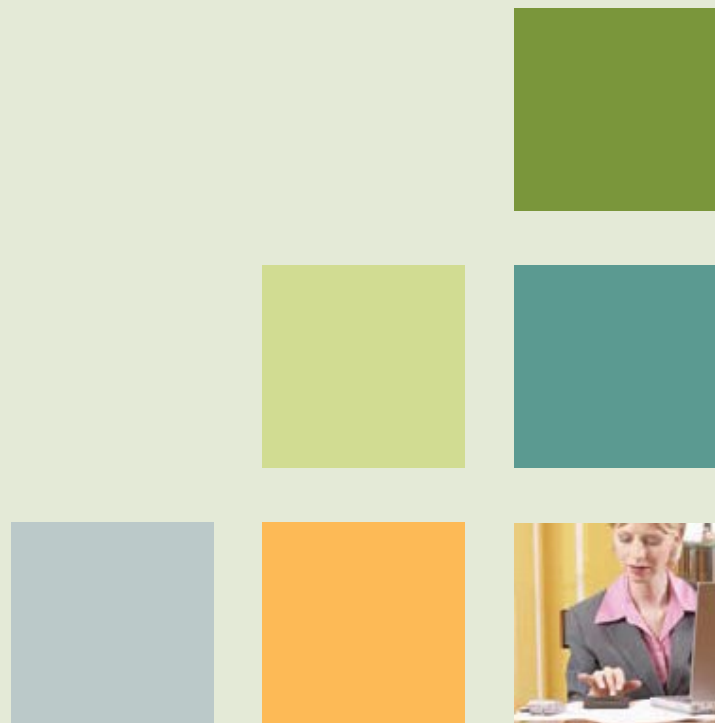CASE STUDY AND INTEGRATED APPLICATION EXERCISES

Designing A Pay Structure

By Lisa A. Burke, Ph.D., SPHR

Student Workbook

TOTAL REWARDS

Designing A Pay Structure

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This case study has been adapted from the original version of the case study found at www.shrm.org. The submission instruction is the portion that has been adapted.

Student Workbook - Case Study

Introduction to Compensation and Designing a Pay Structure

Compensation is a critical area of human resource (HR) management, and one that can greatly affect employee behavior. To be effective, compensation must be perceived by employees as fair, competitive in the market, accurately based, motivating and easy to understand.

HR professionals might create the pay structure for their organization, or they might work with an external compensation consultant. There are several steps to designing a pay structure: job analysis; job evaluation; pay survey analysis; pay policy development; and pay structure formation. Each step is briefly explained below. For a more extensive discussion, please review Milkovich & Newman, 2008.

Step 1: Job Analysis

Job analysis is the process of studying jobs in an organization. The outcome of this process is a job description that includes the job title, a summary of the job tasks, a list of essential tasks and responsibilities, and a description of the work context. Also included are the knowledge, skills and abilities needed to perform the job.

Step 2: Job Evaluation

Job evaluation is the process of judging the relative worth of jobs in an organization. The outcome of job evaluation is the development of an internal structure or hierarchical ranking of jobs. Job-based evaluation is used more often than person-based evaluation, and so the former will be the focus in this case. There are three methods of job-based evaluation: the point method (which is the most commonly used); ranking; and classification. Job evaluation helps to ensure that pay is internally aligned and perceived to be fair by employees.

Step 3: Pay Policy Identification

Pay policy identification is the process of determining whether the organization wants to lead, lag or meet the market in compensation. The pay policy or strategy will likely influence employee attraction and retention. Pay policies can vary across job families (i.e., groups of similar jobs) and job levels if the top management feels that different strategies can be effective in different areas of the organization.

Step 4: Pay Survey Analysis

Pay survey analysis is the process of analyzing compensation data gathered from other employers in a survey of the relevant labor market. Gathering external pay data (e.g., base pay, bonuses, stock options and benefits) is essential to keep the organization's compensation externally competitive within its industry. Employee attraction and retention can be improved by maintaining externally aligned pay structures.

