Puerto Rico
OWNERS COMPENSATION

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Puerto Rico Reasonable Owner Compensation Guideline

By Torres CPA Group
CifrasPR

Understanding the Puerto Rico tax system and its interrelation with United States is crucial for individuals and entities doing business in Puerto Rico. Puerto Rico is not a state; it's a territory, with its own Business and Payroll laws and regulations.

The following White Paper is designed to give an insight Tax Issues in Puerto Rico. It provides relevant background information, which will be of assistance to organizations considering establishing business in the Island. Nonetheless, it is highly recommended to seek advice and counsel from qualified professional sources before undertaking any business.

Certain exclusions and exemptions may apply and when specific problems occur in practice, it will often be necessary to refer to the laws and regulations of Puerto Rico, and to obtain appropriate accounting and legal advice.

It is understood that the following overview does not constitute any formal rendering of either legal, accounting, tax or professional services. If legal advice or other assistance is required, an attorney, CPA or tax adviser should be consulted.

Torres CPA Group is an Advice Certified Public Accounting Firm offering Audit, Tax, Consulting and Financial Outsourcing services for over 33 years. If you require any further information or help, please do not hesitate to contact us.

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Overview

Secretary of the Treasury of Puerto Rico ruling for the allocation of salaries to shareholders or partners

The Secretary of the Treasury of Puerto Rico issued the Administrative Determination No. 15-22 letter as to the rules for the allocation of salaries to shareholders or partners, which in turn are employed by a company that operates under the tax exemption decree, Act 20-2012, Law 273-2012, or 399-2004.

In the ruling, he has stated that the provision of services for export has been characterized, among other things, the fragmented and complex type of compensation, which may consist of basic salary, commission and hundreds profit sharing, among others. Moreover, some of the officers who received taxable compensation for their services are themselves shareholders or partners of such businesses, which also receive distributions of dividends or distributions of income exempt from taxation. It is therefore important to establish the parameters used by the Secretary, for the imputation of wages to shareholders or partners, which in turn are employees of companies that provide services under tax exemption decrees issued under the Laws Export Services (hereinafter "Companies Export Services").

For purposes of the ruling the following terms shall have the meanings indicated:

Official-Owner - means anyone shareholder or partner to hold the end of the taxable year an ownership interest in an export company of Eligible Services and meets the following requirements:

- Devotes no less than eighty (80) percent of their time to the eligible activity under the laws of Export Services;
- Is a resident of Puerto Rico, during the applicable taxable year?

He has determined that Official All-Owner must receive a reasonable annual salary that clearly reflects its income from services rendered to the Company in Export of Services Eligible which maintains an ownership interest at the end of the taxable year.

The Code capped at $ 350,000 annual salaries that will be established. Therefore, in cases where an Officer-Owner that accrues a lower annual salary of $ 350,000 for services rendered to the Company Export Eligible Services in which maintains an ownership interest at the end of the taxable year, the Secretary, could re-evaluate discretionally the reasonableness of such income compared to the services provided by the Officer-owner, and may be charge additional wages up to $ 350,000 per year to clearly reflect the income of the Official-Owner.

The evaluation will be based on the facts and circumstances of each case considering, but not limited to the economic reality of the Company Export Eligible Services, the functions performed by the Officer-owner within the organizational hierarchy of that company and the wage trend market in comparable positions.

Reasonable Compensation Analysis

A reasonable competitive compensation analysis should consider a series of items, such as, current services, clients, annual revenue, size of staff, earnings, privately held company status, among others. This includes, but is not limited to, cash compensation components.

The best practice evaluation to assess owners' compensation should be based on what the Case law suggests. These are the three separate analysis that may be considered, the Direct Test (Market Databases), Market Ratio Test (Comparable Public Companies) and the Shareholder Return Test (Management Value Creation).

Direct Test (Market Databases)

Compensation databases and surveys report the ranges of market compensation paid for numerous job titles based on industry, organization size, and geographic location. Accordingly, these surveys provide analysts with empirical data regarding the market wages of executives. To properly utilize this information, however, an analyst must have a detailed understanding of the sources of the data, its timeliness, and its applicability to the subject company.

After gaining a thorough understanding of the subject individual's roles and responsibilities and conducting a careful search for the associated titles in the compensation databases, a valuation professional may conclude on a reasonable range of compensation for the individual in question.

Market Ratio Test (Comparable Public Companies)

Valuation professionals may also consider using market ratios to determine reasonable compensation. Publicly traded companies are required to disclose the compensation of certain corporate officers. By analyzing total executive compensation (i.e., both cash-based and share- based) of comparable publicly traded companies, a valuation professional may develop a range of compensation (as a ratio of revenue and/or earnings) that the market deems reasonable for that particular industry.

Because macroeconomic trends and industry fluctuations can result in significant variability in compensation ratios, a detailed understanding of the market in general and the industry in particular is required to fully utilize this methodology. Additionally, the significance of this analysis can be limited by the comparability of the subject company to publicly traded companies and the amount and quality of information related to executive compensation disclosed by the selected companies. Nonetheless, the market ratio test can provide a valuation professional with a range of ratios with which to assess the reasonableness of owners' compensation.

Shareholder Return Test (Management Value Creation)

A third method of assessing the reasonableness of an individual's compensation is the application of the shareholder return test. As the Menards and Exacto Springs judgments show, the shareholder return generated by a company under an executive's leadership must be considered when assessing the reasonableness of compensation. Comparing a subject company's equity appreciation over the period of time in question to the appreciation of comparable publicly traded companies yields valuable insights into the relative performance of the company and the associated returns achieved by shareholders.

If a company's earnings (after consideration of the actual executive compensation) generate shareholder returns that are at or above market levels, an independent investor may accept the owners' compensation as reasonable. While this quantitative analysis should be supplemented with qualitative evidence that the excess returns are attributable to the individual in question, the shareholder return test can provide valuation professionals with evidence that the company is able to satisfy the independent investor test while sustaining the current level of executive compensation.

When used in conjunction with one another, the three tests discussed above allow valuation professionals to develop supportable estimates of reasonable compensation. The conclusions developed from the use of these methods will be based on empirical data, supported by public capital markets, and, most important, will meet the standards of reasonable compensation put forth by the Tax agencies.

Puerto Rico market Compensation

Puerto Rico's employee compensation levels are much lower than those of the United States, we understand that knowing Puerto Rico's compensation scale for officials, owners or shareholders is crucial for individuals and entities doing business in the Island in order to determine reasonable compensation.

