

BACKGROUND

Matching program costs with performance measures is a vital step in the Federal Government's progress toward financial accountability. By associating costs with results, management can better measure the effectiveness of their current operations and focus limited resources on activities with the greatest results.

The passage of the Chief Financial Officers Act of 1990 started the progress toward greater financial accountability by requiring the preparation and audit of governmentwide financial statements. The Act also included among the functions of the Chief Financial Officer "the development and reporting of cost information" and the "measurement of performance." In July of 1993, Congress passed the Government Performance and Results Act (GPRA),¹ which mandated performance measurements be developed by Federal agencies by which programs could be measured and evaluated. Two months later, in his report to the President on the National Performance Review (NPR), Vice President Gore recommended an action which required the Federal Accounting Standards Advisory Board (FASAB) to issue a set of cost accounting standards for all Federal agencies. In 1995, FASAB issued the *Statement of Federal Financial Accounting Standards No. 4 (SFFAS No. 4)* which requires, in part, Federal agencies to provide full costs of their programs, activities, and outputs.

Cost information helps program and support managers, the primary users of cost information, make better decisions, increase program effectiveness, and be more accountable for resources entrusted to them. The implementation of a managerial cost accounting process that matches cost information with program results will serve as a crucial step toward greater financial accountability and improved public confidence in government operations. This joint effort between the Office of Inspector General and the Mine Safety and Health Administration will serve as a platform to initiate discussions and examine potential obstacles to the successful implementation of a managerial cost accounting process for not only MSHA but all agencies within the Department.

SCOPE

Fiscal year 1999 expenditures, as reported in the Department's Consolidated Financial Statements, were matched with MSHA's strategic goals. We performed our work from February through July 2000, in accordance with the *Statement on Standards for Consulting Services* as issued by the American Institute of Certified Public Accountants.

¹ GPRA requires agencies to set multiyear strategic goals in their strategic plans and corresponding annual goals in their performance reports, measure performance toward the achievement of those goals, and report on their progress in their annual performance reports. These reports are intended to provide important information to agency managers, policymakers, and the public on what each agency accomplished with resources provided.

OBJECTIVES

The principal objectives of this consultation included:

- I. identify MSHA's strategic goals, performance measures and expenditures for FY 1999;
- II. identify expenditures by MSHA's operating programs and develop a methodology to allocate expenditures to MSHA's strategic goals;
- III. design and prepare a Program Cost and Results Statement which matches expenditures to MSHA's strategic goals; and
- IV. identify potential obstacles to the successful implementation of managerial cost accounting at the agency level.

I. MSHA's Strategic Goals, Performance Measures and Expenditures for FY 1999

Presently, MSHA's costs are reported in the Department's Consolidated Financial Statements under a single Departmental Outcome Goal, "to reduce workplace injuries, illnesses and fatalities." Below this single outcome goal, MSHA has adopted two agency strategic goals, one for safety and one for health. The strategic goals are further supported by five performance measures (See Figure-1).

DOL Strategic Goal:	<i>Quality Workplaces</i>
DOL Outcome Goal:	<i>Reduce Workplace Injuries, Illnesses, and Fatalities</i>
Agency Strategic Goal:	Reduce Injuries in Nation's Mines (Safety)
	<p><u>Performance Measures</u></p> <ul style="list-style-type: none"> < Reduce the number of coal mine and metal and nonmetal mine fatalities to below the average number recorded for the previous 5 years. < Reduce mine industry injuries to below the average number recorded for the previous 5 years for all mines.
Agency Strategic Goal:	Reduce Miners' Overexposure to Health Hazards (Health)
	<p><u>Performance Measures</u></p> <ul style="list-style-type: none"> < Reduce by 20% the percentage of samples out of compliance with the respirable coal mine dust standard. < Reduce by 20% the percentage of samples in metal and nonmetal mines out of compliance with the silica standard for the highest risk occupations. < Reduce by 20% the percentage of samples in metal and nonmetal mines out of compliance with the noise standard in the highest risk occupations.

