GH FVCU Model Solutions
Fall 2021

1. **Learning Objectives:**

3. The candidate will understand how to describe and evaluate government programs providing health and disability benefits in the U.S.

Learning Outcomes:

(a) Describe Medicare benefits and evaluate pricing and filing

Sources:

Group Insurance, 8th Edition, Chapter 9

GHFV-800-21: Medicare's Financial Condition

Commentary on Question:

Commentary listed underneath question component.

Solution:

(a) Explain how the Federal government finances benefits provided by the "Parts" of the Medicare program.

Commentary on Question:

*Candidates generally were able to describe how Plan A, Plan B, and Plan D are financed. A common theme of the responses was not providing enough details for full credit on the question. A lot of candidates mentioned Part C in their answer – noting that it was **not** funded by the Federal government.*

Medicare is funded on pay-as-you-go basis; no prefunding of benefits; nothing set aside in reserves to fund future benefit payments

Part A – HI (Hospital Insurance) trust fund is financed primarily through employment payroll taxes

Taxes paid by current employees bear no direct relationship to their future Medicare costs; no "ownership" of contributions

1. Continued

Part B and Part D – SMI (Supplemental Medical Insurance) trust fund is financed from a combination of the general funds from the Treasury (75% Part B, 74.5% Part D) and beneficiary premiums that change annually (25% Part B, 25.5% Part D)

Part B and Part D are funded through separate accounts within the SMI trust fund; no law allows transfer of assets or earnings between the two accounts

Benefit costs and administrative expenses are charged against these funds

HI payroll tax is funded equally by employee and employer, self-employed pay both; additional tax on high earners

No earnings cap on the HI tax as is with Social Security

Trust funds managed by board of trustees that must report annually (by 4/1) to Congress.

Note: Max of 8 grading points

(b) Explain three fundamental long-range financing challenges facing the Medicare program as described in the 2020 Medicare Trustees Report.

Commentary on Question:
Similar to question 1 (a), a common theme of the responses was not providing enough details for full credit on the question.

1 - HI trust fund income falls short of the amount to fund the HI benefits
HI expenditures are projected to exceed HI revenues based on current law, particularly for MA beneficiaries
HI trust fund is projected to be depleted in 2026
Projected HI deficit over the next 75 years is 0.76% of taxable payroll

2 – Increases in SMI costs increase pressure on beneficiary household budgets and the federal budget
SMI financing is reset each year
SMI general revenue funding is projected to nearly double in the next 75 years as a % of GDP

1. Continued

3 – Increases in total Medicare spending threaten the program's sustainability
Need to consider the share of GDP that will be consumed by Medicare
Medicare spending currently outpaces GDP growth
Projected growth under current law differs from CMS Actuary projections

Note: Max of 8 grading points

(c) Identify approaches to improving Medicare solvency, aside from higher taxes and member premiums.

Commentary on Question:
This question was answered very well. More than 75% candidates received full grading points.

Reduce or eliminate covered services
Increase Medicare cost sharing through higher deductibles and copays
Raise the current eligibility age for benefits
Adjust reimbursement to providers of care
Encourage new initiatives and expand existing initiatives that slow grown in health care costs
Any other valid approach.

Note: Max of 4 grading points

2. Learning Objectives:

4. Financial Statements. The candidate will understand how to prepare and be able to interpret insurance company financial statements in accordance with U.S. statutory principles and GAAP.

Learning Outcomes:

(b) Interpret the results of both statutory and GAAP statements from the viewpoint of various stakeholders, including regulators, senior management, investors

(c) Project financial outcomes and recommend a strategy

(d) Apply applicable standards of practice

Sources:

GHFV-109-19: Health Insurance Accounting Basics for Actuaries

ASOP 28 – Statements of Actuarial Opinion for Health Insurance Liabilities

Commentary on Question:

Commentary listed underneath question component.

Solution:

(a) List the benefits that ABC, as a third party vendor, provides in an ASO contract.

Commentary on Question:

Candidates generally did well on this part. Most candidates were able to identify claims adjudication as a benefit that ABC provides in an ASO contract. Many candidates also identified provider contracting and provider discounts as another benefit. Some candidates listed related services. Full credit was given if all were mentioned.

Third party vendor offers claims adjudication and related services. Third party vendor also contracts with providers & hospital systems to obtain discounts off original charges, which it can then offer to other health plans to "rent" or "lease".

(b) Explain why the "premium equivalents" accounting model may not be appropriate for ASO contracts.

Commentary on Question:

Candidates struggled to define the Premium Equivalent accounting model and give reasons why it may not be appropriate for ASO contracts. Candidates who did well were able to identify that claim payments, under ASO contracts, are pass-through activities and that the insurer does not own the associated risk.

2. Continued

Under the Premium Equivalent accounting model, the insurer views not only the fees received from its ASO customers, but also the reimbursement it gets from those customers for the benefit payments made on their behalf, as a form of revenue known as premium equivalents. However, for ASO contracts, claims payments are "pass-through" activities and the insurer does not own the risk. Insurer is only responsible for the expense of claims administration & related services. Liabilities are intended to represent future economic sacrifices associated with past events. The insurer has no such sacrifice to make on behalf of its ASO customers.

