



**GENERAL SERVICES ADMINISTRATION
FEDERAL SUPPLY SERVICE
AUTHORIZED FEDERAL SUPPLY SCHEDULE PRICE LIST**

MILLIMAN	
Contractor's name:	Milliman, Inc.
Contractor's address:	15800 Bluemound Road, Suite 400 Brookfield, WI 53005
Contractor's Phone Number:	262-796-3325
Contractor's Fax Number:	262-923-3686
Contractor's Web Site:	www.milliman.com/mortgage
Contact for Contract Administration:	Kenneth A Bjurstrom
Business Size:	Large

For more information on ordering from Federal Supply Schedules click on the FSS Schedules button at <http://www.fss.gsa.gov>.

Schedule Title: MULTIPLE AWARD SCHEDULE
Contract Number: GS-23F-030CA
Current Period Covered by 12/18/2019 – 12/17/2024
Contract:

On-line access to contract ordering information, terms and conditions, up-to-date pricing, and the option to create an electronic delivery order are available through GSA Advantage!, a menu-driven database system. The Internet address for GSA Advantage! is <http://www.GSAAdvantage.gov>.

Pricelist Current as of Modification #PA-0028 Effective 07/09/2020

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Milliman.com

Customer Information Page

1a. Table of Awarded Special Item Numbers (SINs)

SIN	DESCRIPTION
541611	Management and Financial Consulting, Acquisition and Grants Management Support, and Business Program and Project Management Services
561450	Business Information Services
541990RISK	Risk Assessment and Mitigation Services
OLM	Order Level Materials (OLMs)

1b. Lowest priced model number and price for each SIN: Not Applicable

1c. GSA Rates:

SIN	Labor Category	GSA Rate 12/18/19 - 12/17/20	GSA Rate 12/18/20 – 12/17/21	GSA Rate 12/18/21 - 12/17/22	GSA Rate 12/18/22 – 12/17/23	GSA Rate 12/18/23 - 12/17/24
541611 541990RISK	Principal Financial Consultant	\$492.55	\$506.84	\$521.53	\$536.66	\$552.22
541611 541990RISK	Executive Financial Consultant	\$295.37	\$303.94	\$312.75	\$321.82	\$331.16
541611 541990RISK	Project Manager	\$295.37	\$303.94	\$312.75	\$321.82	\$331.16
541611 541990RISK	Financial Consultant I	\$295.37	\$303.94	\$312.75	\$321.82	\$331.16
541611 541990RISK	Financial Consultant II	\$267.69	\$275.45	\$283.44	\$291.66	\$300.11
541611 541990RISK	Financial Consultant III	\$193.84	\$199.46	\$205.25	\$211.20	\$217.32

SIN	Labor Category	GSA Rate 12/18/19– 12/17/20	GSA Rate 12/18/20 – 12/17/21	GSA Rate 12/18/21 – 12/17/22	GSA Rate 12/18/22 – 12/17/23	GSA Rate 12/18/23– 12/17/24
541611 541990RISK	Financial Consulting Actuary	\$216.92	\$223.22	\$229.69	\$236.35	\$243.20
541611 541990RISK	Financial Associate Actuary	\$207.68	\$213.70	\$219.90	\$226.28	\$232.84
541611 541990RISK	Actuarial Student	\$189.23	\$194.71	\$200.36	\$206.17	\$212.15
541611 541990RISK	Senior Programmer	\$272.30	\$280.20	\$288.32	\$296.69	\$305.29
541611 541990RISK	Programmer	\$189.23	\$194.71	\$200.36	\$206.17	\$212.15
541611 541990RISK	Technician	\$175.38	\$180.46	\$185.70	\$191.08	\$196.62
541611 541990RISK	Admin	\$147.70	\$151.98	\$156.39	\$160.92	\$165.59

SIN	Product Name	Product Description	GSA Price
561450	M-PIRe	Mortgage Platform for Investments and Reinsurance ("M-PIRe") Integrated platform, hosted on Microsoft's Azure cloud, for mortgage credit risk transfer securities and reinsurance exposures that allows users to easily evaluate and aggregate risk. The platform presents this information in a quick and easy format, and the platform facilitates the understanding of the risk and profitability of credit risk transfer investment opportunities. Evaluation tools, reports and simulations included: current mortgage market trends, historical and forecasting housing market data, forecasts loan-level mortgage performance, cash flow waterfall library, reinsurance structure library, economic analytics scenarios, stochastic simulation, and portfolio aggregation and performance. Licensed on a subscription SaaS software that includes security protocols, periodic updates, implementation services, training and support. Price is an annual license fee.	\$143,576.83