Step 5: Pay Structure Creation

Pay structure creation is the final step, in which the internal structure (Step 2) is merged with the external market pay rates (Step 4) in a simple regression to develop a market pay line. Depending on whether the organization wants to lead, lag or meet the market, the market pay line can be adjusted up or down. To complete the pay structure, pay grades and pay ranges are developed.

In this case, you will design a pay structure using a case scenario and integrated application.

CASE

You are the newly hired human resource (HR) director for an engineering consulting firm that is expanding its operations to Chattanooga, Tenn. The organization is headquartered in Indianapolis, Ind. Based on the organization's mission statement, you know the firm strives to create customized and technically proficient electrical engineering plans for regional clients. The following personnel are required to start the Chattanooga operation (the numbers in parentheses indicate the number of positions):

- Director of regional operations
- Assistant to the director of operations
- Operations analyst (2)
- Operations trainee
- HR director (this is you)
- Administrative assistant in HR
- Benefits manager
- Benefits counselor
- Payroll assistant

- Lead engineer (3)
- Engineer (6)
- Engineering associate for special projects
- Manager of information systems
- Senior information systems analyst
- Information systems analyst
- Security guard
- Front desk receptionist

You can see from the list that there are several job families, including operations, HR, engineering, information systems and office support. You can now begin the process of designing a pay structure for the organization.

Job analysis is central to many HR functions, including compensation, recruiting and training. You need to understand what tasks, duties and responsibilities various jobs will entail before you can assign fair and competitive pay rates.

Begin the process by gathering the needed job description information. To do so, combine information from O*NET (http://online.onetcenter.org), an online job analysis resource developed by the Department of Labor, and existing internal corporate HR documents (such as previous job descriptions). Each job description includes the job title; a job summary; essential job tasks; the job's work context; and job-relevant knowledge and skills that an incumbent must possess.

Benchmark jobs (jobs that are common and consistent across a wide range of employers) will be the focus of this exercise, because they will be used to design the pay structure. Appendix A contains the job descriptions of the benchmark jobs. You have one description left to complete; your first task is to create a job description for the benefits manager position.

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» **Task A: Create a complete job description for the Benefits Manager position using O*NET.**

To design a pay structure, there must be a formal way to value the work inside the organization so that pay is awarded fairly. The job evaluation process will help develop this internal work hierarchy.

Different evaluation methods, pay strategies, and pay structures will be used for different job families in the organization. You decide to use a job-based evaluation approach for the operations, office support, and HR job families. A skills-based approach will be used for information systems and engineering job families, although it is not included as a task in this case. The security guard and director of regional operations jobs will be assigned pay rates primarily using market pricing and slotted later into the pay structure.

Company representatives from various job levels and families will periodically provide you with input during the job evaluation process. This will help you gain acceptance of the established job structure. You ask this job evaluation committee whether they agree with the specific benchmark jobs identified in the job analysis step (see below).

Office Support	Operations	HR
		HR Director
Assistant to the director of operations	Director of regional operations	*Benefits manager
*Admin assistant (HR)	*Operations analyst	Benefits counselor
*Front desk receptionist	Operations trainee	*Payroll assistant

 * Benchmark job.

The committee studies the various job titles and asks why the administrative assistant in HR is not included in the HR job family. You explain that administrative assistants perform similar tasks across departments and do not handle functional-specific tasks (e.g., HR). You suggest grouping the front-line administrative jobs in a separate job family called office support. The other job families that will be evaluated are operations and HR.

You decide to use the point method for job evaluation for operations, HR, and office support job families because it is the most commonly used job evaluation method. Next, the compensable factors, degrees and weights of each factor must be determined. With input from the job evaluation committee and your knowledge of the organization's mission and work content, three common compensable factors are selected: skill, responsibility and effort, each having two specific sub-factors. For example, the compensable factor of skill is comprised of education level and the degree of technical skills.

You recommend weighting the skill compensable factor at 50 percent because the organization is very knowledge-intensive and depends heavily on its human capital. Responsibility is weighted 30 percent because each job has the potential to affect other jobs; and effort is assigned 20 percent because problem solving and task complexity are integral across jobs in the organization.

Four degrees should be sufficient for rating the various jobs. For example, the four degrees for education level are identified as:

1=High School/GED
2=Associates
3=Bachelors
4=Masters/Graduate

Points are then calculated by multiplying the degrees by the weights.