(c) Compare and contrast quota share reinsurance with excess of loss reinsurance options, in regards to ABC's ISL coverage.

Commentary on Question:
Candidates generally did well on this part. Most were able to identify the purpose and benefits of reinsurance arrangements. Most candidates were able to define Quota Share and Excess Loss reinsurance and how risk was shared with each. Full credit was given to candidates who were able to give details on how the two differed in terms of risk share, premium, and expense allowance.

With Quota Share, the reinsurer coverages set % of all ABC claims. So, company ABC will pay XYZ = X% of stop loss premium collected; XYZ will pay ABC = Y% of total ABC stop loss claims paid, XYZ will pay ABC an expense allowance (% of ceded premium).

With Excess-of-Loss, the reinsurer coverage based on individual or aggregate claimant exceeding an attachment point. So, ABC would pay XYZ a premium charge ($ pmpm) for reinsurance coverage, XYZ will pay ABC for all claims incurred above $X attachment point, with no cap.

Both forms of reinsurance protect ABC from excess losses.

(d) Recommend which reinsurance coverage ABC should purchase from XYZ, if at all, in 2021 based on the information above. Show your work. Justify your recommendation.

Commentary on Question:
Results were mixed on this section. Candidates struggled to apply expense allowance correctly on the Quota Share calculation. Some candidates applied expense allowance on Excess Loss even though it does not apply. Many candidates did not calculate the impact of no reinsurance and did not consider no reinsurance as an option when providing their recommendation. Most candidates did not give enough justification for their recommendation; most only giving profitability as a justification.

2. Continued

Full credit was given if candidates correctly calculated ABC's profits for 2018/2019/2020 under all three scenarios; No Reinsurance, 50% Quota Share Reinsurance, and Excess Loss Reinsurance and gave a justified recommendation. Partial credit was given if the candidate calculated sub-parts correctly and/or gave a weak justification.

No Reinsurance 3-Yr Total Profit: $580,000
50% Quota Share Reinsurance 3-Yr Total Profit: $340,950
Excess Loss Reinsurance 3-Yr Total Profit: $409,274

Candidate gave a recommendation and a well thought out justification for their recommendation. Either of the 3 options is a valid recommendation here if it is properly justified.

Recommend Excess of Loss Reinsurance: this reinsurance coverage protects ABC from catastrophic risk. In 2018, ABC's worst year, they would have made money had they had excess of loss coverage. Additionally, the average profit was the second highest of the three options, and the loss was never as significant as without reinsurance. The downfall of this method is that, when claims are very low, there is a chance that ABC will lose money, like in 2019, because of reinsurance premiums. As a solution, they could look for higher excess pooling points than $500,000 to pay lower premiums but still be protected against catastrophic risk.

Recommend 50% Quota Share Reinsurance: even though the average profits are the lowest, there is the least volatility in the results. The reinsurer shares in profits along with losses. So, the losses in 2018 would have been significantly dampened had they had 50% quote share. Additionally, a situation where the reinsurer makes money and Company ABC doesn't, is unlikely. Finally, XYZ is offering 10% expense allowance for their portion of the administrative expenses. But, ABC's expenses never exceeded 10%, so XYZ would have paid for a larger percentage of the expenses.

Recommend No Reinsurance: the average and total profits for the last three years are the largest. So, as long as ABC can absorb the risk, they stand to make the most money under this method. However, they also hold the most risk with this method. If there is a year worse than 2018, it could bankrupt ABC.

(e) Assess whether or not ABC should continue with your proposed recommendation from part (d) in 2022 based on this new option. Justify your response. Show your work.

2. Continued

Commentary on Question:
Candidates did not answer this part well, similar to part (d). Candidates who correctly calculated Excess Loss in part (d) generally did so in part (e) and vice versa. Most candidates gave recommendations based on their calculations in part (e) but did not give thorough enough justifications.

Full credit was given if candidates correctly calculated ABC's profits for 2018/2019/2020 under the new option and gave a justified recommendation. Partial credit was given if the candidate calculated sub-parts correctly and/or gave a weak justification.

New Option 3-Yr Total Profit: $426,346

Candidate gave a recommendation and a well thought out justification for their recommendation.

If originally recommended no reinsurance
Not changing: the total profit is still higher on the no reinsurance scenario, so not changing
Changing: changing to new option because the profit was second highest and risk was significantly minimized

If originally recommended quota share
Not changing: re-emphasize expenses and profit in good years
Changing: much higher profits, still have reinsurance protection, and pay lower premium than full excess-of-risk coverage

If originally recommended excess-of-loss
Not changing: greater protection in bad years, made more money when claims were worse
Changing: higher average profits and lower premium such that ABC doesn't lose as significantly when the claims run very well

(f) Explain whether or not ABC should continue with your proposed recommendation from part (d) in 2025. Justify your response.

Commentary on Question:
Candidates who recommended 'no reinsurance' and justified it by pointing out the reduced volatility in experience were given full credit. Many candidates did not consider 'no reinsurance' as an option and, rather, justified staying with either Quota Share or Excess Loss reinsurance. Candidates who pointed out the reduced volatility resulting from the growth in the block of business but did not recommend 'no reinsurance' were given partial credit based on the quality of their justification.

