

# **GASB Statement 34—the On-Ramp to Transportation Asset Management or a Detour Leading to Business as Usual?**

**Thomas H. Maze and Omar Smadi**

Department of Civil, Construction, and Environmental Engineering  
Center for Transportation Research and Education  
Iowa State University  
2901 South Loop Drive, Suite 3100  
Ames, IA 50010-8634  
tmaze@iastate.edu, smadi@iastate.edu

## **ABSTRACT**

When the Government Accounting Standards Board (GASB) adopted Statement 34, it changed the generally accepted accounting standards for state and local governments. GASB 34 required that agencies place the value of the assets they manage in their annual financial reports.

GASB 34 allowed agencies to track the current value of an asset by using depreciation or a modified approach that focuses on the preservation (rather than depreciation) of assets. The modified approach requires that the condition in which assets are managed meets or exceeds self-imposed minimum conditions, thus requiring the use of an asset management system. The infrastructure management community assumed that this would encourage the adoption of asset management systems.

The authors interviewed several large cities and found that they did not adopt the modified approach and instead used the depreciation approach. The message inferred through our findings is that asset management systems should be adopted because they represent good practice and not because of a change in accounting standards.

**Key words: asset management—depreciation—Government Accounting Standards Board Statement 34—infrastructure management—preservation**

## INTRODUCTION

The Government Accounting Standards Board (GASB) produced Statement 34 in 1999. GASB produces the standards used to conduct financial accounting for governmental agencies. GASB statement 34 (known as GASB 34) is thought to be the most significant advent in government accounting practice since generally accepted accounting principals (GAAP) for governmental agency were established in 1934 (when the accounting standards were first created) (1). GASB 34 modified the GAAP such that public agencies would be required to show their infrastructure assets on their comprehensive annual financial reports (CAFR). This meant that public agencies' annual financial reports would contain many billions of dollars of infrastructure assets that had not previously appeared in their financial reports.

By accounting for the historical value of infrastructure assets and placing their value in comprehensive financial reports, advocates of better stewardship of infrastructure assets assume that once the large value of these assets is known, agencies would recognize the enormity of their responsibility. The significance of the responsibility placed in the hands of current infrastructure stewards would lead to budgeting and management to preserve or enhance the value of infrastructure assets left to the next generation (1).

Many public asset managers thought that GASB 34 would facilitate the wide spread adoption of infrastructure management systems for individual asset categories (e.g., pavements management systems, bridge management systems, etc.). This was so much the case that papers and reports written on infrastructure management systems would commonly include GASB 34 as part of the lexicon of issues pressuring asset managers toward embracing modern infrastructure asset management (2).

Although public asset managers had high expectations for changes in management practices resulting from GASB 34, it should be remembered that GASB 34 is an accounting standard. GASB 34 may create conditions that make it attractive to implement management systems and the implementation of management systems may be a side benefit of GASB 34. However, the purpose of accounting standards is to provide consistency between financial reports, making it easier for creditors and the public to judge the financial performance, credit worthiness, and solvency of an agency.

To comply with GASB 34, a public organization must estimate the current value of assets based on historical costs. If an agency chooses to follow the conventional approach to estimating the current value of an asset, the value is the original cost of the asset minus the cumulative depreciation while the asset has been in use. This conventional approach depreciates the value of assets through time.

GASB 34 also allows for an alternative to the depreciation methodology, known as the "modified method." The modified method assumes that the agency will preserve the asset through time, thus allowing the agency to consistently perform its tasks at the same level of performance (condition). Because the level of condition remains consistent (or relatively stable), the value of the asset stays constant through time. If an agency decides to use the modified method to comply with GASB 34, the agency must adopt a management system to ensure that the asset's condition is preserved. The conventional approach views infrastructure as an asset which depreciates and the modified approach views infrastructure as an asset to preserve.

Many in the public works community saw the modified approach as the preferred method to complying with GASB 34 because it helped to recognize the stewardship responsibility of public agencies. For example, the American Public Works Association (APWA) (3) adopted a policy to encourage its members to adopt the modified approach. The American Association of State Highway and Transportation Officials (AASHTO) did not adopt this policy but, unofficially, encouraged its members to follow the modified approach. In addition, it appears that over half of the State Transportation Agencies produced financial reports based on the modified approach (2).

