components separately.