2. Continued

Regardless of option chosen in (d) or (e), candidate should recommend no reinsurance, given the growth. The growth in the block significantly reduces volatility and allows ABC to act as their own reinsurer. Paying reinsurance premiums will likely end in lower profit every year except certain catastrophic years, which will not outweigh the profits in good years.

(g) Describe ASOP 28 guidance on what an actuary must consider in a statement of actuarial opinion if the scope of the statement includes liabilities net of ceded reinsurance.

Commentary on Question:
Candidates struggled with this part the most. Many candidates gave vague definitions of ASOPs or described an incorrect ASOP. Partial credit was given if a candidate was able to mention the risk of the reinsurer's ability to pay.

The actuary should consider the collectability of ceded reinsurance in evaluating net liabilities. The actuary should solicit information from management regarding collectability problems, significant disputes with reinsurers, and practices regarding provisions for uncollectible reinsurance. The actuary's consideration of collectability does not imply an opinion on the financial condition of any reinsurer.

3. Learning Objectives:

5. The candidate will understand how to evaluate the impact of regulation and taxation on companies and plan sponsors in the US.

Learning Outcomes:

(5b) Describe the major applicable laws and regulations and evaluate their impact.

Sources:

Skwire Chapter 16

Commentary on Question:

This question tested a candidate's knowledge of the general regulations governing sale and review of health insurance at a state and federal level. Candidates did reasonably well identifying the steps involved in obtaining approval to sell health insurance and the standard policy provisions. Candidates also generally succeeded in identifying and calculating the various taxes associated with benefit packages offered by employers to employees and their implications on both stakeholders.

Solution:

(a)

(i) List and define the steps that must be taken by a company to start selling health insurance.

(ii) List and define the items reviewed by the Insurance Commissioner to assure financial soundness of insurers.

Commentary on Question:

Most candidates received at least partial credit on both parts of this question. It was important to distinguish steps involved in licensing and filing to sell insurance (i) versus the items reviewed by insurance commissioners for already licensed insurers to ensure adequacy to meet financial obligations (ii).

(i) -Company must obtain a license from the state to offer insurance
-Company must file policies and forms with regulator
-Company's brokers/salespeople must be licensed to sell product
-Company must abide by regulations on advertising
-Company must consider and abide by laws regulating unfair trade practices and claims settlement practices
-Company must abide by prompt pay regulation governing that claims be paid within a set period of time upon receipt

3. Continued

(ii) -Solvency of insurer
-Investments of insurer and strategy
-Reserve adequacy of insurer to cover liabilities
-Minimum surplus levels and maximum dividends
-Enrollment in Guaranty Associations
-Creation of Insurance Regulatory Information System (IRIS) which provides early warning of trouble for an insurer

(b) List the standard contract provisions of a Health insurance policy.

Commentary on Question:
Most candidates received full credit on this part of the question identifying typical contract provisions of insurance policies and more specifically health insurance.

-Grace period for premium payment
-Incontestability
-Application and statements part of policy
-Evidence of insurability
-Misstatement of age provisions
-Certificates
-Benefits and eligibility
-Listing of pre-existing conditions
-Notice and proof of claims
-Legal actions

(c)

(i) Create a benefits package where Grind My Gears pays no taxes, while maximizing the amount of money spent on benefits.

(ii) Calculate the amount of tax saved by choosing the benefits package in part (i) above. Assume an unlimited benefits budget. Show your work.

Commentary on Question:
Most candidates received at least partial credit on this question and did reasonably well. Candidates generally succeeded in identifying where taxes would be applicable to the employer and constructed an appropriate benefit package accordingly. There was a slight nuance with the Cadillac tax application to health insurance that in some cases impacted the calculation of total taxes saved based on the package constructed.

3. Continued

(i)Benefit Package:

Benefit	Amount
Retirement	$ 10,000
Dental Insurance	$ 1,000
Vision Insurance	$ 1,000
Pharmacy Insurance	$ 2,500
Life Insurance (Benefit = Salary)	$ 5,000
Disability (STD + LTD)	$ 5,000
Total for Choice:	**$ 24,500**

(ii)Taxes Saved:

Benefit	Amount	Tax (%)	Total Tax ($)
Cash	$ 20,000	35%	$ 7,000
*Health Insurance	$ 12,000	40%	$ 720
Gym Membership	$ 1,000	35%	$ 350
Vacation Time	$ 5,000	35%	$ 1,750
Non-Qualified LTCI	$ 5,000	35%	$ 1,750
Total Tax Saved			**$ 11,570**

**Cadillac Tax = (Benefit Amt. – Tax Threshold) * Tax = ($12k - $10.2k)*40%*

(d)

(i) Create a benefits package, where Grind My Gears' employees pay no taxes, while maximizing the amount of money spent on benefits.

(ii) Calculate the amount of tax saved by choosing the benefits package in part (i) above. Assume an unlimited benefits budget. Show your work.

