STATE OF OHIO (DAS) CLASSIFICATION SPECIFICATION	**CLASSIFICATION SERIES** Workers' Compensation Actuarial Assistant	**SERIES NUMBER** 6671
	MAJOR AGENCIES Bureau of Workers' Compensation Only	**EFFECTIVE** 05/12/2019

SERIES PURPOSE

The purpose of the Workers' Compensation Actuarial Assistant positions are to develop, analyze, & enhance the statewide rate level indications, classification level premium base rates, & employer's experience modifiers for Ohio employers participating in the State Insurance Fund (e.g., private organizations, taxing districts, state agencies), black lung fund, & marine fund; calculate assessment rates for Ohio's self-insured employers & the Disabled Workers' Relief Fund; support projections of the actuarial unpaid loss estimates through development of underlying formatted data (e.g. claim count, payment, frequency, & severity triangles at various levels of detail) & projection of unpaid losses; assist in conducting special actuarial studies (e.g., the impact of legislative changes to Fund costs, premium rates, & actuarial unpaid loss estimates, the pricing of current & proposed programs, the review of historical payrolls, premiums, & losses for rating component adequacy); maintain, analyze, & update other items (e.g., annuity & mortality tables, average weekly wage rate for claimant benefits & payment comparisons); & to support BWC as needed (e.g., financial audit, self-insured employer reviews, lawsuit related efforts).

Glossary – the terms below are to be interpreted as follows wherever they appear in the classification specification:

Advanced level Excel skills – graphing, simple macros, formatting options used in developing presentation ready professional exhibits (e.g. titles, footnotes, column headers, borders, fonts, colors), use of trending formulas

Advanced level Mathematical & statistical concepts – calculus & linear algebra, linear & exponential trending, statistical distributions including insurance related loss distributions

Annuity table – an actuarial set of values used to discount a series of payments to present value based on life expectancy & investment assumptions

Assessment – an additional provision in an employer's premium to provide money to cover BWC operations not included in the base rate, cost of living benefit payments or benefit payments, on behalf of defaulted self-insured employers

Assessment Rate – expected assessment costs per selected base of collection

Base Rate – the expected policy period average cost for a specified Classification per $100 of Payroll

Basic level of database querying skills – filtering, lookup, database creation, use of previously established data bases in software such as Microsoft Access, SAS, or SQL Manager

Claim – request for benefits as a result of an employee's injury at work

Claim counts – number of claims during a specific period

Classification – a grouping by operation type of employers whose employees have similar exposure to injury/loss so that rates & premiums can be more accurately developed

Coal Workers Pneumoconiosis Fund (CWPF) – an optional program that provides coverage for claims filed under the State or Federal Black Lung Acts

Database Querying Tool – application that hosts SQL, SAS, R, or similar database querying language

Disabled Workers' Relief Fund (DWRF) – a Fund that is separate from the SIF that provides cost of living payments to qualifying recipients

Experience modifier – a factor based on the employer's historical experience used to adjust the base rate to reflect an employer's relative expected costs in the future policy period

Frequency – number of claims per $100 of payroll

General knowledge of mathematical, statistical, & actuarial terminology & concepts – understanding of arithmetic & algebraic equations, mean & variance concepts, rating variables such as manual classifications, base rates & experience rating, loss development triangles & concepts, & basic accounting concepts related to the insurance industry

Industry Group – combination of manual classifications within similar employment sectors

Intermediate level Actuarial Skills – ability to develop base rates, develop rating relativities, estimate reserves, analyze loss development, & utilize credibility

Intermediate level database querying skills – selection, organizing, sorting, summation in software such as SAS, Microsoft Access, SQL Manager

Intermediate level Excel skills – pivot tables, lookup functions, logical formulas, conditional formats, importing & exporting of data

Large Loss – a loss or set of related losses that exceed a specific threshold (currently $250,000)

Loss Development Factor – a factor derived from the Loss Development Triangle used to project the current values into the future

Loss Development Triangle (Triangle) – A display of loss or claim data organized with accident year in rows & development period in columns

Losses (Incurred Losses, Paid Losses) – an accumulation of benefit payments (Paid) or benefit payments plus reserves (Incurred)

Manual Classification – Classification Code for a specific operation type

Marine Fund - an optional program that provides coverage for claims filed under the US Long Shore Workers & Harbor Workers Act

Mortality table – an actuarial set of values used to estimate the probability of death of an individual at a certain age

NCCI Classification – Workers' Compensation Classification System codes established & maintained by the National Council on Compensation Insurance (NCCI)

Payments – benefits paid to or on behalf of injured worker

Payroll – measure of exposure to loss based upon annual wages paid to covered employees

Premium – money collected to transfer exposure to loss from the employer to the Funds operated by the BWC

