

JOINT FINANCIAL MANAGEMENT  
IMPROVEMENT PROGRAM



**CONTINUING PROFESSIONAL  
EDUCATION:  
Federal GS-510 Accountants' Report  
December 1990**

143680

JFMIP-8

## *Joint Financial Management Improvement Program*

The Joint Financial Management Improvement Program (JFMIP) is a joint cooperative undertaking of the Office of Management and Budget, the General Accounting Office, the Department of the Treasury, and the Office of Personnel Management, working with each other and with operating agencies to improve financial management practices throughout government. The Program was initiated in 1948 by the Secretary of the Treasury, the Director of the Bureau of the Budget, and the Comptroller General, and was given statutory authorization in the Budget and Accounting Procedures Act of 1950. The Civil Service Commission, now the Office of Personnel Management, joined JFMIP in 1966.

The overall objective of the JFMIP is to make improvements that contribute significantly to the effective and efficient operations of governmental programs. Activities aimed at achieving this objective include:

- Developing general objectives in those areas of common interest to the central agencies for guiding the improvement of financial management across government and promoting strategies for achieving those objectives.
- Reviewing and coordinating central agencies' activities and policy promulgations affecting financial management to avoid possible conflict, inconsistency, duplication, and confusion.
- Undertaking projects and special reviews of significant problems and new technologies in financial management and publishing the findings and conclusions.
- Acting as a catalyst and clearinghouse for sharing and disseminating financial management information about good financial management techniques and technologies.
- Reviewing the financial management efforts of the operating agencies and serving as a catalyst for further improvements.

The JFMIP plays a key role in mobilizing resources and coordinating cooperative efforts in the improvement of financial management practices, and relies on the active participation of federal agencies to be successful. The Joint Program is guided by a Steering Committee consisting of key policy officials from each of the sponsoring agencies. A key official from a program agency also serves on the Steering Committee. A small staff headed by an Executive Director provides support to the Committee.



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*“Investments must be made to ensure that employees maintain, and even increase, their professional skills to help the government keep pace with emerging technology and developments in financial management.”*

— H. Report 101-818, Part 1, p. 17, accompanying the Chief Financial Officers Act of 1990, P.L. 101-576, Nov. 15, 1990.

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**MEMORANDUM TO:** President's Council on Management Improvement  
Chief Financial Officers Council  
Federal Financial Managers' Council  
Comptrollers Roundtable  
Other Federal Financial Managers

**SUBJECT:** Continuing Professional Education for Federal Accountants

Inadequate financial systems and serious internal control weaknesses in the federal government have been identified for priority attention. Long-term efforts to overcome these weaknesses will require a pool of well-educated accountants. That talent pool is very thin today and is likely to shrink further unless we start now to systematically rebuild our in-house expertise.

This report documents the results of the JFMIP's project on continuing professional education for federal accountants. The report was developed by the JFMIP project team with assistance and advice from federal financial managers, academicians, and practitioners. It provides a statement of federal accountants' major functions in such areas as (1) technical guidance; (2) internal control; (3) financial analysis and reporting; (4) system development, operation, and maintenance; and (5) supervision, leadership, and communication. Further, it provides a list of subject areas which cover the knowledge, skills, and abilities of federal accountants and of the major federal guidelines that accountants must apply. Finally, it provides a continuing professional education model as a guide to agencies.

Because accounting information provides the foundation for sound financial decisions, we recommend that continuing professional education for federal accountants be incorporated into long-range plans and implemented by departments and agencies for improvement of financial management. Further, we recommend that OMB encourage a continuing education policy for federal accountants and provide monetary commitment for it. Such action could be a key ingredient in the effective implementation of the Chief Financial Officers Act of 1990.

The JFMIP Steering Committee:

Handwritten signature of Gerald Murphy in cursive.

Gerald Murphy  
Fiscal Assistant Secretary  
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Jimmie D. Brown  
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Virginia B. Robinson  
Executive Director  
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# EXECUTIVE SUMMARY

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## BACKGROUND

Continuing professional education (CPE) for federal accountants is vital to keep pace with the vast changes in federal financial operations due to legal, regulatory, standard, and technological developments. The government, however, does not offer an effective CPE program to meet these changes and maintain the highest professional competency of its 12,000 GS-510 accountants.

## PROJECT OBJECTIVES AND SCOPE

The Joint Financial Management Improvement Program (JFMIP) Steering Committee directed its staff to review accountant training needs through the 1990s and develop a comprehensive academic and continuing education statement in the interests of upgrading the professionalism of federal accountants. The project staff developed and circulated for comment statements listing federal accountants' functions; knowledge, skills, and abilities; and education needs.

## PROJECT RESULTS

Financial managers in all departments and major independent agencies responded in a very positive manner to the project's statements of accountants' primary functions; knowledge, skills, and abilities; and continuing education needs. They said that these statements were comprehensive and needed.

Managers also requested continuing professional education that focused on applying federal requirements. The subject areas for which agencies should provide educational opportunities for their entry- and career-level accountants cover the knowledge, skills, and abilities that accountants apply in carrying out their primary functions: (1) technical guidance; (2) internal control; (3) financial analysis and reporting; (4) system development, operation, and maintenance; and (5) supervision, leadership, and communication.

To guide agencies in making and implementing plans for continuing professional education, the project team developed a continuing professional education (CPE) model. Federal financial managers, career development managers, and education specialists should use this CPE model, functions statement, and suggested education list to develop or improve their continuing education plans for federal accountants. Individual accountants are encouraged to use this information to assess their current expertise and plan their continuing education. Agency management is also urged to incorporate CPE into federal accountant position descriptions, monitor the completion of CPE, and assess compliance in annual performance appraisals of the accountants and their supervisors.

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## **EXECUTIVE SUMMARY**

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### **CONCLUSION AND RECOMMENDATIONS**

Continuing education of federal entry- and career-level accountants involves the commitment of management in central and program agencies. To implement uniform strategies for improving continuing education and professionalism, we recommend that

#### **AGENCY MANAGEMENT:**

1. Support a continuing education policy for federal accountants and provide monetary commitment for it.
2. Include in GS-510 position descriptions a requirement that accountants should obtain at least 80 hours of relevant continuing education every 2 years and incorporate this requirement in the agency's career development program.
3. Incorporate the functions statement for federal accountants into agency job or position descriptions in whole or by reference.
4. Develop or update continuing education plans for accountants, using this report as a guide, and also
  - a. Monitor the completion of CPE and
  - b. Assess, in annual performance appraisals, supervisor and employee compliance with the agency's continuing education requirements.

#### **OMB:**

Support a continuing education policy for federal accountants and provide monetary commitment for it.

#### **OPM:**

Incorporate by reference the functions statement for federal accountants into the governmentwide GS-510 accountant classification standard.

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**ABBREVIATIONS AND ACRONYMS**

<b>AGA</b>	<b>Association of Government Accountants</b>
<b>CFO</b>	<b>Chief Financial Officer</b>
<b>C.F.R.</b>	<b>Code of Federal Regulations</b>
<b>CPE</b>	<b>Continuing Professional Education</b>
<b>FASB</b>	<b>Financial Accounting Standards Board</b>
<b>FMFIA</b>	<b>Federal Managers' Financial Integrity Act</b>
<b>GAAP</b>	<b>Generally accepted accounting principles</b>
<b>GAO</b>	<b>General Accounting Office</b>
<b>GASB</b>	<b>Government Accounting Standards Board</b>
<b>GSA</b>	<b>General Services Administration</b>
<b>JFMIP</b>	<b>Joint Financial Management Improvement Program</b>
<b>KSAs</b>	<b>Knowledge, skills, and abilities</b>
<b>OMB</b>	<b>Office of Management and Budget</b>
<b>OPM</b>	<b>Office of Personnel Management</b>
<b>PCIE</b>	<b>President's Council on Integrity and Efficiency</b>
<b>SGL</b>	<b>U.S. Government <i>Standard General Ledger</i></b>



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# INTRODUCTION

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Continuing professional education (CPE) of federal accountants is vital to keep pace with the constant changes in federal financial operations due to new or amended administrative or program legislation; regulatory, standard, or technological developments; and an increasing span of responsibilities evolving from automation advances. Government accountants need appropriate education to 1) conduct and communicate the results of their work proficiently, 2) maintain awareness for internal or external fraud and abuse, and 3) better monitor the vast and numerous risks in the government's programs and administrative operations involving large dollar amounts and extensive transaction volume.

Federal government accountants and other staff maintain financial data for a fiscal year 1990 budget of 1 trillion dollars. In today's climate of fiscal constraint, continuing education for accountants in government operations is important. Because training increases productivity, the providing of continuing education will help to achieve economy and efficiency.

According to the National Commission on the Public Service<sup>1</sup>, statistics show that training employees results in higher retention and morale and increased credibility. The Commission stated that government training shows a lack of clarity about the purposes, costs, and benefits of training. The Commission suggested three training purposes to keep in mind: proficiency on the job, training for renewal, and training for growth and development.

The *Government Employees Training Act*, Chapter 41 of Title 5, *U.S. Code*, provides the basic authorization for employee training throughout most of the government. Executive Order 11348, April 29, 1967, directs agency heads on using this general statutory authority. Both the law and the Executive Order authorize OPM to issue regulations governing various aspects of the law. In carrying out these governmentwide duties, OPM provides training oversight along with advice and leadership in personnel management and evaluation. Agency management is assigned by law (5 U.S.C. 4103) the responsibility for establishing and implementing an agency's program to ensure professional proficiency through continuing education and on-the-job training.

Based on our observations, the government does not offer an effective continuing education program to maintain the highest professional competency of its 12,000 accountants (see appendix 4). The government's most direct options are to pay more to compete for accounting entrants or provide continuing education for those on board. The most feasible choice is for the government to focus

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1 Paul A. Volcker, *Leadership for America: Rebuilding the Public Service*, 1989, pp. 140-155.

on continuing professional education to develop and maintain qualified accountants.

Regardless of whether the government is able to compete for the new entrants, federal accountants need continuing education. This is exemplified, in part, by repeated accounting and administrative internal control<sup>2</sup> problems throughout the government.

### **The Role of the Federal Accountant**

Accountants use disciplined skills to measure economic events and communicate the results for decision-making purposes. Central agency management, operating agency administrative and program managers, Members of Congress and staff, and others, many of whom may be nonaccountants, use the results of accountants' work for decision-making and comparison purposes. Thus, the accountant's work is a substantive part of the "language of management." Today's accounting and financial staff, controller, and chief financial officer are part of management. They make decisions in carrying out their jobs. They also provide important information to help others make good, rational decisions.

