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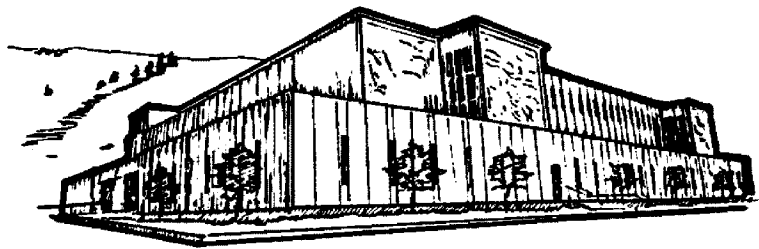
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**A TRAINING TRACKING SYSTEM  
FOR THE CITY OF MISSOULA**

**by**

**Tedmond John Soltis**

**B.A., Montana State University, 1986**

**Presented in partial fulfillment of the requirements**


**for the degree of**

**Master of Public Administration**

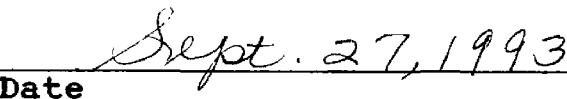
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**1993**

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## **EXECUTIVE SUMMARY**

### **Purpose**

The purpose of this research project was to investigate the need for a training tracking system in the Missoula City government. The research questions include: (1) What mechanisms are in place for determining training and development needs, distributing training and development opportunities, and recording training and development data? (2) What suggestions do the various City departments and divisions have for improving the current training and development mechanisms? (3) What components should be included in a training and development tracking system? (4) What options exist for providing a systematic approach to training and development?

### **Principle Findings**

Responses to a questionnaire by department and division heads indicate weaknesses in the various approaches employed for training and development: 18% report they are not sure if they had adequate training funds, 28% fail to conduct needs assessments, and 29% do not record employee training data. In addition, while only 35% of the departments and divisions base training decisions on needs assessments, 47%

report having no system at all for prioritizing training needs.

A review of training budgets indicates an apparent lack of planning in their formation. This is evidenced by the contrast between training budgets and actual expenditures.

Two methods of tracking are discussed: the "Consensus Accounting Model" and "Legislative Audit Management System (LAMS)". "The Consensus Accounting Model" provides a common coding system which can be used by all of the departments to account for training expenditures. LAMS provides an example of a comprehensive, integrated system that records training needs of employees and their progress in fulfilling training needs.

### Recommendations

The primary recommendation is to implement a tracking system in phases. The first phase of the process should begin with adopting a standard system to account for training. The focus of this phase would be on improving the training processes of individual departments. Once improvements are made and a vision is developed for future tracking possibilities, the City should move to the next phase. This phase would unite the various components of the training and development process to provide for an integrated systematic approach. A two phase strategy will allow change to come at a pace that is more likely to be embraced by employees and management rather than rejected.



## **CHAPTER I**

### **INTRODUCTION**

#### **Statement of Problem**

Local governments face numerous challenges, including operating with limited resources, dealing with complex issues, and satisfying the public's desire for increased responsiveness and accountability. For these reasons, as well as many others, local governments are compelled to find ways to operate as efficiently and effectively as possible.

One means utilized by local governments to improve governance is through employee training and development. The process begins with the initial hire and continues throughout an individual's career. A first step involves the assimilation of new employees into the organization. Once assimilated, additional training is necessary if the new employees do not have all the knowledge and skills required to perform their jobs. Further training and development is required as duties and technologies change and/or individuals prepare for career advancement.

Presently, the City of Missoula does not have a uniform method for determining training and development needs, distributing training and development opportunities, or recording training and development data. Since methods vary

with departments, the ability to ensure that training and development activities are tied to individual needs as well as the goals and objectives of the City is limited. It is therefore impossible for the City to ensure that training and development time and dollars are utilized in the most efficient and effective manners possible.

### Statement of Purpose

The objective of this research project is to facilitate the City of Missoula's effort to implement a standard system for tracking its training and development activities. The intent is to provide information to assist in the process of implementing a system that will enable the City as a whole, and departments individually, to take a consistent systematic approach to training and development. A system should be used that integrates methods for determining training and development needs, distributing training and development opportunities, and recording training and development data. This will increase the City's ability to ensure that dollars are utilized efficiently and effectively so that individual and organizational needs are met.

The facilitating process is guided by four primary research questions: (1) What mechanisms are in place for determining training and development needs, distributing training and development opportunities, and recording training and development data? (2) What suggestions do the various City departments and divisions have for improving

the current training and development mechanisms? (3) What components should be included in a training and development tracking system? (4) What options exist for providing a systematic approach to training and development?

### Research Methodology

Analysis rests primarily on the results of a training questionnaire and review of budget documents. The training questionnaire contributes training related information from the eventual beneficiaries of the new tracking system. This information provides answers to the two following research questions: What training and development mechanisms are currently in place and what do the various departments suggest should be done to improve them? The questionnaire was distributed to the following City departments and divisions:

- Mayor's Office
- Personnel
- Municipal Court
- Finance/City Clerk
- Treasurer's Office
- Attorney's Office
- Public Works:
  - Engineering
  - Building Inspection
  - Street
  - Vehicle Maintenance
  - Wastewater
- Fire
- Police
- Cemetery
- Parks & Recreation
- Missoula Redevelopment Agency (MRA)
- Parking Commission

To ascertain the training budgeting and expenditure practices of each department, Missoula's Annual Budgets for 1990-93 were reviewed. The annual budgets were analyzed to determine the correlation between budgeting and spending practices and the questionnaire responses. The aim was to identify weaknesses which could be addressed through a systematic approach to training and development.

Chapter III consists of a review of the relevant literature. It provides a theoretical foundation for the implementation of a training tracking system by discussing the various phases and components of the training process.

To assist further in the decision process, two types of training tracking systems are included in Chapter IV. A summary of a particular method developed by a number of experts for tracking training is presented along with a discussion of an actual working training tracking system. C. D. Avery, Manager of Audit Development for the Montana Office of the Legislative Auditor in Helena, provided information during an interview with the author on the workings of their tracking system. Avery explained the operation of their system and provided a demonstration of a system "in action." Chapter V closes with a summary and recommendations.

## **CHAPTER II**

### **ANALYSIS OF QUESTIONNAIRE AND TRAINING BUDGETS**

This chapter consists of an analysis of the training questionnaire and budget documents for the City of Missoula. The training questionnaire provides training related information from the various City departments and divisions. It was administered to determine what training and development mechanisms were in place, and to survey viewpoints on implementation of a tracking system. Department and division training budgets were analyzed to identify any weaknesses in budgeting practices that can be minimized through a systematic approach to training and development.

#### **Training Questionnaire**

The following is an analysis of the questionnaire distributed to the heads of seventeen city departments and divisions on April 16, 1993. A sample of the questionnaire and the complete results are located in Appendix 1. All seventeen department and division heads completed and returned a questionnaire.

Individuals representing the City departments and divisions were asked if they considered their training

budgets to be adequate. Fifty-three percent of the respondents reported having adequate funds for training and development, 29% reported inadequate funds, and 18% were not sure if they had adequate training funds. A training tracking system would provide the 18% with the data necessary to determine whether or not they had adequate training funds.

They were also asked whether their department or division conducted training needs assessments. Eighty-two percent reported that they conduct periodic training needs assessments. The assessments predominantly take place during employee performance appraisals (47%), and/or while preparing budgets (47%). Twenty-eight percent did not conduct training needs assessments. Reasons cited for not performing needs assessments were the lack of time or knowledge on how to accomplish them, and/or a shortage of staff.

In response to the question regarding what training needs currently exist in their department or division, 47% listed interpersonal, 35% listed leadership, and 41% listed managerial training. Seventy-six percent of the respondents also reported other training needs which are summarized in the section titled "Comments from Training Questionnaire" located in Appendix 1.

When asked whether records are kept on training received by employees, the majority of the departments and

divisions (71%) responded that they keep some form of training records. Forty-seven percent store them in employee files, and 18% in department training files. Fifty-nine percent account for the type of training the employee received, 41% record the training provider, and 18% list the cost of the training. Twenty-nine percent do not record any data on training received by employees.

Forty-one percent responded in the affirmative when asked whether a standard tracking system would benefit their department. Thirty-five percent reported no benefit, and 24% were not sure. Those responding that a standard system would be beneficial felt that tracking the type (35%), cost (24%), quality (24%) and provider (24%) would be of benefit. Twenty-four percent listed additional information which is summarized in the "Comment from Training Questionnaire" section in Appendix 1.

They were also asked "how useful" such a system would be. Forty-eight percent responded that a standard training tracking system would be useful or very useful. Twenty-four percent reported the system would not be useful.

When asked whether their employees were applying what they learned in training and development to their jobs, 35% of the respondents reported always, 59% sometimes, and 6% unknown.

There was an equal split in response to the question whether departments have a system for establishing training

priorities. Forty-seven percent responded yes and 47% responded no. Staff meetings, employee discretion, need and opportunity were among the responses.

Ninety-four percent report "employee expressed interest" as the criteria used to decide who will participate in training, 65% listed a dependence on the courses offered, and 35% based decisions on needs assessments.

In answering how to improve training and development, 47% suggested expanding in-house training, 47% responded bringing in outside consultants, and 59% responded increasing training aids.

Additional comments ranged from no interest in a tracking system to high interest, and from not being sure whether a training tracking system is necessary to "the last thing we need is more paper work." All comments to each question are listed in the "Comments from the Training Questionnaire" in Appendix 1.

### Training Budgets<sup>1</sup>

An analysis of the training budgets in the absence of information on all of the factors that affect the budgets can at best be a matter of drawing inferences. With budgets

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<sup>1</sup>The data for budgeted and actual training expenditures was obtained from the City of Missoula's "Annual Budget 1991-1992" and the "Annual Budget 1992-1993." The figures, rounded to the nearest dollar, are displayed in table and graphic form in Appendix 2.



providing only part of the picture it is not appropriate or possible to come up with definitive conclusions. With this in mind, several inferences have been made following an analysis of the City's training budgets.

First, the priority to "improve the City's training and staff development"<sup>1</sup> is reflected in the 1993 training budgets. The total department training budget of \$53,737<sup>2</sup> represents a 54% increase over the 1992 budgeted dollars of \$34,975<sup>3</sup> and a 137% increase over the \$22,670<sup>4</sup> actually spent on training and development in 1992.<sup>5</sup> Furthermore, budgeted dollars for fiscal year 1993 represent an increase over previous spending for all of the departments except the Parking Commission.

Improving training and staff development clearly

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<sup>1</sup>City of Missoula, Office of the Mayor. Executive Branch Strategic Plan, (March 1992), 14.

<sup>2</sup>This total differs from the \$53,187 listed on page 31 of the Annual Budget 1992-1993. The \$250 non-department training funds, although included in the budget, are omitted. The \$800 Parking Commission training funds are not included in the Annual Budget figure, yet it is included in the \$53,737 total.

<sup>3</sup>This total differs from the \$34,725 listed on page 40 of the Annual Budget 1991-1992. The \$250 non-department training funds, although included in the budget, are omitted. The \$500 Parking Commission training funds are not included in the Annual Budget figure, yet it is included in the \$34,975 total.

<sup>4</sup>City of Missoula. Annual Budget 1992-1993.

<sup>5</sup>A substantial part of the increase in budgeted dollars is due to the Police Department's training budget; it increased from \$0 in 1992 to \$12,500 in 1993.

involves more than allocating additional funds. It remains to be seen whether or not the departments and divisions will spend all the budgeted dollars on additional training and development. If the spending trend of the past three years continues, the majority of the departments and divisions will fail to spend all of their training and development funds. The percentage of City departments and divisions that underspent their training and development budgets was 71% in FY 1992, 82% in FY 1991, and 59% in 1990. Actual expenditure as a percentage of the original budget for all of the seventeen departments and divisions was 65% in FY 1992, 65% in FY 1991, and 82% in FY 1990.

This brings up the second point which is the apparent lack of planning in the formation of training and development budgets. With substantial differences between the initial training budgets, amended budgets, and actual expenditures (see graphs and tables in Appendix 2) there appears to be an absence of appropriate planning. While exceptions will occur, actual expenditures should be in line with budgeted dollars. As defined in the Scribner-Bantam English Dictionary, a budget is "money set aside for planned expenses." A training tracking system can aid in the planning and budgeting process. It can minimize the wide variances between budgeted dollars and actual expenditures by providing pertinent information on which to base budgeting decisions.