You present an example of how this point scheme is applied to the front desk receptionist benchmark job (see below). The committee agrees with the approach.

Compensable Factor   **Job evaluation for front desk receptionist**

	Degree (1, 2, 3, 4)	Weight	Points
Skill (50%)			
-Education Level	1	25%	25
-Degree of Technical Skills	1	25%	25
Responsibility (30%)			
-Scope of Control	1	10%	10
-Impact of Job	2	20%	40
Effort (20%)			
-Degree of Problem Solving	1	10%	10
-Task Complexity	1	10%	10
			120 points

The next task is to calculate the job evaluation points for the remaining benchmark jobs using the established compensable factors and specified weights above. In other words, the degrees of each remaining benchmark job must be determined based on a logical rationale, and then the total job evaluation points for each benchmark job can be calculated. To do so, consult the job descriptions in Appendix A.

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» **Task B: Calculate the job evaluation points for the administrative assistant, payroll assistant, operational analyst, and benefits manager jobs. Provide a rationale for assigning specific degrees to the various jobs.**

After determining the job evaluation points for the remaining benchmark positions, you meet with the president, the head of corporate HR in Indianapolis and the director of regional operations in Chattanooga to discuss a pay level strategy for each job family. One decision resulting from these meetings is that your organization will pay 3 percent above the market in base pay for the HR, operations and office support job families. The group realizes that this lead pay policy will help meet the firm's customer-focus business strategy by attracting and retaining high-potential employees without incurring labor costs too far above their competitors.

Top management also decides to match the market in benefits to contain benefit costs (e.g., health care costs). After analyzing web-based data about benefits offered in your industry by smaller organizations (retrieved from BenefitsLink, SHRM, and Employee Benefits Research Institute) you discern that on average, employee benefits costs are approximately 25 percent of total compensation. Once the pay structure is finalized, you will set benefits at a similar ratio of total compensation to achieve a matching benefits policy.

To ensure that the pay structure is externally competitive, a pay survey will be conducted. For the results of a survey to be valid, the market pay data must be from the relevant labor market for each benchmark job. That is, regional pay data should be gathered because most of the office support, HR and operations jobs will be filled by regional candidates (i.e., within a 90-mile radius of Chattanooga).

You develop a streamlined pay survey and administer it to industry competitors. Descriptive organization data (e.g., size, industry, annual revenue) is gathered as well as compensation data for each of the benchmark jobs, including base pay, bonuses, stock options and benefits. [Note: All participating organizations will receive the survey results.]

Surveys are completed and returned by six organizations (referred to as companies A, B, C, D, E, and F) who recruit and hire similar benchmark jobs in the surrounding region. Base pay salary data from the responding organizations are reflected in the following table. You have already checked to ensure that summary job descriptions for the benchmark jobs (in the sample data) are appropriately similar to those in your organization (to ensure you are comparing "apples to apples"). The next step is to analyze the pay data and generate weighted means for each benchmark job to use in future parts of the case.

» **Task C: If there were any outliers (i.e., extreme data points) in these data, what would you recommend doing with them? [From this point forward, assume no extreme data points exist in the dataset.]**

Second, calculate the weighted means (for base pay) for each benchmark job.

Company	# of Job Incumbents		Base Pay
A			
Front Desk Receptionist	1	Average	$21,000
		Minimum	
		Maximum	
B			
Front Desk Receptionist	2	Average	$22,000
		Minimum	$21,000
		Maximum	$23,000
C			
Front Desk Receptionist	1	Average	$18,000
		Minimum	
		Maximum	
D			
Front Desk Receptionist	2	Average	$21,000
		Minimum	$20,000
		Maximum	$22,000
E			
Front Desk Receptionist	2	Average	$18,500
		Minimum	$18,000
		Maximum	$19,000
F			
Front Desk Receptionist	1	Average	$17,500
		Minimum	
		Maximum	