By definition, accounting is the system of organization and controls over an entity's economic events<sup>3</sup>. Accounting includes the art of analyzing the financial position and operating results of the entity or a segment within it. The profession's discipline evolves from accounting standards, policies, procedures, and the design, development, installation, operation, and maintenance of accounting information systems.

In addition to this specialized background, federal accountants communicate to government decisionmakers the meaning, significance, and status of federal funding, concepts, proposals, and alternatives. They also must be knowledgeable of the development and use of automated systems to provide quick responses to the financial information needs of the organization, the Congress, and the central management and review agencies of the federal government. In the context of this report, the central agencies include the General Accounting Office (GAO), the Office of Management and Budget (OMB), the Office of Personnel Management (OPM), and the Department of the Treasury.

To effectively communicate with management, accountants must provide accurate, complete, and timely accounting, financial, budgetary, and program information concerning all transactions and the status of operations, including

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- 2 For purposes of this report, the terms internal controls, internal accounting and administrative controls, and management controls are synonymous.
  - 3 Donald E. Kieso and Jerry J. Weygandt, *Intermediate Accounting*, 6th ed., 1988.

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## **Introduction**

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obligation and cost data, in an efficient, economical manner. Federal accountants can, and should more often, be called on to help determine the most cost-effective way to achieve a program's mission. This requires a conscious effort on the part of many accountants to interact more with other professionals in the financial management community, in particular budget and program managers and analysts. Using analytical and communication skills in the federal accountants' environment is vital to the success of each program's mission.

Many agencies have accounting responsibilities for multibillion-dollar programs and administrative operations. Their controls, accounting, reporting, and financial management practices should reflect a level of financial sophistication appropriate for their stewardship responsibilities. Thus, the accountant's proficiency is the foundation for the government's financial management improvement efforts. Continuing professional education is essential for accountants to keep pace throughout their careers with rapid changes in automated technology and refinement of federal accounting standards and budgeting concepts.

A systemic problem in federal accountants' proficiency is the absence of effective training. Continuing education has not been a requirement of continued employment and performance evaluation. However, for auditors (a related profession), federal audit standards state that individuals should obtain 80 hours of continuing education every two years.

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# PROJECT OBJECTIVES AND SCOPE

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**T**o carry out its mandate to improve federal financial management, the JFMIP Steering Committee directed its staff to study the issue of federal accountants' training needs. At the Committee's direction, the major objective was to develop a comprehensive list of subject areas for the continuing education of federal accountants. (The GS-510 accountant series is a subset of the GS-500 financial personnel series.)

**This report**

- presents a statement of federal accountants' functions and identifies subject areas for accounting and related education;
- discusses accountants' continuing professional education (CPE);
- provides a model for implementation of CPE by agency management;
- discusses CPE implementation, funding, and monitoring; and
- describes on-going efforts to restructure accounting education.

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# PROJECT ACCOMPLISHMENTS AND RESULTS

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## JFMIP Development Efforts

The project's initial information base included discussions with federal financial managers and a review of recent OPM, U.S. Army Accounting and Finance Center, and Association of Government Accountants studies on accountant education, experience, and classification standards. Reference sources also included academician and practitioner literature addressing the future of accounting education. The bibliography lists the project's reference sources.

The project's staff developed preliminary statements on accountants' functions, knowledge, skills, abilities, and subject areas for continuing education from consultations with eight federal financial managers and from reviews of commonly-used federal reference sources. These individuals assisted the project staff in identifying the primary duties of the major categories of federal GS-510 accountants as presented in the functions statement. The knowledge, skills, and abilities to perform these accounting functions and the relevant education needs were then identified.

Seventy financial managers in all federal departments and major independent agencies received draft copies of the functions, knowledge, skills, abilities, and continuing education statements. These draft copies were distributed through the Chief Financial Officers Council, the Federal Financial Managers' Council, the Comptrollers Roundtable, and other selected organizations and individuals in academia and public accounting firms. Comments from the federal financial management community and the other respondents cited the draft statements as comprehensive and needed.

The detailed results of this effort are presented in the following appendixes:

Appendix 1: Primary Functions, Activities, and Tasks for Major Categories of GS-510 Accountants

Appendix 2: Suggested Areas of Education for GS-510 Accountants

## Functions Statement

Because no federal standard describes in sufficient depth the nature, range, and complexity of GS-510 accountants' functions and responsibilities, the project staff and federal financial managers reviewed and organized these duties as presented in the functions statement (appendix 1). The functions statement identifies three major categories of GS-510 accountants:

- **Staff Accountant:** Accountants whose work is primarily devoted to accounting and financial management policy development as well as general management accounting;

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## Project Accomplishments and Results

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- **Operations Accountant:** Accountants whose work is primarily devoted to day-to-day operations, financial reporting, and cost accounting; and
- **Systems Accountant:** Accountants whose work is primarily devoted to financial management systems design, development, implementation, maintenance, and documentation.

Many duties of these three accountant categories are considered interchangeable, except for technical computer matters. Therefore, identification of the common functions among federal accountants can be classified into five major areas:

1. **Technical Guidance:** The understanding, interrelating, interpreting, explaining, and applying of accounting and budget concepts, standards, principles, policies, and procedures, especially federal appropriation law, fund control, accounting and reporting requirements, and also computer skills.
2. **Internal Control:** The monitoring and managing of a specific entity, program, or appropriation's accounting, administrative, or management controls.
3. **Financial Analysis and Reporting:** The monitoring, reviewing, or examining of account, specific appropriation, or entire entity's financial records for interim status reports; monthly, quarterly, or annual reporting requirements; or other special needs.
4. **Systems Development, Operation, and Maintenance:** The coordinating, designing, developing, operating, maintaining, reviewing, and modifying of all accounting, financial, and related systems for effecting financial management, including interaction with budgetary and program functions, in accordance with federal requirements and guidance.
5. **Supervision, Leadership, and Communication:** The dealing successfully through interpersonal skills with a variety of organizational and individual characteristics, loyalties, issues, and commitments; delegating and assigning responsibilities; managing information flows; communicating effectively; and related behavioral matters.

The functions statement contains some duplication to better serve the needs of a broad audience with varied responsibilities in their financial management environments. To upgrade the functions and quality of work of federal accountants, we support agency recommendations to incorporate the functions statement into agency job or position descriptions in whole or by specific reference to appendix 1 to clarify federal accountants' duties.



### **Education Areas for Federal Accountants**

The entry requirement for GS-510 accountants is education and/or experience that meets the OPM qualification standard (see page 9).

Based on the functions statement and related knowledge, skills, and abilities, the suggested subject areas for federal accountants' continuing professional education were developed. These are presented in appendix 2 and are summarized below:

#### **Continuing professional education:**

1. Updates on generally accepted accounting principles, concepts, and applications
2. Federal accounting, budgeting, and reporting references:
  - Federal accounting standards
  - Appropriation law for federal government and Comptroller General decisions
  - U.S. Government *Standard General Ledger*
  - JFMIP *Federal Financial Management Systems* requirements
  - *Treasury Financial Manual*
  - Federal budget formulation (OMB Circular A-11)
  - Federal budget execution (OMB Circular A-34)
  - Appropriation (fund control) accounting
  - Other legal or regulatory requirements
3. Other appropriate education:
  - Internal agency policies and procedures
  - Agency accounting manuals and handbooks
  - Organizational and program orientation
  - On-the-job cross-training
  - Maintaining adequate automated or manual documentation
  - Statistical sampling as appropriate
  - Preventing, detecting, and reporting fraud
  - Evaluating accounting systems
  - Understanding computer equipment, computer system design, development, controls, software, maintenance, and security
  - Database concepts, applications, processing, maintenance, and analysis
  - Management of projects and resources
  - Communication and behavioral skills

The list includes appropriate subject areas to provide flexibility for specialization of duties among the major categories of the GS-510 accountant series. The implementation of this list as a continuing professional education plan requires a strong organizational commitment to educate and train staff.

### **Federal Guidance to be Applied by Accountants**

A separate list of major federal guidelines to be applied by accountants was developed. This list, presented in more detail in appendix 3, covers

- *Principles of Federal Appropriations Law* plus numerous Comptroller General and agency decisions
- program and agency administrative legislation
- generally accepted accounting principles
- federal accounting standards (*GAO Policy and Procedures Manual for Guidance of Federal Agencies*, particularly *title 2* and related payroll and fiscal requirements in *titles 6* and *7*)
- OMB budgetary reporting requirements and guidance
- U.S. Government *Standard General Ledger*
- JFMIP *Federal Financial Management Systems: Core Financial System Requirements*, which are incorporated in GAO, OMB, and Treasury requirements
- Treasury financial reporting requirements
- other requirements, such as federal acquisition, personnel, travel, and records regulations

Because these federal accounting requirements are extensive, it may take 5 to 10 years to cover them in courses, seminars, and on-the-job training.

### **Federal Accountant Qualification Standard**

The continuing professional education needed by a GS-510 accountant is determined in part by the extent of the individual's education on entering employment. The qualification standard established by OPM for a GS-510 accountant is as follows (the qualification standard is combined for the GS-510 accountant and GS-511 auditor series):<sup>4</sup>

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4 The statement is quoted from page 51 of the *Qualification Standard for Two-Grade Interval Professional Positions*, Office of Personnel Management, June 1990.

**Basic Requirements:**

A. Degree: accounting; or a degree in a related field such as business administration, finance, or public administration that includes or was supplemented by 24 semester hours in accounting. The 24 hours may include up to 6 hours of credit in business law. (The term 'accounting' means 'accounting and/or auditing' in this standard. Similarly 'accountant' should be interpreted, generally, as 'accountant and/or auditor.')

OR

B. Combination of education and experience—at least 4 years of experience in accounting, or an equivalent combination of accounting experience, college-level education, and training that provided professional accounting knowledge. Applicant's background must also include at least one of the following:

1. Twenty-four semester hours in accounting or auditing courses of appropriate type and quality. This can include up to 6 hours of business law.
2. A certificate as Certified Public Accountant or a Certified Internal Auditor, obtained through written examination.