GASB 34 phases in the new requirements over time and the largest agencies are required to comply first. Agencies with annual revenues of more than \$100 million were to start preparing annual financial reports following GASB 34 standards in the fiscal year beginning July 2001 and ending June 2002. Agencies with annual revenue between \$10 million and \$100 million would start in July 2002 and agencies with less than \$10 million in annual revenue were to start in July 2003. Therefore, agencies with the largest cash flow (over \$100 million) produced their first GASB 34 compliant annual financial reports in the summer of 2002.

To determine the approach that local governments were taking to respond to GASB 34, we interviewed financial managers of several large midwestern cities in Iowa, Minnesota, Nebraska, and South Dakota (cities with more than \$100 million in revenue) during the winter of 2002-2003. These cities had recently completed their first GASB 34 compliant financial report. Although our interviews were rather open-ended and covered several issues, our main intent was to determine which method was used to include infrastructure in their financial reports (the depreciation method or the modified method).

None of the cities we interviewed chose the modified approach. The overwhelming response to our open-ended questions was that they (city officials) knew in advance that the value of the infrastructure was going to be enormous and now they have a more exact estimate of the value. However, most believed that having this knowledge would change very little. A couple of cities believed that the attention paid to infrastructure as a result of GASB 34 would or has helped them to implement systems to manage assets but they doubted that these systems would ever be used to support their financial reporting.

## **WHAT IS ASSET MANAGEMENT?**

For at least the last 40 years there have been systems developed to manage individual categories for public sector assets. For example, pavement management has been practiced since the 1960s and 1970s. Similar systems have been developed for bridges, underground utilities, buildings, etc. Partially, the abundance of systems to manage assets is a result of the decline in the cost and availability of computing resources. All systems at a minimum involve the following:

- a physical inventory of the assets and their locations
- a measurement of the assets' condition
- rules that allocate resources (in the form of a treatment) to the asset when its condition declines to minimum level
- a budget developmental tool which allocates resources to individual assets
- a model that determines the improvement to an asset when the asset receives a treatment
- a report that identifies the actions applied to assets

Beyond these minimum requirements, systems can vary dramatically. There are systems that focus on planning level decisions or project specific level decisions, can provide single year or multi-year resource allocations, and can allocate resources based on decision-making rules or optimization. GASB 34's modified approach requires that any classification of infrastructure must have an accompanying management system to ensure that the condition of the asset is preserved. However, GASB 34 places very few requirements on the mechanics of the management system.

Although what GASB 34 encourages are systems to manage individual categories of infrastructure, it helps to promote the science of asset management. Asset management looks across all asset categories and takes a holistic view of assets rather than managing one asset category at a time and rather than

managing each asset category to incomparable performance standards such as pavement roughness and bridge health.

The private sector more easily takes a holistic view of its assets. The assets necessary for the production and marketing of a good or service are organized so that return on investment is maximized. In other words, maintenance, preservation, and renewal of all assets are either organized so that rate of return on investment is maximized or cost is minimized. The private sector, however, has the advantage of making all decisions based on the objective of maximizing overall return on investment and hence providing a common measure of return (revenue) for all of its assets (investments). In the public sector, the objective is similarly to maximize return on investment but return in the public case are the benefits to the users, which are less easily measured and quantified.

Because return on investment is more easily measured in the private sector, private sector asset management is more easily defined and practiced. Because the measures of return are not as easily defined, the public sector definitions of asset management are generally not as direct or as specific.

In the 1980s as pressure was placed on governments in the UK, Australia, New Zealand, and Canada to privatize public services, public agencies began to adopt a perspective similar to the private sector regarding asset management. In the mid 1990s, the concept of asset management began to enter into the public sector vocabulary in the U.S.

At the federal level, in the 1990s Congress and the executive branch took a number of initiatives to improve capital asset decision-making. These included “enacting the Government Performance and Results Act of 1993, the Federal Acquisition Streamlining Act of 1994, the Clinger-Cohen Act of 1996 and a series of federal financial accounting standards developing the capital programming guide (1997), and appointing a President’s commission to study capital budgeting (1997)” (4). At the state level, AASHTO and the Federal Highway Administration (FHWA) have held a series of workshops starting in 1996 which has led to the creation of an AASHTO Task Force on Transportation Asset Management and an National Cooperative Highway Research Program guide on asset management (5). At the local level, the APWA formed an asset management task force that published a final report in 1998, recommending a number of steps for further development of asset management. Then in 2002 AWP published its own manual on asset management (6). In the late 1990s FHWA established an Office of Asset Management and a number of universities have developed university programs focusing on infrastructure asset management. Lastly in 2000, the Transportation Research Board established a Task Force on Transportation Asset Management.

