

# The Auditors Are Coming: A Practical Guide for Engineering Projects<sup>1,2</sup>

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*Abstract*--When management informs you that internal or external auditors are on their way to conduct an audit of your project, you may have many questions and, at times, few answers: Why are the auditors coming? Why now? What are they looking for? How long will the audit take? What can we do to prepare? What help will the project receive in responding to the auditors? This paper presents a description of the typical audit process, a list of do's and don'ts for projects undergoing an audit, how to design basic audit preparations into the project's design, and resources for further information on auditing issues.

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## 1. INTRODUCTION

Audits are a part of the normal management process in many large organizations. Therefore an audit announcement should not automatically set off alarm bells in a project office. Most audits are a routine management function; fewer audits are initiated in response to a problem or allegation of wrongdoing than are initiated as a result of a pre-existing schedule or management's request for information. In technical terms of the accounting field, auditing is a key part of the internal control system modern organizations use to manage and control their resources.[1] In other words, auditing is one of the methods used to verify compliance with organizational policies and procedures, and to validate whether organizational processes and procedures achieve intended results.[2]

## 2. AUDIT BASICS

There are two primary categories of audits; internal audits and external, or independent, audits. For internal audits, the auditors are employees of and report to someone within the audited organization. For external audits the auditors are employees of an external firm, such as a Certified Public Accounting (CPA) firm hired to perform an independent audit of an organization. The difference between the two types of audits is of key importance and determines many aspects of an audit.

### Internal Audits

Internal audits are part of the normal operations of many organizations. Internal audits are conducted by in-house personnel for someone within the organization, such as the Chief Financial Officer of a company, or the auditing department of a governmental organization.[3] At times, internal auditors may hire external auditors, consultants, or other experts to assist the audit. In an internal audit, the external personnel are hired by and report to the internal auditors. Internal audits are initiated for various reasons; some audits are regularly scheduled activities, such as annual inventories, while other audits are required by law or regulation, such as audits conducted as part of an organization's management and internal control processes. In addition, some audits are initiated in response to an event or special circumstance, such as the emergence of a performance problem or concerns about anomalous activities. The results of internal audits are reported within the audited organization, which normally does not release publicly the audit results.

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<sup>2</sup> IEEE paper number 1161.

## External Audits

External audits are also known as independent audits because they are performed by auditors employed by an external organization that is separate and independent of the audited organization.[4] External audits are also part of the normal operation of many organizations. External audits are often required or requested by an external organization or person having a fiduciary or legal interest in the audited organization. In certain circumstances, personnel within the audited organization can initiate an external audit. External audits are also required or requested, and often conducted, by government agencies at the federal, state, or local level.[5] The reasons for initiating an external audit are essentially the same as those described above for internal audits. However, the results of external audits can be publicly released without the consent of the audited organization. The extent to which audit results are publicly available varies based on what organization was audited, what organization performed the audit, and the purpose of the audit.

## Types of Audits

There are several types of audits, including financial, performance, management, compliance, and information technology audits. While this is not an inclusive list of audit types, these are the most commonly encountered types of audits. Differing types of audits are known by many different names. Although there is general agreement within the audit profession on the audit types listed above, many exceptions exist and are in wide use. For example, the term "ISO Audit" has come into widespread use in reference to audits that evaluate compliance with standards promulgated by the International Standards Organization. If auditors at your organization use unfamiliar terminology to describe the audit they are conducting, ask them for further explanation, such as, "Is this a type of financial audit?" or "Is this a type of compliance audit?"

Note that a single audit may include elements of several audit types. For example, a compliance audit, designed to determine whether organizational practices comply with applicable policies, can also include audit steps to measure organizational performance. Information technology, or IT, audits fall within the basic audit types described above, but are focused on an organization's IT operations. IT audits often utilize specialized audit tools and techniques designed to address financial, performance, management, and compliance issues that involve an organization's computer, network, or other data processing systems.

## Types of Auditors

A few words here about auditors in general are in order. As in any profession, the nature and quality of auditors varies despite the existence and application of detailed standards for professional behaviors and auditing technical

requirements designed to maintain and improve audit quality. Many of the top-notch auditors known to the author display a common set of personal attributes, including attention to detail, persistence, thoroughness and, above all, accuracy, objectivity, and integrity. Highly professional auditors know their credibility is based on the accuracy and objectivity of their work, without which their work and results are at best discounted and, at worst, not taken seriously or even dismissed.

