

This English translation of “2016 Annual Report” of the Institute of Actuaries of Japan is an unofficial translation. Only its original Japanese texts have effect, and the translation is to be used solely as reference material to aid in the understanding of the original one.

この「2016年度事業報告」の翻訳は公定訳ではありません。効力を有するのは日本語の資料であり、翻訳はあくまでその理解を助けるための参考資料です。

2016 Annual Report
From April 1, 2016 to March 31, 2017

1. Matters concerning Annual General Meeting of Members

The General Meeting of Members was held on June 22, 2016 at the main conference room of the Institute of Actuaries of Japan, and

“Report on a summary of business activities in 2015”

was presented, and the following one proposal was put before the meeting and approved as proposed:

Item 1: 2015 Approval of a Balance Sheet and Net Assets Variation Statement as well as Inventory of Properties

2. Movement of members

Movements of members during the current year were as follows: for corporate members, 2 members were newly admitted and 3 members withdrew from the IAJ; for individual members, 367 members were newly admitted and 218 members withdrew from the IAJ. The number of members as of the end of March 2017 is as shown in the table below.

Fellows	1,654 persons
Associates	1,298 persons
Students	2,057 persons
Semi-total	5,009 persons
Corporate members	109 corporations
Total	5,118 persons/corporations

3. Business report

[Related to examination]

(1) Implementation of 2016 qualification examination

A 3-day qualification examination was held from December 12 to 14, 2016 in Tokyo (at TOC Gotanda) and Osaka (at Temma Training Center) and the successful examinees were announced on February 14, 2017.

The total number of examination subjects for the primary examination was 3,509 subjects and the total number of subjects passed was 552 subjects. There were 77 examinees who passed all basic subjects.

Primary examination (Basic subjects)	Mathematics	Life Insurance Mathematics	Non-life Insurance Mathematics	Pension Mathematics	Accounting , Economics and Investment Theory
Number of examinees	1,020	753	621	512	603
Number of successful examinees	201	80	82	85	104

Passing Rates	19.7%	10.6%	13.2%	16.6%	17.2%
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The total number of examination subjects for the secondary examination was 1,332 subjects and the total number of subjects passed was 170 subjects. There were 85 examinees who passed all the subjects.

Secondary examination (Advanced subject)	Life Insurance 1	Life Insurance 2	Non-life Insurance 1	Non-life Insurance 2	Pension 1	Pension 2
Number of examinees	370	364	170	142	126	160
Number of successful examinees	44	53	17	18	17	21
Passing Rates	11.9%	14.6%	10.0%	12.7%	13.5%	13.1%

(2) Implementation of 2016 CERA examination

The CERA examination was held on September 28, 2016 in Tokyo (at TKP Otemachi Conference Center) and the successful examinees were announced on January 16, 2017. There were 42 examinees and 22 examinees passed the examination (Passing Rates 52.4%).

[Related to education, training and research presentation]

(1) Implementation of 2016 actuary courses

The actuary courses were offered for a period from May 10, 2016 to October 4, 2016. Details are as follows.

	Subject	Number of students
Basic courses (12 Subjects)	<ul style="list-style-type: none"> ▪ Probability ▪ Probability Exercise ▪ Life Insurance Mathematics ▪ Non-life Insurance Mathematics ▪ Pension Mathematics ▪ Accounting ▪ Life table ▪ Statistics ▪ Statistics Exercise ▪ Modeling ▪ Economics ▪ Investment Theory 	138 people
Intermediate courses (7 Subjects)	<ul style="list-style-type: none"> ▪ Risk Selection Theory ▪ Population Theory ▪ Insurance Supervision Law ▪ Pension Practice Regulations ▪ Finance Mathematics ▪ Social Insurance Theory ▪ Risk Management Theory 	34 people

The additional actuary exercise courses were offered for a period from September 29, 2016 to December 1, 2016. Details are as follows.

	Subject (Number of students)
Additional actuary exercise courses	<ul style="list-style-type: none"> ▪ Life Insurance Mathematics Exercise (41 people) ▪ Non-life Insurance Mathematics Exercise (41 people) ▪ Pension Mathematics Exercise (44 people) ▪ Modeling Exercise (15 people)

Kansai Committee actuary courses were offered for a period from August to October 2016. 2 people took the life insurance mathematics course and 4 people took the pension mathematics course.

