13. (2.75 points)

Below are excerpts from the 2017 Schedule P for an insurance company which began operations in 2015 and writes only Workers' Compensation:

Part 2D: Incurred Net Losses and Defense and Cost Containment (DCC)

	2015	2016	2017
2015	1,230	1,230	1,230
2016		1,290	1,290
2017			1,467

Part 5D, Section 1: Cumulative Number of Claims Closed with Payment

	2015	2016	2017
2015	16	25	31
2016		15	24
2017			14

Part 3D: Cumulative Paid Net Losses and DCC

	2015	2016	2017
2015	592	678	774
2016		667	755
2017			785

Part 5D, Section 2: Number of Claims Outstanding

	2015	2016	2017
2015	32	20	7
2016		37	25
2017			39

Part 4D: Bulk and IBNR Reserves on Net Losses and DCC

	2015	2016	2017
2015	310	305	270
2016		322	340
2017			415

Part 5D, Section 3: Cumulative Number of Claims Reported

	2015	2016	2017
2015	62	68	71
2016		66	69
2017			67

a. (2 points)

Based on the data above, provide two reasons that a user of financial statements may conclude that reserves are inadequate.

b. (0.75 point)

Identify three changes in a company's business that should be considered when using Schedule P to assess the adequacy of reserves.

Common errors include:
- Stating Calendar Year without further description
- For Claims Made: stating Policy Year or Accident Year or Calendar Year
- For Occurrence: stating Report Year or Calendar Year
- For Tail Coverage: stating Report Year or Discovery Year
- For Surety: stating Accident Year or Report Year or Policy Year

Part b

Candidates were expected to interpret a set of Direct & Assumed vs. Ceded vs. Net Loss and LAE ratios where non-proportional reinsurance applied, and provide one reason for and one reason against continued use of non-proportional reinsurance, <u>based on the sample Schedule P provided</u>.

Common errors include:
- Stating that proportional reinsurance would provide more stable loss ratios than non-proportional
- Stating that proportional reinsurance made net loss ratios more predictable.
- Stating that non proportional reinsurance provided surplus relief

FALL 2018 EXAM 6US, QUESTION 13	
TOTAL POINT VALUE: 2.75	**LEARNING OBJECTIVE: C1**
SAMPLE ANSWERS	

Part a: 2 points

Sample 1
Average Case Outstanding
(Part 2D - Part 3D - Part 4D) / (Part 5D, Section 2)

	2015	2016	2017
2015	10.25	12.35	26.57
2016		8.14	7.80
2017			6.85

The average case outstanding is decreasing along the diagonal when comparing the past 3 accidents years at the same maturity (10.25 -> 8.14 -> 6.85).

Use of an unadjusted reported loss development method to project unpaid losses may understate the reserve need.

Sample 2
Average Unpaid Outstanding
(Part 2D - Part 3D) / (Part 5D, Section 2)

	2015	2016	2017
2015	19.94	27.60	65.14
2016		16.84	21.40
2017			17.49

The average unpaid outstanding is decreasing along the diagonal at 12 months and 24 months from 2015 to 2016.

Use of an unadjusted reported loss development method to project unpaid losses may understate the reserve need.

Sample 3
Claim Closure Rate
(Part 5D, Section 3 - Part 5D, Section 2) / (Part 5D, Section 3)

	2015	2016	2017
2015	0.484	0.706	0.901
2016		0.439	0.638
2017			0.418

Claim closure rate is decreasing along the diagonal when comparing the past 3 accident years at the same maturity (0.484 -> 0.439 -> 0.418).

Use of an unadjusted development factor method will underestimate unpaid claims.

Sample 4
Claims Outstanding
(Part 5D, Section 2) / (Part 5D, Section 3)

	2015	2016	2017
2015	0.516	0.294	0.099
2016		0.561	0.362
2017			0.582

Claims outstanding is increasing along the diagonal when comparing the past 3 accident years at the same maturity (0.516 -> 0.561 -> 0.582).

Either:
- Use of an unadjusted development factor method will underestimate unpaid claims.
- The longer claims stay open, the greater the chance of adverse development and additional required reserves.

Sample 5
Claims Closed with Pay as a Percent of Total Reported Claims
(Part 5D, Section 1) / (Part 5D, Section 3)

	2015	2016	2017
2015	0.258	0.368	0.437
2016		0.227	0.348
2017			0.209

Claims closed with pay are decreasing along the diagonal when comparing the past 3 accident years at the same maturity (0.258 -> 0.227 -> 0.209).