### Conclusion

Analysis of the questionnaire and the City's training budgets in this chapter provides information that will aid in the eventual implementation of a training tracking system. Responses to the questionnaire indicate weaknesses in the various approaches that some of the departments and divisions employ when it comes to training and development: 18% reported that they were not sure if they had adequate training funds, 28% fail to conduct needs assessments, and 29% do not record employee training data. In addition, while only 35% of the departments and divisions base training decisions on needs assessments, 47% reported having no system at all for prioritizing training needs.

The analysis of the training budgets adds further credibility to the assertion that a training tracking system is needed. An apparent lack of appropriate planning in the formation of training budgets is evidenced by a consistent contrast between training budgets and actual expenditures. Using "planned expenditures" as a definition for budgets, the City's training budgeting practices might more appropriately be defined as unplanned expenditures.

This apparent lack of appropriate planning in the training budgeting process, along with the weaknesses of current training mechanisms, suggests the need for a systematic approach to training and development. A system is required which integrates standard methods for

determining training and development needs, distributing training and development opportunities, and recording training and development data. A system with these capabilities would be an investment towards ensuring the wise use of training and development expenditures and the efficient and effective operation of the city as well.

## CHAPTER III

### TRACKING THE TRAINING PROCESS

Because the training process involves an entire network of components that together form a system, all of the components must be taken into consideration when developing a formal training tracking system. These components can be grouped according to the three phases of the training process: pre-training, training, and post-training. This chapter discusses the role of the training tracking system as it relates to each phase of the training process.

#### Pre-Training

The initial stage of the training process is the needs assessment (also called needs analysis). According to Lynton and Pareek, this involves "understanding the situation that calls for more effective behavior."<sup>1</sup> Latham broadens the definition by describing needs analysis as "identifying the objectives of the organization, identifying the tasks that must be performed to attain these objectives, and identifying who needs training on how to perform these

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<sup>1</sup>Rolf P. Lynton and Udai Pareek, Training for Development. (Homewood, IL: The Dorsey Press, 1967), 15.

tasks."<sup>9</sup> A comprehensive needs assessment will therefore include an organization analysis, a job analysis, and a person analysis.

### Organization Analysis

There are two themes, according to Latham, that underlie research in the area of organization analysis. First, training must be in line with the strategic objectives of the organization. Second, organizations have an obligation to offer training and development opportunities to minimize the obsolescence of their employees.'

In regard to the first point, training should be regularly monitored to ensure that it corresponds with the strategic objectives of the organization. The City of Missoula, for example, has set "Team Building" as one of its priorities.<sup>10</sup> To attain this goal, the need for additional training was identified. It is unproductive to identify training needs and budget dollars if the requisite training is not provided. Since the city does not have a training tracking system, it is not possible to follow up with the next step, that is, monitoring to ensure that appropriate

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<sup>9</sup>Gary P. Latham, "Human Resource Training and Development," Annual Review of Psychology 39 (1988): 547.

<sup>9</sup>Ibid., 549.

<sup>10</sup>City of Missoula, Office of the Mayor, Executive Branch Strategic Plan, (March 1992), 14.

training is taking place.

As to the second point, Latham contends that minimizing technical obsolescence will foster loyalty and "make the work force more flexible and adaptable."<sup>11</sup> Fitzgerald adds that "development is necessary so people can meet new challenges and ensure the long-term health and vitality of an organization. . . . In fact, a well developed workforce does not react to change - it creates change."<sup>12</sup>

Preventing technical obsolescence is particularly important in situations where turnover is low. Employees must keep current to remain productive and to continue to be successful. Otherwise, the ability of employees to fulfill more demanding expectations in the future will decline.

Turnover has traditionally been low among governments, and Missoula's city government is no exception.<sup>13</sup> While the city is committed to providing educational opportunities for its employees,<sup>14</sup> currently there is not a consolidated training mechanism in place to preclude the technical obsolescence of all of its employees.

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<sup>11</sup>Latham, "Human Resource Training and Development," 550.

<sup>12</sup>William Fitzgerald, "Training Versus Development," Training & Development 46 (May 1992): 81.

<sup>13</sup>Fred Rice, City of Missoula Personnel/EEO Officer, interview by author, 23 February 1993, Missoula.

<sup>14</sup>City of Missoula, Personnel Office, Personnel Policy Handbook, "Education Leave" policy, 33.

## Job Analysis

Job analysis, or operations analysis, "is the orderly and systematic collection of data about an existing or potential . . . task or a cluster of tasks usually called a 'job'."<sup>15</sup> According to Lynton and Pareek, "this covers, besides technical requirements, the kinds of personal contact the job calls upon the person to have with others . . . ; the pressures on the job . . . ; any wide variations in the quantity of work, and the time required to complete it; and other salient features."<sup>16</sup>

The purpose of the analysis is to clarify what employees must do in order to perform their jobs in a way that maximizes their contribution to the achievement of organizational objectives. This thorough comprehension of the knowledge, skills, and abilities (KSA's) required for each job is necessary for making training related decisions. McGehee and Thayer maintain that "failure to perform an adequate operations analysis of a job can result in unneeded effort in developing skills or inculcating knowledge which are not essential to the performance of the tasks in a job."<sup>17</sup>

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<sup>15</sup>William McGehee and Paul W. Thayer, Training in Business and Industry, (New York: John Wiley & Sons Inc., 1961), 63.

<sup>16</sup>Lynton and Pareek, Training for Development, 16.

<sup>17</sup>McGehee and Thayer, Training in Business and Industry, 62.



## Person Analysis

The person analysis "is directed toward finding out (1) whether the individual employee requires training, and (2) what training he requires."<sup>18</sup> The procedure begins with a determination of how well a specific employee is carrying out the tasks which constitute his or her job. If poor performance is substantiated, a decision is made as to whether the poor performance is directly attributable to the individual or to factors beyond his or her control. Any factors relating to poor performance that are within the employee's control are then assessed for possible training. Training is not invariably the answer, since other factors may be the cause of poor performance. As Hobbs states, "Formal training is not the appropriate solution when someone knows how to do something right, yet does it wrong" for reasons other than the lack of appropriate KSA's.<sup>19</sup> If insufficient KSA's are the problem, training is provided to maximize the employee's contribution to the organization.

## Training

Once the needs assessment is complete, the next stage in the training process is the selection of appropriate training. With the availability of a wide variety of

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<sup>18</sup>Ibid., 88.

<sup>19</sup>David L. Hobbs, "A Training-Appropriations Process," Training & Development 44 (May 1990): 112.

training types, approaches, and strategies, successful training programs often require research to determine what is appropriate for given situations. Research may range from looking through a University course catalog for a general accounting class to reviewing technical training bulletins to find out who offers training on a specific piece of Fire Department equipment. A training tracking system can assist in this stage of the training process by performing a number of functions.

One of its functions could be to store information on courses offered which are pertinent to the organization. Courses that have general applicability could be included in a course catalog that all of the departments can access. For those courses which only apply to particular departments, departmental course lists can be maintained. These course catalogs could be general or specific in nature. One form might simply list the vendors who offer classes. A more detailed format could include training parameters: who can attend the class, the maximum number of attenders, time, location, cost, frequency of class, and any prerequisites.

Another function of the tracking system in the training stage could be to track the progress of individuals in sequential and/or accredited programs. With public sector training moving toward increased levels of professional, accredited, and sequential training, tracking individual

progress in these areas would provide valuable support. Classes already taken, those yet to be taken, and credit hours accumulated could all be recorded by a training tracking system.

### Defining training

Fundamental to the development of a training tracking system is a clarification of what is meant by training. Carnevale and Schulz define training as "a structured program with identified objectives and learning plans to improve the knowledge, skills, and attitudes of trainees for use in their present and future job assignments."<sup>20</sup> Nadler, on the other hand, differentiates between present and future oriented activities. He defines training as "learning related to the present job" and development as "learning for growth of the individual but not related to a specific present or future job."<sup>21</sup>

With many organizations, including the City of Missoula, offering tuition reimbursement to employees attending classes at educational institutions, it is appropriate to add a discussion on education. Van Wart, Cayer, and Cook suggest that education is "principle driven

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<sup>20</sup>Anthony P. Carnevale and Eric R. Schulz. "Return on Investment: Accounting for Training." Training & Development. 44 (July 1990): S9.

<sup>21</sup>Leonard, Nadler, ed. The Handbook of Human Resource Development. (New York: John Wiley & Sons Inc., 1984.), 1.16.

and tends to be only broadly applicable . . . . It teaches general skills and knowledge."<sup>22</sup>

A distinction is made in this paper between training, development, and education. However, since funding for all three is included by the City of Missoula in its training budgets, an assumption is made that all three should be tracked. References to the "training" tracking system will therefore also mean the tracking of "developmental" and "educational" opportunities as well.

### Why track training?

Although there is a proliferation of training opportunities, abundant training does not always guarantee success. "Training is neither a panacea for all ills, nor is it a waste of time."<sup>23</sup> While there is little doubt that training is necessary, without some method to keep track of training there is no way to evaluate or ensure its effectiveness. Before training related decisions can be made in an efficient and effective manner, sufficient data must be available on which to base decisions. As Laird states, "if we wish to make sound judgments about an

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<sup>22</sup>Van Wart, Montgomery, N. Joseph Cayer, and Steve Cook. Handbook of Training and Development for the Public Sector. San Francisco: Jossey-Bass Publishers, 1993.

<sup>23</sup>Lynton and Pareek, Training for Development

organizational operation, then hard data are necessary."<sup>24</sup>

In the absence of an integrated training tracking system a number of problems can develop. Training not tied to actual goals and objectives can increase the perception that training is used by some as an employee's excuse to get out of work, or that it is simply a waste of money. Training opportunities not distributed according to identified training needs tend to be market-oriented. They are geared toward courses the market has to offer rather than strategically meeting individual needs and organizational objectives. Saint adds that "Many training efforts are not much more than the offering of courses. They are often disconnected efforts, separate from the work situation, and fail to carry over into the productive processes of work."<sup>25</sup>

When planning, training, and tracking are inadequate, the possibility for inequality in the distribution of training opportunities increases. The system inadvertently lends itself to subjectivity if the determination of what is and is not job related is made in an arbitrary unscientific manner. This subjectivity may be intensified by personality affinities, varying degrees of employee initiative, timing

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<sup>24</sup>Dugan Laird, Approaches To Training And Development (Reading, Massachusetts: Addison-Wesley Publishing Company, 1978) 232.

<sup>25</sup>Avise Saint, Learning at Work: Human Resource and organizational Development (Chicago: Nelson-Hall Company, 1974), 162.

constraints, and budgetary discretion.

With the appropriate use of training opportunities, an organization can significantly increase its effectiveness. A training tracking system provides information in an organized fashion. With a computerized tracking system, training related information on each employee can readily be accessed. The ability to access training needs of all employees can also provide information on which to base future training decisions. This ability to access training needs enables training opportunities to be planned from an organizational perspective. Rather than each department having to contact vendors to meet all their training requirements, individuals with common training needs from a number of departments can be grouped together for training.

Take, for example, the case where a department has determined the need for employee training on a particular computer software program. With a tracking system in place, it would be relatively easy to find out whether employees in other departments within the organization require the same training. This method of providing training for larger numbers of employees is often more cost effective. The training class can also be context specific. Rather than a general class offered by a vendor to anyone desiring to participate, a course can be specifically designed for use within the organization.

Tracking also provides information helpful in recording

the usefulness of particular training courses. For example, there may be a situation where employees in a department participate in a training class on "How to Manage Effectively." This class, offered by a local vendor, proves to be of little value. While the participants may share this information with fellow members of their department, who then avoid the class in the future, other departments unaware of the poor quality of the class may schedule their employees to participate in the same class. With an organizational tracking system this type of problem is preventable.

### Post-Training

The final stage in the training process is the evaluation of training. Tracking this stage of the training process is important because the information collected forms the basis of future training decisions. For example, evaluations can furnish information on the strengths and weaknesses of training opportunities.

### Evaluation of Training

The most common framework used for evaluating training programs is the Kirkpatrick model. Kirkpatrick established "steps" for categorizing the various levels of evaluation. Each level increases in sophistication over the previous one; the levels are *reaction*, *learning*, *behavior*, and

result."<sup>16</sup>

*Reaction*, the most commonly used level, evaluates "how well the trainees liked a particular training program."<sup>17</sup> Information is gleaned from a "comment sheet" filled out by the participants following a training activity. The advantage of this level of evaluation is that it is relatively easy to administer. An important shortcoming is that it simply gauges how well an instructor presents material rather than providing information on what individuals actually learned.