(2) Holding of 2016 Annual Meeting

A 2-day Annual Meeting was held on November 10 and 11, 2016 at Keidanren Kaikan and Tokyo Station Conference. The following special lectures were held in this meeting.

- 「Issues and prospects of the Central Bank」

By Mr. Takehiro Sato (Member of the Policy Board, Bank of Japan)

- 「Globally competent people are good communicators」

By Mr. Stephen Outlaw-Spruell (Representative, Hawaii Culture & Language Academy)

- 「The data based countermeasure for cancer in the near future」

By Mr. Fumihiko Wakao (Director, Center for Cancer Control and Information Services,
National Cancer Center)

Also, 12 papers were presented, 9 presentations and 5 panel discussions were held.

(3) Holding of 2016 IT Annual Meeting

A 2-day IT Annual Meeting was held on January 19 and 20, 2017 at Mitsui Life Insurance Co., Ltd. (Otemachi Nomura Building). The following special lecture was held in this meeting.

- 「How does FinTech change the finance and the economy?」

By Professor Noriyuki Yanagawa (Graduate School of Economics,
University of Tokyo)

And IT Study Groups (1st to 6th) conducted activity reports.

(4) Holding of regular meetings

We held a total of 9 regular meetings in FY2016. Details are as follows.

1 st Jul. 20, 2016	Behavioral factors of mortality risk – should we use the behavioral & psychological factor for the evaluation of the mortality risk?	Mr. Peter Banthorpe (RGA)
2 nd Aug. 24, 2016	Economic Scenario Generator – Application to business, problem and solution	Mr. Colin Holmes (Moody's Analytics)
3 rd Sep. 1, 2016	Changes to the SOA actuarial qualification process	Mr. Stephen A. Eadie (SOA) Mr. Ken Guthrie (SOA)
4 th Sep. 14, 2016	Risk Management : Then, Now and Tomorrow	Mr. Paul Embrechts (ETH)
5 th Oct. 17, 2016	※Joint seminar with Professionalism Training (Continuing Professional Development) (Reference to (10) ①)	
6 th Oct. 19, 2016	To Develop a Method of Assessing Basis Risk for Longevity Transactions	Mr. Jackie Li (Macquarie University)
7 th Oct. 25, 2016	Predictive Analytics and Modeling of Policyholder Behavior	Mr. David Wang (Milliman) Ms. Eileen Burns (Milliman)
8 th Nov. 1, 2016	The latest reform of long-term care (LTC) insurance in the German social security system	Ms. Karin Neelsen (DAV)
9 th Mar. 10, 2017	Present and Future of Insurance Supervision Administration	Mr. Takuji Yano (Director, FSA Insurance Monitoring Office)

(5) Holding of Kansai Committee regular meetings

We held a total of 4 Kansai Committee regular meetings in FY2016. Details are as follows.

1 st Jul. 8, 2016	Structure, forecast, review of public pension finance	Mr. Kunio Nakajima (NLI research)
2 nd Nov. 4, 2016	Current situation of FinTech and its impact on financial business	Mr. Naoki Shimada (Financial Business and Technology)
3 rd	Trends in the US economy, future outlook	Mr. Hiroshi Kubotani

Jan. 13, 2017	based on the economy policy of President-elect Donald Trump	(NLI research)
4 th Mar. 7, 2017	2016 Report on Activities of Kansai Committee's Sub-committees	each sub-committee

(6) Holding of moonlight seminars

Moon light seminars under the following 5 themes were held from December 2016 to March 2017.

Read The Minimum Bias Procedure – A Practitioner's Guide (January 2002)	Mr. Kazuaki Naito (Waseda University)
Trends in Global capital regulation and impact on Japanese insurance companies	Mr. Kazuyuki Doi (Willis Towers Watson) Mr. Tomonori Asada (Towers Watson)
Introduction and Practice of Neural Network	Mr. Yujiro Otsuka (Milliman)
Introduction and implementation of risk measurement model construction	Mr. Fumitoo Hamamura (Japan Assurance Aarata) Mr. Naohiro Iwamoto (Japan Assurance Aarata)
Practice of Statistical analysis in non-life insurance ~Data analysis using "R"	ASTIN-related Seminar Group Seminar Division Members

(7) Holding of Kansai Committee seminars

We held a Kansai Committee regular meetings on February 16, 2016 with following themes.