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Company	#of Job Incumbents		Base Pay
A			
Administrative Assistant	4	Average	$25,000
		Minimum	$21,000
		Maximum	$28,000
B			
Administrative Assistant	4	Average	$31,000
		Minimum	$27,000
		Maximum	$34,500
C			
Administrative Assistant	3	Average	$30,000
		Minimum	$29,000
		Maximum	$32,000
D			
Administrative Assistant	5	Average	$33,000
		Minimum	$28,000
		Maximum	$34,000
E			
Administrative Assistant	4	Average	$29,000
		Minimum	$27,000
		Maximum	$30,000
F			
Administrative Assistant	4	Average	$28,000
		Minimum	$27,000
		Maximum	$30,000

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Company	#of Job Incumbents		Base Pay
A			
Operations Analyst	2	Average	$55,000
		Minimum	$50,000
		Maximum	$60,000
B			
Operations Analyst	4	Average	$57,000
		Minimum	$54,000
		Maximum	$59,000
C			
Operations Analyst	3	Average	$56,000
		Minimum	$54,000
		Maximum	$58,000
D			
Operations Analyst	5	Average	$58,500
		Minimum	$52,000
		Maximum	$61,000
E			
Operations Analyst	3	Average	$59,000
		Minimum	$57,000
		Maximum	$61,000
F			
Operations Analyst	3	Average	$54,000
		Minimum	$53,000
		Maximum	$55,000

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Company	# of Job Incumbents		Base Pay
A			
Payroll Assistant	2	Average	$35,000
		Minimum	$34,000
		Maximum	$36,000
B			
Payroll Assistant	3	Average	$34,000
		Minimum	$32,000
		Maximum	$35,000
C			
Payroll Assistant	1	Average	$35,000
		Minimum	
		Maximum	
D			
Payroll Assistant	3	Average	$35,000
		Minimum	$33,000
		Maximum	$37,000
E			
Payroll Assistant	2	Average	$36,000
		Minimum	$35,000
		Maximum	$37,000
F			
Payroll Assistant	2	Average	$29,000
		Minimum	$27,000
		Maximum	$31,000

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Company	#of Job Incumbents		Base Pay
A			
Benefits Manager	1	Average	$62,000
		Minimum	
		Maximum	
B			
Benefits Manager	2	Average	$61,500
		Minimum	$61,000
		Maximum	$62,000
C			
Benefits Manager	1	Average	$60,000
		Minimum	
		Maximum	
D			
Benefits Manager	3	Average	$64,000
		Minimum	$62,000
		Maximum	$65,000
E			
Benefits Manager	2	Average	$63,000
		Minimum	$62,000
		Maximum	$64,000
F			
Benefits Manager	1	Average	$66,000
		Minimum	
		Maximum	

The next task is to conduct a simple regression using Microsoft Excel to create a market pay line. Enter the job evaluation points (as X) and weighted average base pay rates (as Y) for each benchmark job and generate the regression results.

» **Task D: Conduct a simple regression in Excel to create a market pay line by entering the job evaluation points (on the X axis) and the respective weighted average market base pay (on the Y axis) for each benchmark job.**

Identify the slope and y-intercept and write the equation for the market pay line.

The regression output will also show information about how good the regression line fits the data. Specifically, look at the "R squared" in the regression output. Generally, the R squared, referred to as variance explained, should be .95 or higher.

If R squared is significantly lower than this, there may be problems stemming from the job evaluation step. For example, the points assigned to certain benchmark jobs may be off – i.e., not make sense given the level of tasks, duties and responsibilities required for the job and the knowledge, skills and abilities needed by the job incumbent. If this is the case, re-examine the job descriptions and reconsider the points assigned to the benchmark jobs. Alternatively, there may be errors in the weighted average calculations. After conducting the regression again, examine the new R squared.

» **Task E: What is your R squared (variance explained)? Is it sufficient to proceed?**

Using the regression output (the slope and y-intercept), calculate the predicted market pay rate (using Excel) for each benchmark job.

» **Task F: Calculate the predicted base pay for each benchmark job.**

Next, adjust the market pay line based on the organization's lead pay level strategy; this will create the pay policy line. Since the organization wants to lead the market by 3 percent across the operations, office support and HR job families, adjust the market pay line accordingly (by 3 percent). In other words, each predicted pay rate can be multiplied by 1.03 to get a new base pay rate that is 3 percent above market.

