Re: Comments from a subgroup of the Society of Actuaries' Committee on Social Security regarding the Social Security ISAP ED

The attached are comments and suggestions from the members of a subgroup of the SOA's Committee on Social Security, formed to look at this ED. Please let me know if you have any questions regarding it - we attempted to include in the tracked document an explanation for all of our suggestions/comments. Its comments range from encouragement to use more consistent language, identification of areas in which clarity would enhance the standard, and a suggestion to expand examples to cover more than just what seems to be a focus on retirement income benefits.

We applaud the work of the IAA to develop this ISAP, which will benefit those who practice in the area of Social Security programs.

Sam Gutterman, chair
Georges Langis
ISAP nn - Valuation of Social Security Programs 

October 2012

This document contains the exposure draft of the proposed ISAP nn - Valuation of Social Security Programs. Please distribute this draft to members of your association and your local standard setter(s). Comments (from your organization or your members) should be addressed to SS.ISAP.comments@actuaries.org with “ISAP SS” in the e-mail header.

The preferred format for submitting comments is e-mail or an MS Word (or equivalent) attachment. Please do not send comments as a PDF file. If you submit a mark-up of the actual document please use track changes in MS Word and be sure to include comments explaining why you think each proposed change is necessary.

All comments will normally be posted to the International Actuarial Association website identifying the commenter(s). However, in exceptional cases, in response to a request which the IAA Secretariat is satisfied is for a valid reason, comments may be either posted to the website anonymously or withheld from the website.

The deadline for comments is 28 February 2013.

This document was approved for exposure by the Interim Actuarial Standards Subcommittee of the Executive Committee of the IAA in October 2012.
International Actuarial Association

International Standard of Actuarial Practice nn

Valuation of Social Security Programs

Developed by the
Social Security Task Force of the
Interim Actuarial Standards Subcommittee

Adopted by the IAA Council
[Month Year]
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Preface [tc \1 "Preface"]

[Drafting Notes - When an actuarial standard setting organization adopts this standard it should:

1. Replace “ISAP” throughout the document with the local standard name;
2. Choose the appropriate phrase and date in paragraph 1.8;
3. Choose the appropriate phrase in sub-paragraph 3.1.2.a;
4. Review for, and resolve, any conflicts with the local law and code of professional conduct; and
5. Delete this preface (including these drafting notes).]

This International Standard of Actuarial Practice (ISAP) is a model for actuarial standard-setting bodies to consider. The International Actuarial Association (IAA) encourages relevant actuarial standard setting bodies to consider taking one of the following courses of action, if it has been determined that this ISAP is relevant for actuaries in their jurisdiction:

- Adopting this ISAP as a standard with appropriate modification, where items covered in this ISAP are not currently contained in existing actuarial standards;
- Endorsing this ISAP as a standard as an alternative to existing standards;
- Modifying existing standards to obtain substantial consistency with this ISAP; or
- Confirming that existing standards are already substantially consistent with this ISAP.

Such an adopted standard (rather than this ISAP) applies to those actuaries who are subject to such body’s standards, except as otherwise directed by such body (for example with respect to cross-border work).

When this ISAP is translated, the adopting body should select three verbs that embody the concepts of “must”, “should”, and “may”, as described in Language, even if such verbs are not the literal translation of “must”, “should”, and “may”.

This ISAP is not binding upon an actuary unless the actuary states that some or all of the work has been performed in compliance with this ISAP

This ISAP was adopted by the IAA Council in [month year].

Introduction [TC "Introduction " \1 ]

This International Standard of Actuarial Practice (ISAP) applies to actuarial services relating to performance in the context of a Social Security Programs (SSPs). The intent of this ISAP is to narrow the range of practice with respect to these services considered acceptable under ISAP 1 - General Actuarial Practice. This ISAP is also intended to promote the development of consistent actuarial practice for SSPs throughout the world.

Where this ISAP indicates that a practice relating to a SSP is acceptable, a practice which would not be acceptable according to ISAP 1, it is clearly identified.

In this area of practice, the International Actuarial Association (IAA) previously adopted IASP 1 - Guidelines of Actuarial Practice for Social Security Programs, which became effective on January 1, 2003. This was a level 4 standard (which had the effect of a current International Actuarial practice) and will be superseded by the adopted version of this ISAP.
Because of their significant expertise in preparing long-term financial projections, actuaries often play an important role in carrying out financial analyses of Social Security Programs (SSPs). Due to the reliance placed on actuarial projections in public policy decision-making, it is important that short- and long-term demographic and economic analyses of these SSPs provide objectively prepared projections of their long-term future developments. This ISAP is also intended to promote the development of consistent actuarial practice for SSPs throughout the world.

