Rising Fellow

Exam 6U

Cookbook

REGULATION AND FINANCIAL REPORTING (US)

50+ Step-by-Step Recipes
to Solve CAS Calculation Problems

Exam 6U Cookbook

Fall 2025 Sitting

Rising Fellow

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Introduction

The purpose of the Exam 6 Cookbook is to prepare you to confidently answer calculation-based problems on exam day without wasting time trying to "think through" a problem-solving approach before typing the solution. This is the same approach I used to help pass my upper-level CAS exams on the first sittings to earn my FCAS.

Since the 2016 sitting, 1,000+ actuaries have used the Exam 5 - 9 Cookbooks and Online Courses to help them pass their exams and earn their FCAS. We want to see you be one of them.

Our goal with Rising Fellow is to help you prepare for the exam with less frustration so that you have your best exam sitting yet!

The Structure

The Exam 6 Cookbook goes through the different calculation-based problem-types that we believe are reasonably testable based on the syllabus. By exam day, you should know how to solve each one.

Inside, you'll find a separate section for each testable problem-type. Each section has the following structure:

Original Practice Problem

Each section has an original practice problem that demonstrates the problem-type. We wrote these based off of the syllabus papers to have a similar difficulty-level and style to what you might see on an exam.

Solution Recipe

The solution recipe solves the practice problem from start to finish and shows the step-by-step approach you should take to answer a similar problem. For each step, you'll see:

- The description for what to do in the step
- The formula(s) necessary for the step
- The formula(s) translated from symbolic notation to plain-English
- Calculations for the step to solve the example problem

Discussion

Each section includes discussion to add clarity and more context. The discussion also covers underlying concepts that might come up on a part b or part c essay question.

For many problems, I point out potential "twists" that could show up on the exam that would make an exam problem more difficult. Since you've taken actuarial exams up to this point, you know that straightforward exam problems are more the exception than the rule.

Exam Spreadsheet Tips

This new section provides Excel formulas and tips for how to solve a problem more efficiently in the computer-based testing (CBT) PearsonVue spreadsheet environment. There are many types of problems where setting up your solution intelligently and taking advantage of the spreadsheet capabilities such as SUMIF( ), COUNTIF( ), and array formulas, will save you valuable time on the exam.

Source

Each section references the pages in the syllabus reading that you can cross-reference for more information and details. Make sure to check the syllabus section for more context if you get stuck on a problem or to see how the author discusses the concepts.

More Practice

Here, you'll see references to past CAS problems. You'll find this helpful, especially closer to the exam, if there are types of problems that you are struggling with. This section includes references to CAS problems from the 2015-2019 exams.

How to Best Use the Exam 6 Cookbook

Below is a suggested guide for how you can incorporate the Exam 6 Cookbook in your own study schedule along with the syllabus material and a typical study manual. This is the general approach that I used when I took my fellowship exams.

For each of those exams I had a main study manual as well as the Exam Cookbook, which I built out while I studied for the exam (but you don't need to waste time doing that part!)

First pass through the syllabus

While you're reading a particular paper in the syllabus and your main study manual to learn the material, use the Exam 6 Cookbook to clearly identify what problem-types you need to know from the paper. Study the steps in the solution recipe to learn how to solve the problem-types. Make sure to do some practice problems as you go through the syllabus. This will help you learn faster.

Second pass through the syllabus

Review the steps for the problem-types and make sure you have an intuitive understanding of how to solve the problems. Start working the past CAS problems.

The first level of understanding is to be able to follow the recipe and understand the steps and calculations.

The next level of understanding is to be able to recall and apply the steps to solve a problem without relying on study material. During your second pass, focus on building this deeper level of understanding.

Review and Practice Problems (around 6 weeks to 2 weeks before the exam)

At this point you should have a good understanding of the syllabus and how to use the recipe steps to systematically solve the different calculation problems. During this period, you should be doing lots of problems across the syllabus and targeting problem-types that you are finding particularly challenging.
By the end of this phase, you might not have all the formulas memorized, but you should know all the steps and how to apply them to solve problems without needing to think too much before beginning to write the solution.

During this phase, make sure to focus on the types of problems and concepts that you're weak at. This may require some struggle, but struggling with some of the challenging problems will help you master these concepts.

You also should continue building your understanding of the concepts and preparing for essay and more complicated integrative questions. I found it helpful to create flashcards from the papers as well as to re-read sections of the syllabus papers that appear to be likely sources of essay problems.