In response to customers' request on guidance as to the assessment of estimated reasonable compensation levels for officials and owners, the Secretary of the Treasury of Puerto Rico issued the Administrative Determination No. 15-22 letter we have made a research of compensation in Puerto Rico. This information could assist in the Direct Test analysis.

Direct Test (Puerto Rico Market Databases)

Based on our research and comparison of the competitive reasonable compensation from data sources of Pay Scale (*) and US Bureau of Labor Statistics as to Puerto Rico compensations, we conclude that the Island's compensation scale is much lower than that of the mainland USA.

Therefore, any analysis should be based on Puerto Rico's regional compensation scales. The results of the survey are the following:

Puerto Rico based on Roles & responsibilities Average Compensation

Clerks & Support Staff

General Office & administrative Clerks	$25,210

Accounting,

Payroll & Timekeeping Clerks	$24,710
Financial & Brokerage Clerk	$40,690

Staff & Professionals

Accountant & Auditors	$35,580
Web Designers	$39,860
Travel Agents	$29,090
Personal Financial Advisor	$42,730
Software Developers	$62,720
Management Analysts	$51,500
Marketing Research	$32,000
Sales Engineer	$62,300
Broker dealer	$45,800

Management

Administrative Manager	$55,600
General & Operations Manager	$77,530
Marketing Manager	$80,060
Sales Manager	$82,340
Financial Manager	$73,370
Information Technology Manager	$43,700

Chief

Executives	$116,240

Roles and responsibilities are detail in the following pages.

Internal analysis of Reasonable Compensation

In a private and closely held business, compensation analysis should take into consideration many factors, such as worked, multiple roles and resource limitations. Roles and responsibilities need to be identified per person and his individual roles & responsibilities. Individual that perform multiple roles could use a composite compensation computation.

The composite computation would be done as follows, identify each role, identify time spend, multiple the role's compensation by the time spend, add all roles, to get a composite compensation computation.

An example of a composite computation is as follows, the individual may be the general manager of a closely held business 20% of his time, an administrative clerk 20% of his time, a professional staff 40% of his time, 20% off, only work 80% of his time.

Role	**Compensation**	**Time**	**Compensation**
General Manager	$77,530	20%	$15,500
Administrative clerk	$25,210	20%	5,050
Professional Staff	$28,130	40%	$11,250
Time off			0
Composite Compensation			**$31,800**

Conclusion

Given the potential tax repercussions resulting from inaccurate assessments of owners' compensation, the issue of reasonable compensation should be carefully considered by owners and their advisors. In Puerto Rico there is no actual court ruling in this subject. With little guide lines by the government there is still very cloudy road ahead. Making an internal analysis or a formal reasonable compensation

Data Collection Source there
(*) PayScale administers the largest real-time salary survey in the world with more than 150,000 new survey records added every month. The database of more than 40 million total salary profiles is updated nightly to reflect the most detailed, up-to-date compensation information available. Data collection is strongly correlated with the size of the pool being considered, representing the diversity of the general workforce.

What General Office & Administrative Clerks do

General office clerks type, format, or edit routine memos.

General office clerks perform a variety of clerical tasks, including answering telephones, typing documents, and filing records.

Duties

- General office clerks typically do the following:
- Answer and transfer telephone calls or take messages
- Sort and deliver incoming mail and send outgoing mail
- Schedule appointments and receive customers or visitors
- Provide general information to staff, clients, or the public
- Type, format, or edit routine memos or other reports
- Copy, file, and update paper and electronic documents
- Prepare and process bills and other office documents
- Collect information and perform data entry

Rather than performing a single specialized task, general office clerks have responsibilities that often change daily with the current needs of the employer.

Some clerks file documents or answer phones; others enter data into computers or perform other tasks using software applications. They also frequently use photocopiers, scanners, fax machines, and other office equipment.

The specific duties assigned to clerks will depend on the type of office in which they work. For example, a general office clerk at a college or university processes application materials and answers questions from prospective students. A clerk at a hospital files and retrieves medical records.

What Bookkeeping, Payroll & Timekeeping, Accounting, and Auditing Clerks Do

As organizations continue to computerize their financial records, many bookkeeping, accounting, and auditing clerks need to use specialized accounting software, spreadsheets, and databases.

Bookkeeping, accounting, and auditing clerks produce financial records for organizations. They record financial transactions, update statements, and check financial records for accuracy.

Duties

- Bookkeeping, accounting, and auditing clerks typically do the following:
- Use bookkeeping software, online spreadsheets, and databases
- Enter (post) financial transactions into the appropriate computer software Receive and record cash, checks, and vouchers
- Put costs (debits) and income (credits) into the software, assigning each to an appropriate account
- Produce reports, such as balance sheets (costs compared with income), income statements, and totals by account
- Check for accuracy in figures, postings, and reports
- Reconcile or note and report any differences they find in the records

The records that bookkeeping, accounting, and auditing clerks work with include expenditures (money spent), receipts (money that comes in), accounts payable (bills to be paid), accounts receivable (invoices, or what other people owe the organization), and profit and loss (a report that shows the organization's financial health).

Workers in this occupation have a wide range of tasks. Some are full-charge bookkeeping clerks who maintain an entire organization's books. Others are accounting clerks who handle specific tasks.

These clerks use basic mathematics (adding, subtracting) throughout the day.

Bookkeeping, accounting, and auditing clerks use specialized computer accounting software, spreadsheets, and databases to enter information from receipts or bills. They must be comfortable using computers to record and calculate data.

The widespread use of computers also has enabled bookkeeping, accounting, and auditing clerks to take on additional responsibilities, such as payroll, billing, purchasing (buying), and keeping track of overdue bills. Many of these functions require clerks to communicate with clients.
Bookkeeping clerks, also known as bookkeepers, often are responsible for some or all of an organization's accounts, known as the general ledger. They record all transactions and post debits (costs) and credits (income).

They also produce financial statements and other reports for supervisors and managers. Bookkeepers prepare bank deposits by compiling data from cashiers, verifying receipts, and sending cash, checks, or other forms of payment to the bank.

In addition, they may handle payroll, make purchases, prepare invoices, and keep track of overdue accounts.

Accounting clerks typically work for larger companies and have more specialized tasks. Their titles, such as accounts payable clerk or accounts receivable clerk, often reflect the type of accounting they do.

The responsibilities of accounting clerks frequently vary by level of experience. Entry-level accounting clerks may post details of transactions (including date, type, and amount), add up accounts, and determine interest charges. They also may monitor loans and accounts to ensure that payments are up to date.