"Term structure model of interest rate ~ Development from spot rate model to affine model ~" "Consideration on standard interest rate" "Characterization of insurance premium calculation principle" "Future mortality rate estimation based on medical viewpoint"	Graduate School of Science, Kyoto University, Insurance Mathematics Seminar students
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(8) Enhancement of e-learning

E-learning contents under the following were released.

- ① Standard of Practice for Appointed Actuary of Life Insurance Companies
- ② Standard of Actuarial Practice & Guidance Concerning Retirement Benefits Accounting
- ③ Solvency II Technical Specifications & Findings report on the Long-Term Guarantee Assessment (1)
- ④ Solvency II Technical Specifications & Findings report on the Long-Term Guarantee Assessment (2)
- ⑤ Solvency II Technical Specifications & Findings report on the Long-Term Guarantee Assessment (3)
- ⑥ Solvency II Technical Specifications & Findings report on the Long-Term Guarantee Assessment (4)
- ⑦ 「Predictive Modeling Applications in Actuarial Science」 ~Report of 2015 Annual Meeting
- ⑧ 「Practice of Market Consistent Embedded Value (MCEV)」 Chapter 1-4, Terms and Abbreviations~Supplementary volumes of bulletin Vol.257
- ⑨ The underlying assumptions in the standard formula for the Solvency Capital Requirement calculation (EU Solvency II) 1. The overall structure of the standard formula 3. Life underwriting risk~Supplementary volumes of bulletin Vol.273

- ⑩ The underlying assumptions in the standard formula for the Solvency Capital Requirement calculation (EU Solvency II) 1. The overall structure of the standard formula 4. Non-Life underwriting risk ~ Supplementary volumes of bulletin Vol.273
- ⑪ Risk governance learning by CERA ~ Report of 2015 Annual Meeting
- ⑫ Trends and Examples of Health Promotion ~ Report of 2015 Annual Meeting
- ⑬ Devices, kiosks, and even apps.- Insurance industry risks and opportunities
- ⑭ Let's learn more about CERA! ~ Looking back on the activities of the ERM(CERA) Qualification Committee
- ⑮ 2014 Open Discussion Forum
- ⑯ Professionalism Training (Continuing Professional Development) 2016
- ⑰ International accounting standards to learn from the beginning 2016
- ⑱ Economic value-based solvency regime starting from today 2016 ~ Mainly the situation of foreign countries ~

(9) Implementation of actuary overseas training

During the period from November 2 to 14, 2016, the 6th Actuary Overseas Training was implemented, and the participants were divided into 3 groups with life insurance, pension and non-life insurance. The training was held in Singapore and India, and they participated in the Asia-Actuary Conference (AAC) in India and made a presentation. There were 15 participants in life insurance group, 2 participants in non-life insurance group and 4 participants in pension group.

(10) Implementation of professionalism training

- ① On October 17, 2016, professionalism training (Continuing Professional Development) covering the following training was offered.

About Professionalism	Mr. Ikuo Katayose (Resona Bank)
Case Study	Mr. Yosuke Fujisawa (RGA)
Independence and autonomy of professionals	Mr. Shunsuke Sugimoto (Osaka University of Economics)

- ② On February 24, 2017, professionalism training covering the following training was offered. The completion of this training is required to be approved as a Fellow. 94 participants completed the training.

About Professionalism	Mr. Ikuo Katayose (Resona Bank)
IAA Syllabus and Professionalism	Mr. Tomio Murata (Mitsui Life Insurance)
Actuaries and Code of Conduct	Mr. Shinichi Nara (Meiji Yasuda Life Insurance)
Professionalism in Life Insurance	Mr. Hitoshi Watanabe (Nippon Life Insurance)
Professionalism in Non-life Insurance	Mr. Hiromi Kaneko (Sompo Japan Nipponkoa Insurance)
Professionalism in Pension	Mr. Ikuo Katayose (Resona Bank)

(11) Implementation of CERA training

- ① CERA training under the following theme was held on September 2, 2016.

