

New York State Department of Civil Service
DIVISION OF CLASSIFICATION & COMPENSATION

Tentative Classification Standard

Occ. Code 0752200

Assistant Actuary, Grade 14	0752200
Senior Actuary (Casualty), Grade 19	0752302
Senior Actuary (Life), Grade 19	0752310
Associate Actuary (Casualty), Grade 24	0752440
Associate Actuary (Life), Grade 24	0752410
Principal Actuary (Casualty), Grade 28	0752502
Principal Actuary (Life), Grade 28	0752501
Supervising Actuary (Casualty), M-4	0752602
Supervising Actuary (Life), M-4	0752601
Chief Casualty Actuary 3, M-5	0754530
Chief Life Actuary 3, M-5	0752830
Chief Casualty Actuary 2, M-6	0754520
Chief Life Actuary 2, M-6	0752820
Chief Casualty Actuary 1, M-7	0754510
Chief Life Actuary 1, M-7	0752810

Brief Description of Class Series

Actuaries perform actuarial calculations relative to insurance plans and rates of contribution to pension funds. These calculations are also used to prepare mortality, disability, and other demographic tables. Incumbents determine reserves to provide future benefits and analyze sources of earnings under policies and contracts to determine proper rates of dividends and other indeterminate credits and charges.

Actuaries at the State Insurance Fund develop rates, estimate financial statement reserves, and determine the impact of law and regulatory changes impacting workers' compensation and disability benefits insurance. Actuaries at the Department of Financial Services review the adequacy of reserves of domestic insurance companies. Actuaries at the Teachers' Retirement System and the Office of the State Comptroller perform actuarial computations in connection with retirement benefits.

Distinguishing Characteristics

Assistant Actuary: entry level; assists higher level professionals in doing various actuarial computations.

Senior Actuary (Casualty/Life): full-performance level; may supervise lower-level

clerical and actuarial staff.

Associate Actuary (Casualty/Life): performs actuarial work of a high degree of difficulty and professional responsibility; may supervise Senior Actuaries and lower-level staff.

Principal Actuary (Casualty/Life): supervisory level; supervises Associate Actuaries and lower-level staff; performs more difficult actuarial work.

Supervising Actuary (Casualty/Life): management level; supervises lower-level Actuaries and performs the most difficult actuarial work.

Chief (Casualty/Life) Actuary 3: unit head at the Department of Financial Services or the State Insurance Fund. A unit is a section subgroup assigned a distinct function within an actuarial department, such as the Product Pricing/Nonforfeiture Unit within the Department of Financial Services' Actuarial Valuation Section of the Life Bureau, or the Safety Groups Unit at the State Insurance Fund; or oversees a specialty actuarial area that requires the expertise of a Fellow, such as medical malpractice insurance, casualty actuarial analysis of captives, life actuarial analysis of agent compensation plans, and actuarial review of health rates.

Chief (Casualty/Life) Actuary 2: section head at the Department of Financial Services or the State Insurance Fund; a section is a distinct actuarial area such as casualty actuarial reserve analysis, life valuation, and ratemaking methodology; supervises multiple units overseen by Chief (Casualty/Life) Actuary 3 and Supervising Actuary (Casualty/Life).

Chief (Casualty/Life) Actuary 1: oversees actuarial activities for life, health, or property and casualty at the Department of Financial Services, or workers' compensation pricing and reserving, or the disability benefits fund and aggregate trust fund at the State Insurance Fund; supervises multiple sections overseen by a Chief (Casualty/Life) Actuary 2.