More advanced accounting clerks may add and balance billing vouchers, ensure that account data are complete and accurate, and code documents according to an organization's procedures.

Auditing clerks check figures, postings, and documents to ensure that they are mathematically accurate and properly coded. They also correct or note errors for accountants or other workers to fix.

Financial & Brokerage Clerks

Financial clerks keep and update financial records.

Financial clerks do administrative work for many types of organizations. They keep records, help customers, and carry out financial transactions.

Duties

Financial clerks typically do the following:

- Keep and update financial records
- Compute bills and charges
- Offer customer assistance
- Carry out financial transactions

Financial clerks give administrative and clerical support in financial settings. Their specific job duties vary by specialty and by setting.

Billing and posting clerks calculate charges, develop bills, and prepare them to be mailed to customers. They review documents such as purchase orders, sales tickets, charge slips, and hospital records to compute fees or charges due. They also contact customers to get or give account information.

Gaming cage workers work in casinos and other gaming establishments. The "cage" in which they work is the central depository for money and gaming chips. Gaming cage workers sell gambling chips, tokens, or tickets to patrons. They count funds and reconcile daily summaries of transactions in order to balance books.

Payroll and timekeeping clerks compile and post employee time and payroll data. They verify and record attendance, hours worked, and pay adjustments. They ensure that employees are paid on time and that their paychecks are accurate.

Procurement clerks compile requests for materials, prepare purchase orders, keep track of purchases and supplies, and handle questions about orders. They respond to questions from customers and suppliers about the status of orders. They handle requests to change or cancel orders. They make sure that purchases arrive on schedule and that the items meet the purchaser's specifications.

Brokerage clerks help with tasks associated with securities such as stocks, bonds, commodities, and other kinds of investments. Their duties include writing orders for stock purchases and sales, computing transfer taxes, verifying stock transactions, accepting and delivering securities, distributing dividends, and keeping records of daily transactions and holdings.

Credit authorizers, checkers, and clerks review the credit history, and get the information needed to determine the creditworthiness, of individuals or businesses applying for credit. Credit authorizers evaluate customers' computerized credit records and payment histories to decide, based on predetermined standards, whether to approve new credit. Credit checkers call or write credit departments of business and service establishments to get information about applicants' credit standing.

Loan interviewers, also called loan processors or loan clerks, interview applicants and others to get and verify personal and financial information needed to complete loan applications. They also prepare the documents that go to the appraiser and are issued at the closing of a loan.

New accounts clerks interview people who want to open accounts in financial institutions. They explain the account services available to prospective customers and help them fill out applications. They also investigate and correct errors in accounts.

Insurance claims and policy processing clerks process applications for insurance policies. They also handle customers' requests to change or cancel their existing policies. Their duties include interviewing clients and reviewing insurance applications to ensure that all questions have been answered. They also notify insurance agents and accounting departments of policy cancellations or change.

Accountants and Auditors

Accountants and auditors examine financial statements for accuracy and conformance with laws.

Accountants and auditors prepare and examine financial records. They ensure that financial records are accurate and that taxes are paid properly and on time. Accountants and auditors assess financial operations and work to help ensure that organizations run efficiently.

Duties

Accountants and auditors typically do the following:

- Examine financial statements to ensure that they are accurate and comply with laws and regulations
- Compute taxes owed, prepare tax returns, and ensure that taxes are paid properly and on time
- Inspect account books and accounting systems for efficiency and use of accepted accounting procedures
- Organize and maintain financial records
- Assess financial operations and make best-practices recommendations to management
- Suggest ways to reduce costs, enhance revenues, and improve profits

In addition to examining and preparing financial documentation, accountants and auditors must explain their findings. This includes preparing written reports and meeting face-to-face with organization managers and individual clients.

Many accountants and auditors specialize, depending on the particular organization that they work for. Some work for organizations that specialize in assurance services (improving the quality or context of information for decision makers) or risk management (determining the probability of a misstatement on financial documentation). Other organizations specialize in specific industries, such as healthcare.

Some workers with a background in accounting and auditing teach in colleges and universities. For more information, see the profile on postsecondary teachers.

The following are examples of types of accountants and auditors:

Public accountants perform a broad range of accounting, auditing, tax, and consulting tasks. Their clients include corporations, governments, and individuals.

Public accountants work with financial documents that clients are required by law to disclose. These include tax forms and balance sheet statements that corporations must provide potential investors. For example, some public accountants concentrate on tax matters, advising corporations about the tax advantages of certain business decisions or preparing individual income tax returns.

Public accountants, many of whom are Certified Public Accountants (CPAs), generally have their own businesses or work for public accounting firms. Publicly traded companies are required to have CPAs sign documents they submit to the Securities and Exchange Commission (SEC), including annual and quarterly reports.

Some public accountants specialize in forensic accounting, investigating financial crimes such as securities fraud and embezzlement, bankruptcies and contract disputes, and other complex and possibly criminal financial transactions. Forensic accountants combine their knowledge of accounting and finance with law and investigative techniques to determine if an activity is illegal. Many forensic accountants work closely with law enforcement personnel and lawyers during investigations and often appear as expert witnesses during trials.

Management accountants, also called cost, managerial, industrial, corporate, or private accountants, record and analyze the financial information of the organizations for which they work. The information that management accountants prepare is intended for internal use by business managers, not by the general public.

Management accountants often work on budgeting and performance evaluation. They also may help organizations plan the cost of doing business. Some may work with financial managers on asset management, which involves planning and selecting financial investments such as stocks, bonds, and real estate.

Government accountants maintain and examine the records of government agencies and audit private businesses and individuals whose activities are subject to government regulations or taxation. Accountants employed by federal, state, and local governments ensure that revenues are received and spent in accordance with laws and regulations.

Internal auditors check for mismanagement of an organization's funds. They identify ways to improve the processes for finding and eliminating waste and fraud.

The practice of internal auditing is not regulated, but The Institute of Internal Auditors (IIA) provides generally accepted standards.

External auditors perform similar duties as internal auditors, but are employed by an outside organization, rather than the one they are auditing. They review clients' financial statements and inform investors and authorities that the statements have been correctly prepared and reported.

Information technology auditors are internal auditors who review controls for their organization's computer systems, to ensure that the financial data comes from a reliable source.

What Web Developers Do

Some developers work on a website from the planning stages to completion.