With all the interest at the federal, state, and local levels in asset management, a great deal of enthusiasm was generated in the anticipation of agencies having to comply with GASB 34. The infrastructure management community expected that those responsible for implementing GASB 34 standards into financial reports would see the attraction of implementing the modified method and GASB 34 would be the vehicle for widespread adoption of infrastructure management systems. This would then lead to agencies embracing asset management principals, techniques, and systems.

The assumptions that GASB 34 and asset management are tied together and have, if not the same, at least parallel objectives, can be substantiated many times throughout literature where they are discussed. For example, in a recent paper where the authors describe the development and need for a regional geographic information system database of transportation assets, one of the database uses is to support asset management application/GASB 34 (7).

At least among the large cities that we interviewed, we found that in practice, the accountants preparing annual financial reports compliant with GASB 34 (an accounting standard) and infrastructure managers

each have their own objectives. From the perspective of the government accountants we interviewed, it is their feeling that asset managers should adopt infrastructure management systems and asset management principals because they support and reinforce good stewardship of infrastructure assets. The accountants we talked to generally saw the purpose of accounting standard to create comparability of financial reporting to help creditors and the public judge the financial performance, solvency, and creditworthiness of agency.

## **INTERVIEWS**

To provide consistency between interviews, our first step was to develop a standard list of questions. Since initially we believed that many of the largest and most sophisticated cities in the region would naturally choose to adopt the modified method, our questions most closely focused on issues that were most relevant to the application of the modified approach. The objective of the questionnaire was to lead the discussion and not restrict the interview to only the questions, thus allowing the respondent to expound on the issues. The interview was divided into three categories with questions under each. The categories and questions included the following:

1. Organizational issues, approach, and responsibility for preparation of infrastructure inventory and valuation—
  - a. What individual or office within your organization was responsible for implementing the GASB 34 compliant methods for reporting transportation infrastructure?
  - b. What systems did your agency use before GASB 34 to inventory and track assets?
  - c. Did your organization use the depreciation method or the modified approach?
2. Methodological issues—
  - a. What methods were used to determine the historical value of assets?
  - b. If depreciation was used what method was used to calculate it?
  - c. If the modified approach was used, how was the asset management system established?
3. Impact of GASB 34—
  - a. As a result of GASB 34, has your agency adopted any new asset management systems?
  - b. Has your agency's policy making board or citizens shown any additional interest in the agency's financial reports as a result of changed practices?
  - c. Does your agency intend to educate the public or public policy makers in the interpretation of the asset valuation in the annual financial report?
  - d. Do you expect that the information contained in the annual financial report will be used to justify utility rates, capital program, or decisions regarding bonding for infrastructure improvements?
  - e. Do you believe that any benefits have been achieved as a result of complying with GASB 34?

The interviews were first conducted by contacting the city by telephone, searching for a person in the city who felt qualified to answer the questions, emailing them the list of questions, and then interviewing the individual over the telephone. A total of nine cities were interviewed. Given the \$100 million per year revenue threshold, we interviewed the majority of the cities above the threshold in four midwestern states (Iowa, Minnesota, Nebraska, and South Dakota).

### **Interview Responses**

#### *Organizational Issues, Approach, and Responsibility*

In all cases, the infrastructure portion of the financial report was led by the financial office, which also determined the strategy for valuing the infrastructure assets. The public works department often supported

the financial office with field data. The public works department was always called on to help determine the lives of various assets. Informally, some of the respondents noted that public works officials were sometimes concerned that the city should follow the modified approach but in all cases the financial manager's perspective prevailed and infrastructure was added to the financial report using the depreciation approach.

Although some of the cities interviewed already have asset management systems (usually pavement and/or bridge) the location, construction costs (or approximate construction costs), and extent of the infrastructure were largely derived from financial records, capital improvement plans, and construction records. In some cases the city planned to make use of existing asset databases to verify the information included in financial records. Since the depreciation method was used in all cases, no asset condition data were needed.