Illustrative Duties

Assistant Actuary: assists in constructing actuarial tables by analyzing and presenting data; assists in reviewing the actuarial basis of plans and calculates premiums; evaluates premium rates, reserves, and liabilities; assists in reviewing methods used to value categories of policies, special benefits, or special liability terms; assists in checking the mathematical accuracy of calculations; participates in field examinations of life insurance companies, fraternal benefit societies, health maintenance organizations (HMOs), commercial carriers, non-profits, and retirement systems; assists in preparing valuation memoranda; assists in reviewing health insurer rate submissions and statistical compilations; reviews insurance company rate filings and reserve analysis for compliance with standards; maintains in-house databases;

reviews claims records and death and disability cases to establish proper estimates of eventual incurred losses; computes loss reserves for death and disability cases; calculates the present values of workers' compensation cases and the amount payable to claimants; prepares safety group accounting statements; assists with large account pricing by prepping models and templates with requisite data; assists in the preparation of quarterly loss reserve analysis; updates weekly dashboards for disability and aggregate trust funds; calculates reserves for transfers, disability, and deferred allowances; computes cost-of-living factors for supplemental pensions paid to annuitants; and checks computations for valuation and service retirement allowances.

Senior Actuary (Casualty): accumulates and reconciles internal company loss data with financial statement data; assists in establishing and testing the adequacy of loss and loss adjustment expense reserves; prepares exhibits displaying selected ultimate estimates, premiums, and loss ratios, and property/casualty reserves; reviews ratemaking procedures; examines filings to ensure that standard actuarial techniques were used; analyzes insurance companies' premium trends, expense ratios, loss development factors, and profit provisions; assists in reviewing routine rate submissions; communicates with companies to get additional information on incomplete or inaccurate filings; analyzes and approves workers' compensation dividend filings; creates and maintains graphs, spreadsheets, and reports; analyzes classification submissions by the New York Compensation Insurance Rating Board (NYCIRB); assists in analyzing and approving workers' compensation large deductible programs and public auto rate filings; analyzes payments, reserves, settlement rates, frequency and severity for workers' compensation and disability lines of insurance; assists in preparing reports related to premium rate derivation; prepares various calculations approved by higher-level staff; explains actuarial computations to staff, policyholders, and their representatives; analyzes case reserves and recommends that certain calculations be final or interim; and responds to data requests from outside entities.

Senior Actuary (Life): reviews funding and other actuarial aspects of public and private retirement systems; reviews accuracy and completeness of the data underlying plan valuation; assists in establishing and testing the adequacy of loss and loss adjustment expense reserves; prepares exhibits displaying ultimate estimates, premiums, and loss ratios; reviews insurer rates, nonguaranteed elements, illustrations, and actuarial aspects of policy forms; reviews ratemaking procedures; reviews insurer risk management practices and asset adequacy analyses; reviews minimum statutory formula reserves, reinsurance treaties, liquidity filings, and actuarial aspects of risk based capital filings; reviews premium rate filings for individual and group accident and health products; reviews and analyzes actuarial aspects of commission submissions, experience rating formula submissions, and premium rate complaints; requests additional information on incomplete or inaccurate filings; analyzes and approves workers' compensation dividend filings; analyzes all classification submissions by NYCIRB; prepares reports analyzing disability and workers' compensation lines of insurance; prepares various calculations approved by higher-level staff; explains actuarial computations to staff, policyholders and their representatives; analyzes case reserves and recommends that certain calculations be final or interim; and checks

calculations for fiscal notes and cost estimates for legislation, optional retirement allowances, workers' compensation reductions, restorations, bond refunding, and experience studies.

Associate Actuary (Casualty): examines loss adjustment expense reserve of companies writing property and casualty lines of insurance; establishes loss and adjustment expense reserves on the examinations of casualty insurers in financial difficulty; reviews actuarial reserve reports and loss reserve opinions; assists in the review of insurer rates, non-guaranteed elements, illustrations, and actuarial aspects of policy forms; reviews minimum statutory formula reserves; examines rating plans and analyzes technical components underlying auto rate filings; reviews statistical plans that form the basis for the accumulation of statistical data; compiles and audits insurance company experience in the insurance expense exhibits; assists in preparing ratemaking guidelines; assists in analyzing and approving workers' compensation deviations; analyzes the general rate revision filed by NYCIRB; assists in analyzing and approving multi-tier rating programs for private passenger automobile insurance; develops special actuarial formulas; handles requests for information and complaints regarding actuarial aspects of insurance practices; prepares instructions and memoranda relating to the actuarial valuations involving mortality and remarriage contingencies and interest factors; investigates difficult actuarial and statistical problems or directs such investigations; assists in the supervision of consultants; estimates required premiums for large accounts, and accounting entries for financial statement reserves; assists in the development of new or revised requirements regarding policy form requirements, asset/liability management, policy requirements, and risk management; and may supervise lower-level staff.