Few existing professional standards and guidelines specifically apply to professional practice regarding SSPs. Most countries have no standards for professional practice in this area. In this regard, the IAA has decided to issue this ISAP with support from within the International Social Security Association (ISSA) and the International Labour Organization (ILO). The IAA has decided to issue this ISAP.

This ISAP is intended to complement local requirements in the jurisdiction concerned, including provisions in applicable SSP legislation that specifically refer to actuarial reports relating to the SSP; it should not be used to override such requirements. Practice consistent with this ISAP should enhance confidence in the professionalism, objectivity and scientific rigour of actuaries providing actuarial services to SSPs.

Although this ISAP applies to actuaries, it may also be helpful for other professionals who conduct an analysis of SSPs. This ISAP was not written with benefits provided in connection with unemployment and work-related incidents (e.g., work-place injuries) as its primary focus. However, where appropriate, this ISAP may be used by actuaries providing professional services for these types of programs.

This ISAP only applies to actuarial services performed for an SSP. When the SSP is administered or where guarantees are provided by a non-governmental entity, e.g., by an insurance company or a workers’ compensation (work-place injuries) board, this ISAP does not apply to actuarial services related to the financial reporting or calculation of liabilities of that non-governmental entity, to the calculation of its premiums or contribution rates, or to similar work.
ISAP nn - Valuation of Social Security Programs – Exposure Draft

Section 1. General[ TC "Section 1. General " \l 1 ]

1.1. **Purpose**[ tc \l 2 "1.1 Purpose ] – This ISAP provides guidance to **actuaries** performing actuarial **valuations** of **SSPs**, or reviewing, advising on, or opining on such analyses, to give **intended users** confidence in particular that:

- **Actuarial services** are carried out in a professionally manner and with due care;
- The results are relevant to their needs, are presented clearly and understandably, are complete; and
- The assumptions and methodology (including, but not limited to, models and modelling techniques) used are disclosed appropriately.

1.2. **Scope**[ tc \l 2 "1.2 Scope ] – This ISAP applies to **actuaries** who are performing, reviewing, advising on, or opining on actuarial **valuations** of **SSPs**.

1.3. **Compliance**[ tc \l 2 "1.3 Compliance ] – There are situations where an **actuary** may deviate from the guidance of this ISAP but still comply with the ISAP:

1.3.1. **Law** may impose obligations upon an **actuary** performing **work within the scope of this ISAP**. Compliance with requirements of **law** that conflict with this ISAP is not a deviation from the ISAP.

1.3.2. The actuarial code of professional conduct applicable to the work may conflict with this ISAP. Compliance with requirements of the code that conflict with this ISAP is not a deviation from the ISAP.

1.3.3. The **actuary** may depart from the guidance in this ISAP while still complying with the ISAP if the **actuary** provides, in any **report**, an appropriate statement with respect to the nature, rationale, and effect of any such departure.

1.4. **Applicability**[ tc \l 2 "1.4 Applicability ] – This ISAP applies to **actuaries** when performing **actuarial services**. An **actuary** who is performing these **actuarial services** may be acting in one of several capacities such as an employee, management, director, external adviser, auditor, or supervisory authority, of the **entity**

1.4.1. The application of this ISAP is clear when there is a **chief actuary** employed by a **SSP or where** a single consulting **actuary** is performing **actuarial services** for a client who is not affiliated with the **actuary**.

1.4.2. There are at least two general cases that do not meet the **criterion** stated in 1.4.1:

- a. A team of **actuaries** is performing **actuarial services**; or
- b. An **actuary** is performing **actuarial services** for an affiliated **party** (such as the **actuary**’s employer or affiliated entities within a group under common control.)