Commentary on Question:
Most candidates received at least partial credit on this question and did reasonably well. Candidates generally succeeded in identifying where taxes would be applicable to the employee and constructed an appropriate benefit package accordingly. There was a slight nuance with imputed income on life insurance and application of the correct employee tax versus corporate for the savings calculation.

(i) Benefit Package

Benefit	Amount
Health Insurance	$ 12,000
Dental Insurance	$ 1,000
Vision Insurance	$ 1,000
Pharmacy Insurance	$ 2,500
Disability (STD + LTD)	$ 5,000
Total for Choice:	**$ 21,500**

3. Continued

(ii) Taxes Saved

Benefit	Amount	Tax (%)	Total Tax ($)
Cash	$ 20,000	25%	$ 5,000
Retirement	$ 10,000	25%	$ 2,500
Gym Membership	$ 1,000	25%	$ 250
Vacation Time	$ 5,000	25%	$ 1,250
*Life Insurance (Benefit = Salary)	$ 5,000	25%	$ 625
Non-Qualified LTCI	$ 5,000	25%	$ 1,250
Total Tax Saved			**$ 10,875**

**Life Insurance Imputed Income Tax Saved = $5k*($100k – $50k)/$100k*25%*

4. Learning Objectives:

4. The candidate will understand how to prepare and be able to interpret insurance company financial statements in accordance with U.S. statutory principles and GAAP.

Learning Outcomes:

(4a) Prepare financial statement entries in accordance with generally accepted accounting principles.

(4b) Interpret the results of both statutory and GAAP statements from the viewpoint of various stakeholders, including regulators, senior management, investors.

Sources:

GHFV-109-19: Health Insurance Accounting Basics for Actuaries

Commentary on Question:

This question was testing candidates' knowledge of financial statements and the details of actuarial vs accounting view.

Solution:

(a) Describe the differences between the "accounting view" and the "actuarial view" for:

(i) Claims expense

(ii) Revenue

Commentary on Question:

The answers for part (i) and part (ii) were very similar. A lot of candidates knew the definitions of each view, but some struggled with additional details (like accounting view doesn't change after the period).

(i) Claims Expense

Accounting view:

- Does not change after the accounting period has closed.
- Reflects claims recognized during current period that pertains to coverage provided in current and prior periods plus the change in unpaid claim liability.

Actuarial view:

- Continually changes based on most recent information (claims runout for earlier service dates).
- Reflects claims associated with coverage provided in that period, regardless of when those amounts were recognized in the insurer's claims/accounting systems.

4. Continued

(ii) Revenue

Accounting view:

- Does not change after the accounting period has closed.
- Reflects revenue recognized during current period that pertains to coverage provided in prior periods.

Actuarial view:

- Continually changes based on most recent information (revenue runout for earlier service dates).
- Reflects revenues associated with coverage provided in that period, regardless of when those amounts were recognized in the insurer's billing systems.

(b) Calculate the claims expense for each quarter of 2021 using:

(i) The "accounting view"

(ii) The "actuarial view"

Commentary on Question:
This is the calculation portion that is worth the most grading points. Some candidates got a bit confused about how to apply the Unpaid Claims Liability (UCL) and provision for adverse deviation (PfAD).

PAID CLAIMS		Payment Month																	
Incurred Month		Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	
Jan-21		$600	$300	$200	$100	$50	$25												$1,275
Feb-21			$550	$350	$150	$50	$25	$50											$1,175
Mar-21				$650	$250	$100	$150	$100	$75										$1,325
Apr-21					$700	$300	$200	$75	$75	$50									$1,400
May-21						$450	$350	$250	$125	$100	$25								$1,300
Jun-21							$800	$300	$150	$75	$50	$75							$1,450
Jul-21								$700	$200	$100	$175	$125	$50						$1,350
Aug-21									$750	$500	$150	$100	$75	$25					$1,600
Sep-21										$650	$300	$250	$50	$100	$75				$1,425
Oct-21											$550	$350	$200	$100	$75	$50			$1,325
Nov-21												$400	$400	$300	$400	$50	$25		$1,575
Dec-21													$800	$400	$200	$100	$50	$25	$1,575
		$600	$850	$1,200	$1,200	$950	$1,550	$1,475	$1,375	$1,475	$1,250	$1,300	$1,575						

Translating the table given into a lag triangle is not necessary, but makes it easier to visualize.

Accounting View:

-Paid claims are the sum of the bottom row, or all claims paid in the quarter regardless of incurred date.
-Change in reserve is end of quarter UCL minus beginning of quarter UCL.
-Claims expense is the combination of the two.
Q1 paid claims = 600 + 850 + 1,200 = $2,650
Q1 change in reserves with PfAD = (1,100 - 0)*1.1 = $1,210
Q1 claims expense = $2,650 + $1,210 = **$3,860**
Q2 paid claims = 1,200 + 950 + 1,550 = $3,700
Q2 change in reserves with PfAD = (1,500 - 1,100)*1.1 = $440
Q2 paid claims = $3,700 + $440 = **$4,140**