» **Task G: Because your company wants to lead in base pay by 3 percent, adjust the predicted pay rates to determine the base pay rate you will offer for each benchmark job.**

Next, create pay grades for the pay structure. Pay grades represent groupings of jobs that are similar for pay purposes (i.e., of similar value to the organization). All the jobs in a pay grade share the same pay range (minimum and maximum pay rates).

Examine the benchmark jobs in this case again and determine which ones are sufficiently similar for compensation purposes. Do this by revisiting the job evaluation results.

»   **Task H: Create pay grades by combining any benchmark jobs that are substantially comparable for pay purposes. Clearly label your pay grades and explain why you combined any benchmark jobs to form a grade.**

The final step to designing the pay structure is to set the pay ranges for each pay grade. Pay ranges create upper and lower pay rates (on the Y axis) for each job in the pay grade. Each pay grade will have a minimum and maximum pay rate. It is important to remember that all jobs in a pay grade will have the same minimum and maximum pay rates.

Percent guidelines are used to determine how far above and below the midpoint the pay range will reach. For example, the maximum might be 10 percent above the midpoint and the minimum might be 10 percent below the   midpoint.

The percent guidelines, based on input from the job evaluation committee, are:
   • **Clerical and office positions:** 10 percent above and below the midpoint.
   • **Entry to mid-level professional and management positions:** 30 percent above and below the midpoint.

»   **Task I: Use your answer to Task H to determine the pay range (i.e., minimum and maximum) for each pay grade.**

»   **Task J: Given the pay structure you have generated, consider the following:**
   » **Does this pay structure make good business sense? Do you think it is consistent with the organization's business strategy?**
   » **What are the implications of this pay structure for other HR systems, such as retention and recruiting?**

Designing A Pay Structure

References

Milkovich, G., and Newman, J. (2008). *Compensation.* McGraw-Hill Irwin.
O*NET. Available at http://online.onetcenter.org.

other ComPensAtion texts

Bergmann, T., and Scarpello, V. (2002). *Compensation decision making.* Southwestern.
Martocchio, J. (2006). *Strategic Compensation.* Pearson/Prentice Hall.

relevAnt websites

WorldAtWork: www.worldatwork.org.
Society for Human Resource Management: www.shrm.org.
Economic Research Institute: www.eridlc.com.

Appendix A – Job Descriptions for Benchmark   Jobs

[Created using O*NET]

Front Desk Receptionist

Job Summary

Answer inquiries and obtain information for general public, customers, visitors and other interested parties. Provide information regarding activities conducted at establishment; location of departments, offices, and employees within organization.

Essential Job Tasks

- Operate telephone to answer, screen and forward calls, providing information, taking messages and scheduling appointments.
- Greet persons entering establishment, determine nature and purpose of visit, and direct or escort them to specific destinations.
- Hear and resolve complaints from customers and public.
- Transmit information or documents to customers, using e-mail, mail or fax machine.
- Analyze data to determine answers to questions from customers or members of the public.
- Provide information about the establishment, such as location of departments or offices, employees within the organization, or services provided.

Job Context

Indoor, environmentally controlled; telephone; contact with others.

Knowledge, Skills and Abilities

- Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services and evaluation of customer satisfaction.
- Knowledge of administrative and clerical procedures and systems such as word processing, managing files and records, taking and organizing messages, and other office procedures and terminology.
- Awareness of others' reactions and understanding why they react as they do.
- Gives full attention to what other people are saying, taking the time to understand the points being made, asking questions as appropriate and not interrupting at inappropriate times.
- Actively looks for ways to help people.
- Manages one's own time and the time of others.
- Talks to others to convey information effectively.
- Knowledge of the English language including the meaning and spelling of words, rules of composition, and grammar.
- Understands written sentences and paragraphs in work-related documents.
- Communicates effectively in writing as appropriate for the needs of the audience.

Administrative Assistant

Job Summary

Provide administrative support by conducting research, preparing reports, handling information requests and performing clerical functions such as preparing correspondence, receiving visitors, arranging conference calls, and scheduling meetings.