2. Maximum Order: \$1,000,000.00
OLM: \$250,000

* Ordering activities may request a price reduction at any time before placing an order, establishing a BPA, or in conjunction with the annual BPA review. However, the ordering activity shall seek a price reduction when the order or BPA exceeds the simplified acquisition threshold. Schedule contractors are not required to pass on to all schedule users a price reduction extended only to an individual ordering activity for a specific order or BPA.

3.	Minimum Order:	\$100.00
4.	Geographic Coverage (delivery area):	Domestic Delivery Only
	48 contiguous states, Alaska, Hawaii, Washington D.C., Puerto Rico, U.S. Territories, and to a port or consolidation point within the aforementioned locations for orders that are received from overseas activities.	
5.	Point of Production:	15800 W Bluemound Road, Suite 400 Brookfield, WI 53005
6.	Discount from list prices or statement of net price:	Prices shown are GSA Net, discount deducted.
7.	Quantity Discounts:	Not Applicable
8.	Prompt payment terms:	Net 30 days. Information for Ordering Offices: Prompt payment terms cannot be negotiated out of the contractual agreement in exchange for other concessions
9.(a)	Notification that Government purchase cards are accepted at or below the micro-purchase threshold:	Yes
9.(b)	Notification whether Government purchase cards are accepted or not accepted above the micro-purchase threshold:	Yes
10.	Foreign items:	Not Applicable
11.(a)	Time of delivery:	Negotiated at the task order level
11.(b)	Expedited delivery:	Contact contractor
11.(c)	Overnight and 2-day delivery:	Contact contractor
11.(d)	Urgent requirements:	Agencies can contact the Contractor's representative to affect a faster delivery. Customers are encouraged to contact the contractor for the purpose of requesting accelerated delivery.
12.	F.O.B. point(s):	Destination
13.(a)	Ordering address(es):	Milliman, Inc. 15800 W Bluemound Road, Suite 400 Brookfield, WI 53005
13.(b)	Ordering procedures:	For supplies and services, the ordering procedures, information on blanket purchase agreements (BPA's) are found at Federal Acquisition Regulation (FAR) 8.405-3

14.	Payment Address:	15800 W Bluemound Rd Suite 400, Brookfield, WI 53005
15.	Warranty provision:	SCW
16.	Export packing charges:	Not applicable
17.	Terms and conditions of Government purchase card acceptance (any thresholds above the micro-purchase level):	Contact Contractor
18.	Terms and conditions of rental maintenance, and repair:	Not applicable
19.	Terms and conditions of installation:	Not applicable
20.	Terms and conditions of repair parts:	Not applicable
20.(a)	Terms and conditions for any other services:	Not applicable
21.	List of service and distribution points:	Not applicable
22.	List of participating dealers:	Not applicable
23.	Preventative maintenance:	Not applicable
24.(a)	Special attributes such as environmental attributes:	Not applicable
24.(b)	Section 508 Compliance for EIT:	Not applicable
25.	Data Universal Number System (DUNS) number:	040784274
26.	Contractor has an active registration in the SAM database	

27. Service Contract Labor Standards (SCLS)

The Service Contract Labor Standards (SCLS) is applicable to this contract as it applies to the entire Professional Services Schedule and all services provided. While no specific labor categories have been identified as being subject to SCLS due to exemptions for professional employees (FAR 22.1101, 22.1102 and 29 CFR 541.300), this contract still maintains the provisions and protections for SCLS eligible labor categories. If and/or when the contractor adds SCLS labor categories/employees to the contract through the modification process, the contractor must inform the Contracting Officer and establish a SCLS matrix identifying the GSA labor category titles, the occupational code, SCLS labor category titles and the applicable wage determination number. Failure to do so may result in cancellation of the contract."

