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**Guidelines for the Consistent Collection, Categorization, and  
Dissemination of Bus Transit Loss Data**

*This TCRP digest provides the results of Task 6 of TCRP [Project G-3](#), "Tools for Transit Risk-Exposure Identification and Treatment for Bus Systems." The digest offers guidelines for the consistent collection, categorization, and dissemination of loss data that are compatible among transit bus systems to assist in the successful procurement of lower cost insurance products and services. The digest was prepared by Richard O'Hare, principal investigator of The Risk Management Center, Inc.*

**INTRODUCTION**

Historically, bus transit systems have experienced difficulty in collecting, categorizing, and disseminating loss information on a consistent and uniform basis. It has been recognized that guidelines are needed that are compatible among transit systems and are based on standard insurance-underwriting and claims-management definitions. Use of these guidelines will lead to improved loss information for use by insurance underwriters in assessing risk and determining insurance premiums for that risk. This information is also critical for actuaries to properly evaluate adequate funding levels for those systems that are self-insured.

A task of TCRP Project G-3, "Tools for Transit Risk-Exposure Identification and Treatment for Bus Systems," was to develop guidelines for the consistent collection, categorization, and dissemination of loss data that are compatible among public bus systems.

Acknowledged inconsistencies in the transit industry's tracking and accounting of loss information has led to problems in procuring insurance coverage because insurers receive inappropriate or inaccurate loss records. Adherence to these guidelines will bring transit systems into compliance with standard insurance practices, therefore enabling insurers to more accurately underwrite transit system risks.

The following guidelines also include standard insurance underwriting and claim management definitions to assist transit agencies in the successful procurement of insurance products and services.

**THE PROBLEM**

The risk management and insurance community developed and has used standardized guidelines for collection and categorization of loss data for years; they are followed by risk managers in virtually all industries.

In the transit industry, however, this is not the case. While risk managers in large public transit systems are familiar with the concepts discussed here, their counterparts at small- to medium-sized systems may not be equally aware of the concepts.

This problem is due to (a) the typical organization of the risk management function in the public transit industry and (b) accounting practices of the public sector.

**Structure of Risk Management Departments in  
Public Transit Systems**

Traditional risk management departments in both the private and public sectors provide or

should provide the following services to their organization:

- Safety and Loss Prevention,
- Risk Financing (Insurance or Self-Insurance),
- Claims Handling, and
- Risk Transfer (Contract and Certificate of Insurance Management).

In many private and public sector risk management departments, the provision of these services comes under the direct oversight of a senior-level manager. Although the risk management department coordinates with many other departments within the organization, it has overall authority, accountability, and responsibility for ensuring the success of risk management efforts.

The picture is different in the public transit sector. In many cases, these functions are fragmented. A typical structure found in a self-insured, medium-sized transit system is as follows:

Function	Department(s) Involved
Driver Safety	Operations Personnel
Maintenance Safety	Maintenance
Risk Financing	Finance Purchasing
Claims	Claims
Risk Transfer	Purchasing Legal Contracts Management

Typically, there is no one person who serves as an overall manager or coordinator of the risk management function. Nor is there formalized exchange of information between persons performing the various jobs. For instance, it is common to find safety personnel in a completely different section of the organizational chart from

staff who handle claims. It is also common for claims and safety personnel to use different definitions for the same terms. This leads to poor communications between them rather than easy interaction and the close sharing of crucial data.

#### *Where is the Problem the Greatest?*

*Insured vs. Self-Insured.* The problem is relatively minor for those transit systems that are fully insured, are members of self-insurance pools or trusts where the pool handles all of their claims, or have their claims handled by a Third Party Administrator (TPA). Virtually all insurers, pools, and TPAs use the same definitions for claims and accounting methods. The problem lies with transit organizations that are self-insured and who handle their own claims. They may or may not use consistent definitions or accounting methods. Some systems also handle some claims in-house while others are handled by insurers or TPAs, which also leads to inconsistencies.

#### **Background on Accounting Practices**

Accounting rules, mandated by state regulatory authorities, are the prime drivers for insurer data collection and were established many years ago to enable regulators to monitor the financial condition and solvency of insurance companies. The resulting financial rules produce reports called statutory financial statements. They are somewhat different from the accrual-type financial statements that are normally produced for businesses.

