



## Financial Management

- ❖ Transit systems of all sizes need to be able to cover operating costs, and replace and purchase assets.
- ❖ Financial management makes sure that the transit system has enough money now and in the future to stay in business and provide important transit service.
- ❖ Good financial management must meet the needs of the present, as well as strategically plan for the future.



## What Is Financial Management?

- ❖ Financial Management Consists of 8 Components. This presentation deals with each component in the following order:
  1. Accounting
  2. Budgeting
  3. Cash Management
  4. Financial Reporting
  5. Cost Modeling And Service Evaluation
  6. Asset Management
  7. Risk Management
  8. Compliance With Regulations and Best Practices



But first, a brief summary of each of the 8 components



# Accounting

- ❖ Set up the financial books and accounting system.
  - Organize your operating and capital expenses and revenues into a formal set of “accounts”.
  - Enter the system’s expenses and revenues into the proper accounts.
  - This is accounting.
  - There are commonly accepted accounting policies and procedures.



## Accounting (slide 2 of summary)

- Accounting is not the same as budgeting.
- Accounting describes what has been done, not what will or should be done.
- Accounting by itself does not provide enough information to make wise financial decisions, keep the system solvent, and provide needed transit services.
- Budgeting needs accounting.
- Adopt written policies and procedures.



## Budgeting

- ❖ Organize your accounts into a formal fully allocated “budget” with a 1-year horizon (calendar, or July-June, or Oct.-Sept).
- ❖ Verify your expense and revenue assumptions and make sure the budget balances, including identifying surplus or deficit.
- ❖ Adopt written policies and procedures.



# Cash Management

- ❖ Managing cash and cash flow
- ❖ Managing grants



## Financial Reporting

- ❖ Periodically monitor your expenses and revenues and take actions to adhere to the budget or modify the budget.
- ❖ Adopt written policies and procedures.





## Cost Modeling And Service Evaluation

- ❖ Develop a fully allocated cost model to help cost out services and service changes.
- ❖ Adopt written policies and procedures.



## Asset Management

- ❖ Asset management consists of:
  - Managing fuel.
  - Managing inventory.
  - Managing the fleet.
  - Managing facilities and land.
- ❖ Adopt written policies and procedures.



## Risk Management

- ❖ Planning for and responding to safety incidents (weather, other drivers, mechanical issues).
- ❖ Planning for and responding to security threats (attacks against riders, drivers, vehicles).
- ❖ Adopt written policies and procedures.



# Compliance With Regulations and Best Practices

- ❖ Comply with regulations.
- ❖ Have successful financial audits and performance reviews.
- ❖ Adopt written policies and procedures.



# ACCOUNTING



## ACCOUNTING TYPES

- ❖ There Are 3 Types Of Accounting:
  - Accrual
  - Cash
  - Modified Cash
- ❖ Use Accrual Accounting if possible



# ACCRUAL ACCOUNTING

## ❖ Accrual Accounting:

- Most accurate and the most difficult financial reporting method.
- Matches revenues and expenses to the period the revenue was earned or the expense incurred, regardless of when the cash was received or spent.
- Accrual accounting must be used for all rural transit program accounting records in the state of Ohio, USA.



## CASH ACCOUNTING

### ❖ Cash Accounting:

- Simplest and easiest accounting method to understand.
- Governed by cash flow.
- Expenses are recorded only when an expense is actually paid, and revenue is recorded only when actually received, regardless of when the expense was incurred or the revenue earned.
- Provides a distorted picture of expenses and revenues due to timing delays.



# MODIFIED CASH ACCOUNTING



- ❖ Modified Cash Accounting:
  - Mixture of accrual and cash accounting.
  - Expenses and revenues having economic lives longer than the current year are divided into two parts.
  - The entire portion of the expense or revenue attributable to the current year is immediately recorded as an expense or revenue (cash accounting).
  - The remaining portion is recorded as either a prepaid expense (asset) or an unearned income (liability), and is deferred and recorded in the next period to which it applies (accrual accounting).