Web developers design and create websites. They are responsible for the look of the site. They are also responsible for the site's technical aspects, such as its performance and capacity, which are measures of a website's speed and how much traffic the site can handle. In addition, web developers may create content for the site.

Duties

Web developers typically do the following:

- Meet with clients or management to discuss the needs and design of a website
- Create and test applications for a website
- Write code for websites, using programming languages such as HTML or XML
- Work with other team members to determine what information the site will contain
- Work with graphics and other designers to determine the website's layout
- Integrate graphics, audio, and video into the website
- Monitor website traffic

When creating a website, developers have to make their client's vision a reality. They build particular types of websites, such as ecommerce, news, or gaming sites, to fit clients' needs. Different types of websites may require different applications to work right. For example, a gaming site should be able to handle advanced graphics, whereas an ecommerce site needs a payment-processing application. The developer decides which applications and designs will best fit the site.

Some developers handle all aspects of a website's construction, and others specialize in a certain aspect of it. The following are examples of types of specialized web developers:

Back-end web developers are responsible for the overall technical construction of the website. They create the basic framework of the site and ensure that it works as expected. Back-end web developers also establish procedures for allowing others to add new pages to the website and meet with management to discuss major changes to the site.

Front-end web developers are responsible for how a website looks. They create the site's layout and integrate graphics, applications (such as a retail checkout tool), and other content. They also write web-design programs in a variety of computer languages, such as HTML or JavaScript.

Webmasters maintain websites and keep them updated. They ensure that websites operate correctly, and they test for errors such as broken links. Many webmasters respond to user comments as well.

What Travel Agents Do

Travel agents offer advice on destinations, plan trip itineraries, and make travel arrangements for clients.

Travel agents sell transportation, lodging, and admission to entertainment activities to individuals and groups planning trips. They offer advice on destinations, plan trip itineraries, and make travel arrangements for clients.

Duties

Travel agents typically do the following:

- Arrange travel for business and vacation customers
- Determine customers' needs and preferences, such as schedules and costs
- Plan and arrange tour packages, excursions, and day trips
- Find fare and schedule information Calculate total travel costs
- Book reservations for travel, hotels, rental cars, and special events, such as tours and excursions
- Describe trips to clients and give details on required documents, such as passports and visas
- Give advice about local weather conditions, customs, and attractions
- Make alternative booking arrangements if changes arise before or during the trip

Travel agents sort through vast amounts of information to find the best possible trip arrangements for travelers. In addition, resorts and specialty groups use travel agents to promote vacation packages to their clients.

Travel agents also may visit destinations to get firsthand experience so that they can make recommendations to clients or colleagues. They may visit hotels, resorts, and restaurants to evaluate the comfort, cleanliness, and quality of the establishment. However, most of their time is spent talking with clients, promoting tours, and contacting airlines and hotels to make travel accommodations. Travel agents use a reservation system called a Global Distribution System (GDS) to access travel information and make reservations with travel suppliers such as airlines or hotels.

The following are examples of types of travel agents:

Leisure travel agents sell vacation packages to the general public. They are responsible for arranging trip itineraries based on clients' interests and budget. Leisure travel agents increasingly are focusing on a specific type of travel, such as adventure tours. Some may cater to a specific group of people, such as senior citizens or single people.

Corporate travel agents primarily make travel arrangements for businesses. They book travel accommodations for an organization's employees who are traveling to conduct business or attend conferences.

What Personal Financial Advisors Do

Personal financial advisors meet with clients to discuss their financial goals.

Personal financial advisors provide advice on investments, insurance, mortgages, college savings, estate planning, taxes, and retirement to help individuals manage their finances.

Duties

- Personal financial advisors typically do the following:
- Meet with clients in person to discuss their financial goals
- Explain the types of financial services they provide to potential clients
- Educate clients and answer questions about investment options and potential risks
- Recommend investments to clients or select investments on their behalf
- Help clients plan for specific circumstances, such as education expenses or retirement
- Monitor clients' accounts and determine if changes are needed to improve the performance or to accommodate life changes, such as getting married or having children
- Research investment opportunities

Personal financial advisors assess the financial needs of individuals and help them with decisions on investments (such as stocks and bonds), tax laws, and insurance. Advisors help clients plan for short- and long-term goals, such as meeting education expenses and saving for retirement through investments. They invest clients' money based on the clients' decisions. Many advisors also provide tax advice or sell insurance.

Although most planners offer advice on a wide range of topics, some specialize in areas such as retirement or risk management (evaluating how willing the investor is to take chances and adjusting investments accordingly).

Many personal financial advisors spend a lot of time marketing their services, and they meet potential clients by giving seminars or through business and social networking. Networking is the process of meeting and exchanging information with people, or groups of people, who have similar interests.

After financial advisors have invested funds for a client, they and the client receive regular investment reports. Advisors monitor the client’s investments and usually meet with each client at least once a year to update the client on potential investments and to adjust the financial plan based on the client’s circumstances or because investment options may have changed.

Many personal financial advisors are licensed to directly buy and sell financial products, such as stocks, bonds, annuities, and insurance. Depending on the agreement they have with their clients, personal financial advisors may have the client’s permission to make decisions about buying and selling stocks and bonds

Private bankers or wealth managers are personal financial advisors who work for people who have a lot of money to invest. These clients are similar to institutional investors (commonly, companies or organizations), and they approach investing differently than the general public does. Private bankers manage a collection of investments, called a portfolio, for these clients by using the resources of the bank, including teams of financial analysts, accountants, and other professionals.

What Software Developers Do

Developers create flow charts that help programmers write computer code.

Software developers are the creative minds behind computer programs. Some develop the applications that allow people to do specific tasks on a computer or another device. Others develop the underlying systems that run the devices or that control networks.

Duties

- Software developers typically do the following:
- Analyze users' needs and then design, test, and develop software to meet those needs
- Recommend software upgrades for customers' existing programs and systems
- Design each piece of an application or a system and plan how the pieces will work together
- Create a variety of models and diagrams (such as flowcharts) that instruct programmers how to write software code
- Ensure that a program continues to function normally through software maintenance and testing
- Document every aspect of an application or a system as a reference for future maintenance and upgrades
- Collaborate with other computer specialists to create optimum software

Software developers are in charge of the entire development process for a software program. They may begin by asking how the customer plans to use the software. They must identify the core functionality that users need from software programs. Software developers must also determine user requirements that are unrelated to the functionality of software, such as the level of security and performance needs. They design the program and then give instructions to programmers, who write computer code and test it.