Figure-1

Total FY 1999 expenditures for MSHA were \$245.2 million. Employee salaries and expenses (S&E) made up approximately 68 percent or \$167 million of this amount. S&E for the Coal Mine Safety and Health Administration and Metal and Nonmetal Mine Safety and Health Administration totaled \$125 million or 75 percent of MSHA's S&E. Consequently, we dedicated more time toward allocating the costs of these two programs.

The Department of Labor Accounting and Related Systems (DOLAR\$) is DOL's core accounting system. Financial transactions are recorded in DOLAR\$ based in part, on an eight-character responsibility center code (RCC). These RCCs, as provided by MSHA's management, are assigned to the lowest office levels within each of MSHA's nine operating programs. Expenditures by RCCs were obtained from the September 30, 1999 DOLAR\$ database and, as presented in Figure-2, summarized into the nine operating programs.

<u>FY 1999 Operating Program Expenditures</u>	
<u>Operating Program</u>	<u>Expenditure</u>
▶ Coal	\$ 123
▶ Metal/Nonmetal	48
▶ Technical Support	24
▶ Education	24
▶ Program Evaluation	12
▶ Administration	7
▶ Assessments	3
▶ Standards & Regulations	2
▶ Secretary	<u>2</u>
▶ Total	\$245

Figure - 2

II. Methodology to Allocate Expenditures by Operating Program to MSHA's Strategic Goals

We began the pilot project by obtaining an understanding of MSHA's overall mission and the function of its nine operating programs. We conducted meetings with managers of each operating program to assess their programs' activities as they relate to the agency's strategic goals. In addition, we conducted interviews and disseminated questionnaires to supervisors and staff within two of MSHA's largest operating programs, Coal Mine Safety and Health Administration and Metal and Nonmetal Mine Safety and Health Administration.

Direct Charges

We initially identified all expenditures that could reasonably be assigned to the strategic goals for safety and health. Based on interviews, surveys and other supporting documents provided by management, we were able to allocate six of MSHA's nine operating programs directly to MSHA's two strategic goals. These six operating programs included: Coal Mine Safety and Health Administration, Metal and Nonmetal Mine Safety and Health Administration, Directorate of Technical Support, Directorate of Educational Policy and Development, Office of Assessments and Office of Standards, Regulations and Variances (See Figure-3). These direct charges totaled 92 percent of MSHA's FY 1999 expenditures. The rationale for the distribution of these direct charges to the two strategic goals follows.