The basis of insurer financial condition and solvency is the *incurred* claim. (An exact definition is shown in Appendix A.) It has long been recognized that there is a liability the moment an accident happens and where there is a possibility of payment. When

the insurer is notified of a claim, it enters a liability called a *reserve* on its books. A reserve is really an estimate of the ultimate cost of the claim based on the facts immediately available at the time of the accident. This liability or reserve may be adjusted several times as more information regarding the claim is received until it is finally settled or closed.

The incurred claim is also the basis for actuarial projections. It has long been recognized that claims generally settle for more than was originally anticipated. Inflation also plays a factor in liability claims as they may take several years to settle. Actuaries use the terms *trend* and *development* to describe this growth in costs.

Another factor also enters the picture. This is called the *incurred but not reported* or *IBNR* claim. In this instance, an accident or exposure to a harmful substance has occurred but no claim is made or the injury is not evident. For example, a mechanic who changed brakes on vehicles for 30 years was exposed to asbestos for 20 of those 30 years (the brake shoes contained asbestos and the mechanic was exposed to brake dust). He later developed a lung ailment related to this exposure and filed a workers' compensation claim.

In this case, the injury actually took place at the time of exposure but since there was no manifestation at that time, the claim was not filed until later. Under statutory accounting rules, insurers are required to estimate the potential liabilities for IBNR claims and establish reserves (liability) for them.

Self-insured or partially self-insured transit systems traditionally have not been guided by these rules. Since virtually all transit systems are owned or controlled by the public sector, many have followed general public sector accounting practices.

Historically, public agencies have treated their liabilities on a "pay-as-you-go"

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basis. In other words, if a claim is made today but it is expected to be 2 years before it will be settled, the liability would be recognized when the actual payment was made.

This practice has led to overstating the financial condition of public entities and public transit systems across the nation. This problem was recognized a number of years ago by the Governmental Accounting Standards Board of the Financial Accounting Foundation (GASB). GASB sets the accounting standards and rules used by certified public accountants to audit financial records and issue financial statements on public entities.

In November 1989, GASB released Statement No. 10 (GASB 10), "Accounting and Financial Reporting for Risk Financing and Related Insurance Issues," which established accounting and financial reporting standards for risk financing and insurance-related activities of state and local governmental entities, including public entity pools.

The statement (affecting data for fiscal periods beginning after June 15, 1994) requires state and local government entities to *report* a loss from a claim as a liability if

- information is available to indicate that there will be a payment at some point in the future and
- the amount of loss can be reasonably estimated.

GASB 11 has also been published and will require that public entities *accrue* amounts attributable to losses on their financial statements, thus bringing practices closer to those of the private sector and the insurance industry. The expected implementation date is 2000.

This will have a major impact on the financial statements of agencies that have been operating their self-insurance programs on a pay-as-you-go basis. It will also pressure agencies to adopt standardized definitions of claims and accounting methods.

## AVAILABILITY AND COMPUTERIZATION OF DATA

### Insured/Third Party Administrator

Organizations that are fully insured, are members of pools or trusts, or use the services of a TPA should have easy accessibility to loss data in the standardized format used by the insurance industry.

These data can be obtained by requesting hard copy loss runs periodically. Loss runs are computer-generated documents that give a summary of claims activity for the agency by policy period. Depending on agency size and claims volume, they should be requested monthly or quarterly. For larger accounts, many insurers and TPAs now provide immediate access to computerized data via modem.

Online capability permits the user to review individual files, request standardized reports, and, in some cases, do customized or ad hoc reports.

### In-House Claims Handling

Any organization large enough to self-insure and to handle its own claims should be using some sort of computerized Risk Management Information System (RMIS). The cost for the software packages ranges from \$2,000 to approximately \$40,000.

A RMIS used by a public transit system should be powerful enough to capture and sort most of the data about claims. The analysis and report generation features are especially important. For instance, claim data may be sorted to assist safety personnel identify work tasks, routes, or locations that need loss control attention. In this way, information can be shared with safety personnel, location managers, and other key personnel. This will help bridge the information gap commonly found between these functions in many transit systems.

In the past, many organizations mistakenly felt that it would be less expensive to develop a RMIS system from scratch using their own staff or a software consultant. Experience has shown that this is not cost-effective and generally results in an inferior product that doesn't meet industry standards.