Effective auditors demonstrate the following behaviors while conducting audits:

- Open-mindedness, objectivity, and lack of strongly-held opinions or preconceptions about the subject(s) of the audit;
- Respect for those they are auditing;
- Willingness to listen to explanations from those being audited;
- Business manners and etiquette appropriate to the audit environment;
- Willingness to explain audit methods and respond to questions;
- Willingness to share information about the progress of their work, to the extent permitted by the audit objectives.

## 3. THE AUDIT PROCESS

The audit process varies by the type of audit, and by the practices of the auditors performing the audit. While well-defined auditing standards and procedures exist and are in widespread use, auditors must adapt their practices to a wide variety of activities and environments in the real world.

The primary phases, or steps, of a typical audit are illustrated in sequence in Figure 1 below.

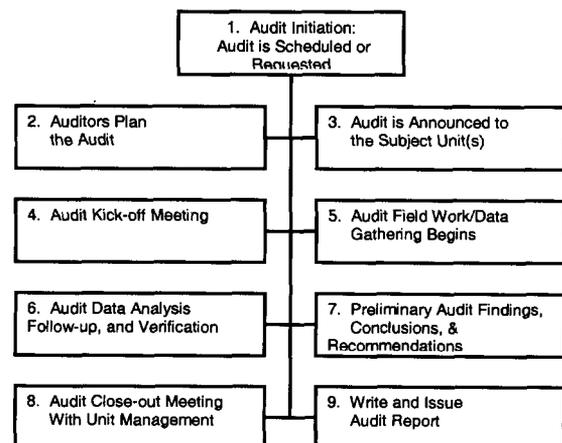


Figure 1 - A Generic Audit Process

Note that the audit steps used for a particular audit will vary depending on the business practices of the subject organization and the auditors, the requirements of the audit, and the type of audit being performed.

#### *Audit Initiation*

Many audits are performed on predetermined schedule, or are requested in response to an event or perceived problem needing management attention. In some cases, auditors have the authority to self-initiate audits. Auditors self-initiate audits according to a more loosely defined schedule, in response to events or allegations, or as part of an organization's strategy for its internal control processes.

#### *Audit Planning*

Once the decision to initiate an audit has been made, auditors begin by planning the audit objectives, scope, and methodology. During the audit planning process auditors often perform many of the normal project management functions including establishment of specific objectives, and estimation and allocation of audit cost, schedule, and human resources. During the planning phase, the supervisory auditor and his/her staff may also perform research in preparation for the audit. The type and amount of background research will depend on the type of audit, the experience and expertise of the auditors, and the amount of time available to the auditors. Auditors will often obtain information about the general topic of the audit, such as spacecraft development and operating processes for an operational or management audit of a spacecraft developer or operator's technical activities. The auditors may also research specific information about the audited organization and its processes.

If the auditors ask you to provide background information, it is a difficult judgment call to say how much data you should provide. While you don't want to make it easier for the auditors to find fault with your project, engineering projects tend to be complex enterprises and uneducated auditors may come to incorrect conclusions based on a flawed understanding of the project or the project's environment. Try to assess the auditors' understanding of your project and the project's environment, and act accordingly.

#### *Audit Announcement*

In normal circumstances, organizations subject to an upcoming audit are informed before the audit fieldwork begins. Fieldwork refers to the phase of an audit during which auditors conduct the audit work at the location(s) of the subject organizations' business activities that are being audited.

The audit announcement usually includes the following information:

- the reason(s) the audit is being performed;

- the audit topic and a brief description of the audit's objectives and scope;
- the estimated start and end dates of the audit;
- any special requirements or support the auditors can anticipate they may require; and
- a point of contact for questions about the audit, usually the auditor in charge of the audit, and/or the senior auditor that will be present at a particular location during audit fieldwork.

An audit announcement can take the form of a letter from the auditors, the audit requestors, or managers of a parent organization. Some less formal audit announcements are done with a phone call to management personnel at the subject organization. The latter approach is more likely in smaller organizations, or when the auditors are familiar with the audit subject organizations through previous audits.