OR

3. Completion of the requirements for a degree with major study in accounting, auditing or a related field which includes substantial course work in accounting or auditing, e.g., 15 semester hours, but which does not fully satisfy the 24 semester hour requirement of paragraph A, provided that (a) the applicant has successfully demonstrated the ability to perform work of the GS-11 or higher grade level in accounting, auditing or a related field, e.g., valuation engineering or financial institution examining; (b) a panel of at least two higher level professional accountants or auditors have determined that the applicant has demonstrated a good knowledge of accounting and of related and underlying fields that equals in breadth, depth, currency, and level of advancement which is normally associated with successful completion of the 4-year course of study in paragraph A; and (c) except for literal nonconformance to the requirement of 24 semester hours in accounting, the applicant's education, training, and experience fully meet the specified requirements.

### **Continuing Professional Education**

The need to maintain proficiency through continuing professional education is common to all professions. The federal audit community recognized the need for continuing professional education and incorporated a recommendation in the 1988 revision of the *Government Auditing Standards*<sup>5</sup>. These standards state that auditors should obtain at least 80 hours of continuing professional education every 2 years. Two reports issued by the President's Council on Integrity and Efficiency (PCIE) also addressed auditors' training: the *Study of Auditor Training*, November 1987, and the *1988 Compendium of Training Courses Available in the Federal Audit Community*.

Ideally, a continuing professional education program for federal accountants should

- complement an undergraduate or equivalent qualification in accounting, business administration, or finance;
- include the unique accounting, legal, regulatory, and reporting requirements of the federal sector;
- keep federal accountants up-to-date with current events within the accounting profession; and
- provide the skills necessary to apply new technologies in automation, information management, and accounting.

It is recommended that agency management require federal accountants to obtain 80 hours of continuing professional education every 2 years, similar to auditor requirements. Accountants' continuing education should include accounting concepts, assessment of internal and management controls, sampling design, data analysis, and supervision. Training may cover subjects related to public administration, public policy, economics, social sciences, and computer science.

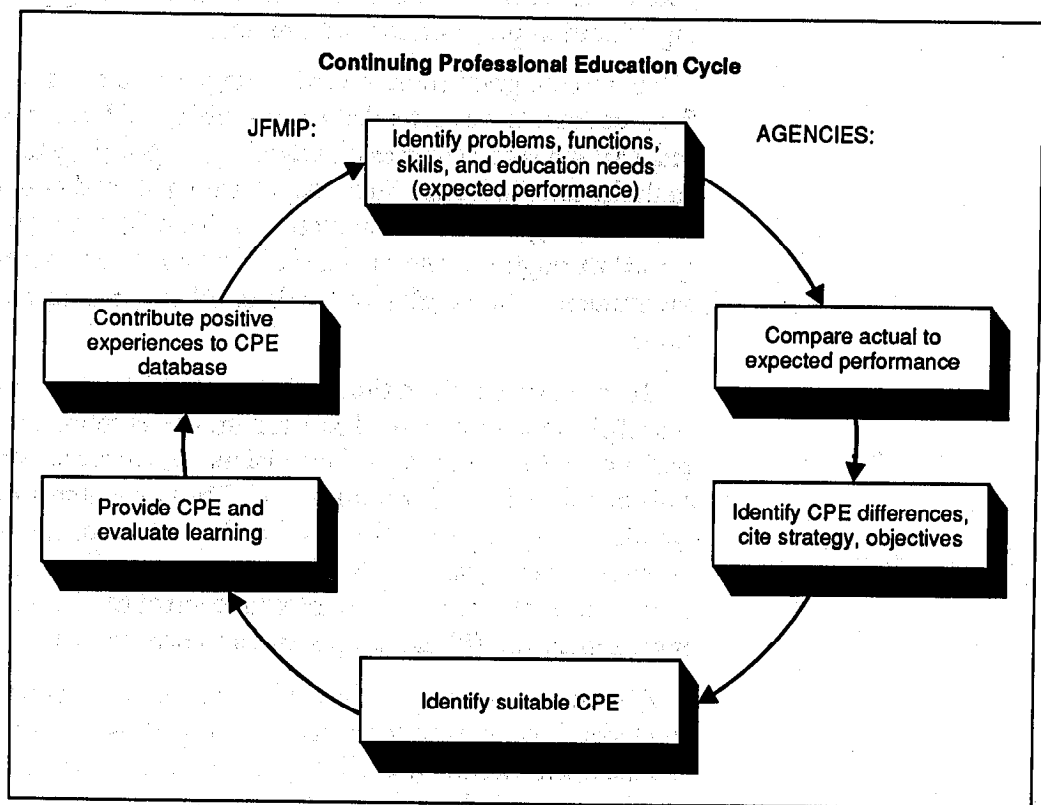
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<sup>5</sup> U.S. General Accounting Office, *Government Auditing Standards*, 1988 revision, pp. 1-1 and 1-2.

**CPE Model and Agency Implementation**

In developing this report, the project objectives were to (1) identify the functions, knowledge, skills, and abilities of federal accountants; (2) develop the subject areas list for their continuing professional education (expected performance); and (3) recommend actions to the federal financial management community. The project team prepared the following continuing professional education model to illustrate the cycle of CPE development, implementation, and evaluation. The CPE model shows

- what the JFMIP project accomplished and
- what agency financial management and education specialists need to do to complete the continuing education cycle.



Upon receiving this report, agencies are encouraged to complete the loop in the continuing education model over a period of time. First, agencies may assess their accountants' performance with the JFMIP functions statement and continuing education list. This will help agencies to identify educational needs, that is, the difference between expected (appendix 1) and actual performance by the agency's accountants. It is a good idea to work with education specialists throughout the various steps in the model.

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## Project Accomplishments and Results

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Next, agency management can plan an education strategy to meet continuing education needs. After deciding agencywide education objectives for its accountants, the agency may identify suitable continuing education or training, and arrange, conduct, or develop appropriate continuing education. Education specialists can assist greatly in focusing the delivery of the education message—a good combination for course development is to team subject-matter experts with instructional design specialists.

After evaluating participant learning, agencies should contribute to a governmentwide continuing education database those (classroom or self-study) courses or seminars which resulted in positive learning experiences. In some instances, if course materials were made available to other federal agencies, educational opportunities could be increased at nominal cost. Depending on the status of department and agency continuing education programs for accountants, it is expected that some may need to do more work than others to upgrade their continuing education program for accountants.

To develop good staff, federal managers stated that the best on-the-job-training for accountants was extended cross-training of 1 or 2 years in each of the major financial management areas: budgeting, accounting, financial and program analysis, and reporting. Such cross-training should also include headquarters and regional assignments. Combination of formal training with on-the-job experience, gained through extensive rotational programs and successively more responsible assignments, also develops candidates for top management and leadership positions.

Representatives from the Departments of the Air Force and the Army stated that their departments send selected mid-level staffers with several years experience to their integrated financial management programs. Courses are taught full-time for a 5- or 6-month period. The curriculums include (1) accounting standards, (2) appropriation law and legal decisions, (3) budget formulation and execution, (4) Treasury financial reporting requirements, (5) internal management information needs, (6) internal control reporting, (7) acquisition and travel regulations, and (8) agency policies and procedures.

Accountant training in the civilian agencies does not adequately focus on teaching federal accounting concepts and integrating the various reporting requirements. Such training heavily focuses on procedures or reiteration of reporting requirements. Federal financial managers' comments pointed out that the ability to apply concepts and analytical skills is important for all accountants because their work supports management decisions. The managers observed that acquiring such abilities is particularly important for accounting technicians or paraprofessionals who have entered accountant positions.

### **Relevant Courses Are Often Difficult To Find**

The project staff searched for an appropriate course database for federal accountants to support the CPE subject areas list. The available databases covered courses in finance and supervision. They included course data provided by OPM, the Departments of Energy and Transportation, the Department of the Army, the USDA Graduate School, and other agencies.

An available database fully covering the subject areas for accountants' CPE, however, did not exist. To fill this void, the JFMIP Steering Committee directed that a compendium of appropriate courses be developed and updated periodically. This supporting compendium of courses will be available as a separate document to accompany this continuing education report. It will be updated periodically through agency submission of course additions and feedback on course participation and evaluation of the learning experience.

### **Funding CPE**

In the current federal deficit situation, funds for training are limited. GAO reported to the Congress<sup>6</sup> that 30 of 66 responding agencies had reduced training funds by 10 percent or more due to overall budget cuts required by the balanced budget act (Gramm-Rudman-Hollings). Twelve agencies reported cuts of 50 percent or greater. While training funds may be early candidates for budget-cutting, agency management should carefully consider such actions.

The Volcker Commission pointed out that if training is understood to be an element of investment for growth and productivity, federal expenditures on training are low. "The federal government spends about three-quarters of 1 percent of its payroll dollars on training. In contrast, many of the top-rated companies spend as much as 10 percent of payroll for this purpose, while the military devotes as much as 15 to 20 percent of its payroll dollars to this goal."<sup>7</sup>

### **Monitoring CPE**

Management is responsible for overseeing the agency's continuing education program as well as monitoring and documenting individual employee's compliance with CPE requirements. Agencies should document completed education or training. Annual performance appraisal of both employees and supervisors should reflect compliance with agency CPE expectations.

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6 *Training Budgets: Agency Budget Reductions in Response to the Balanced Budget Act* (GAO/GGD-86-98BR, July 16, 1986).

7 *Leadership for America: Rebuilding the Public Service*, Vol. 2, p. 143.

To monitor CPE, some agency managers are developing continuing education plans and tracking systems with assigned credit for classroom, seminar, workshop, or self-study training. Teaching accounting in colleges and universities should also count for credit. Managers of existing CPE programs may be contacted for information. Some references are the GAO Training Institute, inspectors general staff, and the U.S. Army Accounting and Finance Center.

### **Other Studies Promoting Further CPE**

Recent studies point out that continuing professional education of federal government personnel should increase. The *Civil Service 2000* report, issued by OPM in June 1988, stated that federal training needs should concentrate on highly skilled professionals with transferable skills and in rapidly evolving fields. The report included accountants in this group and further noted that the government will hire few from the private sector above the entry level. Thus, the government must invest heavily in continuing development of skills. To maintain an up-to-date skill base, agencies must reinvest in their technical work force at all levels.

The report also stressed educating for the future. It stated that the obvious solution to the difficulties in hiring the most educated workers is to educate and train those already on board. Where skills are now or will be in short supply, agencies should invest in new schooling for current employees. Tuition aid, educational sabbaticals, and even multiyear advanced training programs should be the norm in agencies having skill shortages. Where appropriate, programs may require some cost sharing and the participant's commitment to continued federal employment.