If the program does not work as expected or if testers find it too difficult to use, software developers go back to the design process to fix the problems or improve the program. After the program is released to the customer, a developer may perform upgrades and maintenance.

Developers usually work closely with computer programmers. However, in some companies, developers write code themselves instead of giving instructions to the programmers.

Developers who supervise a software project from the planning stages through implementation sometimes are called information technology (IT) project managers. These workers monitor the project's progress to ensure that it meets deadlines, standards, and cost targets. IT project managers who plan and direct an organization's IT department or IT policies are included in the profile on computer and information systems managers.

The following are examples of types of software developers:

Applications software developers design computer applications, such as word processors and games, for consumers. They may create custom software for a specific customer or commercial software to be sold to the general public. Some applications software developers create complex databases for organizations. They also create programs that people use over the Internet and within a company's intranet.

Systems software developers create the systems that keep computers functioning properly. These could be operating systems for computers that the general public buys or systems built specifically for an organization. Often, systems software developers also build the system's interface, which is what allows users to interact with the computer. Systems software developers are creating the operating systems that control most of the consumer electronics in use today, including the systems in phones or cars.

What Management Analysts Do

Although some management analysts work for the company that they are analyzing, most work as consultants on a contractual basis.

Management analysts, often called management consultants, propose ways to improve an organization's efficiency. They advise managers on how to make organizations more profitable through reduced costs and increased revenues.

Duties

Management analysts typically do the following:

- Gather and organize information about the problem to be solved or the procedure to be improved
- Interview personnel and conduct onsite observations to determine the methods, equipment, and personnel that will be needed
- Analyze financial and other data, including revenue, expenditure, and employment reports
- Develop solutions or alternative practices
- Recommend new systems, procedures, or organizational changes
- Make recommendations to management through presentations or written reports Confer with managers to ensure changes are working
- Although some management analysts work for the organization that they analyze, most work as consultants on a contractual basis.

Whether they are self-employed or part of a large consulting company, the work of a management analyst may vary from project to project. Some projects require a team of consultants, each specializing in one area. In other projects, consultants work independently with the client organization's managers.

Management analysts often specialize in certain areas, such as inventory management or reorganizing corporate structures to eliminate duplicate and nonessential jobs. Some consultants specialize in a specific industry, such as healthcare or telecommunications. In government, management analysts usually specialize by type of agency.

Organizations hire consultants to develop strategies for entering and remaining competitive in today's marketplace.

Management analysts who work on contract may write proposals and bid for jobs. Typically, an organization that needs the help of a management analyst solicits proposals from a number of consultants and consulting companies that specialize in the needed work. Those who want the work must then submit a proposal by the deadline that explains how the consultant will do the work, who will do the work, why they are the best consultants to do the work, what the schedule will be, and how much it will cost. The organization that needs the consultants then selects the proposal that best meets its needs and budget.

What Market Research Analysts Do

Market research analysts gather and analyze data on consumers and competitors.

Market research analysts study market conditions to examine potential sales of a product or service. They help companies understand what products people want, who will buy them, and at what price.

Duties

Market research analysts typically do the following:

- Monitor and forecast marketing and sales trends
- Measure the effectiveness of marketing programs and strategies
- Devise and evaluate methods for collecting data, such as surveys, questionnaires, and opinion polls
- Gather data on consumers, competitors, and market conditions
- Analyze data using statistical software
- Convert complex data and findings into understandable tables, graphs, and written reports
- Prepare reports and present results to clients and management

Market research analysts research and gather data to help a company market its products or services. They gather data on consumer demographics, preferences, needs, and buying habits. They collect data and information using a variety of methods, such as interviews, questionnaires, focus groups, market analysis surveys, public opinion polls, and literature reviews.

Analysts help determine a company's position in the marketplace by researching their competitors and analyzing their prices, sales, and marketing methods. Using this information, they may determine potential markets, product demand, and pricing. Their knowledge of the targeted consumer enables them to develop advertising brochures and commercials, sales plans, and product promotions.

Market research analysts evaluate data using statistical techniques and software. They must interpret what the data mean for their client, and they may forecast future trends. They often make charts, graphs, infographics, and other visual aids to present the results of their research.

Workers who design and conduct surveys are known as survey researchers.

What Sales Engineers Do

Sales engineers specialize in technologically and scientifically advanced products.

Sales engineers sell complex scientific and technological products or services to businesses. They must have extensive knowledge of the products' parts and functions and must understand the scientific processes that make these products work.

Duties

Sales engineers typically do the following:

- Prepare and deliver technical presentations explaining products or services to existing and prospective customers
- Confer with customers and engineers to assess equipment needs and to determine system requirements
- Collaborate with sales teams to understand customer requirements and provide sales support
- Secure and renew orders and arrange delivery
- Plan and modify products to meet customer needs
- Help clients solve problems with installed equipment
- Recommend improved materials or machinery to customers, showing how changes will lower costs or increase production
- Help in researching and developing new products

Sales engineers specialize in technologically and scientifically advanced products. They use their technical skills to explain the benefits of their products or services to potential customers and to show how their products or services are better than their competitors'. Some sales engineers work for the companies that design and build technical products. Others work for independent sales firms.

Many of the duties of sales engineers are similar to those of other salespersons. They must interest the client in buying their products or services, negotiate a price, and complete the sale. To do this, sales engineers give technical presentations during which they explain the technical aspects of the product and how it will solve a specific customer problem.

Some sales engineers, however, team with salespersons who concentrate on marketing and selling the product, which lets the sales engineer concentrate on the technical aspects of the job. By working as part of a sales team, each member is able to focus on his or her strengths and expertise. For more information on other sales occupations, see the profile on wholesale and manufacturing sales representatives.

In addition to giving technical presentations, sales engineers are increasingly doing other tasks related to sales, such as market research. They also may ask for technical requirements from customers and modify and adjust products to meet customers' specific needs. Some sales engineers work with research and development (R&D) departments to help identify and develop new products.

What Securities, Commodities, and Financial Services Sales Agents Do

Markets such as NASDAQ use vast computer networks to match buyers and sellers rather than human traders.

Securities, commodities, and financial services sales agents connect buyers and sellers in financial markets. They sell securities to individuals, advise companies in search of investors, and conduct trades.