SIN 541611: Management and Financial Consulting, Acquisition and Grants Management Support, and Business Program and Project Management Services

SIN 541990RISK: RISK ASSESSMENT AND MITIGATION SERVICES

SIN 561450: BUSINESS INFORMATION SERVICES

Introduction to Milliman

Milliman, Inc. is among the world's largest independent actuarial and consulting firms. Founded in 1947 and incorporated in 1957, Milliman has offices in principal cities worldwide. The firm serves the full spectrum of commercial and governmental organizations.

Milliman's Credit Risk Practice has offices in Milwaukee, WI and Washington, DC that specialize in building customized and cost-effective solutions to measure and manage the unique risks associated with originating credit risk such as mortgage, small business and student loans, providing credit enhancement and risk share analytics, and targeting servicing efficiencies. Milliman provides risk management support through model development and/or validation for a variety of events related to loan credit risk exposure and through operational risk assessments in the loan credit origination process.

Our team of knowledgeable professionals—with a broad spectrum of backgrounds in banking, actuarial science, economics, insurance, and technology—is specifically dedicated to analyzing credit risk, and our knowledge of the industry is unparalleled. We adapt our models and solutions not only to reflect current conditions but also to forecast the future. With our suite of services, our clients are better positioned to address today's challenges and to capitalize on opportunities.

We are different from our competitors in that we are dedicated to ensuring our clients both understand and are able to interpret model output. Where appropriate, we present the results of our work product to all interested parties including government agencies, boards of directors, risk committees, regulators, rating agencies, and investors. The core competencies of our practice complement the critical areas of subject matter expertise required to develop sophisticated risk and performance evaluation dashboards. We understand that the Federal government agencies face challenges which can be quite different than those faced by other organizations. They must manage and deliver a broad-range of services in a fast-paced and highly-visible environment.

Milliman's reputation for quality is unchallenged. Milliman has a strong ethic of peer review that is employed in all projects. This process requires a secondary review of the work performed, reports prepared, and overall project management. In addition, Milliman periodically audits each of its offices to ensure the continued adherence to our quality control standards and professional guidelines. Milliman is an independent party and is well respected in the financial services community as producing quality work without biases. Our consultants bring knowledge, experience and an unbiased perspective to each assignment.

Our services provide true third-party independence and impartiality that facilitates a critical and unconventional assessment of issues and opportunities. We provide industry leading standards for documentation and transparency of work product while maintaining secure data center and GLB compliance. Combining technical prowess with broad-based business expertise, we develop solutions that are practical and actionable—and customized for your agency's needs. The professionals at Milliman are poised to help governmental agencies deliver successful results in analyzing risk, policy development and impact analysis.

Strengths in the Industry

Credit Risk Analysis

As an independent consulting firm specializing in credit risk analysis and risk management techniques, Milliman assists many clients in developing analytical models to assess the credit risk elements of their operations. Milliman is well positioned to develop such models, through its diverse and specialized expertise in a number of areas including:

- Credit risk management;
- Financial guaranty;
- Mortgage banking and mortgage insurance;
- Small business loans;
- Student loans;
- Structured finance;
- Monte Carlo simulation techniques; and
- Systems programming.

Milliman's credit risk assessment tools assist in the transformation of data and information into shared knowledge. This is accomplished by utilizing statistical and actuarial principles to take complex data and simplifying it to informative and actionable results. Milliman's analyses have been utilized by financial regulators, corporate boards and other oversight groups.

Milliman has unparalleled expertise in credit risk analysis of mortgage insurance, student and small business loans. We have expertise in the evaluation of loan underwriting guidelines; borrower, property, product and market risk. Milliman's analysis of credit and risk-based structures includes evaluating pricing rules and developing scorecards for execution and sale. Milliman is also well versed in loan servicing, loss mitigation strategies, loan repurchase and modification analyses.

Predictive Modeling

Milliman consultants combine risk and financial expertise in such areas as pricing, underwriting, claims, marketing and sales with experience and knowledge of the predictive modeling process. Our Milwaukee Practice uses predictive analytics in a wide-variety of circumstances. We have a core team of programmers who use predictive analytics to help clients with pricing, loss performance and fraud or defect identification in lending applications. Further, we understand the needs of the Federal Government to evaluate risks associated with financial services products such as direct loans and insurance.