The extent to which the audit announcement protocol is adhered to will vary according to the practices of the auditor's parent organization, and by the nature of the audit. Although audits are normally announced prior to the arrival of the auditors and initiation of audit work, the audit announcement protocol may be waived if an audit is initiated in response to allegations of wrongdoing. Formal audit announcements are sometimes forgone in such cases because they risk compromising the integrity of the audit and increase the difficulty of identifying the nature and extent of problems under audit.

#### *Audit Kick-off Meeting*

The Audit Kick-off Meeting is held when the auditors first arrive at a location to begin audit work. During the meeting, auditors typically outline the reason for the audit, provide a description of the audit objectives, scope, and methodology, and respond to questions. Personnel from the subject organization normally inform the auditors of logistical information, such as the location of temporary working space for the auditors, available office support, and the access procedures for records and personnel. This is also the time the subject organization should inform the auditors of any special circumstances that may impact the audit, such as limitations on access to records or personnel that may be needed for the audit, or upcoming critical events for which the organization is preparing.

Attendees from the audit organization at the Kick-off meeting usually include the Auditor in charge of the audit and the audit staff who will be working at the location. Depending on the sensitivity of the audit and the level of the subject organization being audited, one or more higher-level audit managers may also attend the meeting.

Usually attending the Kick-off meeting for the subject organization(s) are management-level personnel, local unit managers, and personnel with expertise on topics known to be of interest to the auditors. For a project-based activity undergoing an audit, such as an engineering project, the

Project Manager and the Project Budget Manager should also attend. If it is an external audit, a representative from the subject organization's financial management unit or internal audit department often attends the meeting.

Some Kick-off meetings are brief and serve only to introduce the auditors to the personnel of the subject organization. However, some Kick-off meetings cover the introductions and then move into substantive audit matters. To ensure that each party is properly prepared for the Kick-off meeting, the intent and agenda of the meeting should be made clear when the meeting is being set up.

#### *Audit Field Work/Data Gathering*

After the Audit Kick-off meeting, auditors conduct fieldwork to gather the information needed to meet the audit objectives. The data-gathering methods often include interviews with selected personnel, review of the subject organization's transaction files, internal communication files, and review and copying of digital data files. Depending on the objectives and scope of the audit, auditors may gather data at a single site, or at multiple locations where the subject organization conducts its business activities.

It is during the fieldwork phase that auditors' requests for information, records, and access to people may impose substantial demands on the subject organization. The auditor's requests for support will vary according to the audit objectives. For example, a simple financial audit of a local unit's bookkeeping records will place demands mostly on that unit's accounting department. If the auditors find few anomalies, the audit will likely be short and not involve many people. On the other hand, an operational audit designed to determine why an operating division of a larger enterprise is not meeting performance goals may require providing the auditors with access to many personnel in various organizational units, at many different organizational levels, and at many geographic locations where the division has operating units. Also, since operational audits tend to require more complex audit methodologies, they are often longer in duration than financial audits.

*Rules of Thumb for Working with Auditors*—Listed below are some useful hints for how to respond to auditors' during an audit:

- Answer the auditors' questions honestly.
- You aren't obligated to volunteer information to the auditors, but don't withhold relevant information when responding to questions.
- If you don't know the answer to a question, just say, "I don't know." If the question concerns your area of responsibilities, tell the auditor that you will try to find the answer for him or her. If the question is outside your area of responsibility, inform the auditor.

- At times auditors have to ask questions that are irritating to some people. Be patient, and remember that the questions are usually not meant to be irritating or accusatory. Also, some auditors are better than others when it comes to phrasing questions in non-irritating or non-threatening manners.
- If you believe questions are targeted at you personally, diplomatically tell the auditor how you feel about the question. If you feel the need, you can ask the auditor if you are a specific target of the audit. Most often the auditor will say no, and explain that he or she is just trying to collect some needed information. However, if the auditor's answer is yes, inform your management immediately.

During the field work/data gathering phase, auditor requests may become burdensome for the subject organization, particularly if the audit comes during an especially busy time for the organization. Auditor training normally includes instructions to be aware of the demands they place on subject organizations during an audit. Both the auditors and the subject organization should demonstrate flexibility and willingness to compromise in resolving burdensome requests for information or access to people.

#### *Data Analysis, Follow-up, and Verification*

As the data gathering phase of the audit progresses, the auditors begin to analyze the information they have obtained. Thus, there is normally some overlap between these two phases. Often the auditor in charge will begin the data analysis process while his or her staff continues the data collection work.