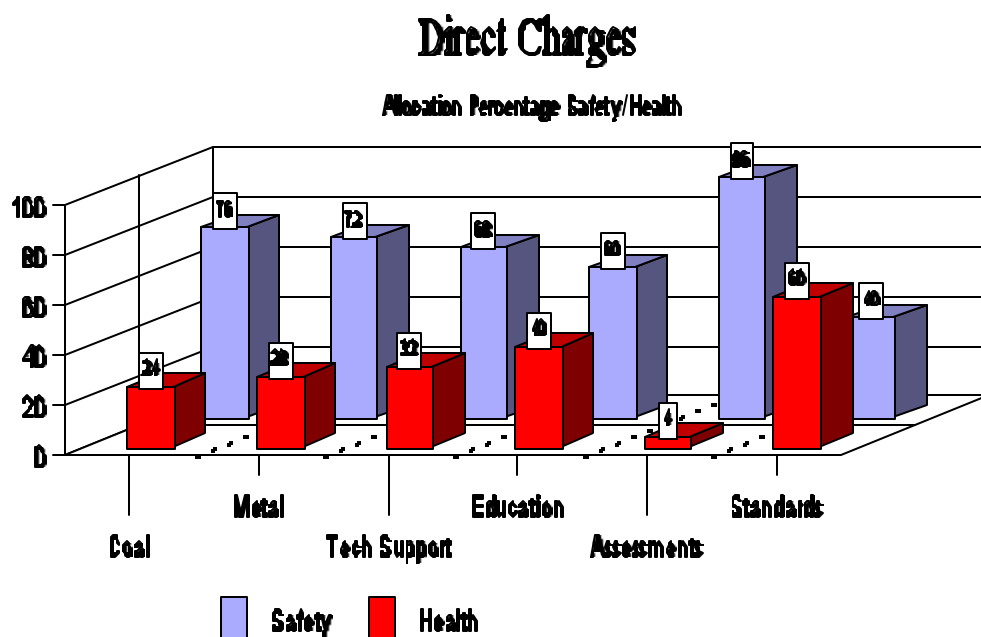


Figure-3

Coal Mine Safety and Health Administration

The Coal Mine Safety and Health Administration (CMSHA) provides direction and leadership in the administration of nationwide coal mine safety and health inspection and assistance programs through 11 district offices located in coal-producing states. In addition, they are responsible for formulating and coordinating basic policies, programs, and regulations concerning safety and health in the coal industry, developing new or revised mine safety and health standards for application to coal mines and providing expertise in analyzing existing and potential safety and health problems.

We interviewed management to obtain their recommendation on the most reliable method for allocating inspectors' time between safety and health activities. Through time and activity records, management was able to provide the number of employee hours spent on various activities as they relate to safety and health. By determining the time dedicated toward safety and health activities, we were able to reasonably allocate employees' salary and related expenses to the agency's two strategic goals.

We tested management's summary of hours related to safety and health activities at 2 of the 11 district offices. Interviews were conducted with the district director, three specialists, five field supervisors and five inspectors within District 2 to determine the amount of time spent on these various activities. In addition, we prepared and disseminated an informational questionnaire to two supervisors and eight inspectors within District 9. Through our interviews and questionnaires, we attempted to validate the information provided by management concerning the allocation of employees' time between safety and health activities and reviewed responses for consistency between the two district offices.

As a result of our fieldwork, we determined that the summary provided by management was materially accurate. The distribution of time between safety and health activities for the CMSHA was approximately 76 percent and 24 percent, respectively. However, variations were identified between the two district offices surveyed. Further testing is required to determine the extent of the differences among district offices and to reflect those differences in an allocation methodology.

Metal and Nonmetal Mine Safety and Health Administration

The Metal and Nonmetal Mine Safety and Health Administration (MNMSHA) provides direction and leadership in the administration of nationwide metal and nonmetal mine safety and health inspection and assistance programs through six district offices. In addition, they are responsible for formulating and coordinating basic policies, programs, and regulations concerning safety and health in the metal and nonmetal industries, developing new or revised safety and health standards for application to metal and nonmetal mines and mills and providing expertise in analyzing existing and potential safety and health problems.

As with the CMSHA, we interviewed management to obtain their recommendation on the most reliable method for allocating inspectors' time between safety and health activities. Time and activity records used by the MNMSHA do not distinguish between safety and health activities performed. Consequently, the allocation of time between safety and health activities was based on interviews and surveys of inspectors.

Testing was performed for three of the six district offices. Interviews were conducted of the district director, one supervisor and two inspectors within the Northeastern District Office. In addition, we prepared and disseminated a questionnaire to 2 supervisors and 13 inspectors within the Rocky Mountain and Western District Offices. Through our interviews and questionnaires, we determined the amount of employees' time spent on safety and health activities and reviewed responses for consistency among the three district offices.

As a result of our fieldwork, we determined that the distribution of time between safety and health activities for the MNMSHA was approximately 72 percent and 28 percent, respectively. However, variations were identified among the three district offices surveyed. Additional testing is required to determine the extent of differences among district offices and to reasonably reflect those differences in an allocation methodology.

Directorate of Technical Support

The Directorate of Technical Support plans and directs the Agency's scientific and engineering expertise through skilled scientists and engineers using unique laboratories and specialized equipment for evaluation, testing, field and laboratory investigations, and applied engineering. They are also responsible for conducting testing of mine equipment and materials for permissibility and approval, conducting engineering studies and surveys of problems in the mining industry and identifying hazards related to the design and use of mining equipment.