4. Continued

Q3 paid claims = 1,475 + 1,375 +1,475 = $4,325
Q3 change in reserves with PfAD = (1,250 - 1,500)*1.1 = ($275)
Q3 claims expense = $4,325 + ($275) = **$4,050**
Q4 paid claims = 1,250 + 1,300 + 1,575 = $4,125
Q4 change in reserves with PfAD = (1,600 - 1,250)*1.1 = $385
Q4 claims expense = $4,125 + $385 = **$4,510**

Actuarial View:
Since we have runout, no UCL or PfAD is needed. Claims expense is all paid claims incurred dates in the quarter, or the far right column.
Claims expense:
Q1 = 1,275 + 1,175 + 1,325 = **$3,775**
Q2 = 1,400 + 1,300 + 1,450 = **$4,150**
Q3 = 1,350 + 1,600 + 1,425 = **$4,375**
Q4 = 1,325 + 1,575 + 1,575 = **$4,475**

(c) Describe what additional information you would need to calculate the "actuarial view" of claims expense for 1Q'22 at the end of March 2022.

Commentary on Question:
Some candidates only mentioned the reserve portion and didn't specify that paid claims were also needed. Some also didn't specify that the information needed to be for 1Q22 incurred dates only.

Following information would be needed:
- Paid claims through Jan-Mar pertaining to services in Jan-Mar 2022
- Unpaid Claims Reserve balance as of Mar 2022 specifically for services pertaining to Jan-Mar 2022

(d) Explain whether the "accounting view" or the "actuarial view" is more appropriate for a pricing exercise. Justify your response.

Commentary on Question:
Almost all candidates recognized that actuarial view is more appropriate for pricing. Most gave a good reason or two to justify their response, but few candidates did enough for full credit.

- The actuarial view is more appropriate
- Accounting view is potentially distorted by prior period effects
- The claims amounts include end-of-period estimates of quantities that become more certain with additional time, and the actuarial view keeps evolving over time
- You would want to work with the revenue and claims associated with calendar year coverage

4. Continued

(e) Describe the purpose of an "elimination entry" in a consolidated income statement.

Commentary on Question:
Most candidates either knew what an elimination entry is or they didn't. A few made broad statements about canceling out entries on financial statements that got a small amount of partial credit.

Elimination entries:

- Are needed in consolidated financial statements of the parent company of a multi-entity enterprise
- Occur when there is line-by-line aggregation of the financial statements across entities
- Arise from intercompany transactions between companies under common control
- When the consolidated financial statements are being prepared, these transactions need to be removed from the consolidated income statement and/or balance sheet, in order to prevent the consolidated enterprise from reporting revenue and expense from in effect doing business with itself

(f) Describe three examples of an "elimination entry".

Commentary on Question:
If candidates understood part (e) and the definition of an elimination entry, they generally did well on part (f) as well.

- If the same parent company owns both a hospital and a health insurer. When one of the insurer's members receives a healthcare service from the hospital and the insurer pays the claim, from the insurer's standpoint, the insurer debits claims expense and credits cash. From the hospital's standpoint, the hospital would debit cash and credit revenue. So, when the financial statements of the insurer and the hospital are combined, the cash entries net to zero and we are left with a net entry in which the debit is claims expense and the credit is revenue. However, since this represents a double-counting of both revenue and expense; thus, in consolidation it is necessary to record an elimination entry to prevent double-counting.

4. Continued

- Suppose that one insurer owns another smaller insurer and the smaller insurer enters into a reinsurance treaty with its larger parent. For standalone financial reporting, each of these insurers would treat this so-called intercompany reinsurance treaty in the same way that it would treat a similar reinsurance treaty with an unaffiliated company. However, for consolidated financial reporting, all entries relating to the intercompany reinsurance treaty need to be eliminated. When viewing matters from the standpoint of consolidated financial reporting, it is as if this treaty simply doesn't exist.

- A large health insurer typically writes insurance through multiple legal entities. However, commonly the insurer is structured so that all of its employees are legally employed by one particular entity, and then the other entities in effect purchase the services of those employees via so-called intercompany expense allocation agreements. At any given point in time, there may be balances owed between affiliates under these expense allocation agreements, due to timing differences arising from when entities should recognize expense versus when cash is transferred between entities. Elimination entries are needed to remove those intercompany asset and liability balances in consolidation.

5. Learning Objectives:

6. The candidate will understand how to evaluate retiree group and life benefits in the United States.

Learning Outcomes:

(c) Determine employer liabilities for retiree benefits under US GAA

Sources:

Group Insurance, Skwire, Daniel D., 7th/8th Edition, 2016/2021, Chapter 8

GHFV-816-16: US Employers' Accounting of Postretirement Benefits Other Than Pensions Study Note

Statement of Financial Accounting Standards No. 106

Commentary on Question:

Commentary listed underneath question component.

Solution:

(a)

(i) List the accounting standards applicable to retiree plans.

(ii) Describe how the standards in part (i) above affect retiree health accounting.

Commentary on Question:

Most candidates did not perform well on this part. In general, the only standards candidates mentioned were FAS 106 and/or ASC 715. A common mistake was to list ASOP's that might be applicable.