*Data Analysis*--The analytical methods auditors may employ during an audit include a wide-ranging list of quantitative and qualitative methodologies, as described in the list below. Due to the numerous methodologies currently in use in the auditing profession, the list is not comprehensive, but attempts to include the most important and frequently used analytical methods, including:

- simple counting of items, such as an inventory;
- mathematical verification of the addition and subtraction in the records for financial accounts;
- comparison of financial accounts to ensure that transactions are recorded accurately and consistently;
- statistical or judgmental sampling of business transactions or operational activities;
- survey design and research methods that are sometimes used in operational or management audits;
- engineering techniques, including requirements decomposition and technology assessment;
- structured interviews with unit personnel that elicit and record information about the unit's operations and practices; and

- advanced statistical analyses, including descriptive and inferential data analysis methodologies.

*Follow-up and Verification*--It is common for auditors to return to the people who provided data or other information in order to obtain clarification of the information that was provided, obtain additional data, or verify previously provided information. These follow-up requests for information often occur for one or more of the reasons listed below:

- the auditor needs additional data that was not requested at the time the original request was made;
- the data are complex and the auditor needs assistance to correctly understand the information provided;
- the data have become important in meeting specific audit objectives, and therefore the data's accuracy and relevance need to be verified by the auditors;
- the auditors are unable to reconcile the data with information obtained from other sources; and
- the data and/or explanations originally provided were incorrect, inaccurate, or unclear.

*Tips For Responding to Follow-up Requests*--Try to be patient in responding to auditors' follow-up requests for information. Remember, it is difficult for auditors to know in advance precisely all the information they'll need. For example, as the audit progresses the information needed to meet the audit objectives often changes based on information previously provided. Also, because the auditors' expertise does not usually equal that of the subject organization's personnel who perform the activities on a daily basis, the auditors at times simply need assistance to fully understand or interpret the information provided.

#### *Preliminary Audit Findings, Conclusions, and Recommendations*

As the Data Analysis, Follow-up, and Verification Phase progresses, the auditors begin comparing the results of their work with the audit objectives, and then developing preliminary audit findings, conclusions, and recommendations, if any. Once an audit team member has proposed a finding, conclusion, or recommendation, the audit team reviews the auditor's data and analyses in order to evaluate the validity of the findings, conclusions, and recommendations. Many preliminary audit findings, conclusions, or recommendations are discarded during the review processes, until the team has developed a set of findings, conclusions, and recommendations that are supported by sufficient objective evidence. This process is internal to the audit team, and so is not visible to outsiders.

#### *Audit Closeout Meeting*

Near the end of the audit work, whether for the entire audit effort, or for audit work performed at a local sub-unit as part of a larger audit effort, it is common practice for the auditors to schedule an Audit Closeout meeting at which

they will present their findings, conclusions, and recommendations. If the audit Closeout meeting is for the entire audit effort, this will likely be the last practical opportunity for the subject organization to present information for inclusion in the audit. Note that if the audit uncovered improper activities, an Audit Closeout meeting may not be held in order to preserve evidence and/or options for responses to the problems.

During the Audit Closeout Meeting, the auditors normally present a brief summary of the work they did, and their preliminary findings, conclusions, and recommendations, although some auditors will not discuss recommendations at this point. It is then incumbent on the subject organization to either accept or refute the auditors' findings, conclusions, and recommendations. If the auditors' findings are challenged, the subject organization often requests a follow-up Closeout meeting, at which they present additional evidence to support their positions.

*Attendees*--If the audit work is for the entire audit, management-level auditors from the audit group will likely attend the Closeout Meeting, along with the auditor in charge of the entire audit. Selected Auditors in charge of field audit work at sub-units may also attend if the work at those locations is deemed important to the audit report message. If the Closeout meeting is for the audit work performed at a sub-unit as part of a larger audit, the meeting will address only the audit work performed at that location. Audit Closeout meetings for the entire audit effort will address all audit work performed during the audit, including the audit work performed at subunits.

Auditors attending a Closeout Meeting at a sub-unit of the subject organization will include the auditor in charge of the audit work at that location, and some or all of the audit staff that worked at that location. Higher-level auditors may attend if the audit results are of key importance to the objectives of a wide-ranging audit, or if the audit results are thought to be controversial.