The second level, *learning*, appraises the "principles, facts, and skills which were understood and absorbed"<sup>18</sup> by the participants. A variety of methods may be used to obtain objective and quantifiable information, including task simulations, role playing, and tests. The advantage of this level of evaluation is that it goes beyond the reaction level and measures the actual skills or knowledge acquired by the participants. Disadvantages are that it is more difficult to plan, analyze, and interpret the results.

The *behavior* level measures on-the-job performance. A variety of approaches and complex procedures are applied to measure the effect training programs have on behavior

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<sup>16</sup>Robert L. Craig, ed. Training and Development Handbook: A Guide to Human Resource Development, 2d ed. (New York: McGraw-Hill Book Company, 1976), 18.2.

<sup>17</sup>Ibid., 18.2.

<sup>18</sup>Ibid., 18.11.



modification. Experimental and control groups, "before-and-after" attitude surveys and interviews, along with statistical analysis of results are some of the techniques implemented. The advantage of this level is an increased degree of accuracy; measurements are represented in statistical and scientific terms. The disadvantages are that the time, expense, and expertise required to engage in the evaluation are significant.

The fourth level of evaluation is *results*. This level of evaluation may include measuring outcomes such as reductions in grievances, advances in quality, or improvements in communications. A benefit to the results approach is that it is possible to make direct correlations between training and on-the-job activity. A drawback to the results approach is that not all training effects can be ascertained in terms of results. According to Kirkpatrick there are "so many complicating factors that it is extremely difficult, if not impossible, to evaluate certain kinds of programs in terms of results."<sup>1</sup>

As the levels of evaluation demonstrate, assessing training and development programs can be simple or complex depending on the method or methods chosen. Ideally, the aim is to ensure the greatest degree of validity by gathering information from a number of sources using a variety of means. However, time and budget constraints have often

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<sup>1</sup>Ibid., 18.12.

limited the evaluation process to gathering only as much information as is necessary to make decisions. In the past, this has meant that many organizations have relied heavily on the use of "comment sheets" to evaluate training programs. Unfortunately this level of evaluation provides a only a minimal amount of information on which to base decisions.

With the increased use of powerful computers and software programs, it is now much easier, quicker, and less costly to evaluate training programs. Training tracking systems, for example, can be designed to generate multiple types of evaluation forms and to compile the data collected into a central data base. Since evaluations aid in the formation of future training programs and the modification of current ones, this will assist in improving the efficient and effective use of training and development opportunities.

### Conclusion

The relationship between the components of the training process--as grouped into three phases, pre-training, training, and post-training--and the role of a training tracking system were discussed. The pre-training process includes the organization, person, and job analysis. To assist in the pre-training stage, computer generated analysis forms could be produced by the training tracking system; data collected could be stored and easily recalled.

As indicated, when it comes to the actual training, there are a wide variety of types, approaches, and strategies. A tracking system can aid by functioning as a catalog of organizationally pertinent courses, and also as a device to track individual progress in accredited and sequential training courses.

The discussion on the post-training stage included an analysis of the various evaluation techniques. A training tracking system can improve this stage by generating evaluation forms and then recording the data collected. As demonstrated, all three phases of the training process can be enhanced with a training tracking system. This in turn could expedite a more efficient and effective use of training funds.

## CHAPTER IV

### TWO METHODS FOR TRACKING TRAINING

Having laid the theoretical foundation for the training process in the previous chapter, this chapter will discuss two methods of tracking training: the "Consensus Accounting Model"<sup>30</sup> and the "Legislative Audit Management System."<sup>31</sup> The "Consensus Accounting Model" employs an "agreed upon method" to account for training and development activities.<sup>32</sup> The "Legislative Audit Management System" provides an example of a working training tracking system.

#### The Consensus Accounting Model

The "consensus accounting model" was developed by a number of training and accounting experts as a "standardized accounting model for training."<sup>33</sup> It links the process of

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<sup>30</sup>Anthony P. Carnevale and Eric R. Schulz. "Return on Investment: Accounting for Training." Training & Development. 44 (July 1990): S-2.

<sup>31</sup>Legislative Audit Management System is the name given to the management information system used by the State of Montana's Office of the Legislative Auditor.

<sup>32</sup>Carnevale and Schulz. "Return on Investment: Accounting for Training," S-2.

<sup>33</sup>Anthony P. Carnevale and Eric R. Schulz. "Return on Investment: Accounting for Training." Training & Development. 44 (July 1990): S-9. A joint project by the American Society for Training Association (ASTD) and the

currently accepted accounting practices with preferred organizational objectives. The model serves as an aid in facilitating the process of "determining the percentage of a department's resources spent for training, which departments or individuals require training, and important training considerations that should influence future budgets."<sup>14</sup>

The model consists of four steps. The first step entails reaching a consensus on an organizational definition of training. The purpose of this step is to clarify what activities are considered training. The second step involves determining all of the training cost categories including direct and indirect costs. Direct costs include personnel, outside goods and services, facilities, and travel related expenses. Indirect costs are those that are not directly associated with a specific training program. These include overhead (materials, equipment, and shared office space), general and administrative (training staff salaries, administrative and support staff), and miscellaneous costs. Calculating all of the training expenses including direct and indirect costs is the third step. The fourth step pertains to the coding of training costs. In this step, the direct and indirect categories are

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U.S. Department of Labor.

<sup>14</sup>Ibid., S-9. As an accounting model, it "measures the economic track record of organizational activities and functions." Therefore, matters relating to what should be kept in individual training files, such as a record of training needs or courses required, are not addressed.

matched to a coding system. For an example of a coding system, see Table 2 in Appendix 3.

### Legislative Audit Management System (LAMS)<sup>35</sup>

The "Legislative Audit Management System" is the name given to the management information system used by the State of Montana's Office of the Legislative Auditor. Among other capabilities, LAMS integrates the training process to provide a systematic approach to training and development.

Included in the system is a training course catalog and the ability to generate an assortment of training reports. The training course catalog contains the course number, course name, course objective, major subjects covered, and any required prerequisites. Both in-house and outside courses are listed. Training reports include individual training histories, class lists, a calendar of training activities, individual training plans, class announcements, instructor announcements, individual staff curriculums, and an annual report of classes attended.

The training process itself involves a number of phases aided by LAMS. The process begins with a needs assessment performed once a year by "deputies" who review training curriculum for their staff. This generally involves a review of job descriptions, course descriptions, quality

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<sup>35</sup>C.D. Avery, Manager for Audit Development, Office of the Legislative Auditor, State of Montana, interview by author, 30 April 1993, Helena.

control reports, peer review reports, discussion with management teams, and individual evaluations. The deputies prepare training requests along with advice as to the best times to offer classes. This information is passed on to a training officer who reviews the training request along with prior class evaluations and arranges for new or revised in-house or contracted training classes. The LAMS course catalog is then updated to reflect the new changes for the training year. At this point, a list of those eligible for each class is generated by LAMS. The training officer reviews the list and makes appropriate changes. LAMS then generates a class list that is edited by the training officer who adds the date, time, location and instructor for each class. After the class list is revised, LAMS prepares training announcements, a calendar of classes, and a training plan for each individual. Upon completion of a course, individuals prepare a class evaluation of its content, specify any further training needs on the subject, and rate the presentation. For examples of reports generated by LAMS, see Tables 3-7 in Appendix 4.

### Conclusion

Of the two types of systems discussed, on which one should the City of Missoula pattern its training tracking system? The answer partly depends on the amount of time and resources that will be dedicated to tracking the training and development process, and partly on the speed at which

change is desired.

If an economical, incremental approach is preferred, then a system similar to the "Consensus Accounting Model" is the best choice. The basis of the model, as it would apply to the City, is the use of a common coding system by all of the departments to account for training expenditures. As it now stands, each department has its own system for keeping track of training expenditures. This makes it difficult, if not impossible, to track the training and development process. A common coding system would enable the various departments to use the same "language" when accounting for training and development expenditures. This type of a system would provide a minimum amount of tracking, that is, the ability to know from an organizational perspective how training funds were spent in each department.

If a comprehensive, integrated system is desired, then a program similar to the "Legislative Audit Management System" should be selected. Not only would a program of this type use a common coding system, but it would also unite the various components of the training and development process. This type of a tracking system would initially be more costly to purchase and time consuming to implement due to its comprehensiveness. On the other hand, it would provide the systematic approach to training that organizations are now beginning to execute in an attempt to increase the efficient and effective use of their resources.



## **CHAPTER V**

### **RECOMMENDATIONS**

Technological innovations are changing the way we work. With the advent of computers, information collection, analysis, storage, and retrieval are easier, more accurate, and less time consuming than they once were. Organizations utilizing computers are experiencing increased efficiencies in operating procedures and are initiating more effective programs. There are, however, no guarantees that organizations will automatically reap benefits simply by implementing technological innovations. As an organization considers reshaping to meet new challenges, appropriate planning should go into any decisions to employ or expand the use of new technologies. Designing or selecting a training tracking system that takes advantage of advances in computer technology is no exception. This chapter reviews some of the major points made earlier with regard to planning a training tracking system and includes some recommendations about its implementation.

#### **Clarifying the Purpose of Tracking Training**

A significant part of the process involves clarifying the purpose of tracking training. Simply tracking for the

sake of it may be of little value. As one respondent to the questionnaire wrote, "The last thing we need is additional paperwork and reporting for gathering data that is seldom if ever used for any substantive purpose"<sup>3</sup> Of what value is it to know whether an individual has taken a course in, for example, "Word Perfect 5.1" unless the information is to be used for some constructive purpose. If one of the purposes for tracking training is to ensure that individuals are kept up-to-date on new more effective versions of software, then tracking can serve a useful function. It can also be used to facilitate decision-making. The ability readily to access data on who has or has not received training will be of benefit. This information may be used, for example, in the planning and scheduling of future training classes or in the preparation of departmental training budgets.

#### A Comprehensive Training Tracking System

As discussed, the tracking process involves more than setting up a program that merely records "X" employee, attended "Y" course, for "Z" dollars. These components represent only part of the tracking process. While this information may be sufficient for tracking expenditures, it does not provide enough data for making a number of training related decisions. For example, "XYZ" data would prove

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<sup>3</sup>"Training Tracking Questionnaire administered by the City of Missoula Personnel Department on April 16, 1993 to the various City departments and divisions.

inadequate for answering the following questions: Are the dollars being spent on training producing results that will contribute more effectively to the attainment of organizational goals? Or, what are the areas where training expenditures can be most effective? A more complete tracking system would include organization, job, and person need assessments along with an evaluation component to gauge the success of training programs. It is recommended that the more complete tracking system be procured in the near future.

#### A Flexible, Adaptable, and "User friendly" System

A computerized training tracking system should be designed in consideration of the various levels of tracking requirements and computer expertise that occur within the organization. A technically precise, entirely objective tracking system may not be feasible or essential for every department. This is especially true when the advantage of training is obvious or the cost of administering the system is higher than the benefit received. A general history of training activity received by particular individuals may be all that is required for some departments. Other departments employ individuals that are required to keep track of continuing education requirements to maintain professional certification. In these departments a credit recording component would be beneficial. Still other departments require the tracking of training classes as part

of individual career progression. These diverse needs, as well as the likelihood of future changes, should be taken into consideration when developing a training tracking system. A successful system requires flexibility to accommodate differing departmental needs, adaptability to allow for continuous change, and "user friendliness" for ease of operation.

### The Active Support of All Involved

A review of the literature and responses to the questionnaire has provided general information on the training tracking process. The literature review supplied standard information on the training process as specific training tracking requirements vary from organization to organization. As to the questionnaires, there was no clear mandate for a training tracking system. Some of the respondents recognized a definite need to track training, while others were not sure. Therefore, meetings should be set up so that individuals representing the various departments could convene to discuss the benefits and values that a training tracking system can provide. A successful training tracking system will be more likely if the support and active input of all involved is obtained.

### Software Options

Finally, there are basically three options for acquiring the actual computer software necessary for a

training tracking system: choose an off-the-shelf program, select a vendor who will custom design a program, or design a program in-house. Off-the-shelf programs are general purpose programs designed to meet the basic needs of a variety of users. Since they are designed for a number of different users they may fail to meet the specific needs of a particular organization. These specific needs can be met through custom designed programs. Tailor-made programs can be designed to provide for the options and details particular to an organization. The final option is to design a program in-house. This option is more common to large organizations who have the expertise available to design their own software. For many organizations, the size of the City of Missoula, this may not be a viable option due to the expense.

