Reading: Friedland 17 (ULAE)
Model: ULAE Example
Problem Type: Congor & Nolibos approach for ULAE

Find Estimate the unpaid ULAE as of the latest given year-end using all 3 versions of the Congor and Nobilos approach.

Given independent estimate of ultimate claims for all AYs 460,000

% of ULAE spend on opening claims	55%
% of ULAE spend on maintaining claims	30%
% of ULAE spend on closing claims	15%

CY	paid ULAE in CY M	ultimate for clms reported in CY R	paid loss in CY P	ultimate for clms closed in CY C
2021	5,000	57,500	22,500	21,500
2022	5,000	70,200	28,400	28,000
2023	5,500	84,900	34,600	35,600
2024	5,500	106,100	43,300	44,100
2025	5,900	131,600	52,000	57,300

Step 1a calculate the claims basis B

CY	55%	x	R	+	30%	x	P	+	15%	x	C	claims basis B
2021	55%	x	57,500	+	30%	x	22,500	+	15%	x	21,500	41,600
2022	55%	x	70,200	+	30%	x	28,400	+	15%	x	28,000	51,330
2023	55%	x	84,900	+	30%	x	34,600	+	15%	x	35,600	62,415
2024	55%	x	106,100	+	30%	x	43,300	+	15%	x	44,100	77,960
2025	55%	x	131,600	+	30%	x	52,000	+	15%	x	57,300	96,575
			450,300				180,800				186,500	**329,880**

Step 1b select a ULAE ratio W: W = M / B

CY	paid ULAE M	claims basis B	ULAE ratio W
2021	5,000	41,600	12.0%
2022	5,000	51,330	9.7%
2023	5,500	62,415	8.8%
2024	5,500	77,960	7.1%
2025	5,900	96,575	6.1%
	26,900	**329,880**	7.5%

If you decided at the beginning you are going to use a weighted average for B then you only need the totals line in Step 1a and 1b. The problem with that however is that you may not see trends in the ULAE ratio.

<===== *you can select this weighted average or choose another reasonable ratio*

Step 2a calculate the estimate of unpaid ULAE using the Expected Claims approach

unpd ULAE	=	W	x	L	-	M	
	=	7.5%	x	460,000	-	26,900	
	=	7,600					

Step 2b calculate the estimate of unpaid ULAE using the Bornhuetter-Ferguson approach

unpd ULAE	=	W	x	(	L	-	B	)
	=	7.5%	x	(	460,000	-	**329,880**	)
	=	9,759						

Step 2b calculate the estimate of unpaid ULAE using the Development approach

unpd ULAE	=	M	x	(	L	/	B	-	1)
	=	26,900	x	(	460,000	/	**329,880**	-	1)
	=	10,611							

Notes: *You get the same answer for all 3 methods if your selection for W is the weighted average. You also have to keep enough decimal places or they may differ due to rounding.*

If you choose something other than the weighted average, which could be entirely reasonable depending on the circumstances then you won't in general get the same answer.