- **FAS 106** requires accelerated recognition of plan costs, increasing current costs for employers, in addition to special additional assumptions. The updated version, **ASC 715**, also discusses best estimate assumptions for future events that may affect the APBO
- **GASB 43/45** is patterned after FAS 106, but for public-sector and state/local government employees
- **FASAB No. 5** gives a specific actuarial method for reporting accrual costs for U.S. federal agencies
- **IAS 19** accounts for benefits during working lifetimes, and offers less ability to smooth unexpected plan experience/plan design changes

5. Continued

(b) Due to a significant benefit design change effective January 1, 2020, the accumulated postretirement benefit obligation (APBO) increases 25%.

(i) Calculate the unrecognized loss due to the change in benefit design. Show your work.

(ii) Create an amortization schedule showing the annual balance to recognize the loss in part (i) above for all active employees over all of their years until retirement. Show your work.

Commentary on Question:
In general, candidates performed well on Part (i), and received at least partial credit on Part (ii). Some candidates incorrectly applied a 10% corridor, which in this case doesn't apply as the loss is related to a benefit design change. These candidates received most of the points if the rest of the calculation was accurate. Candidates received full credit on both parts if they had the correct end result without showing each step of the calculation separately.

Part (i):
The unrecognized loss is the change in APBO:

Active APBO = Active EPBO * Attribution Factor
$1,800,000 * 0.37 = $666,000

Change in APBO = Active APBO * Plan Change Impact
$666,000 * 25% = **$166,500**

Part (ii):
To calculate the amortization schedule, the candidate had to perform the following steps:

- Calculate the Service Years Rendered for each year. This can be achieved by developing a table of future years of service for each group, or by summing the number of remaining active employees in each year.
- Calculate the Amortization Fraction (or Rate) by dividing the Service Years Rendered by the sum of the Remaining Service Years for all employees.
- Calculate the Amortization amount by applying the Amortization Rate for each year to the unrecognized loss from Part (i).
- The Beginning of Year (BOY) Balance in year 1 is the unrecognized loss from Part (i). The Amortization amount is subtracted to determine the End of Year (EOY) Balance. Either EOY or BOY Balance can be provided for full credit.

5. Continued

Group	# of active employees	Years until Retirement	Year	Remaining Service Years	Service Years Rendered	Amortization Fraction	BOY Balance	Amortization Rate	Amortization	EOY Balance
A	8	1	2020	8	101	10.1%	$166,500.00	10.1%	$16,816.50	$149,683.50
B	5	2	2021	10	93	9.3%	$149,683.50	9.3%	$15,484.50	$134,199.00
C	4	3	2022	12	88	8.8%	$134,199.00	8.8%	$14,652.00	$119,547.00
D	4	4	2023	16	84	8.4%	$119,547.00	8.4%	$13,986.00	$105,561.00
E	5	5	2024	25	80	8.0%	$105,561.00	8.0%	$13,320.00	$ 92,241.00
F	5	6	2025	30	75	7.5%	$ 92,241.00	7.5%	$12,487.50	$ 79,753.50
G	6	7	2026	42	70	7.0%	$ 79,753.50	7.0%	$11,655.00	$ 68,098.50
H	8	8	2027	64	64	6.4%	$ 68,098.50	6.4%	$10,656.00	$ 57,442.50
I	3	9	2028	27	56	5.6%	$ 57,442.50	5.6%	$ 9,324.00	$ 48,118.50
J	6	10	2029	60	53	5.3%	$ 48,118.50	5.3%	$ 8,824.50	$ 39,294.00
K	5	11	2030	55	47	4.7%	$ 39,294.00	4.7%	$ 7,825.50	$ 31,468.50
L	7	12	2031	84	42	4.2%	$ 31,468.50	4.2%	$ 6,993.00	$ 24,475.50
M	6	13	2032	78	35	3.5%	$ 24,475.50	3.5%	$ 5,827.50	$ 18,648.00
N	3	14	2033	42	29	2.9%	$ 18,648.00	2.9%	$ 4,828.50	$ 13,819.50
O	5	15	2034	75	26	2.6%	$ 13,819.50	2.6%	$ 4,329.00	$ 9,490.50
P	5	16	2035	80	21	2.1%	$ 9,490.50	2.1%	$ 3,496.50	$ 5,994.00
Q	6	17	2036	102	16	1.6%	$ 5,994.00	1.6%	$ 2,664.00	$ 3,330.00
R	4	18	2037	72	10	1.0%	$ 3,330.00	1.0%	$ 1,665.00	$ 1,665.00
S	2	19	2038	38	6	0.6%	$ 1,665.00	0.6%	$ 999.00	$ 666.00
T	4	20	2039	80	4	0.4%	$ 666.00	0.4%	$ 666.00	$ -
				1000						

(c) Compare the amortization schedule for this scenario, showing the annual balance for the unrecognized loss, to the schedule developed in part (b)(ii) above. Show your work.

Commentary on Question:
To receive full credit, the candidate needed to calculate the correct straight line factor and then apply it accordingly; points were deducted for candidates who rounded the number to get an even dollar amount across the ten year time frame. Candidates also needed to calculate either the End of Year or Beginning of Year Balance to compare against the result from Part (b)(ii). Several candidates omitted this step and therefore didn't receive full credit.