Private Employer (PA) – segment of insured employers in SIF that are non-governmental entities

Program – optional employer level safety or other savings related initiatives with a related premium credit or rebate to the employer for participation or completion

Public Employer Taxing District (PEC) – segment of insured employers in SIF that includes local & municipal governmental entities

Rate Charts – a set of base rates or other rates for a specific policy period & employer group in the BWC Rules & computer applications

Rate Level Indication – an actuarial estimate of the rate required to collect premiums to pay for the expected future costs in an upcoming policy period

Reserves (aka unpaid liabilities, unpaid losses) – estimate of future payments on a claim or set of claims

Self-Insured Employer (SI) – employers who have been granted the privilege of directly handling their workers' compensation exposure to loss rather than transfer to the State Insurance Fund

Severity – average cost per claim

State Agency (PES) – segment of employers in SIF that includes State of Ohio agencies, participating universities & related hospitals

State Insurance Fund (SIF) – the primary Fund that accumulates employer premiums & finances benefits to or on behalf of injured workers

Ultimate Losses (Ultimate Costs) – the estimated total amount of payments on a claim or set of claims when the claim reaches closure

JOB TITLE	JOB CODE	PAY GRADE	EFFECTIVE
Workers' Compensation Actuarial Assistant 1	66711	32	05/12/2019

CLASS CONCEPT
The full performance level class works under general supervision & requires general knowledge of mathematical, statistical, & actuarial terminology & concepts in order to prepare & analyze appropriate data & assist with developing the statewide rate level indications, classification level base rates, & employer's experience modifiers; calculating self-insured employer assessment rates; supporting the projection of unpaid losses; & conducting special data collections & special studies.

JOB TITLE	JOB CODE	PAY GRADE	EFFECTIVE
Workers' Compensation Actuarial Assistant 2	66712	34	05/12/2019

CLASS CONCEPT
The advanced level class works under general supervision & requires knowledge of advanced mathematical & statistical concepts & intermediate level actuarial terminology, methods, & concepts in order to independently or as a lead worker (i.e., provide work direction & training) develop the statewide rate level indications, classification level base rates & employer's experience modifiers, & preliminary projections of unpaid losses; analyze data & calculate self-insured employer assessment rates; & conduct special data collections & special studies.

JOB TITLE	JOB CODE	B. U.	EFFECTIVE	PAY GRADE
Workers' Compensation Actuarial Assistant 1	66711	14	05/12/2019	32

JOB DUTIES IN ORDER OF IMPORTANCE (These duties are illustrative only. Incumbents may perform some or all of these duties or other job-related duties as assigned.)

Supports development of manual classification base rates & expected loss rates, employer EMs, PES contribution rates, SI, & DWRF assessments through verification of payroll & loss data (e.g., Quarterly Loss Analysis Extract, summary losses & summary payrolls, large loss data) including investigating discrepancies & anomalies using mechanized methods (e.g., querying tables, crosschecking databases) or researching with other divisions to identify underlying causes & to identify further items that require investigation.

Performs the necessary adjustments & analysis to achieve the desired overall rate change at the statewide &/or industry group level. Using available State Insurance Fund data, creates loss development triangles by industry group or other bases.

Develops &/or verifies the accuracy of adjustments (e.g., large loss provisions & loss development factors) used in the calculation of various rates, assessments, EMs & financial estimated unpaid losses. Reviews results of the calculations to identify significant changes &/or differences & initiate preliminary research underlying causes of identified outliers, including sharing results with internal &/or external stakeholders & seeking insight into those outliers.

Prepares & verifies reasonableness of data to be used by internal & external actuarial staff in the estimation of unpaid losses for financial reporting, rates for various Funds (e.g., CWPF, Marine Fund), & analysis of the potential effective on rates/future liabilities due to proposed changes in the Ohio Revised Code or the Ohio Administrative Code. Using data collected, prepares preliminary estimates of ultimate costs & unpaid liabilities & communicates results to internal & external actuarial staff.

Produces summary material (e.g., narrative description, rate charts & tables, loss development triangles & comparisons of projected payroll, premiums, or losses) for a variety of internal & external customers (e.g., other BWC Divisions, Board of Directors, employer groups, & representatives) using Microsoft Excel, Access, PowerPoint, & Word.

MAJOR WORKER CHARACTERISTICS

General knowledge of basic mathematical, statistical, & actuarial terminology & concepts; BWC, state, &/or federal statutes, rules, regulations, policies, & procedures governing actuarial activities *.

Skill in use of personal computer & applicable business software including Microsoft Word, intermediate level of Excel; basic level of database querying tools; BWC specific programs, applications, & database structures*.