“Lecture about CERA”	Mr. Stephen A. Eadie (SoA)
	Mr. Ken Gurthrie (SOA)

- ② On December 2 and 3, 2016, a 2-day group workshop was held for examinees for CERA examination. The workshop contained lectures on risk management, ALM, etc. and case studies. 22 participants completed the training.

(12) Open discussion forum

On December 6, 2016, an open discussion forum was held at the main conference room of the IAJ, at which members had discussions in English with foreign actuaries.

[Related to investigation and research activities]

(1) Holding of Standard Mortality Advisory Committee meeting

- ① At the 22nd Standard Mortality Advisory Committee meeting held on December 15, 2016, it was approved to continue to use in the year 2017 the “Life Insurance Standard Life Table 2007 (for death)”, “Life Insurance Standard Life Table 2007 (for annuity)” and “Third Sector Standard Life Table 2007”.
- ② At the 23rd Standard Mortality Advisory Committee meeting held on March 16, 2017, it was approved to revise the “Life Insurance Standard Life Table 2007 (for death)” and “Third Sector Standard Life Table 2007”, to continue to use “Life Insurance Standard Life Table 2007 (for annuity)” in the year of 2018.

(2) Response to international accounting standards and international insurance regulation

The International Accounting Standards Board (IASB) and the International Association of Insurance Supervisors (IAIS) have been energetically reviewing international accounting standards and international insurance regulation. The International Actuarial Association (IAA) is carrying out contracted research and other activities as an actuarial professional group. The IAJ is actively participating in the activities of IAA committees.

(3) Improvement of practice standards

- ① Necessary revisions were made to the “Standards for Actuary of National Mutual Insurance Federation of Agricultural Cooperatives” in March 2017.
- ② Necessary revisions were made to the “Standards of Practice for Appointed Actuaries of Non-life Insurance Companies”, in March 2017.
- ③ Necessary revisions were made to the “Standards for Actuarial Practice Concerning Retirement Benefits Accounting” and “Guidance for Actuarial Practice Concerning Retirement Benefits Accounting” in March 2017.

(4) Review of actuarial science for Life Insurance Product

Life Insurance Product Special Review WG reviewed actuarial science for life insurance product and submitted a report 「The standard way of thinking (case) of actuarial science for insurance product at present」 to FSA in June 2016. In March 2007, the WG members cooperated with the Financial Services Agency to hold an exchange of opinions twice.

(5) Activities of Committees

Each committee, division, study group, working group and project team carried out investigations, research and other activities based on the purpose and mission set at the beginning of the fiscal year. The status of their activities was posted on IAJ web sites. The activities that were put together into investigation and research results were published on the IAJ’s member-only web page and/or in supplementary volumes of bulletins, etc.

[Expression of Opinions]

- (1) Voting at IAA Council (including electronic voting)
 - ① In May 2016, voted for the approval of Terms of Reference of Nominations Committee.
 - ② In September 2016, voted for the approval of strategic action plan of ISAP.
 - ③ In November 2016, voted for the appointment of Chair/Vice Chair of Committee and Working Group.
- (2) In May 2016, the IAJ submitted its opinions on the draft statement of 「Judgement system reform 2018 for Grants-in-aid for Scientific Research」 to Ministry of Education.
- (3) In July 2016, the IAJ, jointly with JINSE (Japanese Inter-organizational Network for Statistics Education), submitted its request for the contents of new subject, "Exploration of Mathematical Science" (tentative name), which will be built up to strengthen the power of scientific exploration of the people in the high computerization and data science society, to Ministry of Education, Culture, Sports, Science and Technology.
- (4) In August 2016, the IAJ, jointly with the Japanese Society of Certified Pension Actuaries, submitted opinions on the Exposure Draft of PITF No. 47 entitled “The Exposure Draft of Practical Solution on Account Processing etc., of Risk-Sharing Type Corporate Pension” to the Accounting Standards Board of Japan (ASBJ).
- (5) In March 2017, the IAJ, jointly with the Japanese Society of Certified Pension Actuaries, submitted opinions on the Exposure Draft of PITF No.51 entitled “The Exposure Draft of immediate treatment of discount rate in the calculation of retirement benefit obligation etc. in case bond yields become negative” to the Accounting Standards Board of Japan (ASBJ).