Probably the most cost effective approach for the City of Missoula would be to purchase an off-the-shelf tracking program. Software programs could be selected from vendors who routinely offer their products for review prior to the actual purchase. Two organizations that list software vendors are the International City/County Management Association (ICMA) and Advanced Personnel Systems. ICMA offers a software guide for "local government applications" called the Software Reference Guide 1992. It contains information on "over 800 software programs ... on functions, operating systems, price, ... and vendors." Advanced

Personnel Systems offers a software guide called the Personnel Software Census. This exhaustive directory of human resource software is published annually. The latest edition contains information on 1400 software programs offered by 750 vendors.

### Conclusion

Fortunately, as many organizations are discovering, there are a number of new computer programs for tracking the training process. In realizing that change is often incremental in nature, perhaps the best approach for the City of Missoula to take is to implement a tracking system in phases.

The first phase of the process might begin with a program similar to the "Consensus Accounting Model." With the adoption of a standard system to account for training and development activities, as the model calls for, it becomes possible to know from an organizational perspective how funds are expended in each department.

This phase might also involve a move toward a more systematic approach to training and development. To do this, the focus should be on improving the training processes of the individual departments. Currently, for example, several departments fail to conduct needs assessments and/or record employee training data.

Once improvements are made and a vision is developed for future tracking possibilities, the City could move to

the next phase. This phase might involve a system similar to the "Legislative Audit Management System." Such a program unites the various components of the training and development process providing for an integrated systematic approach.

This two phase strategy will allow change to come at a pace that is more likely to be embraced by the employees rather than rejected. In addition the department heads may, through the phase approach, acquire a vision for tracking training and willingly promote the change.

# APPENDIX 1

## TRAINING QUESTIONNAIRE

### Sample Training Questionnaire

Department/Division \_\_\_\_\_

Please take a few minutes to answer the following questions. Where more than one answer applies, please indicate priority by rank (1,2. et cetera)

1. Is the current amount of money budgeted to your department for training and development adequate?

\_\_\_ Yes

\_\_\_ No:

Amount of increased required: \_\_\_\_\_

Training needs to be funded:

\_\_\_ computer program training

\_\_\_ personnel issues

\_\_\_ supervisor training

\_\_\_ other (please specify) \_\_\_\_\_

2. Does your department conduct periodic training needs assessments?

\_\_\_ Yes

When are they conducted?

\_\_\_ During employee performance appraisals.

\_\_\_ While preparing the department budget.

\_\_\_ Other (Please specify): \_\_\_\_\_

\_\_\_ No assessments are done.

Why not?

\_\_\_ Not enough time

\_\_\_ Not sure how to perform assessments

\_\_\_ Lack of staff

\_\_\_ Other (Please specify): \_\_\_\_\_

3. What types of training needs currently exist in your department?

\_\_\_ Interpersonal: conflict resolution, communication skills.

\_\_\_ Leadership: team building, motivation enhancement.



\_\_\_ Managerial: time management, problem solving.  
 \_\_\_ Other. (Please describe): \_\_\_\_\_

\_\_\_ No training opportunities available

4. Does your department keep records on training received by each employee?

\_\_\_ Yes

Where are the records stored?

\_\_\_ Individual employee files  
 \_\_\_ Department training files  
 \_\_\_ Other (Please specify): \_\_\_\_\_

What information is recorded?

\_\_\_ Cost of training  
 \_\_\_ Type of training  
 \_\_\_ Quality of training  
 \_\_\_ Training provider  
 \_\_\_ Additional information (Please specify) \_\_\_\_\_

\_\_\_ No records are kept

5. Would a standard system to track training received by City employees be of benefit to your department?

\_\_\_ Yes:

If a training tracking system were developed, what information would be most helpful to track?

\_\_\_ Cost of training  
 \_\_\_ Type of training  
 \_\_\_ Quality of training  
 \_\_\_ Training provider  
 \_\_\_ Additional information (Please specify): \_\_\_\_\_

\_\_\_ No need for standardized tracking system by department  
 \_\_\_ Not sure

6. How useful would a standard training tracking system be?

\_\_\_ Very useful  
 \_\_\_ Useful  
 \_\_\_ Not very useful

7. When training occurs, are the employees in your department applying what they learn through training and development to their jobs?

\_\_\_ Always  
 \_\_\_ Sometimes

- ☐ Rarely  
☐ Not applicable

8. Does your department have a system for establishing priorities for training needs?

☐ Yes

Please briefly describe the system: \_\_\_\_\_

☐ No system exists

9. What criteria is used to decide who will participate in training and development activities?

☐ Needs assessment

☐ Expressed employee interest

☐ Depends on courses offered

☐ Other (Please describe): \_\_\_\_\_

10. How can training and development opportunities be improved to more effectively meet the needs of your department?

☐ Expand in-house training

☐ Bring in outside consultants

☐ Increase access to training aids:

☐ Video tapes

☐ Cassette tapes

☐ Computer courses

☐ Other. (Please specify): \_\_\_\_\_

☐ Research materials (books, on-line data, etc)

☐ Create an in-house training coordinator position.

☐ Other (Please specify): \_\_\_\_\_

11. Are there any additional comments that you would like to make? \_\_\_\_\_

\_\_\_\_\_

## Results of Training Questionnaire

**Question 1:**     *Is the current amount of money budgeted to your department for training and development adequate?*

**Answers:**        **Yes:**                9  
                       **No:**                 5  
                              Amount of increase required:  
                                      3 answered:    20%, \$500, and 10%  
                                      No answer:    2

*Training needs to be funded:*

Computer program training:	5
Personnel issues:	5
Supervisor training:	4
Other:	3

**Not sure:**        3

**Question 2:**     *Does your department conduct periodic training needs assessments?*

**Answers:**        **Yes:**                14

*When are they conducted?*

During employee performance appraisals:	8
While preparing department budgets:	8
Other:	4

**No:**                3

*Why not?*

Not enough time:	1
Not sure how to perform assessments:	1
Lack of staff:	1
Other:	1

**Question 3:**     *What types of training needs currently exist in your department?*

**Answers:**        **Interpersonal:**                8  
                       **Leadership:**                 6

Managerial:	7
Other:	13
No training opportunities available:	2

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**Question 4:**     *Does your department keep records on training received by each employee?*

**Answers:**        **Yes:**            12

*Where are the records stored?*

Individual employee files:	8
Department training files:	3
Other:	3

*What information is kept in the records?*

Cost of training:	3
Type of training:	10
Quality of training:	2
Training provider:	7
Additional info:	5

**No:**                5

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**Question 5:**     *Would a standard system to track training received by city employees be of benefit to your department?*

**Answers:**        **Yes:**            7

*If a training tracking system were developed, what information would be most helpful to track?*

Cost of training:	4
Type of training:	6
Quality of training:	4
Training provider:	4
Additional information:	4

**No:**                6

**Not sure:**        4

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**Question 6:**     *How useful would a standard training tracking system be?*

Answers:           Very useful:           4  
                   Useful:               4  
                   Not very useful:       4

*Question 7:       When training occurs, are the employees in your department applying what they learn through training and development to their jobs?*

Answers:           Always:               7  
                   Sometimes:           10  
                   Rarely:               0  
                   Not applicable:       0

*Question 8:       Does your department have a system for establishing priorities for training needs?*

Answers:           Yes:                   8  
                   No system exists:   8  
                   No answer:           1

*Question 9:       What criteria is used to decide who will participate in training and development activities?*

Answers:           Needs assessment:           6  
                   Expressed employee interest:   16  
                   Depends on courses offered:   11  
                   Other:                   3

*Question 10:      How can training and development opportunities be improved to more effectively meet the needs of your department?*

Answers:           Expand in-house training capability:   8  
                   Bring in outside consultants:   8  
                   Increase access to training aids:   10  
                           Video tapes:           4  
                           Cassette tapes:          1  
                           Computer courses:       4  
                           Other:                   2  
  
                   Research materials:               2  
                   Create an in-house training coordinator position:   2  
                   Other:                   1  
                   No answer:               2

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**Question 11:** *Are there any additional comments that you would like to make?*

**Answers:** 9 (see comment section)

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### **Comments from Training Questionnaire**

**Question 1:** *Is the current amount of money budgeted to your department for training and development adequate?*

(1) Please define adequate! There are numerous legal seminars that could benefit the City of Missoula as well as office staff if attended by office staff. Also, computer training increases office efficiency.

*Training needs to be funded: Other:*

(1) To assist city in providing prudent administration, continuing legal education requirements as well as developments in the law staff continuing legal education requirements. (2) Specific mechanic training (hydraulics, electrical, etc.). (3) Police liability, community policing, pro-active police programs.

*Not sure:* (1) Amount of money needed can vary from year to year.

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**Question 2:** *Does your department conduct periodic training needs assessments?*

*Yes, Other:* (1) When training is available; (2) Failure to complete or lack of job skills in specific area; (3) Qualification for job duties; (4) As need and opportunity arise.

*No, Why not?; Other:* (1) We should all be professionals in our duties. However, I do feel our secretary needs upgrading at time.

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**Question 3:** *What types of training needs currently exist in your department?*

*Other (please describe):* (1) I have used county personnel training opportunities as a city employee. I recently attended a conflict-resolution seminar sponsored by county personnel. (2) Towards safety. (3) Computer oriented. (4) Technical. (5) Customer service, managing diversity. (6) Specific topics/personnel issues (i.e., collective bargaining, worker's comp., etc.). (7) Computer skills. (8) Continuing legal education requirements developing areas of law and administrative management/personnel/labor practices; computer training. (9) Supervision. (10) Technical training. (11) Specific skill-related mechanical training. (12) Technician and safety. (13) We do have training opportunities through the fire academy and the state training school. However, these opportunities are limited. It would be nice to have more special school opportunities for the above.

*No training opportunities available:* (1) Our training is provided by out-of-dept. opportunities.

*Question 4: Does your department keep records on training received by each employee?*

*Yes, Individual employee files:* (1) Some, if given certificates.

*Yes, Other:* (1) Montana Board of Continuing Legal Education reporting requirements. (2) Claim forms. (3) Personnel file.

*Yes, Additional information:* (1) Hours of training. (2) Certificates. (3) Certificates of graduation. (4) Number of approved continuing legal education hours for each seminar.

*No records are kept:* (1) We rely on memory!

*Question 5: Would a standard system to track training received by city employees be of benefit to your department?*

Unknown: What would its purpose be? What benefits would be noticeable? Will any purported benefit outweigh the costs of the system including all paperwork preparation and paper costs? More paperwork! More trees cut down; less old-growth forest.

Unknown, Additional information: (1) We would still have to utilize legally mandated reporting of continuing legal education to Montana Board of Continuing Legal Education.

Yes, Additional information: (1) Specifically which is management training and which is not. (2) Employee comments. (3) Somewhat--I would have to consider the benefits relative to the cost of the system. (4) Training certifications placed in employee personnel files, also conferences attended.

Not sure: (1) Keeping track of training might help in the establishment of career ladders, however.

General comment: (1) We have a system in place.

*Question 6: How useful would a standard training tracking system be?*

(1) Unknown. (2) Not sure. (3) My department is well aware of skill levels of each mechanic. (4) It would depend on the goals, objectives, purpose(s), reasons, etc. for the system!! (5) Don't know exactly what that would entail. (6) Somewhat. (7) Not sure.

*Question 7: When training occurs, are the employees in your department applying what they learn through training and development to their jobs?*

(1) We try to constantly apply job-oriented training. However, sometimes it does not. (2) Depends on quality of the training. (3) Additional benefits would occur if their experiences were shared or used in cross-



training. This is something we have recognized as a department, but have not acted on. (4) Only attend directly related courses. (5) Also pass information to other employees within the department and the other city shops. (6) Unknown.

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*Question 8: Does your department have a system for establishing priorities for training needs?*

*Yes:* (1) Need and opportunity. (2) Cost, schedules, equalization (make sure everyone has an opportunity), job relation to training. (3) discussion in staff meetings and evaluations. (4) Each employee is aware of this budget and reminded to allocate it to best uses. (5) We develop priorities through on-the-job analysis of job-related incidents. We also have a standard set of emergency medical manuals and fire service manuals that help us develop SOPs and training needs. (6) Based on specific job-related skill needs. (7) Discussion between supervisor and myself. (8) Staff meeting discussions.

*No system exists:* (1) Whatever will enhance or improve their job performance. (2) We try to address training needs during the budget process identifying the specific opportunities and needs. (3) Opportunity and need driven.