During our interview, management reviewed all RCCs assigned to this Directorate and indicated whether costs charged to the RCCs were from activities related to safety, health or both. RCCs with activities specifically related to either safety or health contained approximately \$14 million out of the \$24 million of costs for this directorate. Management provided an estimated percentage of time dedicated to safety and health activities for RCCs with activities considered related to both. These percentages were used in the allocation of the remaining \$10 million of costs for this Directorate. Assignment of costs to safety and health activities for this Directorate was based solely on information provided by management.

Directorate of Educational Policy and Development

The Directorate of Educational Policy and Development implements MSHA's education and training programs that are designed to promote safety and health in the Nation's mining industry. The Directorate plans, monitors, and evaluates all MSHA education and training programs, provides training at the National Mine Health and Safety Academy, administers the State Grants Program, approves operator training plans, and provides education and training field assistance to operators.

Funding for MSHA's training academy accounted for approximately \$8.4 million or 35 percent of the Directorate's total expenditures. Expenditures within MSHA's Training Academy were allocated based on course content, as it relates to safety and health, and student hours assigned to these courses during FY 1999. Management provided an analysis of the course content and a report on the student hours assigned to the courses. Based on management's analysis, the distribution of costs between safety and health activities for the training academy was approximately 60 percent and 40 percent, respectively. State grants accounted for approximately \$7.3 million (30 percent) of the total expenditures; however, a direct allocation for safety and health of funding for state grants could not be determined due to the vast differences in where states focus resources. Other activities of the Directorate were considered general support. As a result, all remaining costs in this office were allocated between safety and health based on the Training Academy's percentages.

Office of Assessments

The Office of Assessments coordinates with MSHA Administrators and District Managers on proposed assessment determinations as well as the integration of Assessments' efforts as part of the overall Agency enforcement strategy. In addition, they develop, coordinate, and disseminate assessment policies, regulations, and procedures, direct and coordinate all proposed assessments and special assessment work and provide overall direction and supervision over the operation of the automated Assessment Database Management System.

Management performed an analysis of all assessed violations, including those contested and delinquent, to determine whether they were related to safety, health or both. They determined that approximately 96 percent of the violations assessed related to safety and 4 percent related to health. These percentages were applied to all costs for this program.

Office of Standards, Regulations and Variances

The Office of Standards, Regulations and Variances develops, revises, publishes and reviews all MSHA standards, regulations, and related policy issuances. In addition, they establish MSHA policies and criteria for drafting of regulations and standards and ensure regulations and standards are needed. They arrange, announce, and conduct public hearings and consultation meetings on proposed standards and regulations, evaluate the comments and findings obtained and assist in the development of legislative

proposals on behalf of the Assistant Secretary.

Management determined that during FY 1999 approximately 60 percent of their time was dedicated to health regulations and 40 percent was dedicated to safety regulations. These percentages were applied to all costs for this program. Assignment of costs to safety and health activities for this Directorate was based solely on information provided by management. Time and activity reports were not available to verify information.

Indirect Charges

Three of the nine operating programs, the Directorate of Program Evaluation and Information Resources, the Directorate of Administration and Management and the Office of the Assistant Secretary, contained costs which were considered entirely indirect costs. For the purposes of this report, indirect charges were considered expenditures in which a reasonable allocation methodology to the agency's strategic goals could not be identified.

Directorate of Program Evaluation and Information Resources

The Directorate of Program Evaluation and Information Resources directs and provides information resources management capability and program policy evaluation products and services to improve the safety and health of the Nation's miners.

Directorate of Administration and Management

The Directorate of Administration and Management serves as the principal advisor to the Assistant Secretary on Federal laws, regulations, standards, policies, procedures and related theory and philosophy concerning the planning, acquisition, utilization, evaluation, and management of MSHA's human, financial, and property resources. In addition, they are responsible for serving as the principal advisor to the Assistant Secretary on labor-management relations including negotiated agreements with bargaining unit employees.

Office of the Assistant Secretary for Mine Safety and Health

The Office of the Assistant Secretary serves as a principal advisor to the Secretary of Labor and other government officials on matters and policies pertaining to safety and health in the mining industries. In addition, they provide administration and staff support for the ongoing work of MSHA, they represent the agency, DOL, or Government before various congressional committees, conferences and other meetings of national or international significance and serve on a variety of interdepartmental and interagency committees concerned with mine safety and health programs.