#### *Writing and Issuing the Audit Report*

After the Audit Closeout meeting the auditors return to their offices and draft their audit report. Audit report formats and lengths vary widely, depending on the audit group practices and the type of audit that was conducted. For example, reports for the annual audits of company financial statements that are commonly performed by external auditors follow standardized formats, while the format and content of operational audit reports vary widely depending on the auditors' normal practices and the subject of and methods employed during the audit.

In the absence of criminal or fraudulent activities, it is common practice for the subject organization to receive copies of the audit report. It is hoped the subject organization will use the report to correct the deficiencies, if any, found during the audit.

*Monitoring Compliance With Audit Reports*--Some auditing organizations monitor the status of subject organizations' implementation of the recommendations in their reports. If the auditors with whom you are working plan to monitor your compliance with the audit report recommendations, you should ask the auditors how and when the monitoring will be done.

#### 4. DOs AND DON'Ts DURING THE AUDIT

Below are some actions subject organizations can take to make an audit go more smoothly, as well as some of the common mistakes that can easily be avoided during an audit:

- **Manage the audit process.** Keep yourself and your management apprised of the auditors' progress. Request periodic updates from the auditors, as needed to stay up to date. Maintain a record of where the auditors visit, who they meet with and when, what information is requested by the auditors and when, and what information is provided, and when. This is best done by someone designated to serve as the Audit Focal Point or Liaison. This Audit Focal Point's primary job is to help the auditors get accurate information in a timely manner, and to track the requests and responses. If you think the auditors' actions are exceeding their announced scope, inform your management promptly. Note that the last point is not applicable in a strict manner to audits conducted by the U.S. General Accounting Office (GAO), which has the authority to modify the scope of its audits as it deems necessary. However, you still should inform your management if you see a change in the scope of a GAO audit.
- **Treat auditors in a businesslike manner.** Interact with auditors in the same way you would with representatives of any other part of your organization
  - **Internal auditors are employees of your organization.** Part of their job is to help the organization maximize its effectiveness, and they can help you improve your unit's performance if you let them. Auditors have a sometimes difficult and important job to do for the organization. Making the auditors' job more difficult rarely improves the audit outcome, but can taint the outcome against you.
  - **Treat external auditors in a businesslike manner.** While external auditors aren't employees of your organization, the managers of your organization are aware of their presence and most likely want you to support their audit work. External auditors are there for a reason; someone with an interest in your organization requested or required them to perform the audit. External auditors won't go away if you treat them badly, and in doing so you risk creating evidence of a negative nature about your organization.
- **Always remember that the auditors are holding the pen that writes the audit report.** Treating the auditors rudely or being uncooperative because they are "checking up on you" at best gives the impression that you and your unit are not working in tune with the rest of the organization, or at worst makes it appear to the auditors that you are attempting to conceal something. This may cause the auditors to perform additional audit work that they otherwise would not have done, in order to assure themselves that they aren't missing something significant.
- **Resolve audit-related problems in a businesslike manner.** If problems arise during the audit process, bring them to the attention of the auditors in a businesslike manner. If the issue is not resolved at that level, ask the auditor when he or she can schedule a meeting with a supervisory auditor to discuss the issue further. Alternatively, ask your parent organization for advice, or more resources with which to support the audit if needed.
- **Be cooperative.** Experienced auditors can usually tell when an organization or person is being deliberately uncooperative, for example by delaying access to information or people, or by providing misleading or incorrect information. This behavior is recognized by auditors as a strong indication that a person or an organization is trying to hide problems. It is almost always a losing strategy because professional auditors will identify the problems during the audit despite efforts to delay or confuse the auditors. Short of outright fraudulent concealment by the subject organization's management of improper or illegal activities, experienced auditors are almost always able to identify serious problems. The better strategy is to cooperate with the auditors and not risk antagonizing the auditors and/or your management.
- **Highlight for the auditors the strength of your organization's business systems.** Be prepared to show the auditors how your organization systematically and consistently performs its functions and implements quality-control steps in its operations.
- **If it is prudent, show auditors areas where you believe changes are needed.** There are times when you may want to identify problems to the auditors. However, it is important to recognize you may antagonize your management by doing this. It is commonly overlooked by audit subjects that audit reports provide a prime opportunity to highlight issues or problems you believe need attention by management. The auditors will appreciate your candor in bringing issues to their attention, and it will increase your credibility with the auditors at the same time. But remember, before you point out problems to the

auditors, consider carefully how your management may react!