Duties

Securities, commodities, and financial services sales agents typically do the following:

- Contact prospective clients to present information and explain available services
- Offer advice on the purchase or sale of particular securities
- Buy and sell securities, such as stocks and bonds
- Buy and sell commodities, such as corn, oil, and gold
- Monitor financial markets and the performance of individual securities
- Analyze company finances to provide recommendations for public offerings, mergers, and acquisitions
- Evaluate cost and revenue of agreements

Securities, commodities, and financial services sales agents deal with a wide range of products and clients. Agents spend much of the day interacting with people, whether selling stock to an individual or discussing the status of a merger deal with a company executive. The work is usually stressful because agents deal with large amounts of money and have time constraints.

A security or commodity can be traded in two ways: electronically or in an auction-style setting on the floor of an exchange market. Markets such as the National Association of Securities Dealers Automated Quotation system (NASDAQ) use vast computer networks rather than human traders to match buyers and sellers. Others, such as the New York Stock Exchange (NYSE), rely on floor brokers to complete transactions.

The following are examples of types of securities, commodities, and financial services sales agents:

Brokers sell securities and commodities directly to individual clients. They advise people on appropriate investments based on the client's needs and financial ability. The people they advise may have very different levels of expertise in financial matters.

Finding clients is a large part of a broker's job. They must create their own client base by calling from a list of potential clients. Some agents network by joining social groups, and others may rely on referrals from satisfied clients.
Investment bankers connect businesses that need money to finance their operations or expansion plans with investors who are interested in providing that funding. This process is called underwriting, and it is the main function of investment banks. The banks first sell their advisory services to help companies issue new stocks or bonds, and then the banks sell the issued securities to investors.

Some of the most important services that investment bankers provide are initial public offerings (IPOs), and mergers and acquisitions. An IPO is the process by which a company becomes open for public investment by issuing its first stock. Investment bankers must estimate how much the company is worth and ensure that it meets the legal requirements to become publicly traded.

Investment bankers also connect companies in mergers (when two companies join together) and acquisitions (when one company buys another). Investment bankers provide advice throughout the process to ensure that the transaction goes smoothly.

Investment banking sales agents and traders carry out buy-and-sell orders for stocks, bonds, and commodities from clients and make trades on behalf of the firm itself. Investment banks primarily employ these workers, although some work for commercial banks, hedge funds, and private equity groups. Because markets fluctuate so much, trading is a split-second decision- making process. Slight changes in the price of a trade can greatly affect its profitability, making the trader's decision extremely important.

Floor brokers work directly on the floor—a large room where trading is done—of a securities or commodities exchange. After a trader places an order for a security, floor brokers negotiate the price, make the sale, and forward the purchase price to the trader.

Financial services sales agents consult on a wide variety of banking, securities, insurance, and related services to individuals and businesses, often catering the services to meet the client's financial needs. They contact potential clients to explain their services, which may include the handling of checking accounts, loans, certificates of deposit, individual retirement accounts, credit cards, and estate and retirement planning.

What Administrative Services Managers Do

Administrative services managers plan, coordinate, and direct a broad range of services that allow organizations to operate efficiently.

Administrative services managers plan, direct, and coordinate supportive services of an organization. Their specific responsibilities vary, but administrative service managers typically maintain facilities and supervise activities that include recordkeeping, mail distribution, and office upkeep. In a small organization, they may direct all support services and may be called the business office manager. Large organizations may have several layers of administrative managers who specialize in different areas.

Duties

Administrative services managers typically do the following:

- Buy, store, and distribute supplies
- Supervise clerical and administrative personnel
- Set goals and deadlines for their department
- Develop, manage, and monitor records
- Recommend changes to policies or procedures in order to improve operations, such as changing what supplies are kept or how to improve recordkeeping
- Plan budgets for contracts, equipment, and supplies
- Monitor the facility to ensure that it remains safe, secure, and well maintained

- Oversee the maintenance and repair of machinery, equipment, and electrical and mechanical systems
- Ensure that facilities meet environmental, health, and security standards and comply with government regulations

Administrative services managers plan, coordinate, and direct a broad range of services that allow organizations to operate efficiently. An organization may have several managers who oversee activities that meet the needs of multiple departments, such as mail, printing and copying, recordkeeping, security, building maintenance, and recycling.

The work of administrative services managers can make a difference in employees' productivity and satisfaction. For example, an administrative services manager might be responsible for making sure that the organization has the supplies and services it needs. In addition, an administrative services manager who is responsible for coordinating space allocation might take into account employee morale and available funds when determining the best way to arrange a given physical space.

Administrative services managers also ensure that the organization honors its contracts and follows government regulations and safety standards.

Administrative services managers may examine energy consumption patterns, technology usage, and office equipment. For example, managers may recommend buying new or different equipment or supplies in order to lower energy costs or improve indoor air quality.

Administrative services managers also plan for maintenance and the future replacement of equipment, such as computers. A timely replacement of equipment can help save money for the organization, because eventually the cost of upgrading and maintaining equipment becomes higher than the cost of buying new equipment.

The following are examples of types of administrative services managers:

Contract administrators handle buying, storing, and distributing equipment and supplies. They also oversee getting rid of surplus or unclaimed property.

Facility managers oversee buildings, grounds, equipment, and supplies. Their duties fall into several categories, including overseeing operations and maintenance, planning and managing projects, and dealing with environmental factors.

Facility managers may oversee renovation projects to improve efficiency or ensure that facilities meet government regulations and environmental, health, and security standards. For example, they may influence building renovation projects by recommending energy-saving alternatives or efficiencies that reduce waste. In addition, facility managers continually monitor the facility to ensure that it remains safe, secure, and well maintained. Facility managers also are responsible for directing staff, including maintenance, grounds, and custodial workers.

Records and information managers develop, monitor, and manage an organization's records. They provide information to executive management, and they ensure that employees throughout the organization follow information and records management guidelines. They may direct the operations of on-site or off-site records facilities. They should be familiar with the technology that is used to manage both physical and electronic records. Records and information managers also work closely with an organization's attorneys, technology, and business operations personnel.

What General & Operations Manager Do

Top executives often report to a board of trustees.

Top executives devise strategies and policies to ensure that an organization meets its goals. They plan, direct, and coordinate operational activities of companies and organizations.

Duties

Top executives typically do the following:

- Establish and carry out departmental or organizational goals, policies, and procedures
- Direct and oversee an organization's financial and budgetary activities
- Manage general activities related to making products and providing services
- Consult with other executives, staff, and board members about general operations
- Negotiate or approve contracts and agreements
- Appoint department heads and managers
- Analyze financial statements, sales reports, and other performance indicators
- Identify places to cut costs and to improve performance, policies, and programs

The responsibilities of top executives largely depend on an organization's size. For example, an owner or manager of a small organization, such as an independent retail store, often is responsible for purchasing, hiring, training, quality control, and day-to-day supervisory duties. In large organizations, however, top executives typically focus more on formulating policies and strategic planning, while general and operations managers direct day-to-day operations.