Expenditures for these offices were \$21 million for FY 1999. The costs for these three offices were allocated to safety and health based on the combined allocation percentages of the six operating programs directly charged. These offices provide general administrative support for the agency. Costs for these offices could not be tied directly to safety or health activities.

III. Program Costs and Results Statement that Matches Expenditures to MSHA's Strategic Goals

Based on the allocation methodologies discussed in the previous section, we developed a comparative Cost and Results Statement that matches expenditures to MSHA's strategic goals for safety and health. The Statement also compares actual results to established targeted results for each performance measure within the goals for a 4-year period. We attempted to match expenditures against MSHA's specific performance measures within each strategic goal. However, as discussed in the next section we were unable to allocate costs to these specific measures.

IV. Potential Obstacles to the Successful Implementation of Managerial Cost Accounting at the Agency Level

We identified many obstacles to the successful implementation of managerial cost accounting, including:

- < determining the level at which costs should be allocated to satisfy the multiple users;
- < accounting systems which cannot readily provide timely cost information by program activities or performance measures;
- < activity costs which impact two or more measures;
- < activities not covered by current performance measures;
- < external influences that limit management's decision making capabilities; and
- < management's perceived usefulness of these statements.

During our fieldwork, questions arose as to what level costs should be allocated. For example, should they be allocated to specific activities to support the program manager or to performance measures to support legislative requirements, or both? In all probability, the successful implementation of a managerial cost accounting system will have to meet the needs of multiple users requiring costs to be matched at multiple levels. MSHA needs to consider all potential future users of these statements and design a Cost and Results Statement that will meet their needs.

The Department's core accounting system, DOLAR\$, and MSHA's management information systems do not capture activity costs in a manner which can be easily matched to specific performance measures. All costs must be extracted from DOLAR\$ and manually allocated to measures based on various methodologies which are significantly dependent on employees' estimations and recollection of time spent on various activities. Within MSHA, there were significant differences between the operating

program's management information systems. One program had a system that provided greater detail in tracking time charged to specific activities enabling costs for this program to be easily matched to the Agency's strategic goals. Other operating programs either did not track time with sufficient detail to reasonably match to strategic goals or did not have a time tracking system. As a result, reliance on employees for time estimations ranged from moderate to significant. Compounding the matter is that these estimations could change significantly from year to year depending on new legislative requirements or initiatives. A managerial cost accounting system needs to be an automated process which captures timely cost data at both the activity and performance measure level to enable successful cost accounting.

In the case of MSHA's strategic goal for safety, even the presence of more detailed financial and management information systems would not alleviate the difficulties in assigning costs to specific performance measures. MSHA's performance measures under the strategic goal for safety are, by their nature, deeply intertwined. Activities that support these two measures are without distinction, making it nearly impossible to allocate costs between these measures based on their direct impact. For example, the costs of mine inspections cannot be split between MSHA's safety performance measures, reducing miners' *deaths* and reducing miners' *injuries*.

MSHA performs activities that would not be covered by MSHA's present performance measures, e.g., rescue team training and training provided to foreign mine inspectors. Management considers these as significant activities that should be disclosed in Cost and Results Statements. However, since the time dedicated to performing these activities would not fit under any of MSHA's current performance measures, costs of these activities would need to be reported under an "other" category.

Outside factors, such as specific legislative restrictions or industry conditions, influence management's ability to make financial decisions. To a large extent, MSHA's resources are dedicated to activities which are specifically mandated by law. For example, underground mines are required to be inspected four times each year and surface mines are required to be inspected twice each year. These factors should be considered and discussed in connection with the Cost and Results Statement.

Finally, during our interviews with management and staff, it was apparent that the degree of interest in a managerial cost accounting system varied considerably. Some employees considered this as simply another accounting exercise while others considered the process as an important tool for managerial and budgeting decisions. The success of cost accounting is dependent on management's dedication to the process. Obtaining management's support and enthusiasm about cost accounting will require the ability to sell management on the benefits cost accounting information will provide. Therefore, the next steps in this process for MSHA must include determining how data obtained will be used to benefit the agency.