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*Question 9: What criteria is used to decide who will participate in training and development activities?*

*Other:* (1) Critiques of incidents. (2) Budget constraints. (3) Relevancy to actual job duties and responsibilities; need for mandatory continuing legal education.

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*Question 10: How can training and development opportunities be improved to more effectively meet the needs of your department?*

*Increase access to training aids:* (1) Management series.

*Increase access to training aids, Other:* (1) Money availability to attend some national legal seminars on topics relevant to municipal government operations. (2) Hold computer classes for city employees specific to their needs and applications.

*Other:* (1) Add personnel to admin. capt. as there is too much work for one person.

**Question 11:** *Are there any additional comments that you would like to make?*

(1) Training is one of the most important needs in police work. (2) We have a good training system--to do better, we would need more time which = more money, which I am not going to ask for. (3) I have in the past sent employees to classes/courses and/or asked for volunteers whereas no one in the shop wanted to attend classes/courses. However, \*\*\*\*\* is interested in additional training and does look to improve her skills through courses she feels are appropriate. (4) Self-improvement seminars are often times enlightening for employees, but why don't more department head attend them also? (5) We are taking advantage of expertise in specific fields that exist in the private sector: hydraulic, electrical, motor specialists. This is working well at low cost. (6) Training opportunities not only improve employee performance, but make employees feel valued. In-house opportunities would be most cost-effective and would increase participation. Thank you for this wonderful questionnaire! (7) I would like to see the city have quarterly training opportunities for all employees similar to what the county does. (8) Our specific needs are in the area of management training. (9) The last thing we need is additional paperwork and reporting for gathering data that is seldom, if ever, used for any substantive purpose.

**APPENDIX 2**  
**TRAINING BUDGET TABLES AND GRAPHS**

The data for budgeted, amended, and actual training expenditures was obtained from the City of Missoula's "Annual Budget 1991-1992" and the "Annual Budget 1992-1993." The figures are rounded to the nearest dollar. See Tables 1-4 and Figures 1-14 on the following pages.

TABLE 1

**City of Missoula Training Budgets  
Fiscal Year 1990<sup>37</sup>**

Department	Original Budget	Amended Budget	Actual Expense
City Council	\$0	\$0	0
Mayor's Office	3,000	2,840	2,329
Municipal Court	1,500	1,500	1,280
Finance/City Clerk	2,500	2,500	1,627
Treasurer's Office	300	740	732
Attorney's Office	1,500	1,300	1,190
Public Works:			
Engineering	1,450	1,650	1,646
Building Inspection	1,500	1,390	1,300
Street	800	800	490
Vehicle Maintenance	750	1,000	941
Wastewater	3,000	3,000	2,370
Police	0	0	0
Fire	4,970	4,970	3,079
Cemetery	400	400	96
Parks & Recreation	1,100	1,500	1,413
MRA	2,000	1,800	932
Parking Commission			992
<b>Totals:</b>	<b>\$24,770</b>	<b>\$25,390</b>	<b>\$20,417</b>

<sup>37</sup>City of Missoula. Annual Budget 1991-1992. Figures rounded to the nearest dollar.

TABLE 2

**City of Missoula Training Budgets  
Fiscal Year 1991<sup>11</sup>**

<b>Department</b>	<b>Original Budget</b>	<b>Amended Budget</b>	<b>Actual Expense</b>
City Council	\$0	\$0	\$0
Mayor's Office	3,000	3,000	1,412
Municipal Court	3,000	3,000	545
Finance/City Clerk	2,700	2,700	1,611
Treasurer's Office	1,650	1,650	572
Attorney's Office	2,500	2,310	2,255
Public Works:			
Engineering	2,150	2,150	1,747
Building Inspection	2,500	2,500	1,900
Street	600	1,100	419
Vehicle Maintenance	800	800	1,257
Wastewater	3,000	3,000	1,746
Police	0	0	0
Fire	5,370	5,570	5,245
Cemetery	400	400	150
Parks & Recreation	1,500	1,500	1,234
MRA	2,000	2,000	742
Parking Commission			300
<b>Totals:</b>	<b>\$31,170</b>	<b>\$31,680</b>	<b>\$21,135</b>

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<sup>11</sup>City of Missoula. Annual Budget 1991-1992. Figures rounded to the nearest dollar.

TABLE 3

**City of Missoula Training Budgets  
Fiscal Year 1992<sup>1</sup>**

<b>Department</b>	<b>Original Budget</b>	<b>Amended Budget</b>	<b>Actual Expense</b>
City Council	\$0	\$0	\$0
Mayor's Office	3,000	850	525
Municipal Court	3,500	3,300	1,179
Finance/City Clerk	2,700	2,700	2,088
Treasurer's Office	900	900	155
Attorney's Office	3,000	3,000	1,911
Public Works:			
Engineering	2,250	2,350	1,925
Building Inspection	2,565	2,565	1,234
Street	1,000	1,000	798
Vehicle Maintenance	800	830	824
Wastewater	3,400	3,400	1,384
Police	0	0	0
Fire	6,060	7,260	7,230
Cemetery	600	600	79
Parks & Recreation	2,200	1,700	1,088
MRA	2,500	1,880	795
Parking Commission	500		1,455
<b>Totals:</b>	<b>\$34,975</b>	<b>\$32,335</b>	<b>\$22,670</b>

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<sup>1</sup>City of Missoula. Annual Budget 1992-1993. Figures rounded to the nearest dollar.

TABLE 4

**City of Missoula Training Budgets  
Fiscal Year 1993<sup>10</sup>**

Department	Original Budget	Amended Budget	Actual Expense
City Council	\$1,000		
Mayor's Office	3,050		
Municipal Court	3,500		
Finance/City Clerk	4,700		
Treasurer's Office	955		
Attorney's Office	3,400		
Public Works:			
Engineering	2,150		
Building Inspection	2,110		
Street	1,000		
Vehicle Maintenance	1,000		
Wastewater	3,400		
Police	12,500		
Fire	7,272		
Cemetery	600		
Parks & Recreation	3,800		
MRA	2,500		
Parking Commission	800		
<b>Totals:</b>	<b>\$53,737</b>	<b>\$</b>	<b>\$</b>

<sup>10</sup>City of Missoula. Annual Budget 1992-1993. Figures rounded to the nearest dollar.