## CAPITAL ACCOUNTING

- ❖ A Capital Item Has a Useful Life of More Than 1 Year
- ❖ Examples are:
  - Vehicles
  - Facilities
  - Equipment (tools, shop machines)
  - Computers



## OPERATING ACCOUNTING

- ❖ Any Item With A Useful Life Of Less Than A Year Is Considered An Operating Expense
- ❖ Examples are:
  - Fuel
  - Office Supplies
  - Personnel Costs



## ACCOUNTS

- ❖ Accounts For Operating Budgets And For Operating Income Statement Reports
  - Expense Accounts
  - Revenue Accounts
- ❖ Capital Items



## OPERATING ACCOUNTS

### ❖ Operating Expenses:

- 501. LABOR

- 01. Operators' Salaries and Wages

- 02. Other Salaries and Wages

NOTE: Some of the accounting expense and revenue categories that follow may not apply to transit operations outside of the USA.



# OPERATING ACCOUNTS

## ❖ Operating Expenses:

- 502. FRINGE BENEFITS

- 01. Social Security or Railroad Retirement
- 02. Pension Plans
- 03. Hospital, Medical, and Surgical Plans
- 04. Dental Plans
- 05. Life Insurance Plans
- 06. Short-Term Disability Insurance Plans
- 07. Unemployment Insurance
- 08. Worker's Compensation Insurance or Federal Employees' Liability Act Contribution
- 09. Sick Leave
- 10. Holiday
- 11. Vacation
- 12. Other Paid Absence
- 13. Uniform and Work Clothing Allowance
- 14. Other



# OPERATING ACCOUNTS

## ❖ Operating Expenses:

### ○ 503. SERVICES

- 01. Management Service Fees
- 02. Advertising Fees
- 03. Professional and Technical Services
- 04. Temporary Help
- 05. Contract Maintenance Services
- 06. Custodial Services
- 07. Security Services
- 99. Other Services



## OPERATING ACCOUNTS

### ❖ Operating Expenses:

- 504. MATERIALS AND SUPPLIES CONSUMED
  - ❑ 01. Fuel and Lubricants
  - ❑ 02. Tires and Tubes
  - ❑ 99. Other Materials and Supplies





# OPERATING ACCOUNTS

## ❖ Operating Expenses:

- 505. UTILITIES
  - 01. Propulsion Power
  - 02. Utilities Other than Propulsion Power
- 506. CASUALTY AND LIABILITY COSTS
  - 01. Premiums for Physical Damage Insurance
  - 02. Recoveries of Physical Damage Losses
  - 03. Premiums for Public Liability and Physical Damage Insurance
  - 04. Payouts for Uninsured Public Liability and Physical Damage Settlements
  - 05. Provision for Uninsured Public Liability and Physical Damage Settlements
  - 06. Payouts for Insured Public Liability and Physical Damage Settlements
  - 07. Recoveries for Public Liability and Physical Damage Settlements
  - 08. Premiums for Other Corporate Losses
  - 09. Other Corporate Losses
  - 10. Recoveries of Other Corporate Losses



## OPERATING ACCOUNTS

### ❖ Operating Expenses:

#### ○ 507. TAXES

- 01. Federal Income Tax
- 02. State Income Tax
- 03. Property Tax
- 04. Vehicle Licensing and Registration Fees
- 05. Fuel and Lubricant Taxes
- 06. Electric Power Taxes
- 99. Other Taxes

#### ○ 508. PURCHASED TRANSPORTATION SERVICE

- 01. In Report
- 02. Filing Separate Report



# OPERATING ACCOUNTS

## ❖ Operating Expenses:

- 509. MISCELLANEOUS EXPENSES
  - 01. Dues and Subscriptions
  - 02. Travel and Meetings
  - 03. Bridge, Tunnel and Highway Tolls
  - 04. Entertainment Expenses
  - 05. Charitable Donations
  - 06. Fines and Penalties
  - 07. Bad Debt Expense
  - 08. Advertising/Promotion Media
  - 99. Other Miscellaneous Expenses



## OPERATING ACCOUNTS

### ❖ Operating Expenses:

- 510. EXPENSE TRANSFERS
  - 01. Function Reclassifications
  - 02. Expense Reclassifications
  - 03. Capitalization of Non-Operating Costs
- 511. INTEREST EXPENSE
  - 01. Interest on Long-Term Debt Obligations
  - 02. Interest on Short-Term Debt Obligations