Final Weeks

In the final weeks, focus on taking practice exams to see problems from the entire syllabus. When taking practice exams, work on your exam strategy to make sure you're able to finish the exam and maximize your points.

Prepare for essay problems in the final weeks by using flashcards to make sure that you know all the details necessary. An approach I found helpful is to say flashcards out loud and to explain the flashcard response in my own words as if I were teaching someone. It sounds weird, but it is a much more efficient way to learn and memorize than simply scanning the front and back of the flashcard.

Prepare for calculation problems by reviewing the recipes in the Exam 6 Cookbook in a similar fashion to how you use flashcards for essay problems. Using this approach on my fellowship exams, I was able to rapidly review the steps and formulas for how to solve each problem-type that might show up on the exam. This was a huge benefit and gave me a lot of confidence going into the exam.

Exam Day

I used the original Exam Cookbooks together with a traditional study manual using the approach above to take my fellowship exams. On exam day, for almost every calculation problem I was able to start writing the solution without wasting time trying to think through how to solve the problem. I had an intuitive understanding of how to solve each of the problems following the step-by-step recipes.

If you follow this approach, you should be able to develop a similar level of understanding and confidence going into the exam room.

Excel Version for Computer-Based Testing Preparation

For each recipe, there is an accompanying Excel version. Make sure to review those so that you know how to solve problems in the spreadsheet format. The Exam Spreadsheet Tips sections and the Excel version

showing the formulas and setup for the spreadsheet solution will help you understand how to solve exam problems in the PearsonVue spreadsheet environment.

Exam-Related Questions

If you purchased the Exam 6 Online Course, **please post your question in the Exam 6 course forum**. We answer exam-related questions through the forum for people in the online course.

Errata

We always hated seeing errors in study manuals when we studied for exams, so we make every effort to ensure the study materials are accurate. Nevertheless, there may still be some errors in the final version, so we keep an updated errata. Please make sure to check it regularly for any fixes. The link is below:

https://risingfellow.com/errata

If you find any errors, please send us a message using the contact form on the Errata page so that we can make a correction.

Feedback

We are always working to improve the Exam 6 Cookbook and the rest of the Rising Fellow study material. Please send us an email to exam6@RisingFellow.com if you have feedback about any of the following:

- Recipes or sections that are confusing or could be improved
- New recipes we should include in future versions
- Better ways you've found to solve a problem-type in a spreadsheet
- Any comments or other feedback you have

Reviews

If you find the Exam 6 Cookbook helpful this sitting, please leave us a review and let us know how it helped you prepare for the exam. Other actuaries look at reviews to help decide what study material to buy and it's helpful for us to hear feedback from actuaries like you so that we can better understand what's working and what can be improved.

You can leave us a review by sending us an email to info@RisingFellow.com. Thank you!

Good luck as you start studying and we hope this will be your best sitting yet.

Minimal Capital & Surplus Requirements

Porter Ch. 6

Problem

A new property and casualty stock insurer is proposed for State X and state insurance regulators have the following capital and surplus requirements:

Line of Business	Minimum Required Capital Stock	Initial Free Surplus
Casualty	6,000,000	3,000,000
Property	6,000,000	3,000,000
Multiple Line	10,000,000	5,000,000

The stock insurer issues new shares with the following results:

Number of Shares	5,000,000
Par Value per Share	$5
Sold Price per Share	$8

Determine if the insurer has met its statutory minimum requirements.

Solution Recipe

1) **Calculate Actual Capital Raised based on the par value and number of shares issued. Test whether the actual capital is greater than the total minimum capital requirement for the insurer across all lines combined.**

$$Stated\ Capital\ =\ Number\ of\ Shares\ \times\ Par\ Value\ per\ Share$$

$$Total\ Minimum\ Capital\ =\ \sum LOB\ Minimum\ Capital\ Req.$$

$Stated\ Capital = 5{,}000{,}000 \times \$5$

$= 25{,}000{,}000$

$Total\ Minimum\ Capital = 6{,}000{,}000 + 6{,}000{,}000 + 10{,}000{,}000$

$= 22{,}000{,}000$

$Stated\ Capital > Total\ Minimum\ Capital \rightarrow$ Capital Requirement = PASS

Note on terminology:

- **Stock Insurers:** Unimpaired minimum required capital stock
- **Mutual Insurers:** Unimpaired minimum required basic surplus

2) **Calculate Actual Free Surplus Generated by the amount investors paid above par value. Test whether the free surplus is greater than the total initial free surplus requirement for the insurer across all lines combined.**

$$Free\ Surplus\ =\ Number\ of\ Shares\ \times\ (Share\ Price\ -\ Par\ Value)$$

$$Total\ Minimum\ Free\ Surplus\ =\ \sum LOB\ Initial\ Free\ Surplus\ Req.$$

$Free\ Surplus = 5{,}000{,}000 \times (\$8 - \$5)$

$= 15{,}000{,}000$

$Total\ Minimum\ Free\ Surplus = 3{,}000{,}000 + 3{,}000{,}000 + 5{,}000{,}000$

$= 11{,}000{,}000$

$Free\ Surplus > Total\ Minimum\ Free\ Surplus \rightarrow$ Free Surplus Requirement = PASS

Note:
After initial formation, free surplus cannot fall to less than 50% of the initial free surplus amount.

3) **Verify that the insurer meets *both* the minimum capital and initial free surplus requirements.**

Statutory Minimum Capital Requirements are met IF:

Capital Requirement = PASS
AND
Free Surplus Requirement = PASS

Conclusion

Both requirements are met, so the insurer has met its minimum capital requirements.

Discussion

Capital and surplus requirements are necessary to ensure insurers maintain strong financials and protect policyholders. Regulators set these requirements, and they vary by line of business and state. More hazardous lines require higher capital amounts because of greater risk of significant adverse loss development.

Source

Porter Ch. 6

More Practice

RF Porter Chapter 6 - 1

Surplus (Direct Method)

Problem

Given the following:

SCHEDULE P PART 1 - SUMMARY (Totals)		
	Direct and Assumed	Ceded
Loss Payments	31,888	1,693
Defense and Cost Containment Payments	1,873	75
Adjusting and Other Payments	3,063	9
Losses Unpaid - Case Basis	4,922	696
Losses Unpaid - Bulk + IBNR	6,730	475
Defense and Cost Containment Unpaid - Case Basis	506	27
Defense and Cost Containment Unpaid - Bulk + IBNR	1,153	52
Adjusting and Other Unpaid	670	-

	Ammortized Cost	Fair Value	Actual Cost
Bonds (NAIC Class 1 and 2)	17,227	16,394	17,330
Bonds (NAIC Class 3)	401	386	404
Common Stock		2,228	1,199

Real estate	823
Cash	276
Other invested assets	1,934
Amounts recoverable from reinsurers	21
Net deferred tax asset (admitted)	362
Furniture and equipment	12
Other expenses	179
Unearned premiums	4,508
Dividends declared and unpaid	13
Ceded reinsurance premiums payable (net commission)	108
Provision for reinsurance	2

	≤ 90 Days	> 90 Days
Uncollected Premiums and Agents' Balances	1,108	45
Deferred Premiums and Agents' Balances	1,927	8

Calculate the insurer's policyholders' surplus.

Solution Recipe

1) **Calculate the total admitted assets. Make sure to properly value bonds and exclude non-admitted assets.**

Bond and Preferred Stock Valuation

- NAIC 1 & 2: Ammortized Cost
- NAIC 3-6: MIN(Ammortized Cost, Fair Value)

Common Stock Valuation

- Fair Value

Non-Admitted Assets

- Agents' Balances >90 Days past due
- Furniture and Equipment

Assets	Admitted
Bonds	17,613
Stocks	2,228
Real Estate	823
Cash	276
Other Invested Assets	1,934
Agents Balances (≤ 90 days)	3,035
Reinsurance Recoverable	21
Net Deferred Tax Asset	362
Furniture and Equipment	-
Total Admitted Assets	**26,292**

2) **Calculate net loss and LAE unpaid. Include both case basis and bulk & IBNR. Unpaid LAE includes defense and cost containment (DCC) unpaid and adjusting and other (A&O) unpaid.**

$$\boxed{Net = Direct\ \&\ Assumed - Ceded}$$

$$\boxed{Loss\ Unpaid = Loss\ Unpaid\ Case\ Basis + Loss\ Unpaid\ Bulk\ \&\ IBNR}$$

$$\boxed{LAE\ Unpaid = DCC\ Unpaid\ Case\ Basis + DCC\ Unpaid\ Bulk\ \&\ IBNR + A\&O\ Unpaid}$$

$$Net\ Loss\ Unpaid = (4{,}922 + 6{,}730) - (696 + 475)$$
$$= 10{,}481$$
$$Net\ LAE\ Unpaid = (506 + 1{,}153 + 670) - (27 + 52 + 0)$$
$$= 2{,}250$$