FIGURE 1  
Total Department Training Funds

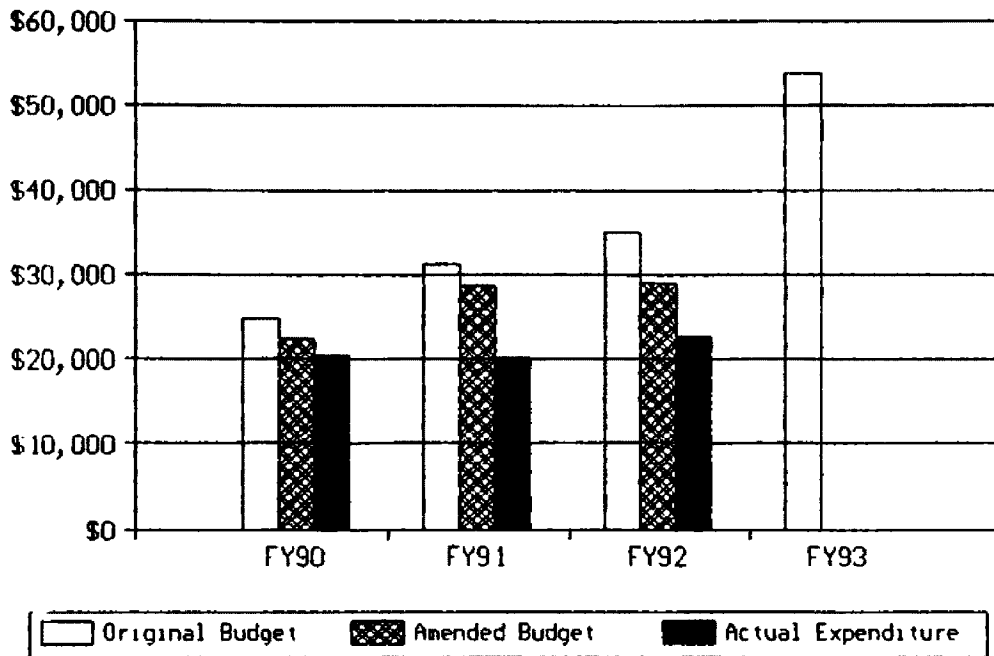


FIGURE 2  
City Council Training Funds

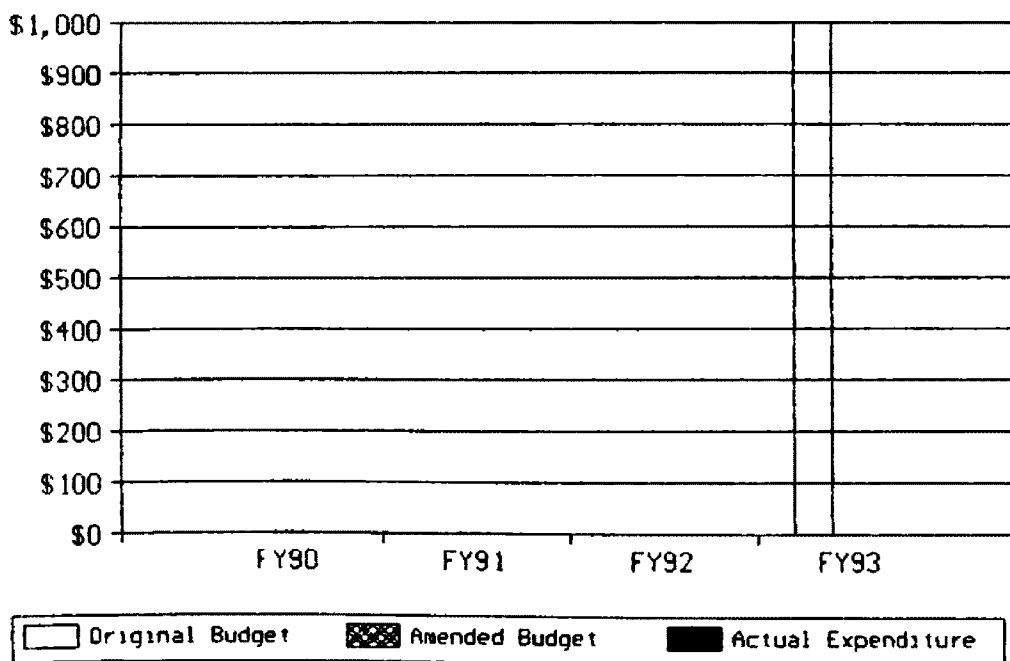




FIGURE 3  
Mayor's Office Training Funds

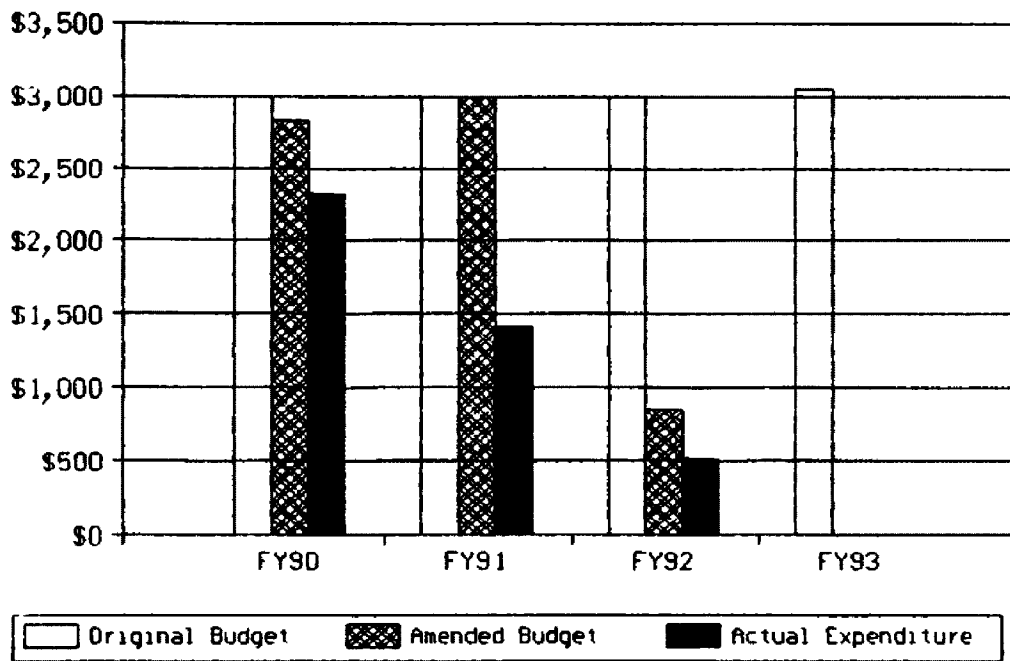


FIGURE 4  
Municipal Court Training Funds

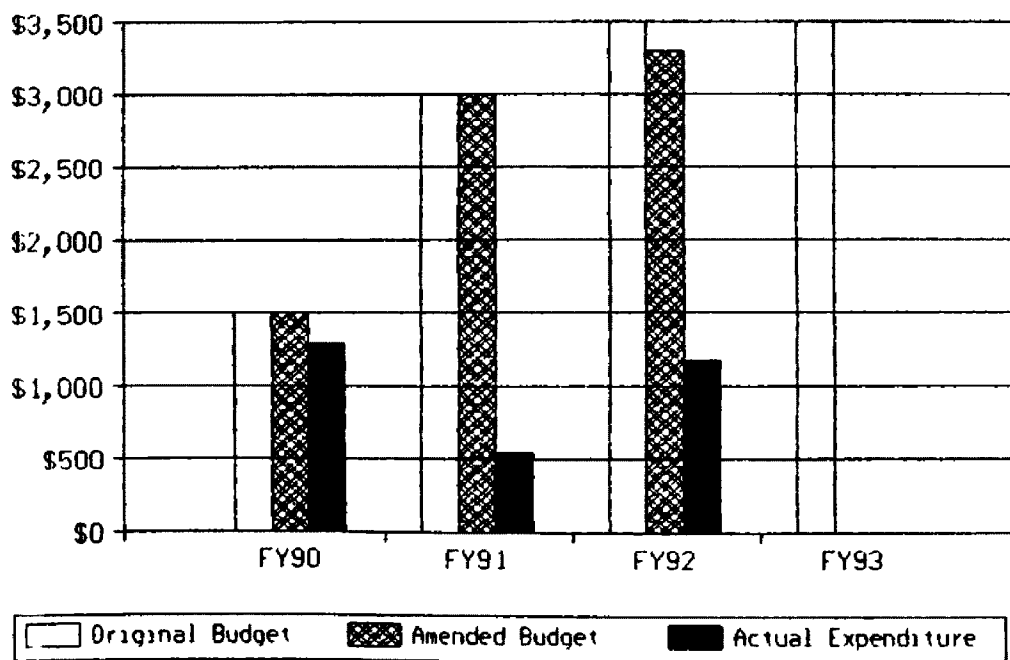


FIGURE 5  
Finance Office Training Funds

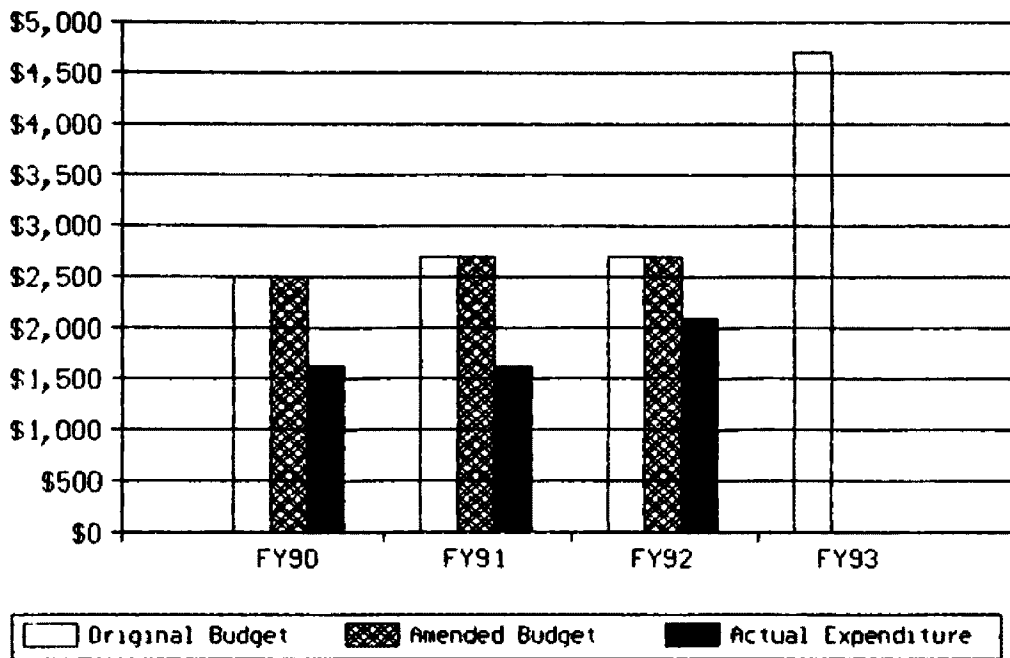


FIGURE 6  
Treasurer's Office Training Funds

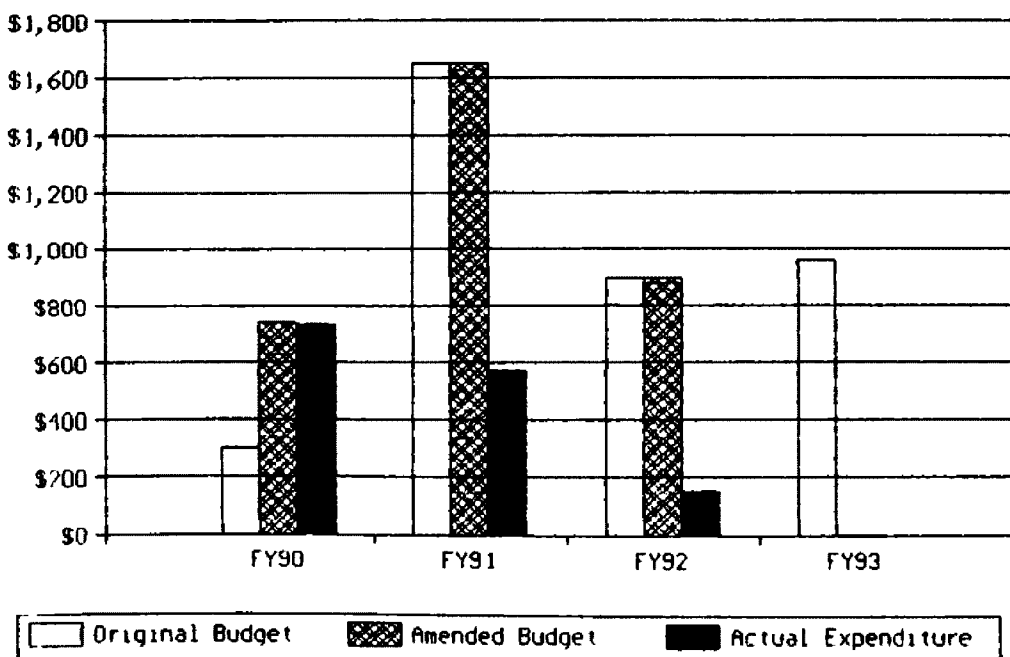


FIGURE 7  
Attorney's Office Training Funds

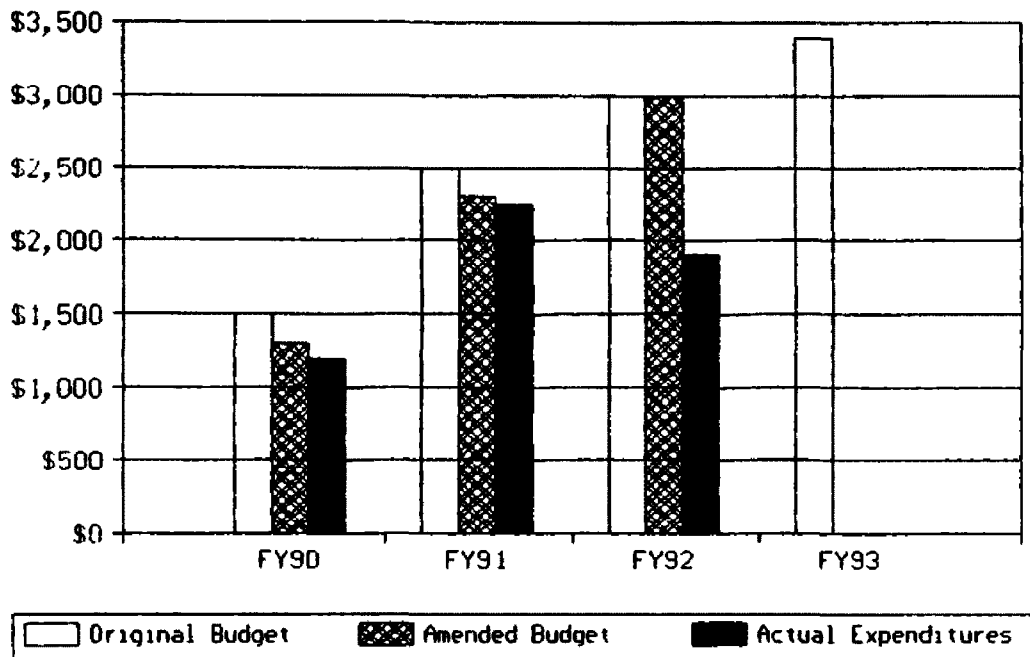


FIGURE 8  
Engineering Division Training Funds

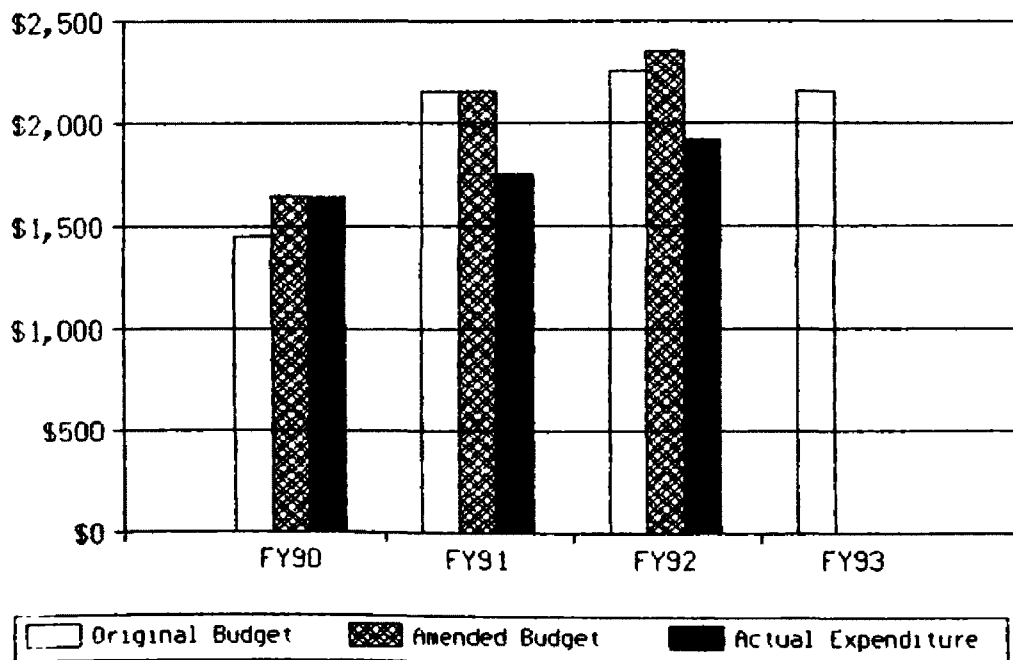


FIGURE 9  
Building Division Training Funds

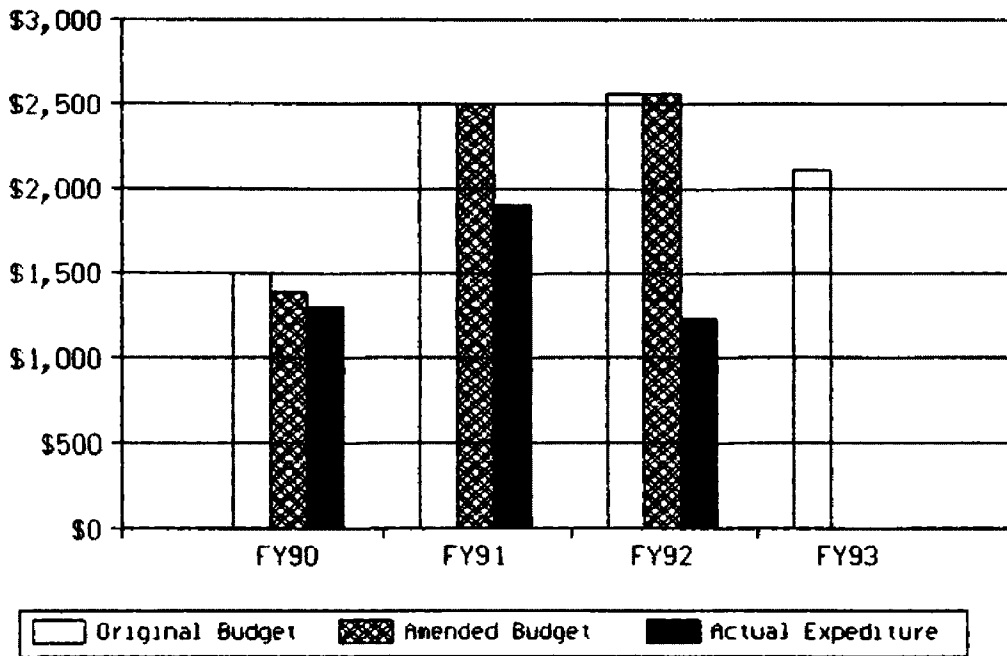


FIGURE 10  
Street Division Training Funds

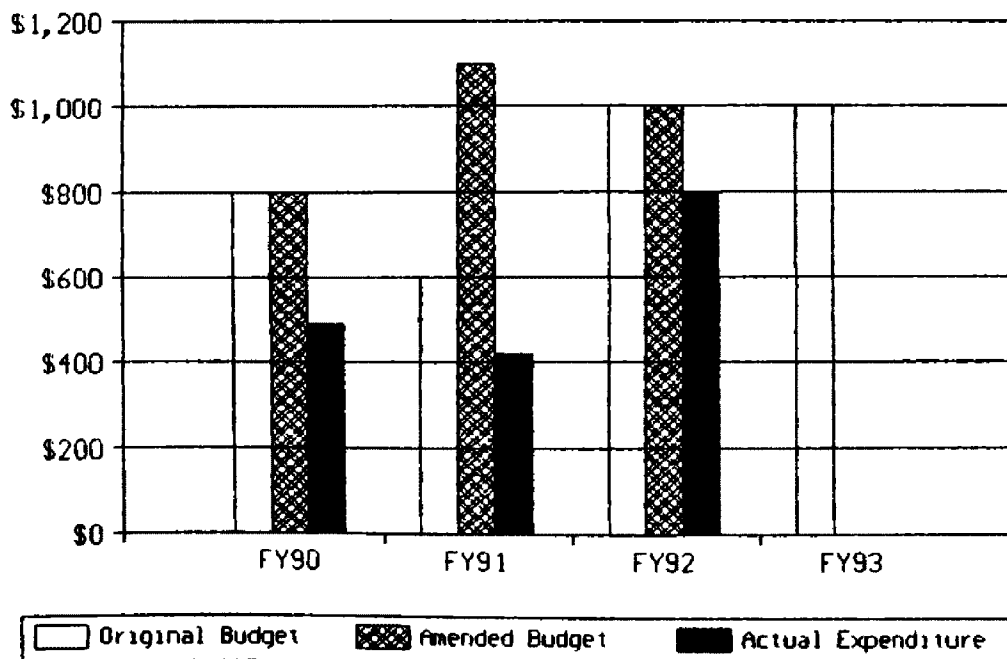


FIGURE 11  
Vehicle Maintenance Div. Training Funds

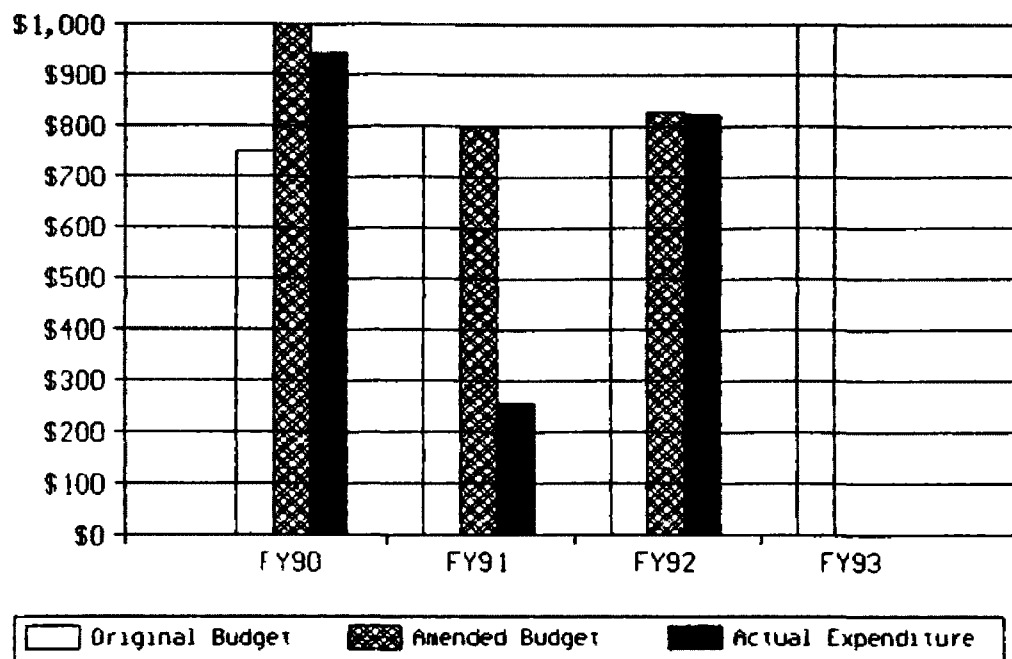


FIGURE 12  
Wastewater Division Training Funds

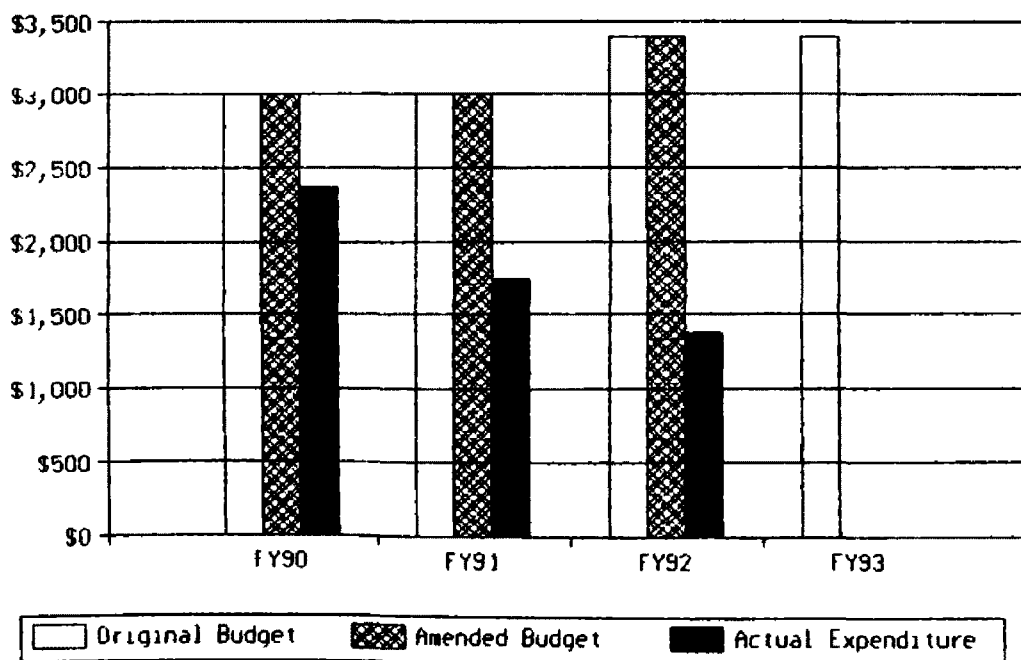


FIGURE 13  
Police Department Training Funds

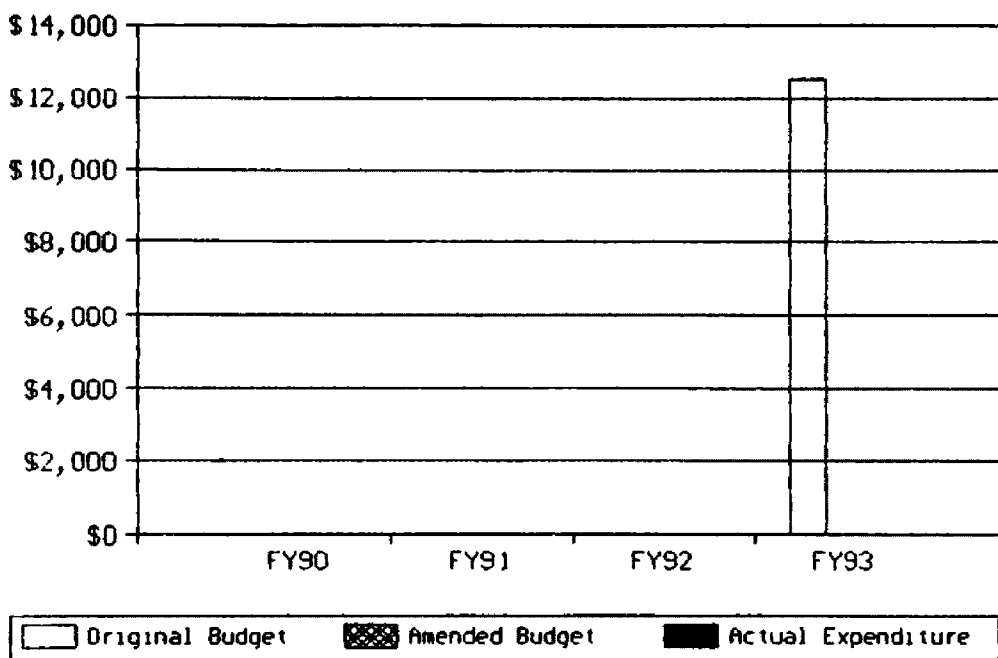


FIGURE 14  
Fire Department Training Funds

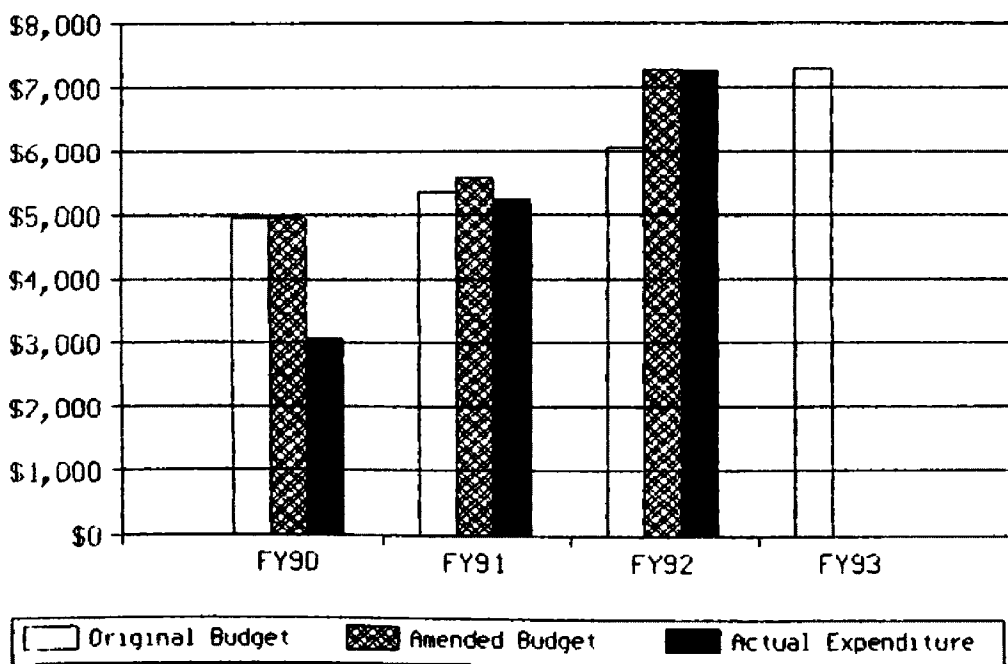


FIGURE 15  
Cemetery Department Training Funds

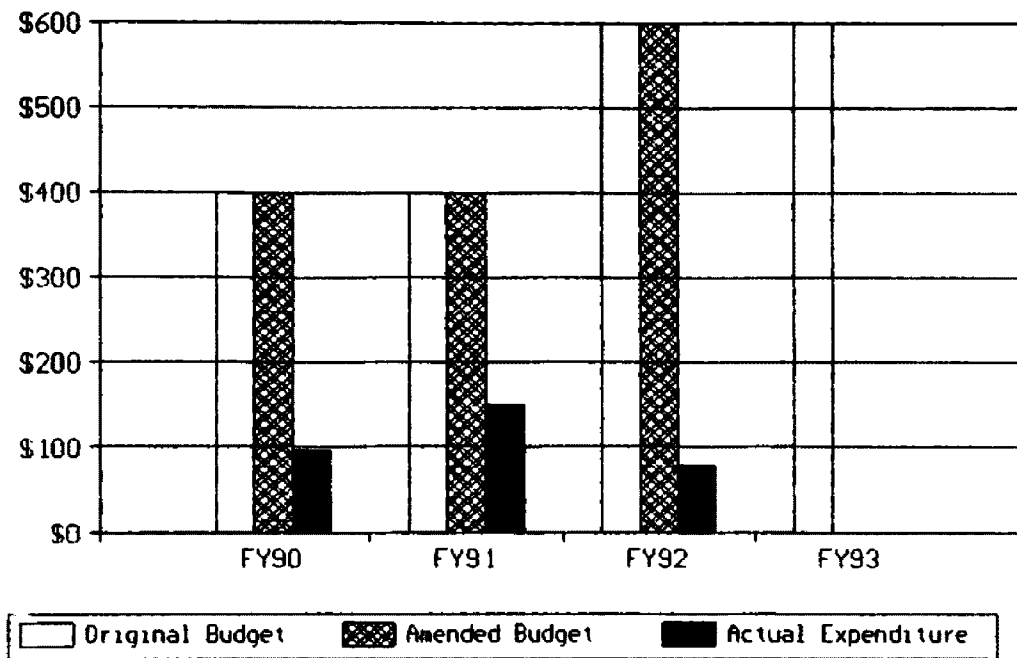


FIGURE 16  
Parks & Recreation Dept. Training Funds

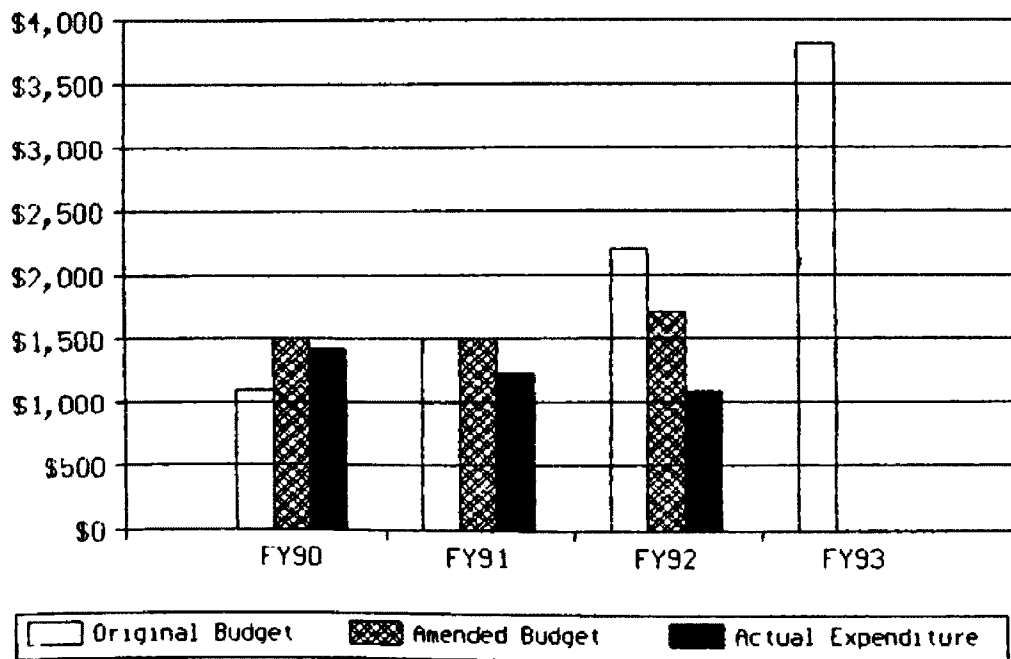


FIGURE 17  
MRA Training Funds

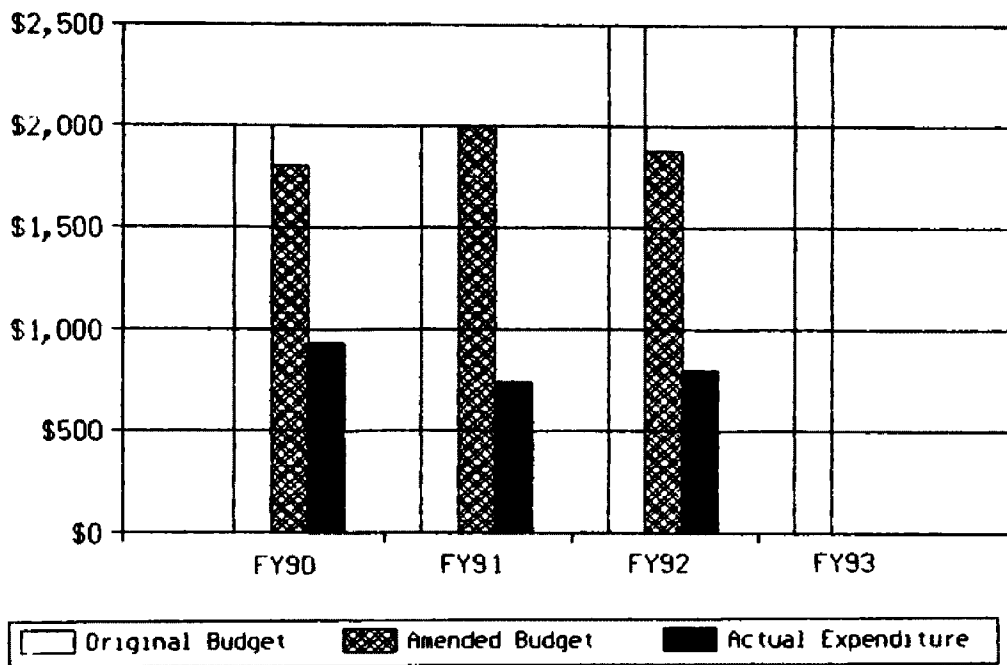
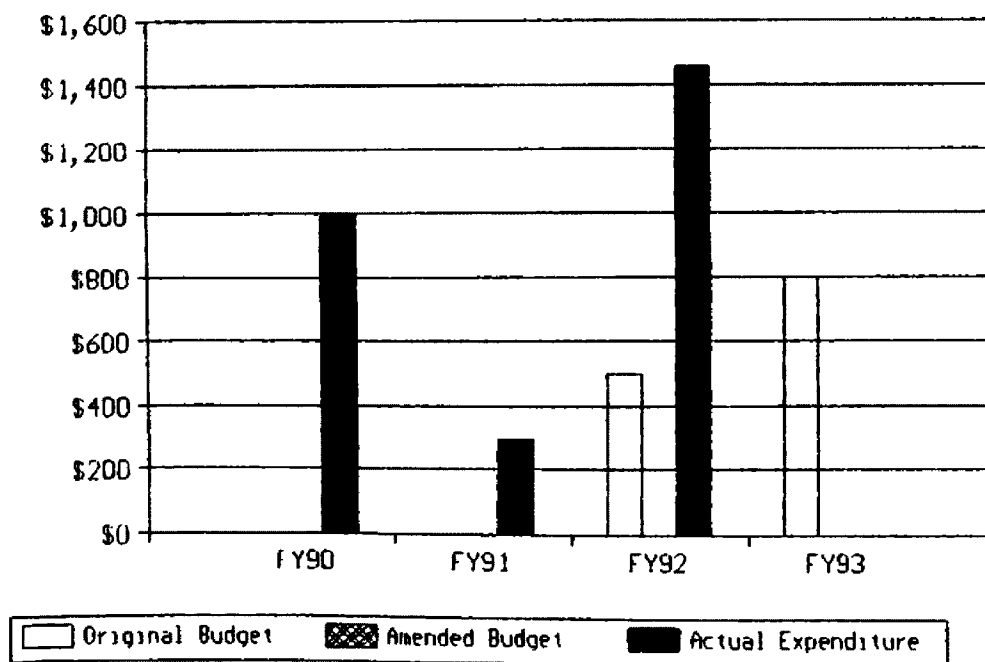


FIGURE 18  
Parking Commission Training Funds





### APPENDIX 3

#### TRAINING CODING SYSTEM

TABLE 5<sup>11</sup>

#### Personnel

- 100- Salaries and benefits of training personnel
- 101- Salaries and benefits of non-training personnel
- 102- Outside personnel services