## OPERATING ACCOUNTS

### ❖ Operating Expenses:

#### ○ 512. LEASES AND RENTALS

- 01. Transit Way and Transit Way Structures and Equipment
- 02. Passenger Stations
- 03. Passenger Parking Facilities
- 04. Passenger Revenue Vehicles
- 05. Service Vehicles
- 06. Operating Yards or Stations
- 07. Engine Houses, Car Shops, and Garages
- 08. Power Generation and Distribution Facilities
- 09. Revenue Vehicle Movement Control Facilities
- 10. Data Processing Facilities
- 11. Revenue Collection and Processing Facilities
- 12. Other General Administration Facilities



# OPERATING ACCOUNTS

## ❖ Operating Expenses:

- 513. DEPRECIATION
  - ❑ 01. Transit Way and Transit Way Structures and Equipment
  - ❑ 02. Passenger Stations
  - ❑ 03. Passenger Parking Facilities
  - ❑ 04. Passenger Revenue Vehicles
  - ❑ 05. Service Vehicles
  - ❑ 06. Operating Yards or Stations
  - ❑ 07. Engine Houses, Car Shops, and Garages
  - ❑ 08. Power Generation and Distribution Facilities
  - ❑ 09. Revenue Vehicle Movement Control Facilities
  - ❑ 10. Data Processing Facilities
  - ❑ 11. Revenue Collection and Processing Facilities
  - ❑ 12. Other General Administration Facilities
  - ❑ 13. Depreciation and Amortization - Amortization of Intangibles



## OPERATING ACCOUNTS

### ❖ Operating Expenses:

- 514. PURCHASE LEASE PAYMENTS
- 515. RELATED PARTIES LEASE AGREEMENT
- 516. OTHER RECONCILING ITEMS



## OPERATING ACCOUNTS

- ❖ Each Operating Expense Is Further Assigned To Either:
  - Vehicle Operations
  - Vehicle Maintenance
  - Non-Vehicle Maintenance
  - General Administration





## OPERATING ACCOUNTS

### ❖ Operating Revenues:

- 401. PASSENGER FARES FOR DIRECTLY-OPERATED TRANSIT SERVICE
  - 01. Full Adult Fares
  - 02. Senior Citizen Fares
  - 03. Student Fares
  - 04. Child Fares
  - 05. Disabled Rider Fares
  - 06. Park and Ride - Parking Revenue Only
  - 90. Special Ride Fares
  - 99. Other Primary Fares



## OPERATING ACCOUNTS

### ❖ Operating Revenues:

- 402. SPECIAL TRANSIT FARES
  - 01. Contract Fares for Postal Workers
  - 02. Contract Fares for Police Officers
  - 03. Special Route Guarantees
  - 04. State and Local Government
  - 05. Other Special Contract Transportation Fares - Other Sources
  - 06. Non-Contract Service Fees
- 403. SCHOOL BUS SERVICE REVENUES
- 404. FREIGHT TARIFFS
- 405. CHARTER SERVICE REVENUES



## OPERATING ACCOUNTS

### ❖ Operating Revenues:

#### ○ 406. AUXILIARY TRANSPORTATION REVENUES

- 01. Station Concessions
- 02. Vehicle Concessions
- 03. Advertising Services
- 04. Automotive Vehicle Ferriage
- 99. Other Auxiliary Transportation Revenues



# OPERATING ACCOUNTS

## ❖ Operating Revenues:

### ○ 407. NON-TRANSPORTATION REVENUES

- 01. Sales of Maintenance Services
- 02. Rental of Revenue Vehicles
- 03. Rental of Buildings and Other Property
- 04. Investment Income
- 05. Parking Facilities Revenue
- 99. Other Non-Transportation Revenues



## OPERATING ACCOUNTS

### ❖ Operating Revenues:

- 408. TAXES LEVIED DIRECTLY BY THE TRANSIT SYSTEM - TAXES DEDICATED TO TRANSIT AT THEIR SOURCE
  - 01. Property Taxes
  - 02. Sales Taxes
  - 03. Income Taxes
  - 04. Payroll Tax Revenue
  - 05. Utility Tax Revenue
  - 06. Gasoline Taxes
  - 99. Other Taxes



# OPERATING ACCOUNTS

## ❖ Operating Revenues:

- 409. LOCAL CASH GRANTS AND REIMBURSEMENTS
  - 01. General Operating Assistance
  - 02. Special Demonstration Project Assistance - Local Projects
  - 03. Special Demonstration Project Assistance - Local Share for State Projects
  - 04. Special Demonstration Project Assistance - Local Share for Federal Transit Administration (FTA) Projects
  - 05. Reimbursement of Taxes Paid
  - 06. Reimbursement of Interest Paid
  - 07. Reimbursement of Transit System Maintenance Costs
  - 08. Reimbursement of Snow Removal Costs
  - 09. Reimbursement of Security Costs
  - 99. Other Financial Assistance



