(Fr17.ULAE) Practice 01a-Question

Random 1 Use the classical approach to estimate the unpaid ULAE for AY 2022

occurrence <== policy type

CY	paid ULAE	paid claims	incurred claims
2018	0	0	0
2019	41,000	351,000	470,000
2020	48,000	476,000	600,000
2021	60,000	498,000	410,000
2022	44,000	432,000	480,000

<== incurred includes reported & IBNR

167,000	case outstanding (total across all AYs)
69,000	total IBNR (total across all AYs)
46%	% of total IBNR attributed to future case development on known claims

Step 1: classical ULAE ratio ==> (paid ULAE) / (paid claims)

CY	paid ULAE	paid claims	ULAE ratio
2018	0	0	
2019	41,000	351,000	11.7%
2020	48,000	476,000	10.1%
2021	60,000	498,000	12.0%
2022	44,000	432,000	10.2%
			11.0% <== selected (average)

Sometimes there is a trend in ULAE ratios.
If so, you may need to use judgement
instead of just selecting the average

Step 2: apply formula for unpaid ULAE

unpaid ULAE = (ULAE ratio) x [50% x (Case + IBNER) + 100% x IBNYR]

where:

IBNER	=	46%	x	Total IBNR	<== Incurred But Not ENOUGH Reported
	=	46%	x	69,000	
	=	31,740			
IBNYR	=	Tot IBNR	-	IBNER	<== Incurred But Not YET Reported
	=	69,000	-	31,740	
	=	37,260			

therefore:

unpaid ULAE = 11.0% x [50% x 198,740 + 100% x 37,260]

unpaid ULAE = 15,029 <== final answer

(Fr17.ULAE) Practice 02a-Question

Random 2 | Use the | classical | approach to estimate the | unpaid | ULAE | for AY | 2021

occurrence <== policy type

CY	paid ULAE	paid claims	incurred claims
2017	0	0	0
2018	43,000	464,000	600,000
2019	60,000	482,000	550,000
2020	60,000	327,000	420,000
2021	52,000	358,000	520,000

<== incurred includes reported & IBNR

102,000	case outstanding (total across all AYs)
85,000	total IBNR (total across all AYs)
65%	% of total IBNR attributed to future case development on known claims

Step 1: classical ULAE ratio ==> (paid ULAE) / (paid claims)

CY	paid ULAE	paid claims	ULAE ratio
2017	0	0	
2018	43,000	464,000	9.3%
2019	60,000	482,000	12.4%
2020	60,000	327,000	18.3%
2021	52,000	358,000	14.5%
			16.4% <== selected (judgment)

Sometimes there is a trend in ULAE ratios.
If so, you may need to use judgement
instead of just selecting the average

Step 2: apply formula for unpaid ULAE

unpaid ULAE = (ULAE ratio) x [50% x (Case + IBNER) + 100% x IBNYR]

where:

IBNER	=	65%	x	Total IBNR	<== Incurred But Not ENOUGH Reported
	=	65%	x	85,000	
	=	55,250			
IBNYR	=	Tot IBNR	-	IBNER	<== Incurred But Not YET Reported
	=	85,000	-	55,250	
	=	29,750			

therefore:

unpaid ULAE = 16% x [50% x 157,250 + 100% x 29,750]

unpaid ULAE = 17,774 <== final answer

(Fr17.ULAE) Practice 03a-Question

Random 3 Use the Kittel approach to estimate the unpaid ULAE for AY 2020

occurrence <== policy type

CY	paid ULAE	paid claims	incurred claims
2016	0	0	0
2017	55,000	324,000	480,000
2018	58,000	479,000	480,000
2019	51,000	457,000	500,000
2020	44,000	403,000	510,000

<== incurred includes reported & IBNR

133,000	case outstanding (total across all AYs)
54,000	total IBNR (total across all AYs)
58%	% of total IBNR attributed to future case development on known claims

Step 1: Kittel ULAE ratio ==> (paid ULAE) / AVG [(paid claims) , (incurred claims)]

CY	paid ULAE	average (pd, inc)	ULAE ratio
2016	0	0	
2017	55,000	402,000	13.7%
2018	58,000	479,500	12.1%
2019	51,000	478,500	10.7%
2020	44,000	456,500	9.6%
			10.2%

<== selected (judgment)

Sometimes there is a trend in ULAE ratios. If so, you may need to use judgement instead of just selecting the average

Step 2: apply formula for unpaid ULAE

unpaid ULAE = (ULAE ratio) x [50% x (Case + IBNER) + 100% x IBNYR]

where:

IBNER	=	58%	x	Total IBNR	<== Incurred But Not ENOUGH Reported
	=	58%	x	54,000	
	=	31,320			
IBNYR	=	Tot IBNR	-	IBNER	<== Incurred But Not YET Reported
	=	54,000	-	31,320	
	=	22,680			

therefore:

unpaid ULAE = 10% x [50% x 164,320 + 100% x 22,680]

unpaid ULAE = 10,641 <== final answer

(Fr17.ULAE) Practice 04a-Question

Random 4 Use the Kittel approach to estimate the unpaid ULAE for AY 2022

occurrence <== policy type

CY	paid ULAE	paid claims	incurred claims
2018	0	0	0
2019	44,000	311,000	500,000
2020	46,000	430,000	430,000
2021	56,000	387,000	450,000
2022	49,000	443,000	480,000

<== incurred includes reported & IBNR

187,000	case outstanding (total across all AYs)
100,000	total IBNR (total across all AYs)
57%	% of total IBNR attributed to future case development on known claims

Step 1: Kittel ULAE ratio ==> (paid ULAE) / AVG [(paid claims) , (incurred claims)]

CY	paid ULAE	average (pd, inc)	ULAE ratio
2018	0	0	
2019	44,000	405,500	10.9%
2020	46,000	430,000	10.7%
2021	56,000	418,500	13.4%
2022	49,000	461,500	10.6%
			11.4%

<== selected (average)

Sometimes there is a trend in ULAE ratios.
If so, you may need to use judgement
instead of just selecting the average

Step 2: apply formula for unpaid ULAE

unpaid ULAE = (ULAE ratio) x [50% x (Case + IBNER) + 100% x IBNYR]

where:

IBNER = 57% x Total IBNR <== Incurred But Not ENOUGH Reported
= 57% x 100,000
= 57,000

IBNYR = Tot IBNR - IBNER <== Incurred But Not YET Reported
= 100,000 - 57,000
= 43,000

therefore:

unpaid ULAE = 11% x [50% x 244,000 + 100% x 43,000]

unpaid ULAE = 18,810 <== final answer