- **Ask your parent organization for help, if needed, to properly respond to the audit.** For example, if auditors' requests for access to information or people become overly burdensome, let the auditors know, in a businesslike manner. If the issue is not resolved at that level, again ask the auditors when they can schedule a meeting with a supervisory auditor to discuss the issue further. If the auditors' requests are deemed prudent and necessary, request assistance from your parent organization.

## 5. PROJECT DESIGN AND PREPARING FOR AUDITS

There are several relatively simple and low-cost actions that can be taken during the design phase of a Project to make preliminary preparations for a future audit. Such actions include:

- Add the role of *Project Audit Liaison* to the job description of someone in the Project Management Office, such as the Project's Resource or Budget Administrator, or the Project Accountant.
- Ask the Project Audit Liaison to perform some basic audit preparation steps, including:
  - familiarizing themselves with the audit policies of your parent organization and the sub-organization to which the Project belongs;
  - introducing themselves to the organizational and sub-unit Audit Liaisons;
  - researching the recent history of audits in the parent and sub-unit organizations;
  - obtaining a basic understanding of the potential sources of audits for the Project, for example:
    - regularly-scheduled internal audits;
    - external audits required by statutes, regulations, or contractual requirements applicable to the Project;
    - external audits of the Project that can be requested under statutory, regulatory, or contractual provisions; and
    - under what circumstances such audits of the Project can be initiated.
- Develop an outline of basic audit policies for the Project that are consistent with those promulgated by the Project's local unit and parent organizations.

## 6. AUDIT INFORMATION RESOURCES

Listed below are some readily accessible Internet resources for additional information on audit-related topics:

- The American Institute of Certified Public Accountants (AICPA) is the leading national professional association for Certified Public Accountants (CPAs) in the United States.[6] See Internet address <http://www.aicpa.org>
- The Financial Accounting Standards Board (FASB) establishes and improves standards of financial accounting and reporting for the guidance and education of the public, including issuers, auditors, and users of financial information.[7] See Internet address <http://www.fasb.org>
- The GAO promulgates the *Government Auditing Standards*, also known as the *Yellow Book*. [8] The Yellow Book codifies the standards for audits of federal government agencies and federally funded activities, including most government-contracted projects. See Internet address <http://www/gao.gov/govaud/ybk01.htm>
- The Governmental Accounting Standards Board (GASB) establishes and improves standards of state and local governmental accounting and financial reporting that will result in useful information for users of financial reports and guide and educate the public, including issuers, auditors, and users of those financial reports.[9] See Internet address <http://www.gasb.org>
- The Federal Audit Clearinghouse operates on behalf of the United States Office of Management and Budget (OMB). Its primary purposes are to: (1) disseminate audit information to the public and Federal agencies, (2) support OMB oversight and assessment of Federal award audit requirements, (3) assist Federal cognizant and oversight agencies in obtaining data and reporting packages for OMB Circular A-133, *Audits of States, Local Governments, and Non-Profit Organizations*, and (4) help auditors and auditees minimize the reporting burden of complying with OMB Circular A-133 audit requirements.[10] See Internet address <http://www.harvester.census.gov/sac/>

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## 7. REFERENCES

[1] P.J. Taylor and B. Underdown, *Financial Accounting*, 2<sup>nd</sup> ed., pp.347-371, Oxford, England: Butterworth-Heinemann Ltd, 1992.

[2] Roger H. Hermason and James D. Edwards, *Financial Accounting: A Business Perspective*, 6<sup>th</sup> ed., pp. 301, Chicago, 1995.

[3] Robert W. Ingram, *Financial Accounting: Information for Decisions*, pp. 294-295, Cincinnati, Ohio: South-Western Publishing Co., 1994.

[4] Ibid, 294-295.

[5] Ibid, 302.

[6] Internet address: <http://www.aicpa.org>

[7] Internet address: <http://www.fasb.org>

[8] Internet address <http://www/gao.gov/govaud/ybk01.htm>

[9] Internet address <http://www.gasb.org>

[10] Internet address <http://www.harvester.census.gov/sac/>

## 8. BIOGRAPHY

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