Our modeling services and products include: Model Validation, Repurchase and Loan Loss Reserve Model, Credit Default Score, Quality Control Score, Fair lending/ HMDA,

Model Validation

Mathematical models are frequently used by financial institutions to analyze potential business opportunities and risks. Once confined to a small corner of analysis, models are now increasingly used in: estimating economic capital; quantifying exposures to assets/liabilities; setting risk tolerances based on VAR limits, concentration limits, ROI/ROE, or developing risk-based pricing structures for premium rates, loan pricing, or loan scoring. An effective model validation would review the original purpose of the model and current uses to highlight any potential risks or limitations using the model. Our team of model validation experts can review the range of model responses as well as the number and magnitude of stressful events in the data. Our review is to identify potential limitations of the model and to help managers develop an understanding of these limitations on the model's estimates.

Unstructured Data Analysis

Milliman has expertise in data mining and making use out of unstructured data. Our Milwaukee Practice has developed an online application that incorporates powerful data-mining algorithms along with a robust data warehouse environment to provide clients with the tools necessary to better manage their costs. Milliman Teams each have extensive internal resources which facilitate efficient implementation of large-scale, diverse data management assignments.

Our approach focuses on transforming information into insights by: (a) applying meta data and rules (e.g., data cleaning logic, smoothing, missing value imputation), (b) building predictive models that lead to improved fact-based decisions for all facets of the real estate industry and beyond and (c) delivering results in flexible and practical outputs, often using data visualization tools.

Milliman provides expertise in data analytics and management, predictive modeling and data mining that can fulfill the needs of our clients with respect to actuarial analyses for financial solvency, pricing assessments and profitability studies, as well as other model validations and evaluation tools.

Other Consulting Services

Stochastic Modeling

Milliman takes advantage of computing power and enhanced modeling techniques to deliver improved insight into your fundamental business risks, including longevity, mortality, and lapse. Using sophisticated stochastic methods, we can not only identify the expected returns on a portfolio of complex risks, but also better understand and manage the volatility of these returns.

Coupled with rapidly evolving demographics in many of our markets, new stochastic techniques allow our clients to develop new products and fine-tune the financial management of associated risk.

Enterprise Risk Management

Milliman helps clients create a corporate risk framework to align various functions and bring together strategic business units from across the organization. We help embed effective risk management processes and practices throughout an organization through communication of its importance as well as promotion of consistent adoption and use.

Market and credit risks are only two components of enterprise risk management. Companies also need to consider strategic and operational risks, which can be far more elusive - and equally adverse. These risks often involve interactions among people, systems, and the external environment making them much harder to quantify.

Milliman has developed a proprietary methodology to help companies identify and manage potential threats and opportunities and understand their risk profiles relative to corporate objectives. This methodology gives clients a more sophisticated understanding of their full risk profiles, improving their abilities to manage their greatest challenges.

Financial Technology Software

Milliman has played an active role in the evolution of the insurance industry. We have the experience required to deliver insight into emerging trends in the context of your specific business dynamics. Supported by expert analysis, we offer focused advice on corporate strategy, risk management, product offerings, distribution, and other key areas.

Milliman's sophisticated software tools reflect the most advanced financial technology. In an era of changing standards and law, our consultants provide the industry's latest products and the know-how to use them to address the risks you face. Used by leading insurance and financial firms worldwide, Milliman software supports essential risk-management and reporting functions, from hedging through projections, pricing, reserving, and analysis of capital needs.

Milliman consultants bring knowledge, experience, and an unbiased perspective. Combining technical prowess with broad-based business expertise, we develop solutions that are practical and actionable—and customized for your organization's needs.

Financial Reporting and Analysis

As financial reporting standards evolve, Milliman clients benefit from our broad knowledge of current best practices and insight on emerging issues. We support you with practical advice and advanced tools to ensure the most accurate and efficient reporting process. We can review your existing methods and suggest improvements or create tailored financial reporting systems. We can perform all calculations for you or train your actuaries to use the customized tools we develop. For some clients, we serve as appointed actuaries.