In another report, issued in April 1989, the Volcker Commission recommended that OPM encourage agencies to develop their own CPE programs, to arrange for comparable training with other government agencies, or to look outside government for the needed training. While the commission stated that OPM should get out of the specialized training business and allow the agencies to take more responsibility for their own training<sup>8</sup>, the JFMIP concludes that OPM or other organizations must continue to conduct basic training for employees, particularly for those from the numerous small agencies.

In addressing mid-career education, the Volcker report noted that government training policies emphasize brief, job-focused training programs to achieve near-term results. Long-term training, which has the character of investment in human capital, was cut from most agencies' budgets. While recommending that agencies modify their policies to use the potential of the educational community, the commission also stated that academia must respond with vigorous efforts to build

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8 *Leadership for America: Rebuilding the Public Service*, Summary Vol., p. 44.



effective mid-career programs. Management should also have a basic understanding that payoffs in training are long-term, not short-term.

Agency management, under OMB's budgetary oversight role, must actively and openly commit both policy and monetary support to CPE for accountants. Without continuing education to focus the accounting and financial management staffs on implementation of the most effective analytical methods and data for decisionmaking, the chances of inadequate or inappropriate decisions based on incomplete data and information increase.

Suggestions from federal managers for training that would cost less than on-campus training include providing for self-study and expanding university instruction at worksites. By cross-servicing or specializing in selected course development and presentation, agencies could share some costs of developing CPE courses for accountants.

In geographic areas with large concentrations of federal accountants, colleges may be encouraged to include in their accounting and public administration curriculums elective courses on federal sector accounting and budgeting. Arrangements between agencies and the academic community could include certificate programs of six to eight courses in related study areas, such as controllership or information management. Ideally, credit for these courses could be applied to an advanced degree. As noted in recent professional reports and literature, training of entry and career professionals should be a partnership between academic institutions, the practicing profession in the federal government, and the private sector.

### **Ongoing Efforts to Restructure Accounting Education**

Academicians and practitioners are addressing the future of accounting education. Large accounting firms cite the Bedford Committee's report<sup>9</sup> for its analyses and recommendations on curriculum content and teaching methods. They consider the report an excellent foundation for the restructuring of accounting education. Ten of the committee's 28 recommendations address the future scope, content, and structure of accounting education, calling for a broad undergraduate curriculum. The committee recommended that colleges and universities approach accounting education as an information development and distribution function for economic decisionmaking. The report also points out that, in addition to the

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9 Norton Bedford et al, "Future Accounting Education: Preparing for the Expanding Profession, the American Accounting Association Committee on the Future Structure, Content, and Scope of Accounting Education," *Issues in Accounting Education* (Spring 1986), pp. 168-195.

traditional analysis of transactions into financial statements, the restructuring needs to expand instruction into such areas as disclosure.<sup>10</sup>

The Bedford Committee's report addresses the future curriculum as spanning five major educational components: general education, general professional education, specialized professional accounting education (at the graduate level only), doctoral programs, and continuing education programs. The committee pointed out that close cooperation between universities, accounting firms, government organizations, industry, and professional societies is necessary to restructure the accounting curriculum. The Bedford Committee further stated that an early topic of study should be the nature, the design, and the implementation of information systems.<sup>11</sup>

The committee's plan<sup>12</sup> for implementation by the year 2000 suggested three phases to the academic and practitioner communities: (1) gathering support—which is described in a detailed treatise,<sup>13</sup> (2) putting it to work—target completion date 1990, and (3) midcourse review—target date 1995. The largest accounting firms<sup>14</sup> have offered \$4 million in grants to support development of curriculums that are responsive to the needs of the profession; further, a coordinating committee has been established. In support of the Bedford Committee and accounting firm initiatives, representatives of the federal financial community should monitor the progress of accountants' curriculum restructuring and meet and participate with the committee to voice federal concerns and needs.

Accountants in both the public and private sectors have recognized the need to develop the entry and career accountant's ability to think, communicate, understand the nature and role of ethics, and use judgment to support decisionmaking. Federal financial managers, academicians, and the professional organizations are calling for more emphasis on communication; behavioral sciences; and understanding the entity's administrative processes, including strategic decisionmaking and planning, economics, managerial accounting, and use of computers and information systems.

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10 "Future Accounting Education," p. 191.

11 "Future Accounting Education," p. 179.

12 "Future Accounting Education," pp. 194-195.

13 Joseph J. Schultz, Jr., et al, eds. *Reorienting Accounting Education: Reports on the Environment, Professoriate, and Curriculum of Accounting*, American Accounting Association, Accounting Education Series, vol. no. 10, 1989.

14 Arthur Anderson & Co., et al. *Perspectives on Education: Capabilities for Success in the Accounting Profession* Apr. 1989, p. 3.

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# CONCLUSION AND RECOMMENDATIONS

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Overall, the task of establishing continuing professional education for entry and career federal accountants to maintain them at effective and productive levels involves the commitment of top-level management in GAO, OMB, OPM, the Department of the Treasury, and all the other departments and agencies. In view of the developments in accounting education, changes in the accounting profession, and the continuing critical need to improve federal financial management, we recommend that

## AGENCY MANAGEMENT:

1. Support a continuing education policy for federal accountants and provide monetary commitment for it.
2. Include in GS-510 position descriptions a requirement that accountants should obtain at least 80 hours of relevant continuing education every 2 years; and also incorporate this requirement in the agency's career development program.
3. Incorporate the functions statement for federal accountants (appendix 1) into agency job or position descriptions in whole or by reference.
4. Develop or update continuing education plans for accountants, using this report as a guide, and also
  - a. Monitor the completion of CPE and
  - b. Assess, in annual performance appraisals, supervisor and employee compliance with the agency's continuing education requirements.

## OMB:

Support a continuing education policy for federal accountants and provide monetary commitment for it.

## OPM:

Incorporate by reference the functions statement for federal accountants into the governmentwide GS-510 accountant classification standard.

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**Appendix 1****PRIMARY FUNCTIONS, ACTIVITIES, AND TASKS  
FOR MAJOR CATEGORIES OF GS-510 ACCOUNTANTS**

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This appendix lists the functions, activities, and tasks of federal accountants. Three major accountant categories in the federal government are differentiated. These categories cover staff accountants (which includes policy and general management accountants), operations accountants (which includes cost accountants), and systems accountants. Except for technical computer matters, most of the duties of these three accountant categories are considered interchangeable, providing the individuals possess the requisite knowledge, skills, and abilities (KSAs) to carry out assigned functions. The KSAs for accountants are presented in appendix 2 along with a list of suggested areas of continuing education for federal accountants.

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**I. TECHNICAL GUIDANCE RESPONSIBILITIES**

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<u>Staff Accountant</u>	<u>Operations Accountant</u>	<u>Systems Accountant</u>	<u>Primary Functions, Activities, and Tasks</u>
Interprets, provides, or monitors	Implements or interprets	May assist with	<p>A. Major accounting policy guidelines and directives</p> <ul style="list-style-type: none"><li>• to comply with<ul style="list-style-type: none"><li>- legislation,</li><li>- Comptroller General decisions,</li><li>- changing conditions in appropriations,</li><li>- accounting standards (<i>GAO Policy and Procedures Manual for Guidance of Federal Agencies, Title 2</i>), payroll (<i>Title 6</i>), fiscal guidance (<i>Title 7</i>), GAAP for corporations, trusts, and OMB, Treasury, and agency reporting requirements;</li></ul></li><li>• to monitor and improve internal controls and compliance with the Federal Managers' Financial Integrity Act (FMFIA); and</li><li>• to improve financial management analysis, accounting, financial reporting and disclosure, and effectiveness and efficiency of operations (coordinates with I.B.)</li></ul> <p>1. Guidance, direction, and expert advice</p>
Provides	Implements	May assist with	<p>a. Authoritative determinations applying accounting concepts, principles, and standards to accounting and financial activities and operations</p>
Provides	Provides or implements	May provide	<p>b. Technical policy, procedural guidance, and financial management leadership on the overall operation of fiscal matters, accounting and financial systems, and financial reporting requirements for an organization's appropriated and nonappropriated funds</p>

<u>Staff Accountant</u>	<u>Operations Accountant</u>	<u>Systems Accountant</u>	<u>Primary Functions, Activities, and Tasks</u>
Develops or updates	Implements or uses	Uses or prescribes	c. Department or agency accounting manual, which prescribes accounts and recording of transactions according to the U.S. Government <i>Standard General Ledger</i> (SGL), operating procedures, and internal and external reporting requirements to provide for proper accounting and reporting of the organization's transactions
Establishes, facilitates, or may maintain	May establish, uses, maintains, or updates	May assist with	d. The organization's accounting code structure in compliance with the SGL to provide detailed support for its accounting manual instructions and to provide consistently compiled data
Directs, or monitors	Directs, monitors, implements, or provides	Assists with	e. Use of consistently compiled programming, accounting, budgeting, and reporting data and disclosures to promote better-informed decisionmaking
Provides	Implements	May assist with	<p>f. Policy guidance and direction for comprehensive financial management functions and appropriate interrelationships and assistance to program functions to ensure agencywide implementation of financial management initiatives such as</p> <ul style="list-style-type: none"> <li>• cash management improvements;</li> <li>• reporting on internal controls according to FMFIA requirements (see also IL.F.);</li> <li>• full implementation of credit management and debt collection according to standards in 4 C.F.R.100, OMB Circular A-129, and the <i>Treasury Financial Manual</i>;</li> <li>• prompt payment;</li> <li>• electronic funds transfer;</li> <li>• travel management; and</li> <li>• use of credit cards</li> </ul>
Provides, coordinates, or advises	Provides, coordinates, or advises	Provides, coordinates, or advises	g. Administration and program officials with appropriate accounting policies, procedures, and systems for agency accounting relating to financial management and operating programs to propose changes in internal policy directives and recommend actions or alternatives to resolve unfavorable situations or problems (coordinates with I.B.)
Participates in or assists with	Participates in or assists with	Participates in or assists with	h. Decision-making sessions with management to determine and implement resolution of problems