1.4.3. When a team is performing **actuarial services**, most paragraphs of this ISAP apply to every **actuary** on the team. However, requirements in some paragraphs need not be met by every **actuary** on the team personally (e.g., 3.4, 4.2). In the case of such paragraphs, each **actuary** on the team should identify, if relevant to that **actuary**’s work, which member of the team is responsible for complying with such requirements and be satisfied that the other team member accepts that responsibility.
ISAP nn - Valuation of Social Security Programs – Exposure Draft

1.4.4. If an actuary is performing actuarial services for an affiliated party the actuary should interpret this ISAP in the context of normal corporate or partnership practices, but following the general principles of this ISAP.

   a. The actuary should consider the expectations of the principal. These expectations might suggest that it may be appropriate to omit some of the otherwise required content in the actuary’s report. However, limiting the content of a report may not be appropriate if that report or the findings in that report is expected to receive a broader distribution.

   b. If the actuary believes circumstances are such that including certain content in the report is not necessary or appropriate, the actuary should be prepared (if challenged by a professional actuarial body with jurisdiction over the actuarial services) to describe these circumstances and provide the rationale for limiting the content of the report.

1.5. Reasonable Judgment

   1.5.1. A judgment is reasonable if it takes into account:

   a. The spirit and intent of the ISAPs;

   b. The type of assignment and intended users; and

   c. Appropriate constraints on available time and resources.

   1.5.2. In particular, the actuary should be cautious exercising reasonable judgment in services relating to statutory, supervisory, and financial reporting assignments, which usually require considerable rigour.

   Any judgment required by the ISAP (including implicit judgment) is intended to be based on the actuary’s professional judgment unless otherwise stated.

1.6. Language

   1.6.1. Some of the language used in all ISAPs is intended to be interpreted in a very specific way in the context of a decision of the actuary. In particular, the following verbs are to be understood to convey the actions or reactions indicated:

   a. “Must” means that the indicated action is mandatory and failure to follow the indicated action will constitute a departure from this ISAP.

   b. “Should” (or “shall”) means that, under normal circumstances, the actuary is expected to follow the indicated action, unless to do so would produce a result that would be inappropriate or potentially mislead the intended users of the actuarial services. If the indicated action is not followed, the actuary should disclose that fact and provide the reason for not following the indicated action.

   c. “May” means that the indicated action is not required, nor even necessarily expected, but in certain circumstances is an appropriate activity, possibly among other alternatives. Note that “might” is not used as a synonym for may, but rather with its normal meaning.

   1.6.2. This document uses various expressions whose precise meaning is defined in section 2. These expressions are highlighted in the text with a dashed underscore and in blue, which is also a hyperlink to the definition (e.g. actuary).
1.7. **Cross References** – When this ISAP refers to the content of another document, the reference relates to the referenced document as it is effective on the adoption date as shown on the cover page of this ISAP. The referenced document may be amended, restated, revoked, or replaced after the adoption date. In such a case, the actuary should consider the extent the modification is applicable and appropriate to the guidance in this ISAP.

1.8. **Effective Date** – This ISAP is effective for actuarial services performed/actuarial services commenced/actuarial services performed relevant to an event on or after [Date].

1 *Phrase to be selected and date to be inserted by standard setter adopting or endorsing this ISAP.*
Section 2. Definitions[ TC "Section 2. Definitions" \1 ]

The terms below are defined for use in this ISAP.

2.1. Actuarial Services – Services based upon actuarial considerations provided to intended users that may include the rendering of advice, recommendations, findings, or opinions.

2.2. Actuary – An individual member of one of the member associations of the IAA.

2.3. Adoption Date – The date on which this ISAP was adopted as a final document by the IAA Council.

2.4. Communication – Any statement (including oral statements) issued or made by an actuary with respect to actuarial services.

2.5. IAA – The International Actuarial Association.

2.6. Independent Expert Review – An opinion on (i) whether the assumptions used in the actuarial valuation are within a reasonable range both separately and in the aggregate, and (ii) whether or not the results of the valuation are within a reasonable range. In this context “independent” means an actuary experienced in valuation of SSPs who:
   a. Has not been involved in preparing this report; and
   b. Is not employed by the SSP or its sponsoring agencies.

   In this context an actuary or organization contracted by the SSP to perform the Independent Expert Review is not considered to be employed.

2.7. Intended User – Any legal or natural person whom the actuary intends at the time the actuary performs actuarial services to use the report.

2.8. Law – Applicable acts, statutes, regulations or any other binding authority (such as accounting standards, and any regulatory guidance that is effectively binding).

2.9. Opinion – An opinion expressed by an actuary and intended by that actuary to be relied upon by the intended users.

2.10. Report – The actuary’s communication(s) presenting some or all results of actuarial services to an intended user in any recorded form, including but not limited to paper, word processing or spreadsheet files, e-mail, website, slide presentations, or audio or video recordings.

