International Labour Organization

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CISS Inter-American Conference on Social Security

CIESS Inter-American Center for Social Security Studies

Actuarial Analysis for Social Security and Pensions

Data Analytics, Pension Modelling and Actuarial Governance for Social Security Institutions

Professional Development Program

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Overview

Population ageing, demographic change, evolving labour markets and increasing financial pressures are transforming the environment in which social security institutions operate. In this context, actuarial analysis has become an essential tool for assessing the sustainability, adequacy and long-term resilience of pension and social protection systems.

This programme has been designed to strengthen the technical capacities of professionals working in social security institutions, pension schemes and related organizations. Through a combination of actuarial foundations, data analytics, pension modelling and actuarial governance, participants will gain practical knowledge to better understand actuarial reports, support evidence-based decision-making and contribute to the long-term sustainability of social protection systems.

Developed within the framework of international good practices promoted by the International Social Security Association (ISSA), the International Labour Organization (ILO) and the Inter-American Center for Social Security Studies (CIESS), the programme combines conceptual learning with practical applications relevant to social security institutions across the Caribbean and the Americas.

Learning objectives

By the end of the programme, participants will be able to:

- Understand the fundamental concepts of actuarial analysis applied to social security and pension systems.
- Interpret actuarial reports and communicate their implications to decision-makers.
- Analyze financial and demographic information relevant to pension schemes.
- Apply basic data analytics tools to support actuarial work.
- Understand the structure, assumptions and outputs of pension projection models.
- Assess actuarial risks and long-term sustainability challenges.
- Apply principles of actuarial governance and international good practices within social security institutions.
- Contribute more effectively to strategic planning and policy discussions related to pension systems and social protection.

Who Should Attend?

This programme is intended for professionals working in:

- Social security institutions
- National insurance boards
- Pension funds
- Ministries of finance, labour and social protection
- Regulatory and supervisory authorities
- Public sector organizations involved in social protection policy

No prior actuarial qualification is required.

The programme is particularly relevant for:

- Pension specialists and administrators
- Financial and investment officers
- Planning and strategy professionals
- Data analysts and statisticians
- Risk management professionals
- Policy advisors
- Technical staff supporting actuarial functions
- Early-career actuaries working in social security

Programme Structure

Foundations of Actuarial Analysis

- Private actuarial practice
- Life tables, mortality and survival concepts
- Insurance reserves and annuities
- Introduction to social security pensions

Data Analytics and Financial Assessment

- Financial statements and actuarial aggregates
- Pension financing mechanisms
- Data preparation and analysis
- Introduction to Python and analytical tools

Pension Modelling and Projections

- Pension projection methodologies
- ISSA–ILO actuarial modelling framework
- Scenario analysis and sustainability assessment

Actuarial Governance and Strategic Decision-Making

- ISSA–ILO Guidelines on Actuarial Work
- Risk analysis and management
- Actuarial governance structures
- Integration of actuarial, financial and investment functions

Teaching Faculty

Andrés Acuña-Ulate

Ten years' experience working inside Costa Rican social protection, alongside fifteen years with the ILO Social Protection Department, dealing with both contributory and non-contributory systems. Highly skilled in designing, applying, testing, and improving quantitative tools to analyze the sustainability and impact of social protection, both globally and on the ground. Proven track record working across North and Sub-Saharan Africa, Latin America and the Caribbean, as well as Europe and Asia.

Feyaad Khan

Mr. Feyaad Khan is an Actuary by profession. He is a Fellow of the Society of Actuaries, a Chartered Enterprise Risk Analyst and a Graduate of the University of Waterloo, Canada. He also holds a Masters in Business Administration from the Anglia Ruskin University, UK.

Mr. Feyaad works at the International Social Security Association as a Technical Specialist in Social Security and Coordinator of the Technical Commission on Statistical, Actuarial and Financial Studies. He brings over 20 years of technical and leadership experience from the Insurance, Banking and Social Insurance Sectors and was the Chief Operating Officer at the National Insurance Board of Trinidad and Tobago where he had oversight of the Actuarial, Investments and Operations Business Units. He is also a former part-time senior lecturer in Actuarial Sciences at the University of the West Indies and has spoken on financial and social security matters in many diverse forums.

Carlos Contreras

Actuary graduated from the Faculty of Sciences at UNAM, holding a Master's in Management and Direction of Social Security Systems from the University of Alcalá de Henares, and a Master's in Corporate and Stock Market Finance from Anáhuac University. Member of the Mexican Academy of Social Security Law.

Dates & Fees

Application Deadline
August 7, 2026

Programme Start Date
10 August – 25 September 2026

On-Site Intensive Week
5–9 October 2026
CIESS – Mexico City

Live Virtual Sessions

- 16 live online sessions
- Mondays and Fridays
- 2.5 hours per session
- 40 contact hours

During the weeks of **10–14 August** and **7–11 September**, synchronous sessions will be conducted only on **Mondays and Wednesdays**. All remaining sessions will follow the regular course schedule.

Time Zone	Schedule
Caribbean (AST)	10:00 – 12:30
Mexico City (CDT)	09:00 – 11:30
Geneva (CEST)	17:00 – 19:30

Category	Tuition Fee
CISS / ISSA Member Institutions	USD 900
Non-Member Institutions	USD 1,500

The programme fee includes:

- 40 hours of online instruction, delivered through live virtual sessions held twice weekly (Mondays and Fridays).
- A 40-hour in-person intensive week at CIESS, hosted at the Inter-American Center for Social Security Studies (CIESS) in Mexico City.

The programme fee does not include:

- Airfare
- Personal and incidental expenses

The in-person component includes:

- Accommodation
- Meals (Breakfast & Lunch only)
- Applied workshops
- Pension modelling exercises
- Case studies
- Collaborative learning activities

Language

- English

Certificate

Participants who successfully meet the programme requirements will receive a joint certificate issued by the International Labour Organization (ILO), the International Social Security Association (ISSA), and the Inter-American Center for Social Security Studies (CIESS).

Why Participate?

- Strengthen technical expertise in pension and social security analysis.
- Understand how actuarial evidence supports institutional decision-making.
- Gain practical exposure to pension modelling and data analytics.
- Learn international good practices promoted by ISSA and ILO.
- Exchange experiences with professionals from social security institutions across the Caribbean and the Americas.
- Build capacities that support the sustainability and resilience of social protection systems.

Contact Us

If you have any questions about the programme or are interested in enrolling or sponsoring someone in your organization, please do not hesitate to contact us.

Relationship and Cooperation Coordination

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