## OPERATING ACCOUNTS

### ❖ Operating Revenues:

- 410. LOCAL SPECIAL FARE ASSISTANCE
  - 01. Disabled Citizen Fare Assistance
  - 02. Senior Citizen Fare Assistance
  - 03. Student Fare Assistance
  - 99. Other Special Fare Assistance



## OPERATING ACCOUNTS

### ❖ Operating Revenues:

- 411. STATE CASH GRANTS AND REIMBURSEMENTS
  - 01. Operating Assistance
  - 03. Special Demonstration Project Assistance - State Projects
  - 04. Special Demonstration Project Assistance - State Share for FTA Projects
  - 05. Reimbursement of Taxes Paid
  - 06. Reimbursement of Interest Paid
  - 07. Reimbursement of Transit System Maintenance Costs
  - 09. Reimbursement of Security Costs
  - 99. Other Financial Assistance





## OPERATING ACCOUNTS

### ❖ Operating Revenues:

- 412. STATE SPECIAL FARE ASSISTANCE
  - 01. Disabled Citizen Fare Assistance
  - 02. Senior Citizen Fare Assistance
  - 03. Student Fare Assistance
  - 99. Other Special Fare Assistance
- 413. FEDERAL CASH GRANTS AND REIMBURSEMENTS
  - 04. Special Demonstration Project Assistance
  - 99. Other Financial Assistance
- 414. REVENUE ACCRUED THROUGH A PURCHASED TRANSPORTATION AGREEMENT



## OPERATING ACCOUNTS

### ❖ Operating Revenues:

- 415. FARE REVENUE RETURNED BY SELLER (CONTRACTOR)
- 416. FARE REVENUE RETAINED BY SELLER (CONTRACTOR)
- 430. CONTRIBUTED SERVICES
  - 01. State and Local Government
  - 02. Contra Account for Expense
- 440. SUBSIDY FROM OTHER SECTORS OF OPERATIONS
  - Subsidy from Utility Rates
  - Subsidy from Bridge and Tunnel Tolls
  - Other Subsidies
  - Passenger Fares by Directly Operated Mode



## CAPITAL ACCOUNTS

### ❖ Capital Items Include:

- Revenue Vehicles
- Major Vehicle Components
- Vehicle Rehabilitation
- Vehicle Remanufacture
- Non-Revenue Vehicles



## CAPITAL ACCOUNTS

### ❖ Capital Items Include:

- Facilities
- Equipment
- Buildings
- Vehicle Maintenance Shops and Garages
- Land
- General Administration Facilities and Equipment
- Operating Yards and Stations



## CAPITAL ACCOUNTS

### ❖ Capital Items Include:

- Passenger Stations
- Passenger Amenities, Stops, Shelters
- Passenger Parking Facilities
- Fare Collection and Processing Equipment
- Data Processing Equipment
- Communication Equipment
- Office Equipment and Furnishings



Module 3

# BUDGETING



## BUDGETING

- ❖ Your system's budget is one of your most important management tools.
- ❖ The budget is the guide that you develop to keep you on financial track in the next 1 year period.
- ❖ The budget should guide many of your management actions.



## BUDGETING

- ❖ The budget provides stern feedback if you do not meet its forecasts.
- ❖ It requires you to change what you and your system are doing to meet the budget assumptions, or requires you to change the assumptions to meet changing conditions.
- ❖ In any case, the budget is never silent. It is always pulling and pushing you and your system.





## BUDGETING

- ❖ A budget allows you to see all your system's projected expenses and revenues for a whole year period.
- ❖ A budget has an standard format and organization.
- ❖ It is absolutely crucial that all your operating and capital costs and revenues be included in the budget.



## BUDGETING

- ❖ The budget gives you a system-level picture, but does not break down costs by route, type of service, time of day, day of week, geographic area, etc. (We will discuss service cost models later in this module.)
- ❖ It is useful to have a budget that covers at least 4 years, and not just the required 1 year. The strategic 4-year time frame can show particular line item trends which may not be obvious in a 1-year budget. It also provides warnings about the sustainability of the budget and operations.