To calculate the alternative amortization schedule, the candidate had to perform the following steps:

- Calculate the Straight Line Amortization Factor =
  Total Remaining Service Years / Current Active Lives =
  1000 / 101 = 9.901
- Calculate the Amortization Rate per year = 1/9.901 = 10.1%
- Calculate the Amortization amount by applying the Amortization Rate to the unrecognized loss from Part (b)(i). The Amortization amount is limited to the BOY Balance in the final year.
- The BOY Balance in year 1 is the unrecognized loss from Part (b)(i). The Amortization amount is subtracted to determine the EOY Balance. Either EOY or BOY Balance can be provided for full credit.

5. Continued

- The EOY Balance from Part (c) is subtracted from the EOY Balance from Part (b)(ii) to show the difference. The loss is recognized more rapidly under the straight line approach.

Year	BOY Balance	Amortization Rate	Amortization	EOY Balance	Difference in Loss Recognition vs. (B)
2020	$166,500.00	10.1%	$16,816.50	$149,683.50	$ -
2021	$149,683.50	10.1%	$16,816.50	$132,867.00	$ 1,332.00
2022	$132,867.00	10.1%	$16,816.50	$116,050.50	$ 2,164.50
2023	$116,050.50	10.1%	$16,816.50	$ 99,234.00	$ 2,830.50
2024	$ 99,234.00	10.1%	$16,816.50	$ 82,417.50	$ 3,496.50
2025	$ 82,417.50	10.1%	$16,816.50	$ 65,601.00	$ 4,329.00
2026	$ 65,601.00	10.1%	$16,816.50	$ 48,784.50	$ 5,161.50
2027	$ 48,784.50	10.1%	$16,816.50	$ 31,968.00	$ 6,160.50
2028	$ 31,968.00	10.1%	$16,816.50	$ 15,151.50	$ 7,492.50
2029	$ 15,151.50	10.1%	$15,151.50	$ -	$ 6,327.00
2030					$ (7,825.50)
2031					$ (6,993.00)
2032					$ (5,827.50)
2033					$ (4,828.50)
2034					$ (4,329.00)
2035					$ (3,496.50)
2036					$ (2,664.00)
2037					$ (1,665.00)
2038					$ (999.00)
2039					$ (666.00)

(d) Recommend an approach to Medicare Integration that will address the CFO's concerns over the rising cost of health care. Justify your response.

Commentary on Question:
Partial credit was given to anyone who recommended either the Standard or Exclusion COBs. For full credit, the recommendation had to be tied back directly to the CFO's stated cost containment goal in some fashion.

I would recommend using the carve-out method for Medicare Integration, as it produces the smallest benefit under the employer plan relative to other integration options. This method first applies the employer's benefit provisions to the covered expense, and then subtracts the Medicare payment from the remainder. As it produces the smallest cost to the employer, this would best align with the CFO's goal of containing the company's health care costs.

6. Learning Objectives:

5. The candidate will understand how to evaluate the impact of regulation and taxation on companies and plan sponsors in the US.

Learning Outcomes:

(5a) Describe the regulatory and policy making process in the US.

(5b) Describe the major applicable laws and regulations and evaluate their impact.

Sources:

GHFV-830-21: A Hard Pill to Swallow: Appreciating the Mathematical Dynamics of the Affordable Care Act

GHFV-823-20: Recent Policy Changes The ACA

Commentary on Question:

Commentary listed underneath question component.

Solution:

(a) The first item requested from the DOI is to address changes to the federal risk adjustment program

(i) List and describe the key changes to the program since 2014.

(ii) Outline how each change has impacted the performance of the program.

Commentary on Question:

Candidates generally provided a correct answer for part a of this question. They were able to both list and describe the change itself and what type of impact it had on the risk adjustment program.

Part (a) (i)

- Risk adjustment now allows for certain high cost pharmaceuticals to influence risk scores
- Transfer formula no longer approximates difference between premiums and claims
- Adjusts for short-duration members
- Reinsurance model created within the risk adjustment program which nationally shares 60% of all person's claims that exceed a $1M threshold.
- Risk scores were updated over time to reflect condition/cost data from the small group and individual market.
- CMS granted state regulators authority to reduce the risk adjustment transfers by cutting the percent transferred to as low as 50 percent from what it otherwise would be. While this allowance is required to be adopted well in advance of the plan year, it is available for states to adopt for the individual and small group markets starting in plan year 2019.

6. Continued

Part (a)(ii)

- Generally, improved accuracy and promotes competitiveness in marketplace
- Risk adjustment is no longer systematically overstated by administrative expenses; fourteen percent of premiums is no longer transferred to account for an approximation of nonclaims-related retention items such as administrative costs, premium taxes, and risk margin
- Short duration members have been proven to have a disproportionate amount of costs. Adjustment more appropriately approximates the impact of these members in the block
- Reinsurance model creation means that risk adjustment is no longer a zero-sum game at the state/risk pool level and that certain very high cost providers and high cost conditions are more broadly supported.
- Risk scores more accurately reflect cost expectation of Small Group and Individual marketplace
- Regulators authority to address certain states' competition and solvency concerns, since small carriers and carriers without a lot of excess capital have been surprised by large debts owed due to risk adjustment. This allowance could also be used to address regulatory concerns over duplicative payments caused when a state-based reinsurance program is created under a Section 1332 waiver and also offsets carriers' cost of high case enrollees.