Ability to define problems, collect data, establish facts, & draw valid conclusions; prepare meaningful, concise, & accurate technical reports; communicate technical ideas in speaking so the intended audience will understand; establish & maintain effective working relationships.

(*) Developed after employment.

MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT

Completion of an undergraduate core program in a quantitative field of study (actuarial science, mathematics, statistics, finance, economics, physics, engineering, or related field); 1 actuarial exam recognized by the Casualty Actuarial Society (CAS) or the Society of Actuaries (SOA)

-Or 2 years of relevant actuarial work experience in the actuarial profession or in an analytically-focused field within the insurance industry (predictive modeling, predictive analytics, data science, or related field); 1 actuarial exam recognized by the CAS or the SOA

-Or equivalent of Minimum Class Qualifications For Employment noted above.

TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT
Not applicable.

UNUSUAL WORKING CONDITIONS
Not applicable.

JOB TITLE	JOB CODE	B. U.	EFFECTIVE	PAY GRADE
Workers' Compensation Actuarial Assistant 2	66712	14	05/12/2019	34

JOB DUTIES IN ORDER OF IMPORTANCE (These duties are illustrative only. Incumbents may perform some or all of these duties or other job-related duties as assigned.)

Independently or as a lead worker, leads development of manual classification base rates & expected loss rates, employer EMs, PES contribution rates, SI & DWRF assessments, & financial estimated unpaid losses. Reviews the reasonableness of results from mechanized methods including preliminary investigation of discrepancies, anomalies, or significant changes & conducts thorough investigations, if necessary, of underlying causes of identified outliers, including conducting research with other divisions.

Using intermediate actuarial skills, reviews & adjusts preliminary estimates of ultimate costs & unpaid losses for various Funds (e.g., CWPF, Marine Fund).

Using advanced level mathematical & statistical concepts, prepares preliminary analysis including narrative report of the potential effects on rates/future liabilities due to proposed changes in the Ohio Revised Code or the Ohio Administrative Code.

Produces regular or ad hoc summary material (e.g., graphs, charts & tables, loss development triangles, comparisons of projected payroll, premiums or losses, internal documents & narrative reports) for a variety of internal & external customers (e.g., other BWC Divisions, Board of Directors, employer groups & representatives) in order to refine, explain, & disseminate necessary materials.

Collaborates with other actuarial assistants &/or with other divisions to implement authorized refinements in actuarial processes such as changes to NCCI classifications (e.g., treatment of new classifications, treatment of classes with historically low levels of credibility) or changes to methodology/calculations using advanced level Excel skills.

Organizes & documents internal policies, processes, & procedures related to the various actuarial division activities for audit purposes (e.g. rate & assessment development & ultimate loss & unpaid claim estimations). Explains procedures to internal & external audiences as necessary.

MAJOR WORKER CHARACTERISTICS

Knowledge of advanced mathematics, statistics & intermediate level actuarial terminology & concepts; BWC, state, &/or federal statutes, rules, regulations, policies, & procedures governing actuarial activities *.

Skill in use of personal computer & applicable business software (including advanced skill level of Excel & basic skill level with database software & applications; BWC specific actuarial programs & applications*.

Ability to define problems, collect data, establish facts, draw valid conclusions, & synthesize solutions; prepare meaningful, concise, & accurate technical reports; communicate technical ideas in speaking so that the intended audience will understand; employee development & training*; establish & maintain effective working relationships.

(*) Developed after employment.

MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT

Completion of an undergraduate core program in a quantitative field of study (actuarial science, mathematics, statistics, finance, economics, physics, engineering, or related field); 3 years of relevant actuarial work experience in the actuarial profession or in an analytically-focused field within the insurance industry (predictive modeling, predictive analytics, data science, or related field); completion of more than one actuarial exam recognized by the Casualty Actuarial Society (CAS) covering topics of Credibility, Statistics, Probability Models, Ratemaking, & Reserving or estimating unpaid liabilities.

-Or 5 years of relevant actuarial work experience in the actuarial profession or in an analytically-focused field within the insurance industry (predictive modeling, predictive analytics, data science, or related field); completion of more than one actuarial exam recognized by the Casualty Actuarial Society (CAS) covering topics of Credibility, Statistics, Probability Models, Ratemaking, & Reserving or estimating unpaid liabilities.

-Or 3 years as Workers' Compensation Actuarial Assistant 1, 66711; completion of more than one actuarial exam recognized by the Casualty Actuarial Society (CAS) covering topics of Credibility, Statistics, Probability Models, Ratemaking, & Reserving or estimating unpaid liabilities.

-Or equivalent of Minimum Class Qualifications For Employment noted above.

TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT
Not applicable.

UNUSUAL WORKING CONDITIONS
Not applicable.