2.11. Report Date – The date on which the actuary substantially completes a report. It usually follows the valuation date.

2.12. Social Security Programs (SSPs) – programs with all the following attributes regardless of how they are financed and administered:
   2.12.1. Coverage is of a broad segment, if not all, of the population, often on a compulsory or automatic basis;
   2.12.2. The program, including benefits and financing method, is prescribed by statute;
   2.12.3. The program is ultimately responsible to the government, or a unit of government, and
   2.12.4. Program benefits are:

Comment [sg22]: Deleted 'or not' here as it is not parallel with (i).

Comment [sg23]: "slide" is in ISAP 1, but there is no reason to restrict the type of presentation indicated in this example.

Comment [sg24]: We don’t understand what the SSP would be responsible to the government for -- certainly the delivery of the benefits, but the program isn’t normally responsible for policy. … We think this is backward - we believe it should be the government that is accountable to its citizens for the program….
a. Generally payable or delivered upon one or more contingent events or circumstances, including old age, retirement, death, disability, and survivorship;

b. Poverty-related conditional cash transfers; or

c. Universal social benefits.

2.13. **Subsequent Event** – an event of which the actuary becomes aware after the valuation date but before the actuary’s communication on the results of these actuarial services is delivered.

2.14. **Valuation** – Any formal analysis of an SSP, including development presentations of discounted point in time values, projections of cash flows and associated fund values, and contribution rates.

2.15. **Valuation Date** – The date at which an SSP is analyzed by the actuary. It usually precedes the report date.
Section 3. Appropriate Practices

3.1. Consideration of all Relevant Features of the SSP and Law

The actuary should consider all relevant features and current law. The actuary should also take into account established practice (practical) when no law exists with regard to certain benefit provisions or financial measures (for example, the basis for future indexing of retirement pensions). For a newly established or substantially changed SSP, the actuary should take into account the stated intentions of the SSP sponsor, and relevant experience in other comparable SSPs.

3.2. Data

The actuary should consider relevant sources of using the following data, including:

a. National statistics on variables such as fertility, mortality (life expectancy), morbidity, and migration (if such data are not available on a national basis, the actuary may consider information from a wider geographical area that might apply or it may be necessary to rely on relevant and reliable statistics of international organizations);

b. Demographic status and experience of the SSP and the region, as applicable;

c. Economic experience, labour market conditions, developments, and inflation;

d. Financial attributes of the SSP, such as contributions, investment earnings and assets;

e. Benefits of, or claims on, the SSP, as applicable;

f. Number and experience of classes of contributors and beneficiaries of the SSP;

h. Censuses and population surveys, covering, for example, family statistics (including household surveys).

3.3. Assumptions

The actuary should use realistic best estimate assumptions in a financial valuation of an SSP. Best estimate assumptions are such that the actuary expects that the resulting projection of the SSP experience is not a material underestimate or overestimate of the obligation. If an actuary uses assumptions that include a margin-for-uncertainty, the actuary should disclose this as clearly and properly in the report. The actuary may perform and include in the analysis projections based on other sets of assumptions, such as those that would result in high projected costs and those that would result in low projected costs. Such projections are helpful in analyzing and communicating the financial status of a SSP.

The actuary should perform an experience analysis or other research to determine, to the extent that the available data permit, if experience trends are relevant to the setting of certain assumptions.

In selecting the model variables and assumptions for an SSP valuation, financial projections,
the actuary should take into consideration the existence of automatic balancing mechanisms in an SSP since the SSP may be “immunized” from the variance of some variables (e.g., life expectancy).

For a newly introduced SSP or for new benefits schemes to be provided by an SSP where no experience data exist, the actuary may investigate the risk characteristics of the potential covered group through surveys or enquiries until credible data are available. The actuary may also consider reference to the relevant experience of other SSPs or other countries to establish assumptions.

In this case the actuary should bring to the attention of the intended users that the valuation has been based on very limited data (and perhaps none involving relating to actual SSP membership). Accordingly, valuations should be performed more frequently (possibly annually) than would be suitable for a longer established program which has provided more data available for analysis.

The actuary should comment on the assumptions as shown in paragraph 4.2.b.

3.4. Balance Sheet Methodology (TC "3.4 Balance Sheet Methodology" \[1.2\]) – Where a balance sheet is prepared for an SSP and it is up to the actuary to determine the methodology to be applied. When applicable the actuary should choose the which methodology to use, to produce an SSP’s balance sheet based mainly on the financing approach used for the SSP.