(b)

(i) List the guardrails for a Section 1332 waiver to meet federal approval.

(ii) Explain whether the submission above passes the guardrails for a Section 1332 waiver to meet federal approval. Justify your response. Show your work.

Commentary on Question:
For question (bi), The candidates did very well on this part of the question. Most candidates presented a complete answer. For (bii) Based on the information provided and the assumptions of the candidate, there were a handful of solutions that were accepted. One proposed solution is provided below. The most common mistakes from candidates were not providing enough detail in their response or providing contradictory responses for the guard rails.

Part (i)

- The Comprehensiveness Standard: the waiver must provide coverage that is at least as comprehensive as would be provided absent the waiver;
- The Affordability Standard: the waiver must not reduce the affordability of coverage;

6. Continued

- The Coverage Standard: the waiver must provide coverage to at least a comparable number of residents as would be provided absent a waiver;
- The Federal Deficit Standard: the waiver must not increase the Federal deficit.

Part (ii)

- The proposed Reinsurance program does not impact Essential Health Benefits offered by the plans. Therefore, there is no impact to coverage comprehensiveness.
- Affordability Standard
  - Total Premiums Group $15,525,000,000
  - Total Reinsurance Assessment $38,812,500
  - Total Claims Impact $34,931,250.0
  - Total Administrative Fees $3,881,250.0
  - Individual Claims Before Program $680,850,000
  - Individual Claims After Program $645,918,750
  - Total Claims PMPM Before Program $378.25
  - Total Claims PMPM After Program $358.84
  - MLR Before Program 0.89
  - Expected Premium PMPM After Program $403.20
  - Reduction in Premium as % 5%
  - The program reduces the cost of individual coverage by 5%.
  - The program while assessing a small tax on the group market, is not expected to impact employer contributions and employee wages.
- Coverage Standard:
  - Reduction of Uninsured 2%
  - New Insured Members due to program 3,888.41
  - Program is expected to lower the uninsured by 3,888 members and have no impact on the group insurance market.
- Federal Deficit Standard
  - APTC Before Program $240,210,000
  - Eligible for APTC After Program 130,805.14
  - APTC After $185,220,085
  - Federal Government Savings $54,989,915
  - The APTC is lower for the Federal Government, therefore it passes the Federal Standard.

(c) Lastly, the DOI leadership is concerned that competition in the Affordable Care Act marketplace might disadvantage lower-income enrollees.

Create an example that illustrates the DOI's concern.

6. Continued

Commentary on Question:
Most candidates were able to able to provide an example of the phenomenon listed in part (c). The most common mistake was not providing an example or not providing an example where the net premiums were less for the member with additional competition.

- Premium Subsidy is based on the Maximum Dollar Contribution as a Percentage of Income
- For Example, someone making $48,000 has a 7.5% Maximum Contribution or $300 a month.
- If the Second Lowest Cost Silver plan is $350 – The Premium Subsidy is $50 a month.
- If Competition Drives the Second Lowest Cost silver plan down to $315 a month – the premium subsidy is now $15 a month
- For a Gold Plan that cost $400, the member paid $350 for that plan initially and with competition now pays $385 all things similar.

7. Learning Objectives:

3. The candidate will understand how to describe and evaluate government programs providing health and disability benefits in the U.S.

Learning Outcomes:

(3b) Describe Medicaid program structure and benefits and evaluate pricing and filing.

Sources:

Group Insurance Chapter 9

GHFV-812-16: Medicaid: A Primer

Commentary on Question:

Part A was the best answered part of the question while part B was the worst answered. Generally speaking candidates made an attempt at all three parts of the question.

Solution:

(a) Describe responsibilities federal and state governments have in financing the program.

Commentary on Question part a:

Most candidates mentioned the partnership and per capita share parts of this answer, but were unable to note the government using a formula and Medicaid being a significant part of the states budget.

Medicaid a partnership between State and Federal Government.

Federal government uses a formula for to determine state funding match.

The percentage of state match is based on per capita state income. The lower the income the higher the federal match.

The state contribution to Medicaid is a significant part of the state's budget.

(b) Explain how components of the Affordable Care Act have affected financing of the program.

Commentary on Question part b:

Most candidates mentioned the partnership and per capita share parts of this answer, but were unable to note the government using a formula and Medicaid being a significant part of the state's budget.

7. Continued

ACA provides almost full federal funding for new eligible.

State cost increase with expanded Medicaid.

An enhanced federal match for certain services like primary care.

ACA reduces federal DSH (disproportionate share).

(c) Describe approaches that states can use to monitor and promote quality of care.

Commentary on Question part c:
This part of the question candidates did well with was the pay for performance item. Also, the patient satisfaction surveys item was also mentioned often. The other points were not as well mentioned they were often missed.

MCO's required to provide utilization and performance stats using HEDIS.

MCO's use patient satisfaction surveys.

States publicly reporting data quality statistics.

Some states require MCO accreditation.

Doctors rewarded with bonuses for high performance.