CONCLUSION

Matching program costs with activities, which can be linked to performance measures, is a vital step in the Federal Government's progress toward financial accountability. Through interviews, questionnaires and other information from management, we were able to provide a preliminary Cost and Results Statement; however, this was significantly dependent on management's and employees' estimations.

MSHA must modify both financial and management information systems to capture more detailed information to be able to associate costs with the agency's performance measures. However, fundamental questions, such as what level costs should be assigned to satisfy all potential users, how to allocate activities that cover numerous performance measures, how legislative restrictions will affect the statement's usefulness, and most importantly, how to gain management's support must still be answered. It was clear from discussions with agency management, at all levels, that the perceived usefulness of a Cost and Results Statement vary considerably. If such benefits cannot clearly be demonstrated to management, MSHA may succeed in establishing a cost accounting system to meet legislative requirements but fail to achieve the intended purpose – to provide useful cost information to support management's decisions.

APPENDIX I

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SEP 22 2000

MEMORANDUM FOR JOHN J. GETEK
Assistant Inspector General
for Audit

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FROM: J. DAVITT McATEER
Assistant Secretary for
Mine Safety and Health

SUBJECT: MSHA Managerial Cost Accounting Pilot
Draft Report No. 12-00-010-06-001

I want to thank you for providing us the opportunity to review and comment on your Draft Report, MSHA Managerial Cost Accounting Pilot. As we knew from the start, linking cost accounting methodology with Agency Government Performance and Results Act (GPRA) goals would be a difficult process. However, the work your office has done in taking this first step and the efforts of your staff are to be commended. The results of this report hold promise in giving the Agency useful cost data as it relates to our GPRA goals.

As the report points out, the obstacles to implementing an Agency-level cost accounting link to GPRA goals surfaced in your study are formidable. As you examine other Department of Labor Agencies, a common thread will no doubt emerge requiring Departmental policy and guidance. I believe that a future process must not be burdensome and agree that the results must be useful to managers. As you may be aware, my staff has met with the office of the Chief Financial Officer regarding possible participation in their pilot cost accounting effort. I will keep your office informed of future decisions and actions.

Specific comments to the draft report are attached.

Attachment

Specific comments to MSHA Managerial Cost Accounting Pilot Draft
Report No. 12-00-010-06-001

- The performance measure on silica abatement time was dropped from the initial MSHA Strategic Plan during subsequent updates. This was a result of initial inability to link two Agency databases and a reassessment of how this measure should be approached (Page 2)
- The Office of Assessments should be included in the Direct Charges section it is a budget activity and is a specific element of MSHA's enforcement effort. The report states this on page 9. An updated final report should include the allocation of Assessments Office funds to Agency safety and health goals in the Direct Charges section. (Pages 4,8,9)
- Re: Technical Support "Time and activity reports were not available to verify information." Technical Support has staff in headquarters and in the two Centers at Triadelphia and Bruceton. Time and activity reports are available at both centers but at different levels of detail. The more detailed information is available for the Triadelphia. Center, which almost exclusively deals with safety issues.
- Rewrite: The Directorate of Educational Policy and Development implements MSHA's education and training programs that are designed to promote safety and health in the Nation's mining industry. The Directorate plans, monitors, and evaluates all MSHA education and training programs, provides training at the National Mine Health and Safety Academy, administers the State Grants Program, approves operator training plans, and provides education and training field assistance to operators. (Page 7)
- Add for clarity (Page 7, para. 2) "...however, a direct allocation for safety and health of funding for state grants..."
- Move/Change: From Program Evaluation and Information Resources to Administration and Management: "... they are responsible for managing the Agency's human, financial, and property resources. (Page 8)
- Minor typographic changes:
Page ii DOL strategic goal as "Quality Workplaces"
Page 3, Figure 2: Administration
Page 4, para, 1, line 3: agency's