What Advertising, Promotions, and Marketing Managers Do

Advertising managers can be found in advertising agencies that put together advertising campaigns for clients, in media firms that sell advertising space or time, and in companies that advertise heavily.

Advertising, promotions, and marketing managers plan programs to generate interest in products or services. They work with art directors, sales agents, and financial staff members.

Duties

- Advertising, promotions, and marketing managers typically do the following: Work with department heads or staff to discuss topics such as budgets and contracts, marketing plans, and the selection of advertising media
- Plan promotional campaigns such as contests, coupons, or giveaways
- Plan advertising campaigns, including which media to advertise in, such as radio, television, print, online media, and billboards
- Negotiate advertising contracts
- Evaluate the look and feel of websites used in campaigns or layouts, which are sketches or plans for an advertisement

- Initiate market research studies and analyze their findings to understand customer and market opportunities for businesses
- Develop pricing strategies for products or services marketed to the target customers of a firm
- Meet with clients to provide marketing or technical advice
- Direct the hiring of advertising, promotions, and marketing staff and oversee their daily activities

Advertising managers create interest among potential buyers of a product or service. They do this for a department, for an entire organization, or on a project basis (referred to as an account). Advertising managers work in advertising agencies that put together advertising campaigns for clients, in media firms that sell advertising space or time, and in organizations that advertise heavily.

Advertising managers work with sales staff and others to generate ideas for an advertising campaign. They oversee the staff that develops the advertising. They work with the finance department to prepare a budget and cost estimates for the campaign.

Often, advertising managers serve as liaisons between the client and the advertising or promotion agency that develops and places the ads. In larger organizations with extensive advertising departments, different advertising managers may oversee in-house accounts and creative and media services departments.

In addition, some advertising managers specialize in a particular field or type of advertising. For example, media directors determine the way in which an advertising campaign reaches customers. They can use any or all of various media, including radio, television, newspapers, magazines, the Internet, and outdoor signs.

Advertising managers known as account executives manage clients' accounts, but they are not responsible for developing or supervising the creation or presentation of advertising. That task becomes the work of the creative services department.

Promotions managers direct programs that combine advertising with purchasing incentives to increase sales. Often, the programs use direct mail, inserts in newspapers, Internet advertisements, in-store displays, product endorsements, or special events to target customers. Purchasing incentives may include discounts, samples, gifts, rebates, coupons, sweepstakes, or contests.

Marketing managers estimate the demand for products and services that an organization and its competitors offer. They identify potential markets for the organization's products.

Marketing managers also develop pricing strategies to help organizations maximize their profits and market share while ensuring that the organizations' customers are satisfied. They work with sales, public relations, and product development staff.

For example, a marketing manager may monitor trends that indicate the need for a new product or service. Then he or she oversees the development of that product or service. For more information on sales or public relations, see the profiles on sales managers, public relations and fundraising managers, public relations specialists, and market research analysts.

What Sales Managers Do

Sales managers recruit, hire, and train new members of the sales staff.

Sales managers direct organizations' sales teams. They set sales goals, analyze data, and develop training programs for organizations' sales representatives.

Duties

Sales managers typically do the following:

- Resolve customer complaints regarding sales and service
- Prepare budgets and approve expenditures
- Monitor customer preferences to determine the focus of sales efforts
- Analyze sales statistics
- Project sales and determine the profitability of products and services
- Determine discount rates or special pricing plans
- Develop plans to acquire new customers or clients through direct sales techniques, cold calling, and business-to-business marketing visits
- Assign sales territories and set sales quotas
- Plan and coordinate training programs for sales staff

Sales managers’ responsibilities vary with the size of their organizations. However, most sales managers direct the distribution of goods and services by assigning sales territories, setting sales goals, and establishing training programs for the organization’s sales representatives.

Some sales managers recruit, hire, and train new members of the sales staff. For more information about sales workers, see the profiles on workers and wholesale and manufacturing sales representatives.

Sales managers advise sales representatives on ways to improve their sales performance. In large multiproduct organizations, they oversee regional and local sales managers and their staffs.

Sales managers also stay in contact with dealers and distributors. They analyze sales statistics generated from their staff to determine the sales potential and inventory requirements of products and stores and to monitor customers' preferences.

Sales managers work closely with managers from other departments in the organization. For example, the marketing department identifies new customers that the sales department can target. The relationship between these two departments is critical to helping an organization expand its client base. Sales managers also work closely with research and design departments because they know customers preferences, and with warehousing departments because they know inventory needs.

The following are examples of types of sales managers:

Business to business (B2B) sales managers oversees sales from one business to another. These managers may work for a manufacturer selling to a wholesaler, or a wholesaler selling to a retailer. Examples of these workers include sales managers overseeing sales of software to business firms, and sales managers overseeing wholesale food sales to grocery

Stores Business to consumer (B2C) sales managers oversees direct sales between businesses and individual consumers. These managers typically work in retail settings. Examples of these workers include sales managers of automobile dealerships and department stores.

What Financial Managers Do
Financial managers perform data analysis and advise senior managers on profit-maximizing ideas.

Financial managers are responsible for the financial health of an organization. They produce financial reports, direct investment activities, and develop strategies and plans for the long-term financial goals of their organization.

Duties

Financial managers typically do the following:

- Prepare financial statements, business activity reports, and forecasts
- Monitor financial details to ensure that legal requirements are met
- Supervise employees who do financial reporting and budgeting
- Review company financial reports and seek ways to reduce costs
- Analyze market trends to maximize profits and find expansion opportunities
- Help management make financial decisions

The role of the financial manager, particularly in business, is changing in response to technological advances that have substantially reduced the amount of time it takes to produce financial reports. Financial managers' main responsibility used to be monitoring a company's finances, but they now do more data analysis and advise senior managers on ways to maximize profits. They often work on teams, acting as business advisors to top executives.

Financial managers also do tasks that are specific to their organization or industry. For example, government financial managers must be experts on government appropriations and budgeting processes, and healthcare financial managers must know about topics in healthcare finance. Moreover, financial managers must be knowledgeable about special tax laws and regulations that affect their industry.

