

# NAAJ Instructions for Authors

## Editorial Statement

The *North American Actuarial Journal* scientifically addresses the domestic and international problems, interests, and concerns of actuaries, their customers, and public policy decision makers. The *NAAJ* publishes papers from traditional fields of actuarial practice, such as life and health insurance, pensions, employee benefits, property and casualty insurance, and finance and investments. Papers from new or developing areas of actuarial practice are especially welcome. We seek to stimulate research on emerging public policy debate, technology improvements, demographic trends, multidisciplinary topics, globalization issues, and the like.

## Types of Papers

In general, we are looking to publish papers in the NAAJ that provide a springboard for the further development of education, research or improved practice. Types of papers include but are not limited to those that:

- Present original research or new applications of existing research in actuarial science.
- Educate actuarial candidates or members of the actuarial profession.
- Survey timely topics in an actuarial context. A survey paper is designed to summarize, analyze, evaluate or synthesize information that has already been published.
- Offer useful insights into topics important to practicing actuaries.
- Combine disparate aspects of an actuarial subject into a unified whole.
- Promote dialogue or research on developing issues of interest to actuaries.
- Case studies that contribute substantially to a field of application through the use of sound methods.

For additional discussions on the type of papers the journal welcomes, please search the publications library search or the editorials in the April 2001 and October 2001 issues.

## Review Process

Most manuscripts are not solicited by the journal. Unsolicited manuscripts are submitted to the co-editor, who assigns an associate editor. After an initial screen for suitability, the associate editor requests reports from anonymous referees. On the basis of these reports and the associate editor's comments, the co-editor either accepts a manuscript, rejects it, or requests a revision.

NAAJ is a peer-reviewed journal that uses a double-blind review process. The authors do not know the identities of the reviewers, and the referees do not know the names of the authors. Your paper will be sent anonymously to reviewers with expertise in the paper's topic. This double-blind review of the paper will determine if it is accepted for publication in the NAAJ. Authors are solely responsible for removing clues about their identities, including references to unpublished work and sources of funding, from their manuscripts and supporting documents.

## Manuscript Style

Please limit the use of footnotes and avoid abbreviations. Within the main body of the text, represent exponentials by "exp( )" and write fractions using a solidus—for example  $(w+x)/(y+z)$ . Avoid confusion between ambiguous characters (e.g., between lowercase el and one). Use an en dash to indicate a range, not a division symbol or a tilde. Use a period rather than a comma to indicate a decimal point and use a zero before the decimal point.

Whenever a data set is used, its source should be fully documented. Similarly, papers reporting results

based on computation should provide enough information so that readers can evaluate the quality of the results. Unless conditions of security or confidentiality intervene, availability of the data and computational techniques on which the paper are based is a requirement for publication. Authors are encouraged to submit their data and software to the *NAAJ's* archive.

Please refer to *The Chicago Manual of Style* (16th ed.) for grammar, usage and style issues.

### **Manuscript Organization**

*NAAJ* papers should be organized as follows:

- Title page: Includes author(s)' name(s) and author(s)' footnote (name, professional degrees and affiliations, titles, company address, phone and fax numbers and e-mail address).
- Abstract: Each manuscript should contain an extended abstract of 200-400 words (one paragraph). The abstract should succinctly describe the problem under consideration, the methods of analysis and the findings of the paper. For the benefit of *NAAJ's* broad readership, the abstract should use language that is broadly accessible. Do not cite references nor use mathematical symbols in the abstract.
- JEL Classification: Authors should include at least one classification code according to the Classification System for Journal Abstracts as used by the Journal of Economic Literature. In addition, up to five keywords may be supplied.
- Article Text
- Acknowledgments: Acknowledgments and information on grants received may be submitted after the paper is accepted for publication. Please use two separate sections for acknowledgments and funding information.
- Appendices: Lengthy technical portions of a manuscript should appear in a separate appendix to the manuscript. **This should be located after the references.**
- References: (See below for information on the preparation of reference material.)
- Tables: (See below for information on the preparation of tables.)
- Figures: Figure numbers, titles, footnotes, notes and sources should be double-spaced. Figure artwork should be submitted on separate pages or submitted as separate electronic files or attachments (see below).

### **Subheads and Section Numbering**

The *NAAJ* uses four levels of subhead: A, B, C, and D:

- Subhead A is 12-point type, bold, initial and small caps. Use for main sections of the paper.
- Subhead B is 12-point type, bold, initial caps and lowercase. Use for subsections of the main section
- Subhead C is 10-point type, bold, initial caps and lowercase. Use for third-level subsections as well as theorems, lemmas, propositions, and corollaries.
- Subhead D is 10-point, lightface, initial and small caps. Use for fourth-level subsections as well as proofs, remarks, definitions, axioms, cases, problems, and examples.