## BUDGETING

- ❖ Having a budget clarifies your financial assumptions about the future.
- ❖ Those assumptions can be discussed and evaluated, and even changed as the year progresses.
- ❖ But, a budget is of no use if you do not monitor how close you are sticking to your budget, or if you do not monitor that the assumptions (and budget) need to be changed.



## BUDGETING

- ❖ It is important to review the budget every month and see how well you are tracking it and what changes in budget or actions need to be made.
- ❖ Sometimes that budget needs to change.
- ❖ Sometimes corrective actions need to occur with staff, contractors, vendors and even the riders.
- ❖ The budget is to guide your actions, programs, services, purchases, grants, revenues, etc.



## BUDGETING

- ❖ Your budget should show each month of the 12-month period that the budget covers.
- ❖ Each month is different, due to projected number of days, holidays, snow days, special seasonal services, services to universities, etc.



## BUDGETING

- ❖ You need to use historical trends, corrections from the last budget, inflation factors, and reasonable and documented forecasts for future revenue and costs.
- ❖ Developing the budget should be a team effort between key staff and the governing board.
- ❖ You need to document your assumptions about the forecast.
- ❖ The budget should be on an accrual basis.



# CASH MANAGEMENT



## Cash Management

### ❖ Having Enough Cash

- Have enough cash on hand to pay the bills when due.
- Avoid “cash-outs”, not paying employees, and creating bad reputations with vendors.
- Remember that government subsidies are on a reimbursement basis, which means cash is needed for payments before subsidies are received.





# Cash Management

## ❖ Reporting Cash Flow

- On a monthly basis, report all transactions to the governing board (receipts, payments, cash on hand).
- Make documentation available for viewing.
- Have another person (staff or governing board treasurer) review the report, ask questions, and sample the documentation, before submitting the report.



# Cash Management

## ❖ Reporting Flow On An Accrual Basis

- Accrual means accounts receivable and accounts payable.
- On a monthly basis, report all accounts receivable and accounts payable.
- Make documentation available for viewing.
- Have another person (staff or governing board treasurer) review the report, ask questions, and sample the documentation, before submitting the report.



# Cash Management

- ❖ Pay Bills In A Timely Fashion
  - Usually pay bills monthly.
  - Payments need accurate and complete documentation.
  - Payments usually to personnel, retirement funds, State agencies, and vendors of materials and supplies, services, for capital purchases, and sometimes for loans/debts.
  - Be aware of due dates for bills, and penalties for late payments.



## Cash Management

### ❖ Keep The Money Coming In

- Send out invoices as soon as possible, usually monthly.
- Invoices need accurate and complete documentation.
- Invoices usually to local governments, human services agencies, foundations, others.
- Monitor late payments and push for payment.



# Cash Management

## ❖ Working Capital

- Working capital is the same as cash reserve.
- Attempt to have a working capital fund in the bank.
- Working capital should be the equivalent of 2 to 3 months of average monthly expenditures.
- Plan for special purchases, like vehicles, equipment, retirement payouts, etc.
- Secure a working capital line of credit at a bank, for emergencies or large payments.



## Cash Management

### ❖ Managing Fare Collection

- Fares are still mostly on a cash basis.
- Need to have strict policies/procedures and monitoring at all steps in the fare paying process.
- Fares can be mismanaged through error or theft.



# Cash Management

- ❖ There are many ways that fares can be mismanaged:
  - Incorrect fare information and payment by the rider, or incorrect driver observations of fares being paid.
  - Fraud by the rider and fraud by the driver (pocketing fares, recording the wrong fare, etc.).
  - Theft during collecting fares from the farebox (or fare bag).



## Cash Management

- Theft during counting and recording the fares in the money room (or desk).
- Depositing fares in the bank.
- ❖ Fare technology may improve accuracy.





## Cash Management

### ❖ Cash Security

- Don't leave cash or financial records laying around or in unsecured locations or drawers.
- Careful of petty cash.
- Remove sources of temptation.



## Cash Management

### ❖ Credit Card Security

- Don't leave credit cards laying around or in unsecured locations or drawers.
- Do frequent online monitoring of credit card use to see if being abused.
- Remove sources of temptation.



## Cash Management

### ❖ Investing Agency Cash

- Ohio has strict laws regulating safe and acceptable locations to invest public funds.
- Must not risk the principle.
- Must be liquid and easily withdrawn.
- Must not be invested in speculative items like gold, rare coins, stocks, etc.