[Related to International Activities]

- (1) IAA activities

The IAJ actively participated in the activities of IAA committees as well as in transmitting opinions from IAA to IASB, IAIS, etc. And the topics are as follows:

 - ① Invitation of ICA2026

At the IAA conference, we had held activities such as presentations to invite ICA2026 and at the IAA meeting in November, 2016, Tokyo was formally decided as the venue.
 - ② IAA Conference

After the decision that IAA Conference will be held in Tokyo in autumn 2019, we notified it to the member of the IAJ and the public (via HP, at Committee kick-off meeting, and by posting on Actuary Journal and so on).
- (2) Implementation of 44th Actuarial Seminar of East Asia (ASEA)

From September 13 to 16, 2016, the IAJ held a 4-day seminar on the status of Japan’s various systems to which actuaries are related, with 39 participants from 11 different areas mainly in East Asia.
- (3) Dispatch of members to international conferences, etc.

The IAJ sent its members to the following international conferences, etc.

 - ① From May 25 to 29, 2016 IAA Conference (In St. Petersburg, Russia)
 Mr. Kikuo Asano, Mr. Masaaki Yoshimura, Ms. Junko Koie, Mr. Yoshiaki Maebayashi,
 Mr. Tomio Murata, Mr. Yoshio Nakamura, Mr. Yoshihiko Tsuji, Mr. Toshihiro Kawano ,

- (5) Upon request of Japan Society for the Promotion of Science (JSPS) 180th Committee on Risk-Based Asset Management to send lecturers for actuaries and risk evaluation lecture, Mr. Ikuo Kudoh (Sumitomo Life Insurance) was sent to the JSPS.

[Related to Presentation of Awards]

- (1) Awards presented to a person with outstanding results in the 2016 qualification examination
- ① Presentation of President Award
On June 22, 2016, the IAJ presented the President Award to Mr. Jyunki Ura (Daiichi Life Insurance) and Mr. Shinji Nakamura (Individual member).
 - ② Presentation of award for outstanding results for each subject
On the same day, the IAJ presented an award to 1 person for Mathematics, 1 person for Life insurance mathematics, 2 people for Non- life insurance mathematics, 1 person for Pension mathematics, 1 person for Accounting, economics and investment theory, 1 person for Life insurance¹.
- (2) Presentation of awards for outstanding research paper
- ① There were 10 papers (Except IT-related paper) submitted, but there were no excellent papers in this fiscal year.
 - ② On January 19, 2017, an award was presented for the following outstanding IT-related paper at the IT Annual Meeting:
“Utilization of Open Data in Insurance Business ” (IT Study Group II)
“New Insurance Business with IoT ~Trump Card for change~” (IT Study Group V)

[PR and Publication Activities]

- (1) PR activities
- ① “25th Actuary Seminar” primarily for students was held on January 21, 2017 in Osaka and in Tokyo. There were 45 participated in Tokyo and 26 participated in Osaka.
 - ② Flyers for women were produced in order to attract their interests to the profession of actuaries.
- (2) Enhancement of information provision function
- ① One of the contents in our HP, “Attractiveness of the work of actuaries”, was renewed.
- (3) Publication of bulletins, etc.
The following bulletins and other publications were published.
- ① Bulletin Vol.69
 - ② Supplementary volumes of bulletin
Vol. 277 “6th Actuary Overseas Training Report”
Vol. 278 “MCEV Principles 2016”
Vol. 279 “Overview of Mortality Survey at IAA / Longevity trends in domestic and overseas, their comparison and prediction method /Graduation: The Revision of Estimate”
Vol. 280 “56th IT Annual Meeting Report”

- ③ Actuary Journal
Vol. 95, Vol. 96, Vol. 97, Vol. 98 and Special Volume No.13“Risks and Insurance”(2017)
- ④ 2015 Qualification Examination Question Collection
- ⑤ 2016 Annual Meeting Report Collection