Associate Actuary (Life): reviews and approves credit life, credit disability, and credit unemployment insurance filings such as rates, rating plans, and policy forms for compliance with applicable regulations; reviews and tests the adequacy of rate adjustment applications; produces or checks the annual actuarial valuation, experience studies, and actuarial liability and cost calculations for fiscal notes; analyzes actuarial gains and losses of operations; assists companies to resolve actuarial problems and develop and implement rates; makes determinations on difficult actuarial problems connected with valuation of reserves and oversight of private and public retirement systems; audits reserve valuation and valuation methods for compliance; assists in monitoring compliance with statutory accounting requirements; assists in the review of insurer rates, non-guaranteed elements, illustrations, and actuarial aspects of policy forms; reviews minimum statutory formula reserves; investigates complaints on premium matters; analyzes new and amended regulations; reviews community rate adjustment applications of HMOs and health insurers; participates in field examinations of life and health insurance organizations and fraternal benefit societies; performs premium rate reviews for new contracts for all types of health insurance; prepares active, retired, and loan experience studies and suggests rate changes; analyzes retirement systems' experience concerning deaths, disabilities, and retirements; prepares new actuarial tables, including the construction and graduation of the experience rates; prepares, tests, and runs the gain/loss analysis and experience

studies; calculates additional reserves and rates due to retirement incentives; assists in the supervision of consultants and supervises lower-level actuaries; and assists in overseeing the development of new or revised requirements for policy form requirements, asset/liability management, and risk management.

Principal Actuary (Casualty): directs the analysis and auditing of loss experience and expense data submitted by insurers; oversees the preparation of statistical exhibits and other information requested by the public, media, and legislature; oversees the analysis of credible frequency, severity, and loss experience data; reviews and analyzes new and existing ratemaking methods; advises on balance sheet items impacting reserves; makes recommendations to management on the analysis of loss and expense experience, loss reserving methods, and ratemaking techniques; assists in designing statistical sampling tests to detect the accuracy of data submitted by insurers; recommends reserves be incorporated on examination reports and defends examination findings to management; testifies as an expert witness at hearings and court proceedings; assists in preparing testimony on insurer financial condition and solvency matters; oversees the reporting of policyholders' experience to NYCIRB, and the collection of statistics for writing workers' compensation and disability benefits insurance; develops estimates of ultimate losses and loss adjustment expenses; oversees the calculation of safety group accounting statements and estimates the impact of dividend requests; calculates reserves for loss-sensitive policyholders; analyzes proposed new products and contracts; advises on the projection of future cash flows; approves and assigns report preparation including diagnostic reports; supervises lower-level actuarial staff; and may oversee calculations required by the aggregate trust fund.

Principal Actuary (Life): performs difficult actuarial duties requiring extensive knowledge in actuarial theory and its practical application to life and health policy from construction and values; reviews rating of individual and group policy forms; determines proper reserve basis for life insurance, annuities, disability benefits, accidental death benefits, and contingent liabilities of life insurance companies and fraternal benefit societies; evaluates reserve strengthening and destrengthening proposals submitted by insurers; evaluates the financial impact of corporate pension plans of non-profit health service corporations; reviews community rate adjustment applications for HMOs and health insurers; analyzes trends and drivers; analyzes proposed new products and contracts; investigates and makes recommendations on difficult actuarial problems in valuations, field examinations, dividend methods, and related issues; determines proper reserve basis for pensions, annuities, disability benefits, accidental and ordinary death benefits, and other liabilities of Retirement systems; designs new experience studies to analyze trends developing from new or modified disability benefits; verifies the accuracy of liability calculations to determine the monetary reserves sent to other retirement systems; calculates the liability of cost-of-living increases to the retirement systems; oversees the calculation of actuarial reduction in benefits due to workers' compensation lump sum payments; and supervises actuarial staff.