### Historical Tracking of Loss Data

*Loss triangles* are commonly used to track consolidated loss information over a long period of time. A loss triangle is a spreadsheet model that enables the user to monitor changes in payments, reserves, and incurred values for claims originating in a particular fund or calendar year. A sample set of loss triangles is shown in Appendix B.

In a loss triangle display, claims information is *valued* at the same point each quarter, biannually or annually. For example, the value of vehicle liability claims that occurred in calendar year 1993 would be shown as of January 1, 1994, 1995, or 1996. The figure would finally stabilize when all claims that occurred in 1993 are settled and closed. It is important to note that the accident date, not the reporting or discovery date, determines the period in which it is recorded.

This information is very important to insurers because loss triangles are a model that enables insurers to predict future losses based on prior history. Loss triangles are also a basic tool that is used by actuaries to forecast future losses, determine the adequacy of current reserves, and recommend current and future funding for self-insurance plans.

Risk managers should also be using this tool for budgeting and loss control purposes.

## RECOMMENDED GUIDELINES FOR COLLECTION, CATEGORIZATION, AND DISSEMINATION OF LOSS DATA

The following guidelines are intended to give transit system risk and claim managers direction for the establishment of a claim data management system that is based on accepted insurance industry practices.

### 1. All Transit Systems

A. Adopt standardized definitions for claim handling terms as shown in Appendix A.

B. Receive and review copies of loss data (loss runs) at least quarterly. These loss runs should be filed for later use in developing loss triangles, in claim tracking, and for insurer underwriting information.

C. Compile loss triangles in order to track losses from the beginning of a claim or fund year period until all claims for that period are closed. Suggested criteria for valuation dates are as follows:

- Fewer than 100 claims per line of coverage per year--Annually;
- Between 100 and 250 claims per line of coverage per year--Semiannually; and
- More than 250 claims per line of coverage per year--Quarterly.

### 2. In-House Claim Handling

In addition to the guidelines suggested above, the following procedures are recommended for transit systems that handle claims in-house.

A. A claims tracking system should be used to record and track all claims by line of coverage and by predetermined fund, fiscal, calendar, or policy year.

B. While manual systems may provide some data-tracking features, computerized claims tracking (e.g., RMIS) is recommended for any organization large enough to handle its own claims with a professional staff.

### 3. In-House Staff and Third Party Administrator (TPA) Claim Handling

In addition to the guidelines suggested in items 1 and 2 above, the following is recommended for transit systems that handle claims with their own staff or that use a TPA.

A. A claims audit should be performed periodically by an independent claims evaluation firm. Depending on the number of claims handled, this should be done at least every 3 years. The scope of the review should include

- General claim file documentation,
- Adherence to established policies and procedures,
- Compliance with claim investigation and defense procedures,
- Financial controls, and
- Compliance with established reserving practices and reserve adequacy.

Since the claims audit will reveal strengths and weaknesses in handling practices that can affect the credibility of data provided to the actuary, it should be conducted before or at the same time as the actuarial review. These reviews should be conducted more often at large organizations.

B. An actuarial review should be conducted periodically by an accredited, independent actuarial firm. The actuarial review should be timed to coincide with or occur slightly after the claims audit.

The actuarial review should be updated annually thereafter.

## OTHER TCRP PROJECT G-3 PRODUCTS AVAILABLE

In addition to the guidelines contained in this Research Results Digest concerning bus transit loss data, a second product produced under TCRP Project G-3 is *Transit Risk Manager* software. This software provides a Windows™-based, user-friendly tool designed to assist bus transit systems of all sizes identify exposures to loss, assess risk, evaluate loss control plans against best practices, and make informed risk-financing decisions. The software also includes a number of ancillary resources such as sample prototype insurance specifications, self-insurance plan documentation, risk-management and safety-policy statements, and loss triangles.

Further information on the capabilities of *Transit Risk Manager* is provided in *TCRP Research Results Digest No. 12, "Transit Risk Manager: Risk Management Software for Bus Transit Systems."* A copy of the software and user's guide can be obtained free of charge by contacting the American Public Transit Association (APTA) at the following address:

American Public Transit  
Association  
c/o TCRP Dissemination  
1201 New York Avenue, N.W.  
Washington, DC 20005  
Fax: (202) 898-4019  
e-mail: tcrp@apta.com

Please include name and mailing address on the request. It is not necessary to be a member of APTA to obtain copies.