### *Methodological Issues*

All but two cities used financial records to determine the historical costs of assets when they were constructed. Two cities estimated historical costs. They both determined the replacement cost of typical infrastructure designs (e.g., a standard roadway cross section) and then applied a deflation factor to estimate the cost of assets when they were constructed.

All of the cities used straight-line depreciation. The expected lives of infrastructure assets were provided by the public works officials of each city.

### *Impact of GASB 34*

When asked about the impact of GASB 34, none of the organizations believed that moving infrastructure assets on to their financial report would have any impact immediately. However, a few cities felt that this will help policy makers to understand the scale of the assets for which they are responsible and may help in budgeting in the future. For example, one respondent stated, "It was a great exercise in getting every one (city management staff and the mayor's office) thinking about the city's financial statement. It got them to think about financial reports and what the implications are of raising and programming capital. It was a nice exercise and the practice will evolve in the future." However, just over half the cities interviewed openly stated that GASB 34 will change very little and placing infrastructure assets in their financial reports implied a lot of work for very little benefit.

On the positive side, three of the cities saw the interest in GASB 34 resulting in new infrastructure management systems. The largest city in our sample stated that they had been planning to develop a comprehensive infrastructure management system and the interest in infrastructure management caused by GASB 34 has caused them to act on their plans. They are currently moving forward with a comprehensive system. However, even after the asset management system has been developed, the respondent was doubtful that the city would adopt the modified approach to reporting infrastructure assets.

## **CONCLUSIONS**

The authors were surprised that none of the cities in our sample adopted the modified approach. In retrospect, however, we can see that the belief that cities would embrace management systems for their infrastructure due to GASB 34 may have been naïve and an exercise in wishful thinking. GASB 34 is an accounting standard and is intended to make the financial position and performance of governmental agencies more easily interpreted from their annual financial report.

Asset managers who were looking for an outside force to encourage agencies to invest in modern systems to manage assets, at least in our sample cities, did not find their champion in GASB 34. It is only speculation, but we believe that the modified approach was more readily adopted by State Transportation Agencies because their management is more engineering-oriented than municipalities and, therefore, more likely to promote the use of systems to manage infrastructure.

Having seen what happened when our sample of cities complied with GASB 34, we can observe that it did not meet our expectations and probably the expectations of much of the infrastructure asset management community. However, GASB 34 did cause all the cities we interviewed to think about how they manage their infrastructure assets and in a couple cases may have even resulted in the adoption of new systems to manage them. From an asset management perspective, we can see that GASB 34 did have some success in promoting the use of systems to manage infrastructure assets, although not as much as we expected.

As public agencies move toward the use of asset management and take a more holistic approach toward the management of infrastructure, GASB 34 may not have been the on-ramp to asset management we would have liked but it certainly was not a detour. If it got top agency management to start thinking about how cities manage, fund, renew, and replace infrastructure, then the cause of better infrastructure management has certainly been moved forward.

## REFERENCES

---

1. Federal Highway Administration. *Primer: GASB 34*. Office of Asset Management, Federal Highway Administration, U.S. Department of Transportation, November 2000.
2. AASHTO Task Force on GASB Statement 34. *GASB Statement 34 Compliance Peer Exchange: What, Why, and How?* American Association of State Highway and Transportation Officials, Nashville, Tennessee, 2001.
3. American Public Works Association. *APWA Policy Statement: GASB 34*. American Public Works Association, Washington, D.C., December 2, 2000.
4. Federal Facilities Council. *Capital Asset Management: Tools and Strategies for Decision Making. Federal Facilities Council Technical Report No. 143* (Conference Proceedings). National Academies Press, Washington, D.C., 2001, p. 1.
5. Cambridge Systematics; Parsons, Brinkerhoff, Quade, and Douglas, Inc.; Roy Jorgenson Associates, Inc.; and Paul D. Thompson. *Transportation Asset Management Guide*. NCHRP Project 20-24(11). National Cooperative Highway Research Program, Transportation Research Board, National Research Council, Washington, D.C., 2002.
6. Lemer, A.C. *Getting The Most Out of Your Infrastructure Assets*. American Public Works Association, Kansas City, Missouri, 2002.
7. Dueker, K.J., and P. Bender. *Building and Maintaining A Statewide Transportation Framework*. Presented at the Annual Meeting of the Transportation Research Board, National Research Council, Washington, D.C., 2003.