## Cash Management

### ❖ Electronic And Manual Methods

- Use electronic methods of billing, payments, and bank depositing/withdrawing when possible.
- Use manual methods when necessary.
- Focus should be on documentation and accountability.



Module 3

# FINANCIAL REPORTING



## Financial Reporting

- ❖ We do not let our drivers operate a vehicle with their eyes shut, and hope that they arrive safely at their destination.
- ❖ Likewise, we should not let ourselves “operate” our transit system’s finances without frequent monitoring.



## Financial Reporting

- ❖ Periodic financial reporting is one of the major tools for monitoring and managing finances.



## Financial Reporting

- ❖ Monthly financial reports should include:
  - Income statement
  - Cash flow statement
  - Grants report
  - Variance reports (operating and grants)
  - Balance sheet
  - Productivity and service quality report





## Financial Reporting

- ❖ Annual financial reports should include:
  - Benchmarking, peer comparison, trend analysis
  - Required reporting



## MONTHLY INCOME STATEMENT

- ❖ The Income Statement has been in use first in the business sector, then in the government and non-profit sectors.
- ❖ It is called an “income” statement because of the business sector model of hoping to turn a profit and having a net income at the end of the month or year.



## MONTHLY INCOME STATEMENT

- ❖ The Income Statement is the sum of all revenues and expenses over a given period, here a month.
- ❖ It is like a container that starts off empty, and then has water flowing in and flowing out over a month, resulting in a final level of water.



## MONTHLY INCOME STATEMENT

- ❖ The Monthly Income Statement is based on operating expenses and revenues.
- ❖ Done on an accrual basis.
- ❖ Shows if the transit system is receiving more funds than it is spending (in the black...positive income), breaking even (no income), or receiving less funds than it is spending (in the red...negative income).
- ❖ Ideally, the transit will be in the black each month.



## MONTHLY INCOME STATEMENT

- ❖ Due to different days in the month, weather, bad financial planning, unexpected expenses, and other circumstances, some months may be in the black, some in the red and some breaking even.
- ❖ By the end of the year period, the system should be in the black or break even. But , in some cases, a transit system may actually plan to be in the red at the end of the year or in a particular month.
- ❖ The operating variance report (to be discussed in later slides) will alert you if corrective action is warranted.



## MONTHLY INCOME STATEMENT

- ❖ The Monthly Income Statement has columns for the last month (which is the focus), columns for each of the previous months in the year period, a column for the same month one year ago, and a column for the total year-to-date.
- ❖ It shows the total Expenses, the total Revenues, and the difference between the two.
- ❖ Each Expenses account line item is shown, then summed up to give an overall Expenses total.
- ❖ Each Revenue account line item is shown, then summed up to give an overall Revenue total.

## MONTHLY CASH FLOW STATEMENT



- ❖ The Cash Flow Statement is set up just like the Income Statement, except that it is based on the cash basis instead of accrual basis.
- ❖ It also represents the accumulation of money in and out over the month.
- ❖ As will be discussed in the Cash Management section, personnel, vendors and governments expect their payments when they are due.
- ❖ This takes cash.

## MONTHLY CASH FLOW STATEMENT



- ❖ The transit system needs to forecast cash needs and availability, and then track it to make sure there is enough cash when needed.
- ❖ At the end of the Cash Flow Statement, the difference between cash in and cash out is shown, and then added to a running cash balance.
- ❖ It is easy to get confused between Income Statements and Cash Flow Statements. They show different things, but are related.





## MONTHLY GRANTS REPORT

### ❖ Grants Management Is Crucial

- Grants management is the lifeblood of rural transit systems.
- Meet all deadlines and requirements for budgeting, grant filing, reporting, invoicing and documentation.



# MONTHLY GRANTS REPORT

- ❖ Usually, a rural transit system does not have many grants open and it is relatively easy to keep track of them...for those that know what they are doing.
- ❖ However, a system that aggressively pursues grants may find it prudent to keep a list of all active (and applied for) grants, and show their total value, local share, expiration date, capital and operating line items.



## MONTHLY GRANTS REPORT

- ❖ The system may also want to show how much of each grant was spent each month, the amount remaining, etc.

## MONTHLY VARIANCE REPORTS



- ❖ The transit system's budget shows projected operating expenses and revenues, and projected capital expenses and revenues, for each month of the 1-year budget period.
- ❖ Those assumptions are there for a reason and need to be followed, or the budget amended.