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## APPENDIX A

### STANDARD UNDERWRITING AND CLAIMS MANAGEMENT DEFINITIONS

**Accident**--regarding (1) Liability: An event, generally unexpected, unintentional and undesirable, that causes bodily injury or property damage including loss of use. (2) Boiler and Machinery and Property: A sudden, unexpected, and undesirable event that causes damage to equipment or physical property.

**Allocated Loss Expense or Allocated Loss Adjustment Expense (ALAE)**--Amounts that can be attributed to a specific claim. This includes fees paid to defense attorneys, appraisers, experts, and investigators.

**Claim**--A demand from an individual, corporation, or public entity for payment of damages that may be covered under a policy of insurance or self-insurance. In the case of multiple injuries or demands resulting from one accident, each one is considered as a separate claim.

**Closed Claim**--A demand for payment of damages that has been litigated, settled, or denied and is no longer active.

**Incident**--A relatively minor event, occurrence, or accident that may or may not lead to a claim.

**Incurred But Not Reported (IBNR)**--A subjective estimate of future losses based upon the recognition that at any given time, events have occurred that could result in a claim(s) but have not been reported or recognized.

**Loss**--The basis of a claim for recovery of damages under the terms of a policy of insurance or self-insurance. Also used to denote the damage or destruction of assets from an occurrence. General types of losses include personnel, property, time, and legal or tort liability. The term loss applies even if damages are not paid.

**Loss Development**--The difference between the estimate of final payout of a loss when it is first reported and its subsequent evaluation at a later date or at the time of its final settlement or closure.

**Loss Reserve**--An estimation of the amount of money that could potentially be paid out on a claim or a number of claims. The amount is based upon factors such as the nature of injuries or damages, prior case law, defenses, negligence involved, regulatory protections such as tort caps and physical and health characteristics of the claimant as well as the reserving philosophy of the claim adjuster/firm. In the case of reserve amounts for multiple claims, such as an insurer's total book of business, this includes an estimate for claims that may have been incurred but not reported (IBNR).

**Loss Trending**--Adjusting historical losses to account for inflationary trends so that the ultimate or final value is more current or meaningful. Actual historical loss information is multiplied by loss trend factors to yield trended losses.

**Occurrence**--An accident, including continuous or repeated exposure to substantially the same harmful conditions, that may lead to a claim(s).

**Open Claim**--A demand for payment of damages that is actually being investigated, litigated, or in process of denial or settlement by an insurer or self-insured.

**Paid Loss**--A monetary amount actually paid to date to a claimant, plaintiff's attorney, or medical providers toward settlement of a claim. This may or may not be the total amount that will ultimately be paid to settle a particular claim.

**Reopened Claim**--A reestablished demand for payment of damages that previously had been closed on the belief that no further activity would take place.

**Unallocated Loss Expense**--Salaries, overhead, and related adjustment costs that cannot be specifically allocated to a particular claim.

**Valuation Date**--The cut-off date for adjustments made to paid claims and reserve estimates in a loss report. For example, a workers' compensation loss report for the 1995 policy year that has a 1997 valuation date, includes all claim payments and changes in loss reserves made prior to the 1997 valuation date.

## APPENDIX B

## LOSS TRIANGLES

Appendix B As of July 1, 1996

**Table 1**  
**Name of Transit System**  
**LOSS TRIANGLES**  
**Line of Coverage - Vehicle Liability**  
**PAID LOSSES**

**TABLE 1**  
*The amount paid in the fiscal year shown*  
*corresponding to the year of the accident or occurrence*

Valuation Date - July 1 (This date should be the same each year)

Year	Claim Occurrence or Accident Year	FY'89	FY'90	FY'91	FY'92	FY'93	FY'94	FY'95	FY'96	FY'97
As of July 1st										
<i>(These numbers are entered by the user)</i>										
	1990	141,000								
	1991	166,500	139,500							
	1992	51,600	220,705	151,000						
	1993	114,625	170,962	180,000	192,000					
	1994	102,500	56,841	121,000	101,051	126,000				
	1995	10,821	268,477	51,180	73,002	290,000	186,521			
	1996	5,000	56,271	30,521	25,999	180,051	190,602	201,002		
	1997	0	0	0	0	0	0	0	0	0
	1998	0	0	0	0	0	0	0	0	0