3.4.1. For fully funded SSPs (that is, where accrued liabilities are intended to be funded over participants’ working years) balance sheets should be produced using a closed membership group approach, under which only current participants are considered, either with or without their assumed future benefit accruals.

3.4.2. For pay-as-you-go or partially funded SSPs, if balance sheets are produced, this should be done using an open group approach, under which contributions and benefits of both current and future participants are considered.

3.4.3. Where law require adoption of an approach for production of a balance sheet that is consistent with either section 3.4.1 or 3.4.2, or applicable, the actuary should comment on the effects of the approach required for the program in question to the intended users.

3.5. Reliance on the Work of Experts from Other Professions (TC "3.5 Reliance on the Work of Experts from Other Professions" \[1.2\]) – The actuary should follow the guidance in ISAP 1 - General Actuarial Practice with respect to reliance on the work of experts from other professions.

3.6. Independent Expert Review (TC "3.6 Independent Expert Review" \[1.2\]) – When an Independent Expert Review is performed:

3.6.1. The actuary who prepared the valuation should cooperate with the reviewing actuary to provide the reviewing actuary with any requested material, and to be available to discuss data, methodology, assumptions, and other factors, as necessary, with the reviewing actuary.

3.6.2. The reviewing actuary should comply with the guidance of this standard in performing the review.

3.7. Responsibility for Assumptions and Methodology (TC "3.7 Responsibility for Assumptions and Methodology" \[1.2\]) – The actuary should follow the guidance in ISAP 1 -
General Actuarial Practice with respect to disclosing the responsibility for assumptions and methodology, and the actuary’s opinion thereon.
Section 4. Communication

4.1. Specific Information to Be Included in SSP Valuation Reports

This section applies specifically to reports concerning the projected financial status of an SSP. ISAP I - General Actuarial Practice addresses issues concerning information useful to a wider variety of reports. This section is meant to be read and applied in addition to ISAP I - General Actuarial Practice. The actuary should include the following information in an SSP valuation report (and may include additional information).

4.1.1. Description of the provisions of the SSP related to:

   a. Coverage;
   b. Nature of the SSP, e.g., defined benefit or defined contribution;
   c. Financing approach, e.g., pay-as-you-go, partially funded or fully funded;
   d. Source of funding, e.g., worker or employer contributions, investment earnings on designated assets, transfers from government revenues, including legislated or contractual contribution rates; and
   e. Benefit provisions, e.g., formulae, amounts, restrictions and eligibility conditions.

4.1.2. Key dates:

   a. Valuation date;
   b. Report date;
   c. Date up to which all relevant information had been taken into consideration, if it differs from the report date.

4.1.3. Section on methodology, data and assumptions:

   a. Description of the methodology;
   b. Key demographic assumptions, such as mortality (life expectancy, age-specific morbidity, fertility, migration, and unemployment);
   c. Key historical demographic data relied upon, such as:
      i. Eligible and beneficiary population by relevant demographic characteristic groupings;
      ii. Dependency ratios;
      iii. Employment earnings by age groups and gender, and averages;
      iv. Contributory earnings by age groups and gender, and averages; and
      v. Covered payroll and workforce;
   d. Key economic data and assumptions, such as inflation, economic growth, and return on investments (if any);
   e. The extent, if any, of interdependency among assumptions;
   f. Statistics and summaries of the data used as a basis for the SSP valuation assumptions; and

Comment [sg48]: These lists relate primarily, if not exclusively, to retirement programs, with almost no reference to health care related social security programs, eg dealing with health care cost trends, … We suggest adding at least a few references to health care data, assumptions and trends. The alternative would be scope out health benefits provided through a social insurance program, just like it almost does for unemployment benefits (note that we’re not sure why the latter is in general scoped out).

Comment [sg49]: Should this be ‘in conjunction with’? Or in addition to the items indicated in ISAP 1?

Comment [sg50]: For enhanced completeness

Comment [sg51]: Shouldn’t this list include something relating to margins where applicable (since it is referred to in 3.3)?

Comment [sg52]: In this list, probably better to deal with data before assumptions, to be consistent with the stem.

Comment [sg53]: No reference to trends are included here.