## MONTHLY VARIANCE REPORTS



- ❖ Just like in driving a vehicle, if there is a variance between where the vehicle is and where it should be, some type of corrective action is warranted.
- ❖ Ignoring a variance is unwise.

## MONTHLY VARIANCE REPORTS



- ❖ Perhaps management action is needed to reduce variances:
  - re-assignment of personnel to focus on the variance causes
  - expenditure controls
  - more aggressive invoicing
  - focusing on spending a capital grant
  - many other possible actions

## MONTHLY VARIANCE REPORTS



- ❖ Perhaps the budget and its assumptions may need to be amended.
- ❖ An amendment does not make the problem go away. It does re-align expectations to reality so the budget (as amended) can still be implemented in a professional manner.

## MONTHLY VARIANCE REPORTS



- ❖ The operating and capital variances can be separate reports or incorporated into other existing reports.
- ❖ It is recommended that the system prepare a monthly operating variance report and a monthly capital variance report.
- ❖ Variance analysis can be incorporated into the monthly Income Statement, monthly Cash Flow Statement, and the monthly Grants Report. This is easier and results in fewer separate reports.



# MONTHLY VARIANCE REPORTS



## ❖ All it requires:

- 2 new columns to be added to the right of the reporting month column.
- The first new column shows the monthly budgeted amount.
- The second column shows the actual amount.
- The third column shows the difference between budgeted and actual, and also shows the budgeted amount divided by the actual amount in a % format (ex, budgeted = \$1,000, actual = \$900, budgeted/actual =111%).



## MONTHLY BALANCE SHEET

- ❖ A Balance Sheet shows the overall financial health of the transit system.
- ❖ The Balance Sheet is like a picture at one point in time. It does not represent the flow of money in or out.



## MONTHLY BALANCE SHEET

- ❖ A Balance Sheet shows what wealth the system has and any money it is owed, what the system owes, and the difference.
- ❖ The equation for a Balance Sheet is:
  - $\text{Assets} = \text{Liabilities} + \text{Net Worth}$
- ❖ The larger the net worth, the better.



# MONTHLY BALANCE SHEET

- ❖ A close examination of the system's Balance Sheet can show how much of the system's wealth is made up of cash on hand, vehicles and facilities, or what is owed to you (taxes to be collected, contract revenue, etc.).
- ❖ The relative mix of such assets is important and can be an indicator of potential strengths and weaknesses of the system.



## MONTHLY BALANCE SHEET

- ❖ A close examination of the system's Balance Sheet can also show how much of a hold others have on the system's assets, and if those claims are made up of accounts payable, loans, issued debt, grant liens on vehicles, accrued vacation or retirement, pending legal settlements, etc.
- ❖ The relative mix of such liabilities is important and can be an indicator of potential strengths and weaknesses of the system.



## MONTHLY BALANCE SHEET

- ❖ In a private business, the Net Worth is a measure of stockholder ownership in the company.
- ❖ This is not the case in a transit system.
- ❖ But, the Net Worth does provide a measure of how much the system may recover if it were to discontinue service and terminate.
- ❖ The Net Worth also shows how much relative exposure the system has to its creditors and debt holders, and those with a claim on the vehicles, facilities and cash.



## MONTHLY BALANCE SHEET

- ❖ The Balance Sheet is often shown listing the Asset line items first, then the Liabilities second, and then the Net Worth, as of a point in time, say the end of the reporting month.
- ❖ The list of Assets and Liabilities are shown below.



# MONTHLY BALANCE SHEET

## ❖ ASSETS:

- 101. CASH AND CASH ITEMS
  - 01. Cash
  - 02. Working Funds
  - 03. Special Deposits, Interest
  - 04. Special Deposits, Dividends
  - 05. Special Deposits, Other
  - 06. Temporary Cash Investments





# MONTHLY BALANCE SHEET

## ❖ ASSETS:

### ○ 102. RECEIVABLES

- 01. Accounts Receivable
- 02. Notes Receivable
- 03. Interest and Dividends Receivable
- 04. Receivables from Associated Companies
- 05. Receivable Subscriptions to Capital Stock
- 06. Receivables for Capital Grants
- 07. Receivables for Operating Assistance
- 08. Other Receivables
- 09. Reserve for Uncollectible Accounts