#### Outside Goods and Services

- 201- Purchased program materials and supplies
- 202- Outside printing and reproduction costs
- 203- Equipment rent or lease
- 204- Equipment purchased

#### Facilities

- 300- Facility rental or lease

#### Training Travel Related Expenses

- 400- Training staff travel and per diem
- 401- Training staff accommodations
- 402- Miscellaneous training staff expenses
- 403- Trainee travel and per diem
- 404- Trainee accommodations
- 405- Miscellaneous trainee expenses

#### Overhead

- 500- Office supplies
- 501- Equipment capitalization
- 502- Equipment maintenance
- 503- Equipment repair
- 504- Facilities

#### General and Administrative

- 600- Travel and expenses related to overhead
- 601- Department management and staff salaries
- 602- Administrative and support salaries

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<sup>11</sup>Anthony P. Carnevale and Eric R. Schulz. "Return on Investment: Accounting for Training." Training & Development. 44 (July 1990): S-13. Adapted from the "Checklist of Training Cost-Accounting Classifications."

**APPENDIX 4**  
**TRAINING REPORTS GENERATED BY LAMS<sup>12</sup>**

**TABLE 6**

**Date:**                      **Training Course Master File**                      **Page:**

<b>Course ID</b>	<b>Course Information</b>	
xxx	<b>Name:</b> <b>Period</b> : <b>Instructor</b> : <b>Sponsor</b> : <b>Category</b> : <b>Source</b> : <b>Candidate</b> : <b>Prerequisite</b> : <b>Knowledge</b> : <b>Inst Qual</b> : <b>Method</b> : <b>Mtrls Needed</b> : <b>Mtrls Provided</b> : <b>Objective</b> :	<b>Length:</b> <b>Cost</b> : <b>Fee</b> : <b>Type</b> : <b>Max</b> : <b>Prereq:</b>
	<b>Subject</b> :	

<sup>12</sup>Tables 3-7 were adapted from actual training reports generated by the Legislative Audit Management System (LAMS), Office of Legislative Auditor in Helena, Montana.

TABLE 7

