June 23, 2015

Andrew Gladwin, Chair
IAA Syllabus Review Task Force
c/o International Actuarial Association
601-150 Metcalfe Street
Ottawa, ON
K2P 1P1

RE: CIA Feedback on the draft IAA Syllabus

Dear Mr. Gladwin:

The Canadian Institute of Actuaries (CIA) is the national organization of the actuarial profession. Member driven, the Institute is dedicated to serving the public through the provision, by the profession, of actuarial services and advice of the highest quality. The Institute holds the duty of the profession to the public above the needs of the profession and its members.

The CIA provides for the education and qualification of members and prospective members and ensures that actuarial services provided by its members meet extremely high professional standards.

We welcome the opportunity to comment on the draft IAA Education Syllabus, which has been reviewed by our Education Syllabus Committee and the Academic Relations Committee. Comments and feedback from those committees have been consolidated and reviewed by the CIA's Eligibility and Education Council and International Relations Council.

General

We would like to first congratulate the IAA Syllabus Review Task Force on their work to date. We acknowledge the time and effort required to prepare a global syllabus for actuarial education worldwide. The use of the revised Bloom's Taxonomy is effective in facilitating understanding of the expected depth of coverage of each item.

In general, we welcome the IAA's progressive view with respect to the assessment and delivery of the content of the syllabus. The CIA recently struck a task force to develop a Canadian syllabus of education and a set of education principles. The IAA's direction on education is in line with the CIA's.

The new syllabus clearly marks a progressive shift from the traditional view of the actuarial profession, with which we agree.

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Issues like finance, economics, business analytics, and business intelligence have become substantially more important in the actuarial profession in the last decade, and the emphasis placed upon them in the syllabus is a welcome addition. However, the core syllabus appears to be very light on traditional actuarial mathematics and application.

The syllabus appears to lack basic coverage of life contingencies, pensions, and health content, as well as accounting, law, taxation, and product-specific content. We believe it is important that all fully qualified actuaries must have a basic knowledge of these topics, regardless of their future area of specialization.

Overall, the syllabus appears to position actuarial professionals as risk managers, in competition with other risk managers and data analysts. This is not necessarily a negative move, but we feel that the traditional actuarial skillset needs to be preserved.

There are inconsistencies in the level of detail in the syllabus from section to section. In the next round of edits it would be good to see consistent language and detail across each section. It would also be helpful to see the relative weight of each section to the overall syllabus, rather than only by individual learning objective. The cognitive level for certain sections, as noted below, is set at a lower threshold than would be expected for a fully qualified actuary.

It should also be noted that the CIA, for its purposes in Canada, considers only Fellows of the Institute to be fully qualified actuaries, whereas we understand other organizations include as fully qualified actuaries, the equivalent of our Associate designation. In Canada, reserved roles are designated in legislation for Fellows of the CIA (FCIAs). Our general position is that to be fully qualified, an actuary should be required to demonstrate specialist knowledge in the area in which they intend to practice. This may have some implications for the CIA with respect to negotiation of future mutual recognition agreements on education and qualifications.

Section 2.1 Mathematics

Coverage of probability (2.1.9) is very limited. Many sections of the syllabus such as Statistics and Models require a more advanced knowledge of probabilities. It clearly deserves its own section, with additional coverage of stochastic processes in particular.

Section 2.2 Assets

The cognitive level for this section should be at B3 or greater. Section 2.2.4 (asset/liability modelling) should be reflective of a higher cognitive level of C3 and above as asset/liability linkages differentiate actuaries from other risk professionals.

Section 2.3 Data and Systems

We agree with the inclusion of Data and Systems in the syllabus; however, the relative emphasis on this topic compared with other core actuarial topics—such as financial mathematics, life contingencies, or probability—should be considered when overall weightings are applied.

It should be noted that there are no Canadian university actuarial programs that currently offer courses covering the Data and Systems syllabus entirely. The issue is particularly important for

2.3.3 Machine Learning, but the taxonomy suggests it is at an introductory level. Consideration of implementation time is critical.

Section 2.4 Economics

The cognitive level for his section could be at a higher level—B3 or above. The Financial Economics section should have linkages with Corporate Finance in section 2.5.

Section 2.5 Finance

The Corporate Finance section could be strengthened in its depth and coverage.

Coverage of financial mathematics (2.5.3) appears to be minimal. Given that it is the basis of many actuarial and financial calculations it is essential for all fully qualified actuaries to know in depth. For example, it is very important that annuities (due, immediate, increasing, and decreasing) are covered in the syllabus.

There are no references in this section to insurance (life or P&C) reserves or the impact of actuarial liabilities on solvency or financial statements. The only reference to reserves in the entire syllabus is section 2.7.6.

There does not appear to be any reference to required capital or regulatory surplus.

There does not appear to be mention of statutory financial requirements, apart from one bullet under 2.9.4.

Section 2.6 Financial Systems

The cognitive level could be at least B2 and above for most topics.

Some clarity is required on the weight of this section within the overall syllabus. For example, financial systems should have a significantly less weight assigned than statistics (section 2.8).

Section 2.7 Models

Introductory material related to dependence modelling and the fundamentals of severity models, including extremes, are important topics for actuarial education and should be appropriately covered in relation to the overall syllabus. These topics are found on the syllabi of other risk-oriented professional designations with which actuaries compete.

Section 2.8 Statistics

Predictive modelling should be covered in greater detail and probably in a dedicated section of its own. It is mentioned under 2.3.1 but we do not feel this is adequate.

Section 2.9 Risk Management

This section should include enterprise risk management frameworks and application of these frameworks in greater detail. There should be better coverage on risk appetite and linkages with risk tolerances, risk limits, etc. It needs more detailed coverage. We suggest using some syllabus sections from the global Chartered Enterprise Risk Analyst syllabus.

No references could be found with respect to required capital or regulatory surplus or their impact on risk and solvency.

Section 2.10 Personal and Professional Practice

We are in complete agreement with the increased emphasis on communications, business skills, and professionalism. From the CIA's perspective some of this material is appropriate at the Associate level, and other topics are more appropriate for Fellowship.

We would like to see more emphasis on leadership and business concepts such as mergers and acquisitions, corporate strategy, and business planning.

We trust the above feedback will be valuable, and in closing we recommend that an additional feedback period be allocated following the development of the next version of the new syllabus, which we understand will be distributed prior to the October IAA meetings in Vancouver.

Sincerely,

Robert Stapleford
President