Sections (except for enunciations) should be numbered as follows:

1. Subhead A
  - 1.1 Subhead B
    - 1.1.1 Subhead C
      - 1.1.1.1 Subhead D

### Table and Figure Guidelines

Submit tables and figures in a separate file from the text of the paper. Refer to tables and figures in the text by number (e.g., Table 1, Figure 1). Tables and figures are inserted by the typesetter as soon as possible after their mention in the text. Therefore, avoid using "above," "below," "preceding," "following," and so forth when referring to tables and figures.

#### Notes about numbering:

- Number consecutively (1,2,3, etc.) within text from beginning to end.
- Number consecutively (A1, A2, A3) within appendices.
- Do not number in conjunction with section numbers (2.1, 2.2, 2.3, etc.).

With the exception of material published by the Society of Actuaries, tables and figures **MUST** include a source if they are not original or have been published elsewhere. If several tables and/or figures are reproduced from the same source, permission to reprint must be obtained by contacting the copyright holder. This is required even if the copyrighted material is from one of the author's own previously published papers. Authors must submit this written permission with your paper prior to publication in *NAAJ*.

Tables and figures should include a title of no more than 10 words. Additional information should be placed in a note or footnotes at the bottom of the table or figure. The order of add-ons should be (1) footnotes, (2) notes, and (3) source. Use lowercase letters of the alphabet (a, b, c) for footnotes.

Table 1 Life Expectancy in Canada (1931-94)						
	At Birth		At Age 65		At Age 75	
Year	Male	Female	Male	Female	Male	Female
1931	60.0	62.1	13.0	13.7	7.6	8.0
1951	66.3	70.8	13.3	15.0	7.9	8.8
1971	69.3	76.4	13.7	17.5	8.5	10.7
1991	74.6	80.9	15.7	19.9	9.6	12.5
1994	75.1	81.1	16.1	20.1	9.9	12.7

**Note:** These are period life expectancies based on the q's experienced in the previous year, without projection.

**Source:** Statistics Canada (1986, 1995a, 1997).

### Special Instructions for Figures

Please remember that figures are printed in black and white. Therefore, do not use color to distinguish graph lines; use dotted lines, squares, triangles, diamonds, etc., instead. **Illustrations submitted (line drawings, halftones, photos, photomicrographs, etc.) should be clean originals or digital files. Digital files are recommended for highest quality reproduction and should follow these guidelines: 300 dpi or higher; sized to fit on journal page; EPS, TIFF, or PSD format only; and submitted as separate files, not embedded in text files.**

When designing figures, please keep the following principles in mind:

- Charts, graphs, tables and figures should be easy to read and clutter-free
- Use small multiples to promote comparisons and assess change
- Use complex graphs to portray complex patterns
- Relate graph size to informational context
- Use graphical forms that promote comparisons
- Integrate graphs and text
- Demonstrate important messages

### **Manuscript Editing**

The *NAAJ* is edited in accordance with the rules of *The Chicago Manual of Style* for correct grammar, usage, spelling and punctuation. Once a paper is accepted for publication, an experienced team of technical editors will work with authors to ensure that the paper adheres to a consistent style and format. Editors will query authors with questions and comments prior to the typesetting stage.

Once the paper is typeset, authors will have the opportunity to review their paper as it will appear in the Journal. Proofs should be corrected carefully, as it is the authors' responsibility to review the paper thoroughly in its entirety to ensure the accuracy and integrity of their work. This will generally be the authors' last chance to review the paper before seeing it in print.

### **Mathematical Material**

Mathematic formulas should be typed and centered on a separate line and identified by consecutive Arabic numerals. Short formulas or expressions can be written in the text of the manuscript. Appendix display math should be numbered separately.

For more information on the preparation of mathematical material, you can refer to: *The Chicago Manual of Style* (16th ed.) (2010), Chicago: University of Chicago Press; or *Mathematics Into Type* (Updated Edition) (1999), Providence, RI: American Mathematical Society.

### **References**

Use the following as guidelines for preparing your reference section.

We do not use a numbered reference system. Citations should be by author/institution and date of publication. Single author: Baker 2014; two authors: Baker and Anderson 2014; three or more authors: Baker et al. 2014.