<u>Staff Accountant</u>	<u>Operations Accountant</u>	<u>Systems Accountant</u>	<u>Primary Functions, Activities, and Tasks</u>
Develops or presents	Recommends	May recommend	i. Briefing papers and decision memoranda to defend and interpret established policy guides and directives
Has	May have	May have	j. Responsibility for drafting proposed changes to organization policy statements, regulations, or procedures to improve operations or to resolve problems
Participates in	Participates in	Participates in	k. Conferences, briefings, or presentations regarding effect of proposed changes to methods and procedures in the treatment of accounting information (e.g., concepts, theory, position, and other papers)
Provides	Provides	Provides	l. Accounting and financial expert advice to <ul style="list-style-type: none"> <li>• program operating officials on fund availability, operating procedures, financial management improvements, and other matters</li> <li>• budget and administrative officials on using accounting and financial records to make budget projections and formulate future budget and appropriation requests</li> <li>• management and chief financial officer (CFO) on use and expenditure of fund allocations for ongoing programs and planning of new or revised ones</li> </ul>
Provides	Provides	May provide	m. Advice and assistance to top and supervisory management concerning relationships between accounting and finance and its importance in <ol style="list-style-type: none"> <li>1) Achieving management's objectives,</li> <li>2) Strengthening financial controls, and</li> <li>3) Complying with financial management improvement plans</li> </ol>
Maintains or promotes	Maintains or promotes	Maintains or promotes	n. Liaison externally with GAO, GSA, OMB, OPM, Treasury, and inspectors general to coordinate department financial management policies with governmentwide policies as well as internally among offices responsible for accounting policy, information resources, financial operations, and legal interpretations
Acts as	Acts as	Acts as	o. Representative for the chief financial officer at meetings and conferences with management, GSA, Justice, and the central agencies (GAO, OMB, OPM, and Treasury)

<u>Staff Accountant</u>	<u>Operations Accountant</u>	<u>Systems Accountant</u>	<u>Primary Functions, Activities, and Tasks</u>
			2. Laws, standards, regulations, and requirements
Drafts or recommends	Drafts or recommends	May draft or may recommend	a. Legislative proposals
Analyzes or interprets	Analyzes, communicates, or monitors	Analyzes, interprets, or communicates	b. The effect of changes in legislation; GAO standards; or OMB, Treasury, or organizational requirements on agency accounting and financial policies, operations, or systems management
Converts or communicates	Implements or recommends	May prepare	c. Legislation and central agency guidance into implementing policy that considers the unique environment, systems, and operations of the agency
Promotes, converts, or communicates	Promotes, implements, or recommends	Assists with or may prepare	d. Coordination of legislation with accounting standards and reporting requirements
			3. Planning of accounting policies, operations, systems functions, activities, and tasks
Conducts or participates	Conducts or participates	May assist with	a. Planning organization's financial management priorities and monitoring their accomplishments
Develops or reviews	Develops or reviews	May participate with	b. Justification for required budget resources for financial management operations, priorities, and initiatives
Interprets, provides, monitors, or may assist with	Interprets, provides, implements, or may assist with	Interprets, provides, or implements	B. Major financial management systems policy, guidelines, and directives <ul style="list-style-type: none"> <li>• to comply with <ul style="list-style-type: none"> <li>- GAO <i>Policy and Procedures Manual for Guidance of Federal Agencies</i>, Title 2, appendix III,</li> <li>- OMB Circular A-127, and</li> <li>- JFMIP <i>Federal Financial Management Systems</i> requirements;</li> </ul> </li> <li>• to monitor and improve internal controls and compliance with the FMFIA; and</li> <li>• to improve accounting and financial reporting and effectiveness and efficiency of operations</li> </ul>

## II. INTERNAL CONTROL RESPONSIBILITIES

<u>Staff Accountant</u>	<u>Operations Accountant</u>	<u>Systems Accountant</u>	<u>Primary Functions, Activities, and Tasks</u>
Communicates, prepares, monitors, or reviews	Communicates, implements, prepares, monitors, or reviews	Assists with, prepares, monitors, or reviews	A. Policy, operations, or systems operational standards pertaining to internal control design, analysis, programming, and documentation
Monitors	Directs, monitors, or presents	Directs, designs, or presents	B. Reviews of organization's integrated accounting and financial management reporting systems or segments to identify source documents and workflow; chart and track document control, systems interfaces, and deficiencies; and to recommend improvements in methods and controls to comply with GAO standards, OMB, Treasury, and organizational requirements, and Section 4, FMFIA reporting requirements on financial systems assuring appropriate disclosure of financial condition
Reviews, analyzes, or conducts	Reviews, analyzes, or conducts	Reviews, analyzes, or conducts	C. Broad studies and reports of controls to determine effectiveness, efficiency, economy, and security of existing accounting and financial systems, policies, procedures, operating practices, statements, and reports of governmental and nongovernmental operations (e.g., service, support, or supply contractors)
Analyzes or communicates	Analyzes, communicates, or monitors	Assists with	D. Modification of existing control procedures to meet changing requirements or to comply with new legislation
Identifies, analyzes, evaluates, troubleshoots, resolves, or reviews and approves	Identifies, analyzes, evaluates, troubleshoots, or resolves	Identifies, analyzes, evaluates, troubleshoots, or resolves	E. Common accounting and financial management control problems (e.g., as inadequate fund control, inaccurate data, and lack of proper documentation at selected organizational levels) and recommendations to correct deficiencies
Oversees, coordinates, analyzes, reviews, or approves	Designs, maintains, monitors, analyzes, or reviews	Assists, designs, coordinates, analyzes, or reviews	F. Adequacy of organization's internal controls in ongoing, new, or enhanced systems to account for all assets, liabilities, equity, revenue, and expense in compliance with GAO <i>Policy and Procedures Manual for Guidance of Federal Agencies, Title 2</i> , GAAP, the FMFIA, laws governing administrative control of funds, other applicable program or agency legislation, and other requirements specified by GAO, JEMIP, OMB, Treasury, and the organization



<u>Staff Accountant</u>	<u>Operations Accountant</u>	<u>Systems Accountant</u>	<u>Primary Functions, Activities, and Tasks</u>
Promotes	Promotes	Promotes	G. Coordination of organization's internal control responsibilities as team effort among administrative, financial management, and programmatic personnel
Conducts, guides, oversees, or approves	Conducts or assists in	Conducts, guides, or assists in	H. Quality assurance reviews, vulnerability assessments, internal control and accounting or financial systems reviews, as appropriate
Establishes, conducts, reviews, or analyzes	Establishes, validates, maintains, reviews, or analyzes	Designs, reviews, analyzes, or assists with	I. Establishment and updating of edit tables for accounting, financial, travel, cost, and program automated systems data to ensure compliance with recording and reporting practices
Reviews or analyzes	Reviews or analyzes	Prepares or analyzes	J. Specifications of new or enhanced automated accounting and financial reporting systems for appropriate internal controls (coordinates with IV.B.)
Conducts, surveys, inspects, or monitors	Responds to or designs	Assists in or designs	K. Reviews of accounting policy, operations, or systems to verify such control functions as certification and disbursement, quality assurance, commercial accounts, efficiency, effectiveness, economy, and security
Monitors	Implements	Assists in	L. Follow-up action in response to central audit, operational, or administrative recommendations

### III. FINANCIAL MANAGEMENT RESPONSIBILITIES (analysis and reporting)

<u>Staff Accountant</u>	<u>Operations Accountant</u>	<u>Systems Accountant</u>	<u>Primary Functions, Activities, and Tasks</u>
Promotes, reviews, or approves	Directs or implements	Assists with	<p>A. Account maintenance for appropriated and non-appropriated funds</p> <p>Day-to-day accounting and financial operations (analyzing, classifying, reconciling, recording, and adjusting transactions and account balances, including concurrent budgetary entries in general and subsidiary ledgers) and preparing appropriate analyses and reports to ensure compliance with</p> <ul style="list-style-type: none"> <li>• federal accounting standards (<i>GAO Policy and Procedures Manual for Guidance of Federal Agencies, Title 2</i>),</li> <li>• GAAP (for corporations, trusts, etc.),</li> <li>• laws and regulations, and</li> </ul>

<u>Staff Accountant</u>	<u>Operations Accountant</u>	<u>Systems Accountant</u>	<u>Primary Functions, Activities, and Tasks</u>
			<ul style="list-style-type: none"> <li>agency requirements, particularly the organization's accounting, financial, and other operations manuals</li> </ul>
			<b>B. Management of specific administrative accounting areas</b>
Monitors, interacts, verifies, or approves	Monitors, interacts, verifies, or approves	Assists with	1. Management, administrative, and program personnel on the certification of the availability of funds to preclude over-obligation
Monitors, interacts, verifies, or approves	Monitors, interacts, verifies, or approves	Assists with	2. Program personnel on grant, construction, and work-in-progress payments and interagency reimbursements
May manage, reviews, or approves	Manages	Assists with	3. Disbursements and collection of funds to ensure that accurate cash management exists through billing and collection of debts as well as payment under terms for purchases or services received
May review or may approve	Reviews or approves	Selectively reviews or approves	4. Payment of services or bills for purchases
May certify or may disburse	Certifies or may disburse	May certify	5. Accuracy of supporting data to disbursing function for payment of purchases or services
Promotes, reviews, or approves	Manages	Advises	6. Payroll operations, including leave and benefits
May conduct or reviews	May conduct	Assists with	7. Physical inventories to verify records and condition or quantity of items and appropriately adjust accounts, if function not assigned to others
			<b>C. Financial and management analysis</b>
Promotes, oversees or approves	Conducts or promotes	Assists with	1. Automated reviews of account balances
May conduct, monitors, promotes, reviews, or approves	Conducts, monitors, promotes, reviews, or approves	Assists with or promotes	2. Analyses and interpretation of accounting and financial management data to

<u>Staff Accountant</u>	<u>Operations Accountant</u>	<u>Systems Accountant</u>	<u>Primary Functions, Activities, and Tasks</u>
			<ul style="list-style-type: none"> <li>• analyze obligations, deobligations, and expenditures by budget activity, cost center, and object class for use in budget justifications to OMB and to the Congress;</li> <li>• assist management in decision-making duties in matters ranging from discontinuance, changes in current or long-term operations, or new program development;</li> <li>• verify antideficiency violations;</li> <li>• identify deviations from management plans;</li> <li>• assess adequacy of current accounting policies, systems, or procedures;</li> <li>• show the effects of changes in accounting methods on financial reports;</li> <li>• analyze costs of organizations, programs, job orders, or other categories;</li> <li>• calculate direct and indirect costs;</li> <li>• determine causes of cost overruns;</li> <li>• review status of revolving fund and monitor its cash levels to ensure fund liquidity;</li> <li>• track reimbursable earnings;</li> <li>• determine adverse trends; and</li> <li>• recommend changes necessary</li> </ul>
Reviews	Develops or updates	Assists with	3. Cost analysis tools (inflation indices, cost estimates, allocation, or other distribution methods)
May analyze	Analyzes	Assists with	4. Forward financing and multiyear procurement requests
Provides	Provides	Assists with	5. Accounting and fiscal services to subordinate as well as department or headquarters financial management organizations
Promotes	Promotes	Assists with	6. Coordination of matters, such as funds availability and inventory control, with budget and procurement staff
Assists with or may oversee	May prepare, may submit, or tracks	Not applicable	7. Monetary claims for final resolution or termination to Department of Justice or GAO according to 4 C.F.R. 100