3) **Calculate total liabilities. Make sure to include all liabilities that are on the balance sheet.**

Liabilities	Amount
Net Loss Unpaid	10,481
Net LAE Unpaid	2,250
Other Expenses	179
Unearned Premium (UEPR)	4,508
Dividends unpaid	13
Ceded Reins. Prem. Payable	108
Provision for Reinsurance	2
Total Liabilities	**17,541**

4) **Calculate Policyholder Surplus as the difference between admitted assets and liabilities.**

$$\boxed{Surplus = Admitted\ Assets - Liabilities}$$

$$Surplus = 26{,}292 - 17{,}541$$
$$= \boxed{8{,}751}$$

Discussion

Calculating policyholder surplus directly is simple: it's Admitted Assets - Liabilities, but it's critical to pay attention to the details. It's important to know which items are assets and which are liabilities, because it's not always obvious. It's also important to know which assets are nonadmitted. Nonadmitted assets need to be excluded from the assets when calculating surplus.

Make sure to spend some time reviewing the balance sheet in an annual statement so that you're familar with the different assets and liabilities. See the FIC balance sheet in the appendix of the CFR source text or a real insurance company's annual statement (pages 2-3).

Common Assets

- Bonds
- Stocks (preferred and common)
- Real estate
- Cash, cash equivalents and short-term investments
- Other invested assets
- Investment income due and accrued
- Uncollected premiums and agents' balances
- Deferred premiums and agents' balances
- Amounts recoverable from reinsurers
- Net deferred tax asset
- Furniture and equipment (not admitted)

Common Liabilities

- Loss reserves
- LAE reserves
- Reinsurance payable on losses and LAE
- Taxes, licenses and fees
- Other expenses (excluding taxes, licenses and fees)
- Unearned premiums (UEPR)
- Ceded reinsurance premiums payable (net commission)
- Funds held under reinsurance treaties
- Provision for reinsurance

Non-Admitted Assets

- Agents' balances >90 Days past due
- Net DTAs that do not meet the admissibility test (would be specified in a problem)
- Amounts held of bonds, stocks, mortgage loans or real estate that are in excess of state limitations
- Furniture, fixtures and equipment

Other nonadmitted assets (unlikely to be tested):

- Electronic data processing equipment and operating system software in excess of specified limits
- Balances due from brokers when a security has been sold but the proceeds have not been received (and are outstanding more than 15 days after settlement)
- Funds held or deposited with reinsured companies that exceed the associated liabilities
- 10% of deductibles recoverable on high deductible insurance policies in excess of collateral held on a per policy basis

Source

CFR - Ch. 7
CFR - Appendix I: FIC Annual Statement

More Practice

CAS Fall 2019 – 12
CAS Spring 2019 – 10
CAS Fall 2018 – 10
CAS Spring 2018 – 9
CAS Fall 2017 – 13
CAS Spring 2016 – 15

RF CFR Ch. 7 - 1

Provision for Reinsurance (Authorized & Unauthorized)

Problem

Given the following from Schedule F - Part 3:

Reinsurance Recoverable on Paid Loss and LAE						
	Current	1 to 29 Days	30-90 Days	91-120 Days	Over 120 Days	Total Due
Reinsurer A	5,400	0	500	500	300	6,700
Reinsurer B	1,000	0	0	1,500	1,000	3,500
Reinsurer C	4,500	0	0	7,500	0	12,000

	Reinsurer A	Reinsurer B	Reinsurer C
Total Reinsurance Recoverable	117,300	186,250	63,000
Reinsurance Recoverable on Paid Loss & LAE Not in Dispute	6,000	3,000	12,000
Reinsurance Recoverable on Paid Loss & LAE >90 Days Past Due Not in Dispute	500	1,000	4,500
Amount received prior 90 days	800	1,250	0
Reinsurance Recoverable in Dispute	0	1,500	1,000
Ceded Balances Payable	10,000	3,250	1,500
Other Amounts Due to Reinsurers	0	0	500
Funds Held by Company	5,000	0	30,000
Letters of Credit	0	128,750	0

- Reinsurers A and B are authorized reinsurers
- Reinsurer C is an unauthorized reinsurer

a. Calculate the provision for reinsurance for the authorized reinsurers.

b. Calculate the provision for reinsurance for the unauthorized reinsurer.