Date: Curriculum by Group List Page:

Group:

Course #	Name	Hours
----------	------	-------

xxx	Introduction to Lotus 1-2-3	
-----	-----------------------------	--

xxx	Introduction to Wordperfect	
-----	-----------------------------	--

xxx	New Employee Orientation	
-----	--------------------------	--

Total Hours This Level:

xxx	Interviewing Techniques	
-----	-------------------------	--

xxx	Writing a Letter, Memo or APS	
-----	-------------------------------	--

xxx	Management Controls	
-----	---------------------	--

Total Hours This Level:

xxx	Advanced Editing	
-----	------------------	--

xxx	Information Management	
-----	------------------------	--

xxx	Effective Communications	
-----	--------------------------	--

Total Hours This Level:

TABLE 8

Date: Prospective Class List Page:

Employee:

Course	Name	Date	Hours
--------	------	------	-------

xxx	Behavioral Interviewing		
-----	-------------------------	--	--

xxx	Take Your Word For It		
-----	-----------------------	--	--

xxx	Team Work and Type		
-----	--------------------	--	--

Total Hours:

TABLE 9

**Date: Training Announcement**

---

**To:****From:****Name:****Job Number:****Date:****Time:****Objective:****Major Subjects:****Length:****Sponsor:****Category:****Source:****Prerequisites:****Level of Knowledge:****Method of Presentation:**

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TABLE 10

Date: Continuing Staff Development Page:  
Training History

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Employee Name:

---

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Sponsor	Instructor	Course#	Course Name	Pay Period	Hours
---------	------------	---------	-------------	------------	-------

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TOTAL FOR FISCAL YEAR 9X

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