Essential Job Tasks

- Manage and maintain executives' schedules.
- Prepare invoices, reports, memos, letters, financial statements and other documents, using word processing, spreadsheet, database, or presentation software.
- Read and analyze incoming memos, submissions and reports to determine their significance and plan their distribution.
- Open, sort and distribute incoming correspondence, including faxes and e-mail.
- File and retrieve corporate documents, records and reports.
- Greet visitors and determine whether they should be given access to specific individuals.
- Prepare responses to correspondence containing routine inquiries.
- Perform general office duties such as ordering supplies, maintaining records, management systems and performing basic bookkeeping work.
- Make travel arrangements for executives.

Job Context

Indoor, environmentally controlled; telephone; contact with others.

Knowledge, Skills and Abilities

- Knowledge of administrative and clerical procedures and systems such as word processing, managing files and records, designing and completing forms, and other office procedures and terminology.
- Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.
- Knowledge of computer hardware and software.
- Knowledge of the structure and content of the English language including the meaning and spelling of words, rules of composition and grammar.
- Gives full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.
- Monitors/assesses performance of self, other individuals or organizations to make improvements or take corrective action.
- Manages one's own time and the time of others.
- Talks to others to convey information effectively.
- Understands written sentences and paragraphs in work-related documents.
- Communicates effectively in writing as appropriate for the needs of the audience.
- Adjusts actions in relation to others' actions.

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Payroll Assistant

Job Summary

Compile and post employee time and payroll data. Compute employees' time worked, production and any commission. Compute and post wages and deductions.

Essential Job Tasks

- Process and issue employee paychecks and statements of earnings and deductions.
- Compute wages and deductions and enter data into computers.
- Compile employee time, production and payroll data from time sheets and other records.
- Review time sheets, work charts, wage computation and other information to detect and reconcile payroll discrepancies.
- Verify attendance, hours worked and pay adjustments, and post information to records.
- Record employee information, such as exemptions, transfers and resignations to maintain and update payroll records.
- Issue and record adjustments to pay related to previous errors or retroactive increases.
- Complete time sheets showing employees' arrival and departure times.

Job Context

Indoor, environmentally controlled; telephone; contact with others.

Knowledge, Skills and Abilities

- Knowledge of administrative and clerical procedures and systems such as word processing, managing files and records, designing and completing forms, and other office procedures and terminology.
- Knowledge of principles and processes for providing customer service.
- Knowledge of math, arithmetic, statistics to analyze data and solve problems and use of Microsoft Excel.
- Uses logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
- Knowledge of the English language including the meaning and spelling of words, rules of composition, and grammar.
- Understands written sentences and paragraphs in work-related documents.
- Gives full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.
- Talks to others to convey information effectively.
- Communicates effectively in writing as appropriate for the needs of the audience.