Solution Recipe

Part a – Authorized Reinsurers

1) **Calculate the Slow Pay Ratio to identify which reinsurers are overdue paying recoverables *not* in dispute. If this ratio is greater than 20%, the authorized reinsurer is "slow-paying."**

$$Slow\ Pay\ Ratio = \frac{Recoverable\ on\ Paid\ Loss\ \&\ LAE^{Not\ Disputed}_{>90\ Days\ Overdue}}{Recoverable\ on\ Paid\ Loss\ \&\ LAE^{Not\ Disputed}_{Total} + Received\ Prior\ 90\ Days}$$

$$Slow\ Pay\ Ratio_{Reinsurer\ A} = \frac{500}{6{,}000 + 800} = 7.4\%$$

	Reinsurer A	Reinsurer B
Slow-Pay Ratio	7.4%	23.5%
Ratio ≥ 20%	No	Yes

2) **Calculate the Provision for Reinsurance for *NOT slow-paying*, authorized reinsurers based on overdue recoverables.**

Authorized, *Not* Slow-Paying (Slow Pay Ratio < 20%)

$$Provision = 20\% \times Recoverable\ on\ Paid\ Loss\ \&\ LAE_{>90\ Days\ Overdue}$$

$$Provision_{Reinsurer\ A} = 20\% \times (500 + 300) = \boxed{160}$$

3) **Calculate the Provision for Reinsurance for *slow-paying*, authorized reinsurers. The collateral deficiency in the formula is total reinsurance recoverable net of funds held, payables, and collateral.**

$$Collateral\ Deficiency = \max(Total\ Recoverable - Allowable\ Offsets, 0)$$

Authorized, Slow-Paying (Slow Pay Ratio ≥ 20%)

$$Provision = 20\% \times \max\left(Collateral\ Deficiency, Recoverable\ on\ Paid\ Loss\ \&\ LAE_{>90\ Days\ Overdue}\right)$$

$$Collateral\ Deficiency_{Reinsurer\ B} = \max(186{,}250 - (3{,}250 + 0 + 0 + 128{,}750), 0) = 54{,}250$$

$$Provision_{Reinsurer\ B} = 20\% \times \max\left(54{,}250, (1{,}500 + 1{,}000)\right) = \boxed{10{,}850}$$

$$\begin{aligned} Allowable\ Offsets = {} & Ceded\ Balances\ Payable \\ & + Other\ Amounts\ Due\ to\ Reinsurers \\ & + Funds\ Held\ by\ Company \\ & + Letters\ of\ Credit \\ & + Beneficiary\ Trusts\ (multiple\ or\ single) \\ & + Other\ Allowable\ Collateral \end{aligned}$$

Part b – Unauthorized Reinsurers

4) **Calculate the Provision for Reinsurance for unauthorized reinsurers. The provision is the collateral deficiency plus an additional provision for overdue reinsurance and amounts in dispute. The total provision for reinsurance is capped to not exceed the total recoverable.**

Unauthorized Reinsurers

$$Provision = Collateral\ Deficiency + 20\% \times \begin{pmatrix} Recoverable\ on\ Paid\ Loss\&\ LAE^{Not\ in\ Dispute}_{>90\ Days\ Overdue} \\ + Total\ Recoverable^{Disputed} \end{pmatrix}$$

Cap at $Total\ Recoverable$

$$Collateral\ Deficiency_{Reinsurer\ C} = \max(63{,}000 - (1{,}500 + 500 + 30{,}000 + 0)\ , 0)$$
$$= 31{,}000$$
$$Provision_{Reinsurer\ C} = 31{,}000 + 20\% \times (4{,}500 + 1{,}000)$$
$$= \boxed{32{,}100}$$

Discussion

The provision for reinsurance is included on the statutory balance sheet as a liability (page 3). This adds some conservatism in the balance sheet by assuming that a portion of the ceded reinsurance recoverables won't be collectible by the insurer.