Supervising Actuary (Casualty): evaluates the liability for outstanding losses and loss adjustment expense reserves of companies writing property and casualty lines of insurance; tests insurer reserving practices to ascertain that projections of future rate needs are based on appropriate loss reserve estimates; develops reasonable standards for rating plans; integrates actuarial findings with examination reports; interprets the rate level effects of various legislative proposals; provides advice on actuarial issues such as risk transfer, cash flow, and discounting; represents the agency on matters involving property and casualty loss and loss expense reserves; coordinates policy with others through the National Association of Insurance Commissioners (NAIC); supervises a staff of lower-level actuaries and consultants by assigning and reviewing work, and evaluating performance; ensures actuarial soundness of all rating plans offered to policyholders; leads the actuarial ratemaking process; conducts internal rate reviews and analyzes impact of industry loss cost filings; estimates pricing parameters; performs segment profitability analysis to identify trends; provides actuarial guidance in support of predictive modeling; estimates accrual entries for financial statement reporting; prepares various measures of capital adequacy for review by senior management; and testifies before State and federal governmental bodies as an expert on actuarial issues.

Supervising Actuary (Life): oversees actuarial analysis of reserve valuations of domestic life insurance companies; accepts the valuation methods by domestic companies; analyzes the actuarial implications of existing and proposed plans for agent compensation; evaluates actuarial projections in connection with acquisitions, mergers, and tests of solvency; determines proper reserve estimates for life insurance annuities, disability benefits, and accidental death benefits; determines the effectiveness of regulations and proposes modifications; drafts proposed regulations, legislation, and circular letters; reviews reinsurance treaties for adherence to laws and regulations; evaluates actuarial components of experience rating formulas of health insurance organizations; reviews and critiques actuarial reports of continuing care retirement communities; participates in field examinations of life and health insurance organizations, fraternal benefit societies, and retirement systems; represents the agency on task forces and at NAIC meetings; reviews the most difficult premium rating policy forms to determine that premiums comply with rules, guidelines, and regulations; oversees all aspects of annual actuarial valuation of the retirement systems; monitors changes in federal pension regulations and compliance requirements; and supervises a staff of lower-level actuaries.

Chief (Casualty/Life) Actuary 3: manages the activities of an actuarial unit at the Department of Financial Services or the State Insurance Fund; evaluates staff actuarial analyses; explains complex actuarial formulas and computations to internal and external stakeholders; provides actuarial expertise in furthering agency mission and goals; represents agency on NAIC task forces; and oversees Supervising Actuaries and ensures that unit's goals and objectives are met.

Chief (Casualty/Life) Actuary 2: oversees all actuarial activities for a section comprised of two or more units at the Department of Financial Services or the State Insurance Fund; supervises Chief Life Actuaries 3 or Chief Casualty Actuaries 3,

depending on the area (life, health, casualty, safety groups, or the aggregate trust fund); establishes procedures for reviewing section work; develops standards for awarding actuarial consulting contracts and reviews the work of actuarial consultants; represents the agency on various committees; identifies potential improvements within the section's operations; acts as the designated contact with regulatory agencies in all actuarial matters related to section overseen; and educates the public and industry on the procedures and positions of the agency on actuarial issues.

Chief (Casualty/Life) Actuary 1: directs actuarial activities at the Department of Financial Services or the State Insurance Fund for either life, health, casualty, workers' compensation pricing, safety groups, or the disability benefits fund and aggregate trust fund; oversees the overall review and approval of all filings; directs and participates in drafting legislation, regulation, and circular letters on rating matters; and represents the Department on major inter-governmental and inter-departmental task forces involved with policy making and the drafting of significant legislation and regulations; liaises with brokers to explain actuarial methods used to calculate premium rates; ensures policy pricing is adequate and appropriate; and forecasts impacts of federal mandates on reserves and accounts.

Minimum Qualifications

Assistant Actuary

Open Competitive: bachelor's degree including 24 semester credit hours in mathematics, statistics, and/or actuarial science and successful completion of one examination of the Society of Actuaries or Casualty Actuarial Society or completion of a one-year traineeship.