LABOR DESCRIPTION CATEGORIES

Labor Category	Position Description and Functional Responsibilities	Minimum Years of Experience	Minimum Years of Education or Equivalent Experience	Applicable Training
Principal Financial Consultant	Principal of the firm with more than fifteen years of experience. Functional responsibilities include general oversight, staffing the project, providing guidance to project managers, and project review. Consulting services include providing expert advice, strategic direction for the project, subject matter expertise, and delivering results to clients.	>15 years	MBA, PhD or Fellow in the Casualty Actuarial Society, Society of Actuaries, or other professional actuarial organization	Financial, Project Management, Executive management
Executive Financial Consultant	Senior level consultant with more than fifteen years of financial services experience. Staff member offers extensive specialized experience in the area of the practice. Functional responsibilities include project management and oversight, high level analyses, and project review. Consulting services include providing expert advice, assistance and guidance on technical and operational issues, subject matter expert in lending and risk management practice, and delivering results to clients.	>15 years	MBA, PhD or Fellow in the Casualty Actuarial Society, Society of Actuaries, or other professional actuarial organization	Financial, Project Management, Executive management
Project Manager	Consultant of the firm with at least five years of experience who has demonstrated an ability within the firm to manage client engagements. Functional responsibilities include client engagement responsibility including staffing the project, project management and oversight, financial analysis, and engagement review. Consulting services include providing expert advice, assistance and guidance on technical and operational issues, statistical analyses, and delivering results to clients.	>5 years	MBA, PhD or Fellow in the Casualty Actuarial Society, Society of Actuaries, or other professional actuarial organization	Financial, Engagement Management, Project Management, Sales and Marketing of Products and Services, Signature Authority

Labor Category	Position Description and Functional Responsibilities	Minimum Years of Experience	Minimum Years of Education or Equivalent Experience	Applicable Training
Financial Consultant I	Consultant of the firm with at least five years of experience who has demonstrated an ability within the firm to manage client projects. Functional responsibilities include project management responsibility including staffing, financial analysis, and project review. Consulting services include providing expert advice, assistance and guidance on technical and operational issues, statistical analyses, and delivering results to clients.	>5 years	MBA, PhD or Fellow in the Casualty Actuarial Society, Society of Actuaries, or other professional actuarial organization	Project Management
Financial Consultant II	Consultant of the firm with more than five years of experience. Consultant offers specialized experience in financial and credit analysis. Functional responsibilities include financial analyses and management of junior staff. Consulting services include providing advice, assistance and guidance on technical and operational issues, and statistical analyses.	>5 years	BS/BA	Financial or Actuarial
Financial Consultant III	Staff of the firm with one or more years of experience. Functional responsibilities include financial or statistical analyses, data collection, and research under the direction of senior staff.	1 or more years	BS/BA	Financial or Actuarial
Financial Consulting Actuary	Consultant with more than five years of applicable experience and who have reached Fellowship Level as defined by the Casualty Actuarial Society or the Society of Actuaries. Staff member offers extensive specialized experience in financial and credit analysis. Functional responsibilities include project oversight, financial or statistical analyses, and project review. Consulting services include providing expert advice, assistance and guidance on technical and operational issues, and statistical analyses.	> 5 years	Fellow or Associate in the Casualty Actuarial Society, Society of Actuaries, or other professional actuarial organization	Actuarial

Labor Category	Position Description and Functional Responsibilities	Minimum Years of Experience	Minimum Years of Education or Equivalent Experience	Applicable Training
Financial Associate Actuary	Staff with more than five years of applicable experience who have reached Associate Level as defined by the Casualty Actuarial Society or the Society of Actuaries. Functional responsibilities include actuarial and statistical analyses, model development, and review of work performed by others.	>5 years	Associate in the Casualty Actuarial Society, Society of Actuaries, or other professional actuarial organization	Actuarial
Actuarial Student	Staff with one or more years of applicable experience that is currently taking actuarial exams but has not reach Associated Level as defined by the Casualty Actuarial Society or Society of Actuaries. Functional responsibilities include analyses, research, and model development under the direction of senior staff.	> 1 year	BS/BA	Actuarial
Senior Programmer	Information systems specialist with greater than 5 years of applicable experience. Functional responsibilities include programming, data management, and providing guidance to junior programmers.	>5 years	BS/BA degree in computer science, applied math, or related field, or equivalent work experience	Info systems
Programmer	Information systems specialist. Functional responsibilities include programming, data management, and providing technical assistance team members.	>1 year	BS/BA degree in computer science, applied math, or related field, or equivalent work experience	Info systems
Technician	Staff with one or more years of applicable experience who are not taking actuarial exams. Functional responsibilities include analyses, research, and model development under the direction of senior staff.	1 year	BS/BA	None
Admin	Administrative staff with general business skills.	1 year	High School	None