The following are examples of types of financial managers:

Chief financial officers (CFOs) are accountable for the accuracy of a company's or organization's financial reporting, especially among publicly traded companies. As head of a company's entire financial department, they manage the lower level financial managers. They oversee the company's financial goals, objectives, and budgets.

Controllers direct the preparation of financial reports that summarize and forecast the organization's financial position, such as income statements, balance sheets, and analyses of future earnings or expenses. Controllers also are in charge of preparing special reports required by governmental agencies that regulate businesses. Often, controllers oversee the accounting, audit, and budget departments of their organization.

Treasurers and finance officers direct their organization's budgets to meet its financial goals. They oversee the investment of funds and carry out strategies to raise capital (such as issuing stocks or bonds) to support the firm's expansion. They also develop financial plans for mergers (two companies joining together) and acquisitions (one company buying another).

Credit managers oversee their firm's credit business. They set credit-rating criteria, determine credit ceilings, and monitor the collections of past-due accounts.

Cash managers monitor and control the flow of cash that comes in and goes out of the company to meet the company's business and investment needs. For example, they must project cash flow (amounts coming in and going out) to determine whether the company will have a shortage or surplus of cash.

Risk managers control financial risk by using strategies to limit or offset the probability of a financial loss or a company's exposure to financial uncertainty. Among the risks they try to limit are those that stem from currency or commodity price changes.

Insurance managers decide how best to limit a company’s losses by obtaining insurance against risks, such as the need to make disability payments for an employee who gets hurt on the job or the costs imposed by a lawsuit against the company.

What Computer and Information Systems Managers Do

IT directors sometimes present new ideas to a firm’s top executives.

Computer and information systems managers, often called information technology (IT) managers or IT project managers, plan, coordinate, and direct computer-related activities in an organization. They help determine the information technology goals of an organization and are responsible for implementing computer systems to meet those goals.

Duties

Computer and information systems managers typically do the following:

- Analyze their organization’s computer needs and recommend possible upgrades for top executives to consider
- Plan and direct the installation and maintenance of computer hardware and software
- Ensure the security of an organization’s network and electronic documents
- Assess the costs and benefits of new projects and justify funding on projects to top executives

- Learn about new technology and look for ways to upgrade their organization's computer systems
- Determine short- and long-term personnel needs for their department
- Plan and direct the work of other IT professionals, including computer systems analysts, software developers, information security analysts, and computer support specialists
- Negotiate with vendors to get the highest level of service for their organization's technology

Few managers carry out all of these duties. There are various types of computer and information systems managers, and the specific duties of each are determined by the size and structure of the firm. Smaller firms may not employ every type of manager.

The following are examples of types of computer and information systems managers:

Chief information officers (CIOs) are responsible for the overall technology strategy of their organizations. They help determine the technology or information goals of an organization and then oversee implementation of technology to meet those goals.

CIOs may focus on a specific area, such as electronic data processing or information systems, but CIOs tend to focus more on long-term or big picture issues. At small organizations a CIO has more direct control over the IT department, and at larger organizations other managers under the CIO may handle the day-to-day activities of the IT department.

CIOs who do not have technical expertise and who focus solely on a company's business aspects are included in a separate profile on top executives.

Chief technology officers (CTOs) evaluate new technology and determine how it can help their organization. When both CIOs and CTOs are present, the CTO usually has more technical expertise.

The CTO is responsible for designing and recommending the appropriate technology solutions to support the policies and directives issued by the CIO. CTOs also work

The CTO usually reports directly to the CIO and may be responsible for overseeing the development of new technologies or other research and development activities.

When a company does not have a CIO, the CTO determines the overall technology strategy for the firm and presents it to top executives.

IT directors, including management information systems (MIS) directors, are in charge of their organizations' information technology (IT) departments, and they directly supervise other employees. IT directors help to determine the business requirements for IT systems, and they implement the policies that have been chosen by top executives. IT directors often have a direct role in hiring members of the IT department. It is their job to ensure the availability of data and network services by coordinating IT activities. IT directors also oversee the financial aspects of their department, such as budgeting.

IT security managers oversee their organizations' network and data security. They work with top executives to plan security policies and promote a culture of information security throughout the organization. They develop programs to keep employees aware of security threats. These managers must keep up to date on IT security measures. They also supervise investigations if there is a security violation.

What Top Executives Do

Top executives often report to a board of trustees.

Top executives devise strategies and policies to ensure that an organization meets its goals. They plan, direct, and coordinate operational activities of companies and organizations.

Duties

Top executives typically do the following:

- Establish and carry out departmental or organizational goals, policies, and procedures
- Direct and oversee an organization's financial and budgetary activities
- Manage general activities related to making products and providing services
- Consult with other executives, staff, and board members about general operations
- Negotiate or approve contracts and agreements
- Appoint department heads and managers
- Analyze financial statements, sales reports, and other performance indicators
- Identify places to cut costs and to improve performance, policies, and programs

The responsibilities of top executives largely depend on an organization's size. For example, an owner or manager of a small organization, such as an independent retail store, often is responsible for purchasing, hiring, training, quality control, and day-to-day supervisory duties. In large organizations, however, top executives typically focus more on formulating policies and strategic planning, while general and operations managers direct day-to-day operations.

The following are examples of types of top executives working in the private sector:

Chief executive officers (CEOs), who are also known by titles such as executive director, managing director, or president, provide overall direction for companies and organizations. CEOs manage company operations, formulate and implement policies, and ensure goals are met. They collaborate with and direct the work of other top executives and typically report to a board of directors.

Chief operating officers (COOs) oversee other executives who direct the activities of various departments, such as human resources and sales. They also carry out the organization's guidelines on a day-to-day basis.

General and operations managers oversee operations that are too diverse and general to be classified into one area of management or administration. Responsibilities may include formulating policies, managing daily operations, and planning the use of materials and human resources. They make staff schedules, assign work, and ensure that projects are completed. In some organizations, the tasks of chief executive officers may overlap with those of general and operations managers.

The following are examples of types of top executives working in the public sector:

Mayors, along with **governors, city managers, and county administrators**, are chief executive officers of governments. They typically oversee budgets, programs, and the use of resources. Mayors and governors must be elected to office, whereas managers and administrators are typically appointed.

Most educational systems, regardless of whether they are public or private school systems, also employ executive officers. The following are examples of top executives working in the elementary, secondary, and postsecondary educational school systems:

School superintendents and **college** or **university presidents** are chief executive officers of school districts and postsecondary schools. They manage issues such as student achievement, budgets and resources, general operations, and relations with government agencies and other stakeholders.