As of July 1, 1996

**Table 2**  
**Line of Coverage - Vehicle Liability**  
**CUMULATIVE PAID BY FISCAL YEAR**

*The total paid to date for claims occurring in one fiscal year*

Valuation Date - July 1 (This date should be the same each year)

Year	Claim Occurrence or Accident Year	FY'89	FY'90	FY'91	FY'92	FY'93	FY'94	FY'95	FY'96	FY'97
As of July 1st										
	1990	141,000								
	1991	307,500	139,500							
	1992	359,100	360,205	151,000						
	1993	473,725	531,167	331,000	192,000					
	1994	576,225	588,008	452,000	293,051	126,000				
	1995	587,046	856,485	503,180	366,053	416,000	186,521			
	1996	592,046	912,756	533,701	392,052	596,051	377,123	201,002		
	1997	0	0	0	0	0	0	0	0	0
	1998	0	0	0	0	0	0	0	0	0

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As of July 1, 1996

**Table 3**  
**Name of Transit System**  
**Line of Coverage - Vehicle Liability**  
**R E S E R V E D**

**TABLE 3**      *An estimation of the amount of money that could be paid out for claims occurring in one fiscal year*  
**Valuation Date - July 1 (This date should be the same each year)**

Year	Claim Occurrence or Accident Year	FY'89	FY'90	FY'91	FY'92	FY'93	FY'94	FY'95	FY'96	FY'97
As of July 1st										
1990		333,400	<i>(These numbers are entered by the user)</i>							
1991		281,000	308,300							
1992		348,900	341,800	400,000						
1993		108,001	229,847	440,000	415,983					
1994		141,301	453,620	287,901	698,112	763,910				
1995		127,801	171,846	210,503	601,112	510,693	323,912			
1996		50,000	6,500	101,201	101,783	400,000	415,813	531,002		
1997		0	0	0	0	0	0	0	0	0
1998		0	0	0	0	0	0	0	0	0

As of July 1, 1996

**Table 4**  
**Line of Coverage - Vehicle Liability**  
**T O T A L I N C U R E D**

**TABLE 4**      *The total of amounts paid and reserved for claims occurring in one fiscal year*  
**Valuation Date - July 1 (This date should be the same each year)**

Year	Claim Occurrence or Accident Year	FY'89	FY'90	FY'91	FY'92	FY'93	FY'94	FY'95	FY'96	FY'97
As of July 1st										
1990		474,400								
1991		588,500	447,800							
1992		708,000	702,005	551,000						
1993		581,726	761,014	771,000	607,983					
1994		717,526	1,041,628	739,901	991,163	889,910				
1995		714,847	1,028,331	713,683	967,165	926,693	510,433			
1996		642,046	919,256	634,902	493,835	996,051	792,936	732,004		
1997		0	0	0	0	0	0	0	0	0
1998		0	0	0	0	0	0	0	0	0

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As of July 1, 1996

**Table 5**  
**Name of Transit System**  
**Line of Coverage - Vehicle Liability**  
**NUMBER OF CLAIMS**

**TABLE 5** *A claim is a demand for recovery of damages from a person or entity*  
**Valuation Date - July 1 (This date should be the same each year)**

Year	Claim Occurrence or Accident Year	FY'89	FY'90	FY'91	FY'92	FY'93	FY'94	FY'95	FY'96	FY'97
As of July 1										
<b>1990</b>										
Open		100								
Closed		110								
Total		210								
<b>1991</b>										
Open		50	105							
Closed		166	115							
Total		216	220							
<b>1992</b>										
Open		30	48	110						
Closed		187	178	120						
Total		217	226	230						
<b>1993</b>										
Open		21	26	60	116					
Closed		196	201	181	119					
Total		217	227	241	235					
<b>1994</b>										
Open		10	9	41	30	122				
Closed		207	218	205	207	133				
Total		217	227	246	237	255				
<b>1995</b>										
Open		5	8	18	42	60	140			
Closed		212	219	228	198	208	50			
Total		217	227	246	240	268	190			
<b>1996</b>										
Open		4	5	10	33	31	73	49		
Closed		213	222	236	208	239	125	150		
Total		217	227	246	241	270	198	199		
<b>1997</b>										
Open										
Closed										
Total										
<b>1998</b>										
Open										
Closed										
Total										

Open claims are those that are being investigated, litigated or settled

Closed claims are those that have been litigated, settled or denied and are no longer active

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