Make sure you know how to calculate it for all the different groups of reinsurers:

- Authorized reinsurers (both not slow-paying and slow-paying)
- Unauthorized reinsurers
- Certified reinsurers (next recipe)

Special Code "4"

For reinsurance contracts with special code "4", *subtract IBNR from the reinsurance recoverables* for the purposes of calculating the provision for reinsurance if the contracts were not subsequently renewed.

These are pre-1984 contracts and have special treatment.

Note:
The total reinsurance recoverable is much larger than the total due from the "Reinsurance Recoverable on Paid Loss and LAE" aging table. This is because the total reinsurance recoverable (Col 15 in Sched. F - Part 3) includes the recoverable on unpaid loss & LAE and unearned premium.

Source

CFR - Ch. 14
CFR - Appendix I: FIC Annual Statement

More Practice

CAS Fall 2019 – 15
CAS Fall 2018 – 15
CAS Spring 2017 – 14
CAS Fall 2016 – 13
CAS Spring 2016 – 14
CAS Spring 2016 – 14

RF CFR Ch. 14 - 1
RF CFR Ch. 14 - 2
RF CFR Ch. 14 - 3
RF CFR Ch. 14 - 4

Schedule P: Prior Rows

Financial Reporting Ch. 15

Problem

Given the following from an insurer's 2023 annual statement for Homeowners/Farmowners:

Schedule P - Part 2A - Incurred			
Year	2021	2022	2023
Prior	14,372	14,130	14,203
2022	5,920	5,813	5,578
2023	XXX	5,888	5,633

Schedule P - Part 3A - Paid			
Year	2021	2022	2023
Prior	0	2,334	8,780
2022	2,214	3,351	5,230
2023	XXX	2,181	5,247

Schedule P - Part 4A - Bulk & IBNR			
Year	2021	2022	2023
Prior	7,575	6,092	3,055
2022	2,452	1,444	204
2023	XXX	2,398	249

Note:
Schedule P shows 10 years plus a prior row, but this problem shows a smaller 2-year plus prior row version so the calculations are easier to follow.

For calendar year 2024, the insurer had the following paid and reserve information gross of tabular discount for its Homeowners/Farmeowners book of business:

	Calendar Year 2024 Net Paid Loss & DCC	Net Case Outstanding Loss & DCC as of 12/31/24	Net Bulk & IBNR on Loss & DCC as of 12/31/24
Prior	266	948	1,242
2022	236	109	153
2023	364	143	194

a. Create the Schedule P - Part 4A for the insurer's 2024 annual statement.

b. Create the Schedule P - Part 3A for the insurer's 2024 annual statement.

c. Create the Schedule P - Part 2A for the insurer's 2024 annual statement.

Solution Recipe

Part a – Part 4: Bulk & IBNR

1) For the earlier calendar years, combine the prior row and the accident year "rolling off" and shift everything to the left. The current calendar year (2024 here) is net loss & DCC Bulk & IBNR *gross of tabular discount*.

$$\begin{aligned} Part\ 4\ Prior\ Row &= Net\ Loss\ Unpaid\ Bulk\ \&\ IBNR \\ &+ Net\ DCC\ Unpaid\ Bulk\ \&\ IBNR \\ &+ Tabular\ Discount \end{aligned}$$

Earlier Calendar Years

Prior Row

1. Combine the Prior row and the accident year "rolling off"
2. Shift all columns to the left

Other AYs

1. Shift all columns to the left

Latest Calendar Year

Prior Row & Other AYs

1. Net Loss & DCC Bulk & IBNR as of the end of the latest calendar year

$$Part\ 4_{Prior,2023} = 3{,}055 + 204$$
$$= 3{,}259$$

2023 Part 4 - Bulk & IBNR

Year	2021	2022	2023
Prior	7,575	6,092	3,055
2022	2,452	1,444	204
2023	XXX	2398	249

2024 Part 4 - Bulk & IBNR

Year	2022	2023	2024
Prior	7,536	3,259	1,395
2023	2,398	249	194

Part b – Part 3: Paid

2) For Part 3, the prior year row includes cumulative loss & DCC payments made on prior accident years (2022 and prior for the 2024 table) *as of the earliest evaluation date in the table* (2022). After combining the Prior row and AY 2022, subtract the 2022 calendar year amount from the all the prior year row values.