<u>Staff Accountant</u>	<u>Operations Accountant</u>	<u>Systems Accountant</u>	<u>Primary Functions, Activities, and Tasks</u>
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**D. Report preparation**

May over-see, reviews, or approves	Directs, prepares, reviews, or approves	Assists with	<p>1. Preparation, reconciliation, and consolidation of internal and external accounting and financial management reports to meet legal or other reporting requirements of the program, agency, or department; the central management agencies; the President; and the Congress, such as</p> <ul style="list-style-type: none"> <li>• budget execution</li> <li>• cash management</li> <li>• foreign military sales reports</li> <li>• expenditure reports</li> <li>• organizational status reports</li> <li>• allotment status reports</li> <li>• quarterly, monthly, and/or daily detail reports</li> <li>• annual reports, schedules, and financial statements accompanied by appropriate disclosure notes</li> </ul>
Monitors, reviews, or may compile	Compiles, reviews, monitors, or approves	Assists with	<p>2. Multiple reports, statements, and other documents submitted by subordinate organizations for operations with common characteristics, and prepares schedules, reports, and financial statements—to ensure accurate reporting and identification of current or future problem areas</p>
Promotes	Promotes	Promotes	<p>3. Coordination of interagency program and joint-funding accounting reports with other organizations or agencies</p>

**IV. SYSTEM RESPONSIBILITIES**  
**(development, operation, and maintenance of systems with accounting, budget, financial, and relevant program data)**

<u>Staff Accountant</u>	<u>Operations Accountant</u>	<u>Systems Accountant</u>	<u>Primary Functions, Activities, and Tasks</u>
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**A. Automated system planning, research, or usage advice, including information management and technology updates**

Promotes, reviews, or approves	Contributes to	Provides or oversees	<p>1. The overall coordination, design, development, review, and modification of all accounting, financial, and related systems for effective financial management, including interaction with budgetary and program functions, in accordance with GAO, OMB, Treasury, and organizational guidance</p>
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<u>Staff Accountant</u>	<u>Operations Accountant</u>	<u>Systems Accountant</u>	<u>Primary Functions, Activities, and Tasks</u>
Reviews, monitors, or approves	Coordinates with	Serves as	2. Project leader or manager for developing accounting systems or subsystems
Reviews or approves	Drafts	Provides	3. Overall direction of new accounting and financial system(s) projects, specialized development activities, system programming, data base administration, and hardware and software maintenance
Provides or promotes	Requests or provides	Provides	4. Technical assistance to <ul style="list-style-type: none"> <li>• program managers,</li> <li>• finance and accounting offices, and</li> <li>• other agency users and system developers</li> </ul>
Provides or promotes	Updates	Provides	5. Advice to management and accounting officer or supervisory accountant on system interfaces, controls, effectiveness, and implementation of higher level required systems
Ensures	Promotes	Promotes or assists	6. Coordination of accounting and financial system automation requirements with information system personnel
Promotes	Promotes	Promotes	7. Nonaccounting system interfaces
May oversee	Reconciles	Conducts	8. Up-to-date inventory of accounting and financial management systems and off-the-shelf accounting products used in an agency to maintain accounting and financial records
Reviews or approves	Justifies	Justifies	9. Need for primary or unique subsidiary program system(s) development based on cost-benefit analyses, GAO standards, OMB regulations, user requirements, and multifunctional integration needs
Reviews	Develops or uses	Develops or uses	10. Innovative approaches to apply automation technology to major resource management problems
Participates	Participates	Participates	11. In the design, planning, implementation, and use of microcomputers in accounting environments

<u>Staff Accountant</u>	<u>Operations Accountant</u>	<u>Systems Accountant</u>	<u>Primary Functions, Activities, and Tasks</u>
Reviews	Inquires about	Analyzes	12. The effect of higher level system changes and proposed changes on local operations
Reviews or approves	Reviews	Applies	13. Accounting system policies, procedures, and regulations to systems design
<b>B. Development of accounting and financial automated system specifications</b>			
Ensures	Promotes	Seeks	1. Coordination with users to design specifications for systems to meet users' needs
Reviews	Reviews	Develops	2. Functional specifications (under contract or in-house) for accounting and financial systems along with policies, procedures, and user instructions for designated operating levels (see also II.J.)
Promotes	Conducts	Assists	3. Reviews of detailed designs of system specifications to ensure conformity with GAO standards, OMB and Treasury requirements, as well as organization policies, procedures, and standards (see also II.J.)
<b>C. Testing, validation, and installation of accounting and financial automated systems</b>			
Reviews	Conducts	Coordinates or assists	1. Tests and validations of newly developed or enhanced accounting and financial reporting systems
Reviews or approves	Reviews	Analyzes	2. System validation and test results
Ensures or monitors	Assists in	Performs	3. Installation of systems (local to organizationwide)
Promotes or approves	Reviews, may approve, or tests	Reviews, may approve or tests	4. System change requests
Promotes	Conducts or assists with	Conducts or assists with	5. Field tests of training materials

<u>Staff Accountant</u>	<u>Operations Accountant</u>	<u>Systems Accountant</u>	<u>Primary Functions, Activities, and Tasks</u>
			D. Documentation of accounting and financial automated systems
Approves	Prepares	Prepares	1. Functional description of systems
Reviews or approves	Defines, sets, or utilizes	Assists with	2. Accounting and financial system requirements, such as account coding structures and reporting requirements in developing or enhancing systems
Participates in, tests or approves	Leads, reviews, tests, or approves	Prepares, reviews, tests, or approves	3. Development of financial systems manuals, guides, operations handbooks, systems operating procedures, and training materials for new or revised systems and procedures
Recommends or approves	Recommends or may approve	Makes or recommends	4. Changes to accounting policy, operating procedures, and automated data system guidance to enhance such system operations
Monitors or approves	Monitors or approves	Maintains	5. Up-to-date documentation relative to system operations, design, and changes
Promotes or approves	Reviews or approves	Maintains	6. Documentation of all computer program testing
Promotes	Requests	Issues	7. Necessary training instructions

## **V. SUPERVISION, LEADERSHIP, AND COMMUNICATION RESPONSIBILITIES**

<u>Staff Accountant</u>	<u>Operations Accountant</u>	<u>Systems Accountant</u>	<u>Primary Functions, Activities, and Tasks</u>
May supervise	Supervises	Supervises	A. Workplans and professional or nonprofessional staff to carry out policy, operations, or systems leadership responsibilities
Serves as	Responds to	Serves as	B. Project leader or manager for organization's special studies and reviews monitoring compliance with policy, operations, or systems responsibilities and procedures

<u>Staff Accountant</u>	<u>Operations Accountant</u>	<u>Systems Accountant</u>	<u>Primary Functions, Activities, and Tasks</u>
Makes	Makes	Makes	C. Oral and written presentations to superiors and top management and other internal and external interested parties to advise and report to them policy, operations, or systems deficiencies, ways to improve, and corrective action plans
Provides or promotes	Provides or promotes	Provides or promotes	D. Adequate internal and external training programs to ensure staff knows laws, rules, and regulations as well as current trends and developments in the accounting profession and related fields
Provides or promotes	Provides or promotes	Provides or promotes	E. Development and participation in an accounting intern program, modeled after the Presidential Management Intern (PMI) program, for controller, general financial management, and supervisory accountant positions
Promotes	Promotes	Promotes	F. Greater interrelation between planning, budget, accounting, and financial management functions
Prepares, conducts, updates, or promotes	Prepares, conducts, updates, or promotes	Prepares, conducts, updates, or promotes	G. Personnel administrative matters, such as job descriptions, performance standards, ratings, awards, discipline, and recruiting



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## Appendix 2

# SUGGESTED AREAS OF EDUCATION FOR GS-510 ACCOUNTANTS

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This appendix presents accounting knowledge, skills, and abilities (KSAs) that federal accountants need to perform their accounting functions. These KSAs are derived from the federal accountant functions statement (appendix 1). The accounting and related education column presents subject areas. The subjects include federal accounting standards and requirements (see appendix 3), the learning of which normally requires 5 to 10 years on-the-job training supplemented by courses and seminars.

This education list was developed in conjunction with ongoing studies, revisions of classification and qualification standards, and other sources as listed in the bibliography to upgrade the professional stature of the GS-510 accountant. The accountant's work and continuing education are the base for long-term financial management improvement in the federal government. With the rapid changes in automated technology and constant refinement of accounting and federal budgeting concepts and standards, continuing professional education throughout everyone's career is imperative.

Individuals who join an agency at the middle or senior management levels should review this list to determine what knowledge they need to meet the basic technical background for federal accountants. Prior on-the-job experience may be accepted according to individual agency policy.

### Knowledge, skills, and abilities needed to perform GS-510 accountant functions, activities, and tasks

1. Understand, develop, and apply generally accepted accounting principles (GAAP), concepts, and practices for federal government corporations, all other government entities, and such special areas as trust and industry-specific accounting (e.g., hospitals, utilities, insurance, and benefit programs) including preparation of appropriate financial statements and disclosures.

### Subject areas of accounting and related education\*

#### Recommended courses:

Accounting principles  
Accounting theory  
Intermediate accounting  
Advanced accounting  
Cost accounting  
Business law  
Statistics  
Computer science

#### Elective courses:

Financial analysis  
Investment accounting  
Industry-specific accounting  
Managerial accounting  
Other specialized accounting, finance, or  
business administration courses

GAAP updates on principles, concepts, and  
applications

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\* Except for item 11, the subject areas apply to the entire KSA item and not a specific subelement.

**Knowledge, skills, and abilities needed to perform GS-510 accountant functions, activities, and tasks**

**Subject areas of accounting and related education**

**Federal standards and requirements:<sup>1</sup>**

Federal accounting standards (*GAO Policy and Procedures Manual for Guidance of Federal Agencies, Title 2*), payroll (*Title 6*), and fiscal guidance (*Title 7*)

Appropriation law for federal government, including Comptroller General and agency decisions

U.S. Government *Standard General Ledger*

*JEMIP Federal Financial Management Systems* requirements

OMB requirements: Circular A-11, "Budget Formulation"; Circular A-34, "Budget Execution"; and other issuances

Treasury Financial Manual (TFM) requirements

Appropriation accounting, with emphasis on fund control<sup>2</sup> and fund availability

Special area accounting

Trust funds

Revolving funds

Credit management

Other regulatory requirements

Program financial data

<sup>1</sup> For a more detailed list, see appendix 3.