### **Books**

#### **One author:**

Koerner, Joseph Leo. 1993. *The Moment of Self-Portraiture in German Renaissance Art*. Chicago: University of Chicago Press.

#### **More than one author:**

Cowlishaw, Guy, and Robin Dunbar. 2000. *Primate Conservation Biology*. Chicago: University of Chicago Press.

#### **Editor(s) or compiler(s):**

Panjer, Harry H., ed. 1998. *Financial Economics: With Applications to Investments, Insurance, and Pensions*. Schaumburg, IL.: The Actuarial Foundation.

#### **Company or organization as author:**

Blue Cross and Blue Shield of Michigan (BCBSM). 1987. Participating Hospital Agreement.

Detroit: BCBSM. [Citation would read: (BCBSM 1987)]

U.S. Prospective Payment Review Commission (ProPAC). 1991. *Annual Report to Congress*. Washington, DC: U.S. Government Printing Office. [Citation would read: (ProPAC 1991)]

**Parts of books (articles in an anthology, chapters, introduction, etc.):**

Reiss, O. 2004. Dependent Sectors and an Extension to Incorporate Market Risk. *In CreditRisk+ in the Banking Industry*, ed. M. Gundlach and F. Lehrbass, pp. 251-230. New York: Springer.

**Journals**

Brown, Robert L., Robin Damm, and Ishmael Sharara. 2001. A Macro-economic Indicator of Age at Retirement. *North American Actuarial Journal* 5(2): 1-10.

**Magazines and Newspapers**

**With an author:** Schreiber, Cynthia. July 11, 2003. Overture, EarthLink Decline in New-Stock Selloff. *The Wall Street Journal*, Money and Investing section.

**Without an author:**

*Euroweek*. 1997. CSFB, Winterthur Storm Swiss CB Sector with First Catastrophe-Linked Bonds. January 5.

**Working Papers, Technical Reports, and Ph.D. Dissertations**

Amundin, M. 1991. Click Repetition Rate Patterns in Communicative Sounds from the Harbour Porpoise, *Phocoena Phocoena*. Ph.D. diss., Stockholm University.

**Personal Communications**

Rich, Colonel William. Interview by author. Tape recording. March 3. Boston, Mass.

**Online References**

Individual Life Insurance Experience Committee (ILFEC). 2001. Report of the ILFEC: Mortality Under Standard Individually Underwritten Life Insurance between 1990 and 1991 Anniversaries. *Transactions of the Society of Actuaries*. <http://www.soa.org/ccm/content/research/91ilreport.html>.

**Note:** When quoting material from another publication, you must include the page number(s) of the quote in the citation (Smith 2001, p. 20).

**Journal Layout**

In order to maintain a consistent and credible presentation, the *NAAJ* adheres to its own formatting style guide. The Journal publishes in a one-column format with four levels of subheads and all graphic elements are set in a consistent format.

**Copyright Agreement**

By submitting a paper to *NAAJ*, you are certifying that the work is original, has not been submitted for possible publication elsewhere, and has not been previously published in either a printed or electronic

format. If your paper is accepted for publication, you will be required to transfer the copyright to the Society of Actuaries.

### **Discussions and Author Replies**

Discussions of invited papers and feature articles are welcome up to six months after a paper has been published. Discussions should be brief, pertinent to the article, and professional in tone. The editor reserves the right to reject any discussion and authors reserve the right to reply. Send the discussion to the editor via email with a copy to [kbaker@soa.org](mailto:kbaker@soa.org). The author(s) of the original work will be forwarded a copy of the discussion in case they wish to reply.

### **Checklist for Authors**

Before submitting your manuscript to the *NAAJ*, please refer to the following checklist:

- Please make sure you have proofread your manuscript thoroughly.
- Please include any graphic elements (tables, charts, graphs, figures, etc.) that will be included in the paper.
- Label all graphics clearly so they can be easily identified.
- All table, figures, etc. **MUST** include a source if they are not original or have been published elsewhere.
- All artwork is printed in black and white. Please do not use color to distinguish graph lines or other elements within the graphic
- Because of the *NAAJ's* broad readership, each manuscript should include a brief explanation of any practical applications for the research or theories explored in the manuscript.
- Please refer to *The Chicago Manual of Style* for style, grammar, usage, spelling, and punctuation issues.
- Please refer to *The Chicago Manual of Style* or *Mathematics into Type* for questions concerning the representation of mathematical material.

### **Submission**

Please submit a copy of your manuscript via Manuscript Central (<http://mc.manuscriptcentral.com/naaj>).

### **Submission Questions**

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