Senior Actuary (Casualty)

Promotion: one year of service as an Assistant Actuary, and successful completion of one examination from the Casualty Actuarial Society.

Open Competitive: bachelor's degree including or supplemented by 24 semester credit hours in mathematics, statistics, and/or actuarial science and one year of actuarial experience; and successful completion of one examination from the Casualty Actuarial Society.

Senior Actuary (Life)

Promotion: one year of service as an Assistant Actuary and successful completion of one examination from the Society of Actuaries.

Open Competitive: bachelor's degree including or supplemented by 24 semester credit hours in mathematics, statistics, and/or actuarial science and one year of actuarial

experience; and successful completion of one examination from the Society of Actuaries.

Associate Actuary (Casualty)

Promotion: one year of service as a Senior Actuary and successful completion of two examinations of the Casualty Actuarial Society.

Open Competitive: bachelor's degree and successful completion of two examinations of the Casualty Actuarial Society; and three years of actuarial experience.

Associate Actuary (Life)

Promotion: one year of service as a Senior Actuary and successful completion of two examinations of the Society of Actuaries.

Open Competitive: bachelor's degree and successful completion of two examinations of the Society of Actuaries; and three years of actuarial experience.

Principal Actuary (Casualty)

Promotion: one year of service as an Associate Actuary (Casualty) and successful completion of four examinations of the Casualty Actuarial Society.

Open Competitive: bachelor's degree and successful completion of four examinations of the Casualty Actuarial Society; and four years of actuarial experience.

Principal Actuary (Life)

Promotion: one year of service as an Associate Actuary (Life) and successful completion of four examinations of the Society of Actuaries.

Open Competitive: bachelor's degree and successful completion of four examinations of the Casualty Actuarial Society; and four years of actuarial experience. O

Supervising Actuary (Casualty)

Promotion: one year of service as a Principal Actuary (Casualty) and successful completion of five examinations of the Casualty Actuarial Society.

Open Competitive: bachelor's degree and successful completion of five examinations of the Casualty Actuarial Society; and five years of actuarial experience.

Supervising Actuary (Life)

Promotion: one year of service as a Principal Actuary (Life) and successful completion of six examinations of the Society of Actuaries or be an enrolled Actuary with successful completion of five additional examinations.

Open Competitive: bachelor's degree and successful completion of six examinations of the Society of Actuaries; or be an enrolled Actuary with successful completion of five examinations of the Society of Actuaries, and five years of actuarial experience.

Chief Casualty Actuary 3

Promotion: Attainment of the Associate designation from the Casualty Actuarial Society (ACAS) and one year of service as a Supervising Actuary (Casualty).

Chief Life Actuary 3

Promotion: Fellowship in the Society of Actuaries and one year of service as a Supervising Actuary (Life).

Chief Casualty Actuary 2

Promotion: Fellowship in the Casualty Actuarial Society and one year of service as a Chief Casualty Actuary 3.

Open Competitive: Fellowship in the Casualty Actuarial Society and seven years of actuarial experience, two of which must be subsequent to obtaining the Fellowship designation and includes responsibility for managing and/or directing all activities of actuarial staff.

Chief Life Actuary 2

Promotion: Fellowship in the Society of Actuaries and one year of service as Chief Life Actuary 3.

Open Competitive: Fellowship in the Society of Actuaries and seven years of actuarial experience, two of which must be subsequent to obtaining the Fellowship designation and includes responsibility for managing and/or directing all activities of actuarial staff.

Chief Casualty Actuary 1

Promotion: Fellowship in the Casualty Actuarial Society and one year of service as Chief Casualty Actuary 2.

Chief Life Actuary 1

Promotion: Fellowship in the Society of Actuaries and one year of service as Chief Life Actuary 2.

Note: Classification Standards illustrate the nature, extent, and scope of duties and responsibilities of the classes they describe. Standards cannot and do not include all the work that might be appropriately performed by a class. The minimum qualifications above are those required for appointment at the time the Classification Standard was written. Please contact the Division of Staffing Services for current information on minimum requirements for appointment or examination.

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