Either:
- Use of an unadjusted development factor method will underestimate unpaid claims.
- The longer claims stay open, the greater the chance of adverse development and additional required reserves.

Sample 6
Claims Closed with Pay as a Percent of Total Closed Claims
(Part 5D, Section 1) / (Part 5D, Section 3 - Part 5D, Section 2)

	2015	2016	2017
2015	0.533	0.521	0.484
2016		0.517	0.545
2017			0.500

Claims closed with pay are decreasing along the diagonal when comparing the past 3 accident years at the same maturity (0.533 -> 0.517 -> 0.500).

This could result in increases in re-opened claims in the future.

Sample 7
Paid to Incurred
(Part 3D) / (Part 2D)

	2015	2016	2017
2015	0.481	0.551	0.629
2016		0.517	0.585
2017			0.535

Paid to incurred ratios are increasing when compared to the past 3 accident years at the same maturity (0.481 -> 0.517 -> 0.535).

This could imply a company is under reserved, as the reserves as a percent of paid to date is low.

Sample 8
Paid to Case Incurred
(Part 3D) / (Part 2D - Part 4D)

	2015	2016	2017
2015	0.643	0.733	0.806
2016		0.689	0.795
2017			0.746

Paid to case incurred ratios are increasing along the diagonal when comparing the past 3 accident years at the same maturity (0.643 -> 0.689 -> 0.746).

This could identify if there is change in case reserve strength or a change in settlement patterns, either of which could be a concern.

Part b: 0.75 point

Changes in:
- Mix of business
- Claim settlement practices
- Reserving practices
- Rapid premium growth/shrinkage
- Retentions
- Policy limits
- Intercompany pooling
- Definition of claim count
- Commutations

EXAMINER'S REPORT

Candidates were expected to demonstrate knowledge on Schedule P and how the triangles provided in Schedule P can be used in actuarial analyses to assess reserve adequacy.

Part a

Candidates were expected to identify and calculate two metrics related to reserve adequacy using Schedule P triangles. The candidate was then expected to make an assessment of the metric and discuss how it shows that reserves are inadequate.

Common errors include:
- Calculating and assessing a metric that is not related to reserve adequacy
  - Paid claim severity
  - Average reported claim severity
- Not understanding that Schedule P, Part 2 shows ultimate losses even though it is labeled as incurred. This triangle includes paid, case outstanding and IBNR.
- Stating that incurreds remain the same, but reported losses are increasing over time. Similar to the error above, Schedule P, Part 2 contains ultimates.

- Calculating an appropriate metric, but not making an assessment.
- Calculating and assessing an appropriate metric, but not relating it back to how there is impact on reserve adequacy. Simply stating that "this implies reserves are inadequate" does not demonstrate why they are inadequate.
- In the assessment, candidates compared trends across development periods for a single accident year instead of trends across accident years. For example, mentioning that average case outstanding increases each development period for accident year 2015 does not demonstrate that reserves are inadequate. As small/easy claims are closed early, one would expect average case reserves to increase over time.

Part b
Candidates were expected to provide three changes in a company's business that should be considered when using Schedule P to assess reserve adequacy.

Common errors include:
- Listing a similar change more than once. For example, a change in claims staffing levels and a change in claims settlement rate are both related to claims settlement practices. Another example is a change in geography mix and a change between Property and Liability are both related to a change in mix of business.
- Listing a change in whether salvage and subrogation is included in Schedule P. Schedule P Parts 2 - 4 are always net of salvage and subrogation.

FALL 2018 EXAM 6US, QUESTION 14	
TOTAL POINT VALUE: 2.5	**LEARNING OBJECTIVE: C1**
SAMPLE ANSWERS	

Part a: 0.75 point

From part 2A – Unpaid Losses and Loss Adjustment Expenses
Net losses unpaid = (Direct Reported + Assumed Reported – Recoverable Reported)+(Direct IBNR + Assumed IBNR – Ceded IBNR)
Net losses unpaid = (61,350 + 5,000 - 44,000) + (99,000 + 6,000 – 73,000) = 54,350

Part b: 0.75 point

Net losses incurred = paid + change in reserve
55,500 +3,850 – 42,000 + (54,350 – 67,500) = 4,200

Part c: 1 point

UW gain/loss = Earned Premium – Incurred Losses & LAE – Other UW Expenses
= 17,000 – 4,200 – 6,500 – 2,500 = 3,800