Designing A Pay Structure

Operations Analyst

Job Summary

Formulate and apply mathematical modeling and other optimizing methods using a computer to develop and interpret information that assists management with decision making or other managerial functions. Frequently concentrates on collecting and analyzing data using decision support software.
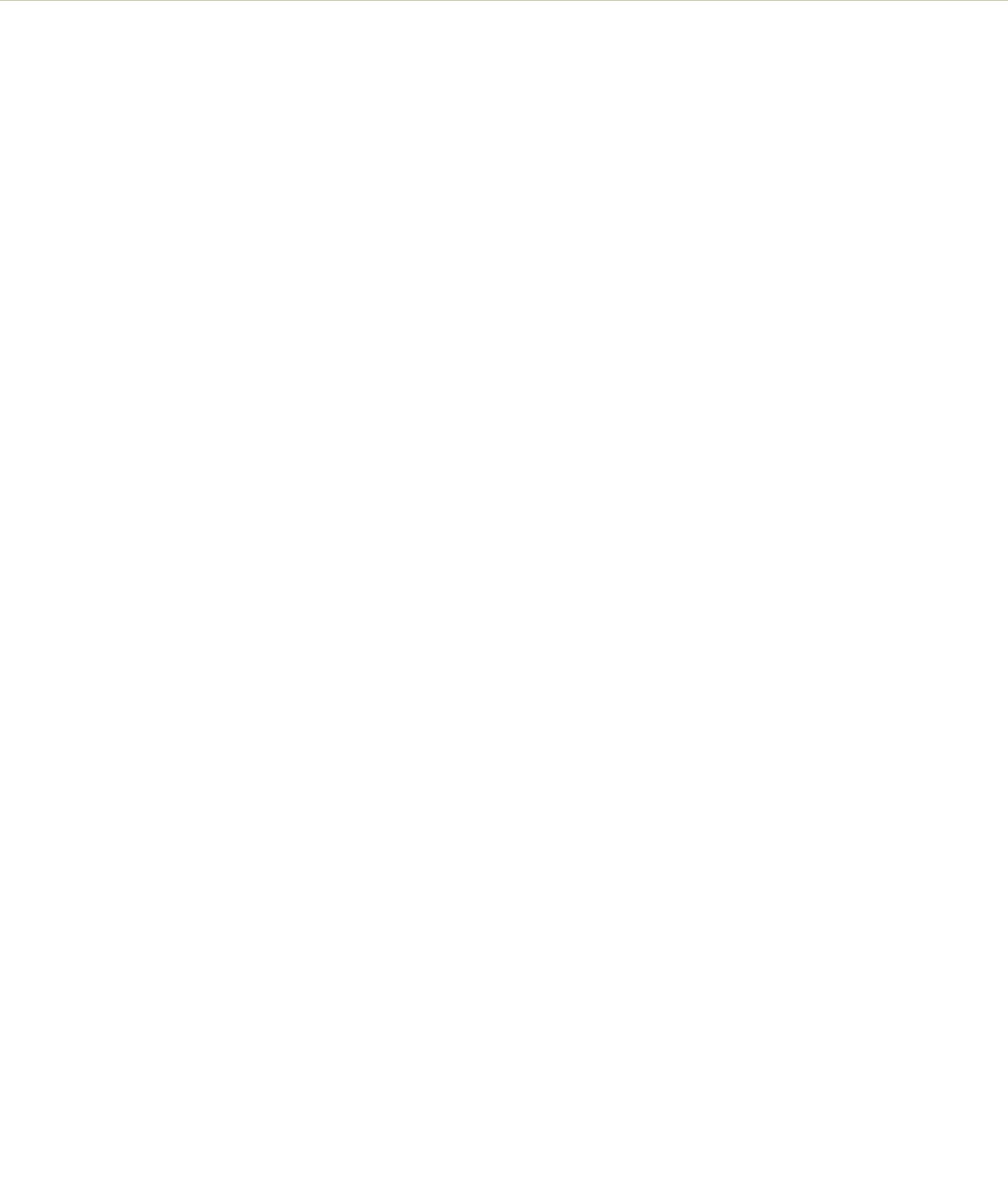
Essential Job Tasks

- Analyze information obtained from management to conceptualize and define operational problems.
- Collaborate with senior managers and decision makers to identify and solve a variety of problems and to clarify management objectives.
- Define data requirements and then gather and validate information, applying judgment.
- Study and analyze information about alternative courses of action to determine which plan will offer the best outcome.
- Prepare management reports defining and evaluating problems and identifying solutions.
- Formulate mathematical or simulation models of problems, relating constants and variables, restrictions, alternatives, conflicting objectives and their parameters.

Job Context

Indoor, environmentally controlled; telephone; contact with others.

Knowledge, Skills and Abilities

- Knowledge and application of arithmetic, algebra, geometry, calculus and statistics.
- Knowledge of the practical application of engineering science and technology. This includes applying principles, techniques, procedures and equipment.
- Knowledge of computer hardware and software including applications and programming.
- Identifies complex problems and reviews related information to develop and evaluate options and implement solutions.
- Uses logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
- Analyzes needs and product requirements to create a design.
- Determines how a system should work and how changes in conditions, operations and the environment will affect outcomes.
- Considers the relative costs and benefits of potential actions to determine course of action.
- Understands the implications of new information for both current and future problem solving and decision making.
- Knowledge of the English language including the meaning and spelling of words, rules of composition, and grammar.
- Understands written sentences and paragraphs in work-related documents.
- Communicates effectively in writing as appropriate for the needs of the audience.