Comment [PS4]: To be consistent

Comment [sg55]: A dependency ratio is not data used, but the result of calculations. Although this is a highly useful and informative demographic metric, it would not be directly used in a valuation. One approach would be to list this as an example of a useful metric. Another key metric may be costs in relation to GDP.
g. Sources, quality, and relevance of the data used.

4.1.4. Section on results and findings

a. Key projected demographic values at selected future points in time, such as:
   i. Eligible and beneficiary population by relevant demographic characteristic groupings, and how these populations compare to the total population;
   ii. Dependency ratios;
   iii. Employment earnings by age groups and gender, and averages;
   iv. Contributory earnings and averages by age groups and gender;
   v. Labour force participation rates by age groups and gender; and
   vi. Covered payroll and workforce.

b. Financial Projections showing detailed cash flows and balance sheet values for the recent past and for the future, such as:
   i. Contributions;
   ii. Investment earnings;
   iii. Other income;
   iv. Total income;
   v. Benefits or claims;
   vi. Administrative expenses;
   vii. Total expenditures;
   viii. Annual balance (income minus expenditure);
   ix. Actuarial deficit and funded ratio as of valuation date and other representative dates (for fully-funded retirement benefit pension schemes);
   x. Nature of assets and / or individual accounts;
   xi. Market value of tangible assets / funded assets;
   xii. Reserve; and
   xiii. Value of notional, non-financial or virtual assets.

The results may be expressed in relation to one or more relevant volume measures, such as the size of the economy or premiums/taxes.

c. Cost rates as appropriate:
   i. Pay-as-you-go cost rate;
   ii. General average premium or partially funded cost rate; or
   iii. Fully funded cost rate; and

d. A presentation designed to provide an indication of the financial sustainability of the SSP, if appropriate.

Comment [sg56]: Should this stem have something similar to the 'at selected future points in time' here and in c? or should this reference be in the stem of 4.1.4 rather than 4.1.4a?

Comment [sg57]: Uncertain what this refers to - reserve for what?

Comment [sg58]: Virtual?

Comment [sg59]: It is not clear whether this should be for each year or the entire projection period. 'premium' is an insurance term - should this be contribution rate? That is the terminology used in a) above.
4.1.5. Section on analysis of valuation results that may include the following components:

a. Reconciliation with the previous report, along with explanations of significant changes in results.

b. Discussion of the pattern of financial projections over the years (e.g., as a result of the ageing of the population, maturity of the SSP, and recent changes in SSP design or financing) and their implications thereof. The actuary may include a comparison of how benefits are projected to grow or decline with respect to inflation, economic growth or both and during which part of the projection period, as an indicator of potential stability or instability of the system in the longer term.

c. Effect, if material, of any subsequent event.

d. Sensitivity of results to variations in one or more assumptions.

e. Effect of automatic balancing mechanisms (if any) under each scenario used for the projections in the report, where “effect” covers both how the automatic balancing mechanism alters the key parameters of the SSP (such as retirement pension age, or determination of benefits) and how the alteration of the key parameters changes the amounts paid to beneficiaries.

f. Conclusions on the short-, medium-, and long-term financial sustainability of the SSP with due regard to the funding rules under the law if such funding rules exist.

11. Indications of possible sources of future financial instability (e.g., depreciation of future benefits either because of non-indexation or because of indexation lagging behind economic growth, or inadequacy of future contributions due to non-indexation of contribution limits).

h. Potential recommendations on possible measures to ensure the long-term financial sustainability of the SSP.

i. Effect of any options or guarantees embedded in the benefits of the SSP on the cash flows shown in 4.1.4.b.

j. The suitability of any approach for calculation of capitalised value of liabilities used for the SSP in light of the particular funding method and the time horizon used.

4.2. Actuarial Opinion TC 4.2 Actuarial Opinion TC 4.2 – The actuary should provide an opinion with respect to the extent to which the following hold, or do not hold:

a. The data upon which the report is based are sufficient and reliable;

b. The assumptions used for the report are reasonable and appropriate, in the aggregate and/or individually, reasonable and appropriate;

c. The methodology employed is appropriate and consistent with sound actuarial principles; and

d. The SSP is financially sustainable over the period covered by the projections used for the valuation.

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The actuary should include with a formal statement that the report has been prepared, and the actuary’s opinion given, in accordance with the applicable local standards of practice or this model ISAP.

Comment [sg66]: We don’t understand why this standard should dictate whether the opinion should go at the beginning or end of the report.

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