<sup>2</sup> The term "fund control" refers to managing congressionally-appropriated funds (obligational authority) to ensure that (1) they are used only for authorized purposes, (2) they are economically and efficiently used, (3) obligations and disbursements do not exceed the amounts authorized and available, and (4) the obligation or disbursement of amounts authorized is not reserved or otherwise deferred without congressional knowledge and approval. Every agency is required to have a system of administrative control of funds, approved by the Director of the Office of Management and Budget, that will restrict obligations or expenditures for each appropriation to the amounts appropriated and apportioned or reapportioned for the current fiscal period. In addition, the system used to control funds administratively must fix responsibility for creating any obligation, incurring any expenditure, or making a disbursement in excess of an apportionment, reapportionment, or other subdivision of authority. The requirements for these systems and the fund control reporting are prescribed by OMB.

**Knowledge, skills, and abilities needed to perform GS-510 accountant functions, activities, and tasks**

2. Understand, develop, and apply external reporting requirements for central agencies (GAO, OMB, OPM, and Treasury) on accounting, budgetary, financial reporting, payroll (leave and benefits), and GSA on travel regulations.

3. Understand and apply internal agency accounting, budgetary, and financial reporting requirements, including grant, contract, and procurement monitoring.

4. Understand and implement or apply the organization's mission, laws, program provisions, regulations, and procedures in coordination with internal accounting, budgetary, program, and financial reporting requirements

5. Understand the interrelationships among accounting, budgetary, program, and financial data:

a. Apply analytical skills to the data

b. Interpret effects, financial implications, and trends

c. Prepare and summarize forecasts

**Subject areas of accounting and related education**

Central agency requirements as stated above, supplemented by internal agency and other training in central agency requirements and GAAP updates on principles, concepts, and applications in the areas of

Federal financial reporting

*GAO Policy and Procedures Manual for Guidance of Federal Agencies, Title 2 Treasury Financial Manual*

Other regulatory requirements

*OPM Federal Personnel Manual Federal Acquisition Regulations (FAR)*  
Federal travel regulations  
Federal records regulations

Internal agency financial policies and procedures

Agency accounting manuals and handbooks

Program regulations and handbooks

Organizational and program orientations

Appropriate legal, regulatory, and procedural references (i.e., Debt Collection Act) and similar activities affecting management and operations

Same training as listed in items 1 and 2 above, supplemented by

On-the-job experience (including intra- and interagency cross-training through rotation)

Courses in

Management information requirements  
Statistical sampling  
Appropriate mathematics

**Knowledge, skills, and abilities needed to perform GS-510 accountant functions, activities, and tasks**

**Subject areas of accounting and related education**

6. Use research methods and techniques:

- a. Apply statistical sampling techniques to gather and analyze data
- b. Recognize the relevance of data
- c. Plan steps to verify data
- d. Test data collection procedures
- e. Test verification procedures

- Survey design
- Database design
- Statistical sampling
- Statistical analysis
- Statistical software
- Quantitative analysis
- Financial analysis

7. Implement initiatives of the Joint Financial Management Improvement Program and the central oversight agencies (GAO, OMB, OPM, and Treasury).

JFMIP seminars, forums, conferences, reports, and studies

8. Apply and evaluate control standards for federal government accounting and reporting requirements:

- a. Use flow-charting techniques designed to focus on internal controls of the system
- b. Recognize the significance of vulnerability assessments in identifying internal control weaknesses
- c. Comply with Federal Managers' Financial Integrity Act reporting requirements

Internal control standards (GAO *Policy and Procedures Manual for Guidance of Federal Agencies, Title 2, app. II*)

Accounting Systems Standards (GAO *Policy and Procedures Manual for Guidance of Federal Agencies, Title 2, app. III*)

Federal Managers' Financial Integrity Act (FMFIA)

OMB Circulars A-123, "Internal Control Systems"; A-127, "Financial Management Systems"; and A-130, "Management of Federal Information Resources"

**Knowledge, skills, and abilities needed to perform GS-510 accountant functions, activities, and tasks**

**9. Manage specific administrative accounting areas:**

- a. Plan, organize, and prepare project outlines and worksteps
- b. Prioritize and delegate work
- c. Modify work to fit timeframes
- d. Document work in automated or manual files
- e. Report according to requirements

**10. Understand and use organization's hardware and software to**

- a. Design databases and data collection systems and procedures
- b. Maintain automated financial information systems
- c. Use existing database to create another database
- d. Store and maintain data in usable form
- e. Comply with security laws and regulations
- f. Consult with technical specialists when necessary
- g. Advise subordinates on using ADP software and equipment
- h. Identify and solve database problems

**Subject areas of accounting and related education**

Project management  
 Resource management  
 Time management  
 Team organization and management  
 Individual job planning and management  
 Management planning techniques  
 Managing performance and productivity  
 Maintaining appropriate automated and manual documentation support

IRS Code for payroll, 1099 reporting, travel, training, and other responsibilities for required filings by agency

Federal Acquisition Regulations  
 GSA and agency travel regulations  
 Other regulations implementing legislation such as Prompt Payment Act<sup>3</sup>

Data processing  
 Basic computer use  
 Application of appropriate computer software (micro or mainframe)

Database concepts, applications, and maintenance  
 Database analysis

Computer system design  
 System design in automated environment  
 Designing system surveys

Computer system analysis  
 Computer system management  
 Computer security

Telecommunications applications

Understanding computer equipment configuration

Understanding specification development and review for computer equipment, software, and appropriate controls

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<sup>3</sup> The Prompt Payment Act of 1982 (Public Law 97-177; 31 U.S.C. 39) provides specific criteria to federal agencies for determining due dates on commercial invoices when related contracts do not include payment-timing provisions and requires agencies to pay interest penalties when payments are late.

**Knowledge, skills, and abilities needed to perform  
GS-510 accountant functions, activities, and tasks**

**Subject areas of  
accounting and related education**

**11. Exercise supervision and leadership:**

a. Advise subordinates and management on interpretation of standards, laws, regulations, and policies, or other constraints, affecting accounting, budgetary, program, and financial reporting areas

Briefing techniques and interpersonal communications

b. Participate in and advise management and assist subordinates to resolve problems and to select and use appropriate analytical and research methods, formats, and procedures

Problem-solving and decisionmaking  
Managerial leadership  
Managing personal and organizational change  
Managing performance

c. Effectively motivate employees

Motivating assistants  
Supervisory training  
Communication with all personnel levels

d. Evaluate the adequacy of subordinate's work

Conducting performance appraisals, counseling, and feedback

e. Interview job applicants and select best candidates in compliance with personnel processes

Defining needed skills  
Conducting job interviews

f. Plan and conduct training

Instructor or facilitator training

**Knowledge, skills, and abilities needed to perform GS-510 accountant functions, activities, and tasks**

12. Communicate the meaning of numbers effectively, orally and in writing, to
- a. Provide appropriate information to present and potential users to make rational investment, credit, or similar decisions
  - b. Present analysis of amounts, timing, and uncertainty of prospective receipts and expenditure
  - c. Provide information about the available resources, claims to such resources, and the effects of transactions, events, and circumstances on the entity's resources
  - d. Focus decisionmaking on limited resources and/or other constraints
  - e. Focus on efficiency and effectiveness of activities to measure success of a program or entity
  - f. Explain accounting standards in nontechnical language
  - g. Report on stewardship of responsibilities

**Subject areas of accounting and related education**

Briefing techniques

Running effective meetings

Interpersonal communications

Effective listening

Public speaking

Preparing, writing, and editing correspondence, reports, and presentations

Presenting financial statements, disclosure notes, and special reports

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## Appendix 3

# MAJOR FEDERAL GUIDELINES TO BE APPLIED BY GS-510 ACCOUNTANTS

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### GAAP:

*Generally accepted accounting principles* (GAAP) as promulgated by the Financial Accounting Standards Board (FASB) are generally applied in federal corporations in accordance with the provisions set forth in their enabling authorization. Federal agencies generally follow federal accounting standards maintained in *GAO Policy and Procedures Manual for Guidance of Federal Agencies, Title 2*. To the extent that guidance is not provided by that source, agencies are to follow other guidance as appropriate developed by the GAO, OMB, Treasury, the Financial Accounting Standards Board (FASB), and the Government Accounting Standards Board (GASB).

### GAO:

*Principles of Federal Appropriations Law*, 1st ed., GAO Office of the General Counsel, (Washington: GPO, June 1982).

*Decisions of the Comptroller General of the United States.*

*Policy and Procedures Manual for Guidance of Federal Agencies:*

*Title 2, "Accounting Principles and Standards,"* Aug. 31, 1987;

*Title 6, "Payroll, Leave, and Allowances,"* June 5, 1989;

*Title 7, "Fiscal Guidance,"* Feb. 12, 1990.

*Accounting Guide: Basic Topics Relating to Appropriations and Reimbursables* (GAO/AFMD 90-5, Jan. 1990, exposure draft).

### JFMIP:

*Federal Financial Management Systems:*

*Core Financial System Requirements*, Jan. 1988;

*Personnel/Payroll System Requirements*, May 1990.

### OMB:

Circular requirements and related bulletins:

Circular A-11, "Preparation and Submission of Budget Estimates," July 2, 1990.

Circular A-34, "Instructions on Budget Execution," Aug. 26, 1985.

Circular A-123, "Internal Control Systems," Aug. 4, 1986.

Circular A-125, "Prompt Payment," Aug. 19, 1982, and amendments (being revised in 1990)



Circular A-127, "Financial Management Systems," Dec. 1984, amended by  
Bulletin M-85-10, "Financial Management and Accounting Objectives," Mar. 15, 1985,  
Bulletin M-85-16, "Guidelines for Evaluating Financial Management and Accounting Systems," May 20, 1985,  
Bulletin M-86-28, "Financial Management Systems With Standard General Ledger (SGL) Attachment," Sept. 19, 1986,  
Bulletin M-88-32, "Establishing Financial Management System Software Program," (commonly known as the GSA Procurement Schedule), Sept. 29, 1988,  
Annual Call for Federal Managers' Financial Integrity Act (FMFIA) Reports, July 5, 1990,  
Annual Call for 5-Year Financial System Plans, June 30, 1989,  
Call to Heads of Independent Agencies for Update on FMFIA High Risk Areas, July 14, 1989, and  
Call to 16 Major Agencies on Update of High Risk Areas, June 27, 1989.  
Circular A-129, "Managing Federal Credit Programs," May 9, 1985.  
Circular A-130, "Management of Federal Information Resources," Dec. 12, 1985.