For the current calendar year, the prior year value is last year's amount plus the net loss & DCC payments for the latest calendar year.

$$\begin{aligned} Part\ 3\ Prior\ Row &= Net\ Loss\ Payments \\ &+ Net\ DCC\ Payments \\ &+ Part\ 3\ Paid\ (last\ CY\ amount) \end{aligned}$$

$$\begin{aligned} Part\ 3\ Other\ AYs &= Net\ Loss\ Payments \\ &+ Net\ DCC\ Payments \end{aligned}$$

Earlier Calendar Years

Prior Row

1. Combine the Prior row and the accident year "rolling off"
2. Reduce by the value for the oldest evaluation year of the new Part 3 (2022), so the first column is zero.
3. Shift all columns to the left

Other AYs

1. Shift all columns to the left

Latest Calendar Year

Prior Row & Other AYs

1. Net Loss & DCC Payments made during the latest calendar year PLUS the amount from last year's calendar year (2023 column)

$$2{,}334 + 3{,}351 = 5{,}685$$

$$Part\ 3_{Prior,2023} = (8{,}780 + 5{,}230 - 5{,}685)$$
$$= 8{,}325$$

$$Part\ 3_{Prior,2024} = 8{,}325 + 266 + 236$$
$$= 8{,}827$$

2023 Part 3 - Paid

Year	2021	2022	2023
Prior	0	2,334	8,780
2022	2214	3,351	5,230
2023	XXX	2,181	5,247

2024 Part 3 - Paid

Year	2022	2023	2024
Prior	0	8,325	8,827
2023	2181	5,247	5,611

Part c – Part 2: Incurred

3) For Part 2, the current calendar year's prior row includes bulk & IBNR (Part 4), loss & DCC payments (Part 3), and case outstanding reserves as of the latest calendar year.

$$Part\ 2\ Prior\ Row = Part\ 4\ Prior\ Net\ Loss\ \&\ DCC\ Unpaid\ Bulk\ \&\ IBNR + Part\ 3\ \ Prior\ Net\ Loss\ \&\ DCC\ Payments + Prior\ Net\ Loss\ \&\ DCC\ Case\ Reserves$$

Earlier Calendar Years

Prior Row

1. Combine the Prior row and the AY "rolling off" for unpaid losses (Incurred - Paid)
2. Add Prior row paid losses from the new Part 3 - Paid
3. Shift all columns to the left

Other AYs

1. Shift all columns to the left

Latest Calendar Year

Prior Row & Other AYs

= Part 4 (Bulk & IBNR) + Part 3 (Paid) + Case

$$Part\ 2_{Prior,2023} = (14{,}203 + 5{,}578) - (8{,}780 + 5{,}230) + 8{,}325 = 14{,}096$$

$$Part\ 2_{Prior,2024} = 8{,}827 + 948 + 109 + 1{,}395$$
$$= 11{,}279$$

2023 Part 2 - Incurred

Year	2021	2022	2023
Prior	14,372	14,130	14,203
2022	5,920	5,813	5,578
2023	XXX	5,888	5,633

2024 Part 2 - Incurred

Year	2022	2023	2024
Prior	14,258	14,096	11,279
2023	5,888	5,633	5,948

Discussion

Calculating the prior row is a tricky part of creating a new Schedule P - Parts 2-4. The oldest accident year in last year's schedule P gets added to the prior row. Part 3 (Paid) and part 4 (incurred) are the parts that cause more mistakes on the exam.

Most exam problems ask for part 2. To create it, you need to first create the new part 3 prior row.

Below is a summary of what the prior row means for the different parts:

Part 4 - Bulk & IBNR

The prior row shows the total bulk and IBNR reserves *for all accident years prior* to the oldest accident year in the table (2023 in the example above for the 2024 mini-Schedule P).

Part 3 - Paid

The prior row shows cumulative payments that have occurred on loss and DCC reserves *as of the earliest evaluation date* in the table (2022 column) *for all accident years prior to the oldest accident year* in the table.

Part 2 - Incurred

The prior row for Part 2 shows cumulative incurred loss & DCC that has occurred *as of the earliest evaluation date* in the table *for all accident years prior to the oldest accident year* in the table. This is a combination of Part 3, Part 4, and the case reserves as of the latest evaluation.

Source

CFR - Ch. 15 - pg. 178-184

More Practice

CAS Fall 2016 –12
CAS Spring 2016 –12
CAS Fall 2014 –13
CAS Fall 2013 –20

RF CFR Ch. 15 - 7