## OPM:

*Position Classification Standard for Accounting Series, GS-510.* Washington, DC: Office of Personnel Management, December 1989 (supersedes Feb. 1961; amended (TS57), June 1965).

*Position Classification Standard for Auditing Series, GS-511.* Washington, DC: Office of Personnel Management, May 1982.

*Qualification Standards for Accounting Series, GS-510.* Washington, DC: Office of Personnel Management, June 1990.

## TREASURY:

*Treasury Financial Manual*, related bulletins, and supplemental guidance.

*U.S. Government Standard General Ledger*, 1986.

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**Appendix 4**

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**STAFFING LEVELS OF GS-510 ACCOUNTANTS BY AGENCY**

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<u>Department or Agency</u>	<u>Number*</u>
Army, Department of the .....	2,666
Air Force, Department of the .....	1,468
Navy, Department of the .....	1,404
Agriculture, Department of .....	702
Health and Human Services, Department of .....	589
Treasury, Department of the .....	542
Interior, Department of the .....	439
Veterans Affairs, Department of .....	414
Transportation, Department of .....	393
Energy, Department of .....	382
Defense Logistics Agency .....	373
Housing and Urban Development, Department of .....	326
Justice, Department of .....	293
General Services Administration .....	249
National Aeronautics and Space Administration .....	197
Commerce, Department of .....	171
Environmental Protection Agency .....	160
Securities & Exchange Commission .....	151
Labor, Department of .....	136
Department of Defense (other than Army, Air Force, Navy, and Defense Logistics Agency) .....	114
State, Department of .....	76
Education, Department of .....	58
Small Business Administration .....	50
Office of Personnel Management .....	48
Other agencies .....	<u>493</u>
<b>TOTAL</b>	<b>11,894</b>

\* These figures represent the latest available OPM data as of June 30, 1990.

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## BIBLIOGRAPHY

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American Accounting Association, American Accounting Change Commission. "Position Statement No. One: Objectives of Education for Accountants". Sept. 1990.

Arthur Anderson & Co., et. al. "Perspectives on Education: Capabilities for Success in the Accounting Profession." Apr. 1989.

Brown, Richard E. *Accounting and Accountability in Public Administration*. The American Society for Public Administration. Washington, D.C.: 1988.

Bowsher, Jack E. *Educating America: Lessons Learned in the Nation's Corporations*. New York: John Wiley & Sons, Inc., 1989.

Campbell, Robert J., "Cost-Effective Computer-Based Training," *Training and Development Journal*, Vol. 42, No. 7, July 1988, pp. 62-66.

Clarke, Lillian W., "How to Integrate Communication Skills into the Accounting Curriculum," *Business Education Forum*, Vol. 41, No. 6, Mar. 1987, pp. 15-17.

Collins, Stephen H., "Meeting the New 150-Hour Standard," *Journal of Accountancy*, Aug. 1989, pp. 55-57.

*Compendium of Training Courses Available in the Federal Audit Community*. The President's Council on Integrity and Efficiency. Washington, D.C.: 1988.

*Computer Security: Compliance with Training Requirements of the Computer Security Act of 1987*. U.S. General Accounting Office (GAO). Washington, D.C. (GAO/IMTEC-89-16BR, Feb. 22, 1989).

Daley, Ellen and Linda Lach, "How to Satisfy the New CPE Requirements," *Journal of Accountancy*, Feb. 1990, pp. 65-68.

DioGuardi, J. J., "Why Doesn't The Government Understand Accounting?" *Financial Executive*, Sept./Oct. 1988, pp. 27-31.

*Education Requirements for Entry into the Accounting Profession*. American Institute of Certified Public Accountants. 2nd ed., rev., New York: Feb. 1988.

Egenolf, Robert V., and Fred Nordhauser, "Status of Governmental and Non-Profit Accounting Education In Master Of PA/A (Public Administration/Public Affairs) Programs," *The Government Accountants Journal*, Vol. 39, No. 1, Spring 1990, pp.39-45.

*Experience and Education Study*, GS-510, Accountant. U.S. Army Finance and Accounting Center. Indianapolis, IN, Oct. 1989.

*Federal ADP Personnel: Recruitment and Retention* (GAO/IMTEC-89-12BR, Feb. 7, 1989).

*Federal Employees: Commerce Department's Reclassification of Three Managerial Positions* (GAO/GGD-90-41, Jan. 18, 1990).

*Federal Recruiting and Hiring: Making Government Jobs Attractive to Prospective Employees* (GAO/GGD-90-105, Aug. 22, 1990).

## Bibliography

Financial Management: Overall Plan Needed to Guide System Improvements at Education (GAO/AFMD-88-15, Dec. 1987).

*Financial Integrity Act: Inadequate Controls Result in Ineffective Federal Programs and Billions in Losses* (GAO/AFMD-90-10, Nov. 28, 1989).

Forman, Steven D., "The Federal Government Operations Accountant—A Need for Upgrading," *The Government Accountants Journal*, Vol. 38, No. 2, Summer 1989, pp. 33-38.

Furman, William T., "Higher Professional Standards—A Different View," *The Government Accountants Journal*, Vol. 37, No. 2, Summer 1988, pp. 29-31.

"Future Accounting Education: Preparing for the Expanding Profession," *Issues in Accounting Education*, Vol. 1, Spring 1986, pp. 168-195. (The American Accounting Association Committee on the Future Structure, Content, and Scope of Accounting Education is also known as the Bedford Committee Report.)

*Governmental Auditor Training Profile*. Association of Government Accountants. Alexandria, VA: 1987.

Heath, Loyd C. "Accounting, Communication, and the Pygmalian Syndrome," *Accounting Horizons*, Vol. 1, No. 1, March 1987, pp. 1-8.

Hedrick, Terry E., "New Challenges for Government Managers," *The Bureaucrat*, Vol. 19, No. 1, Spring 1990, pp. 17-20.

Hicks, Margaret, and Victoria S. Rymer, "Paraprofessionals in Public Accounting—Current State of Use," *The CPA Journal*, May 1990, pp. 84-86.

Higley, Wayne M., and Richard E. Baker, "A Comparative Analysis of Professional Education and Licensure Preparation," *Issues in Accounting Education*, Vol. 2, Fall 1987, pp. 220-236.

The Hudson Institute. *Civil Service 2000*. U.S. Office of Personnel Management Career Entry Group, Washington, D.C.: June 1988.

Hughes, Jesse W., and Dennis W. Kerns, "Education in Governmental Accounting and Auditing: Whose Responsibility?" *The Government Accountants Journal*, Vol. 36, No. 1, Spring 1987, p. 54.

Jeffcoat, C., et. al. *Task Force Report on Developing Classification Standards for Accountants*. Association of Government Accountants, Alexandria, VA, May 31, 1988 (cover letter).

*Job Analysis: Developing and Documenting Data*. Office of Personnel Management, Washington, D.C.: Dec. 1973.

Kieso, Donald E., and Jerry J. Weygandt. *Intermediate Accounting*. John Wiley & Sons, Inc., New York: 1988.

Knechel, W. Robert and Doug Snowball, "Accounting Internships and Subsequent Academic Performance: An Empirical Study," *The Accounting Review*, Spring 1987, pp. 799-807.

## Bibliography

Krause, Paul and Steven J. Adams, "Are Management Accountants Professionals?" *Management Accounting*, Vol. 68, No. 10, Apr. 1987, pp. 36-62.

*Managing Human Resources: Greater OPM Leadership Needed to Address Critical Challenges* (GAO/GGD-89-19, Jan. 18, 1989).

Min, H. K., "The Scope and Objectives of Professional Accounting Education: Trends and Perspectives." *Journal of Education for Business*, Vol. 63, No. 3, Dec. 1987, pp. 104-109.

Neebes, Donald L. and William A. Broadus, Jr., "GAAS vs. GAGAS: How to Report on Internal Controls," *The Journal of Accountancy*, Feb. 1990, pp. 58-64.

Nelson, A. Tom, "The Human Resource Dilemma in Accounting," *Journal of Accountancy*, Aug. 1989, pp. 46-52.

Odiorne, George S. and Geary A. Rummel. *Training and Development: A Guide for Professionals*. Chicago, IL: Commerce Clearing House, Inc., 1988.

Pastore, Joseph M., Jr., "Developing an Academic Accreditation Process Relevant to the Accounting Profession," *CPA Journal*, Vol. 59, No. 5, May 1989, pp. 18-26.

*The Public Service: Issues Affecting Its Quality, Effectiveness, Integrity, and Stewardship* (GAO/GGD-90-103, Sept. 13, 1990).

Schultz, Joseph J., Jr., et al, *Reorienting Accounting Education: Reports on the Environment, Professions, and Curriculum of Accounting*. American Accounting Association, Accounting Education Series, Vol. 10. Sarasota, FL: 1989.

Schultz, Joseph J., Jr., "The Bedford Committee Report: Prospects for Implementation," *Issues in Accounting Education*, Vol. 4, No. 10, Spring 1989.

*Study of Auditor Training*. The President's Council on Integrity and Efficiency. Washington, D.C.: Nov. 1987.

Subotnik, Dan, "What Accounting Can Learn from Legal Education," *Issues in Accounting Education*, Vol. 2, Fall 1987, pp. 313-324.

Tierney, Cornelius E., "Accounting for Government: Sense, Not Nonsense," *The Government Accountants Journal*, Vol. 39, No. 1, Spring 1990, pp. 3-12.

*Training Budgets: Agency Budget Reductions in Response to the Balanced Budget Act*, (GAO/GGD-86-98-BR, July 16, 1986).

Wardlow, Penelope S., "The CPA Examination and Not For Profit Accounting," *The Government Accountants Journal*, Vol. 37, No. 2, Summer 1988, pp. 53-58.

Wooldridge, Blue, "Increasing the Productivity of Public Sector Training," *Public Productivity Review*, Vol. XII, No. 2, Winter 1988, pp. 205-217.

Volcker, Paul A., et. al. *Leadership for America: Rebuilding the Public Service*. The National Commission on the Public Service. Washington, D.C.: Apr. 1989.

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