# MONTHLY BALANCE SHEET

## ❖ ASSETS:

- 103. MATERIALS AND SUPPLIES INVENTORY
- 104. OTHER CURRENT ASSETS
- 105. WORK IN PROCESS
  - 01. Unbilled Work for Others
  - 02. Capital Projects
- 111. TANGIBLE TRANSIT OPERATING PROPERTY
  - 01. Property Cost
  - 02. Leased-Out Property Cost
  - 03. Accumulated Depreciation
- 112. TANGIBLE PROPERTY OTHER THAN FOR TRANSIT OPERATIONS
  - 01. Property Cost
  - 02. Accumulated Depreciation



# MONTHLY BALANCE SHEET

## ❖ ASSETS:

### ○ 121. INTANGIBLE ASSETS

- 01. Organization Costs
- 02. Franchises
- 03. Patents
- 04. Goodwill
- 05. Other Intangible Assets
- 06. Accumulated Amortization

### ○ 131. INVESTMENTS

- 01. Investments and Advances, Associated Companies
- 02. Other Investments and Advances
- 03. Reserve for Revaluation of Investments



# MONTHLY BALANCE SHEET

## ❖ ASSETS:

- 141. SPECIAL FUNDS
  - 01. Sinking Funds
  - 02. Capital Asset Funds
  - 03. Insurance Reserve Funds
  - 04. Pension Funds
  - 05. Other Special Funds
- 151. OTHER ASSETS
  - 01. Prepayments
  - 02. Miscellaneous Other Assets



# MONTHLY BALANCE SHEET

## ❖ LIABILITIES:

- 201. TRADE PAYABLES
  - 01. Payables to Associated Companies
- 202. ACCRUED PAYROLL LIABILITIES
- 203. ACCRUED TAX LIABILITIES
- 204. SHORT-TERM DEBT
  - 01. Notes Payable
  - 02. Matured Equipment and Long-Term Obligations
  - 03. Unmatured Equipment and Long-Term Obligations, Current Portion
  - 04. Matured Interest Payable
  - 05. Accrued Interest Payable
  - 06. Current Pension Liabilities



# MONTHLY BALANCE SHEET

## ❖ LIABILITIES:

- 205. OTHER CURRENT LIABILITIES
  - 01. Unredeemed Fares
  - 02. CODs Unremitted
  - 03. Dividends Declared and Payable
  - 04. Short-Term Construction Liabilities
  - 05. Miscellaneous Other Current Liabilities
- 211. ADVANCES PAYABLE
  - 01. Advances Payable to Associated Companies
  - 02. Other Advances Payable



# MONTHLY BALANCE SHEET

## ❖ LIABILITIES:

### ○ 221. LONG-TERM DEBT

- 01. Equipment Obligations
- 02. Bonds
- 03. Receivers' and Trustees' Securities
- 04. Long-Term Construction Liabilities
- 05. Other Long-Term Obligations
- 06. Unamortized Debt Discount and Expense
- 07. Unamortized Premium on Debt
- 08. Reacquired and Nominally Issued Long-Term Obligations



# MONTHLY BALANCE SHEET

## ❖ LIABILITIES:

### ○ 231. ESTIMATED LIABILITIES

01. Long-Term Pension Liabilities

02. Uninsured Public Liability and Property  
Damage Losses

03. Other Estimated Liabilities

### ○ 241. DEFERRED CREDITS



## MONTHLY PRODUCTIVITY AND SERVICE QUALITY REPORT



- ❖ There are many important indicators that a transit system can use to monitor itself. Examples are:
  - Cost/one-way passenger-trip
  - Cost/vehicle-mile and cost/vehicle-hour
  - One-way passenger-trips/vehicle-mi and /vehicle-hr
  - % late trips
  - % no-shows, % cancellations
  - Number of trips denied, number of complaints
  - Number of road calls, Number of accidents

## MONTHLY PRODUCTIVITY AND SERVICE QUALITY REPORT



- ❖ It is important to review productivity and service quality on a monthly basis:
  - excellent warning signs of problems that can be addressed sooner rather than later
  - excellent hints that something is going well and maybe should be further enhanced or copied elsewhere in the system



## ANNUAL PEER REPORT

- ❖ Benchmarking
- ❖ Peer comparison
- ❖ Trend analysis
- ❖ Contact your peers in other states
- ❖ What is a peer (approximate):
  - Service if of similar size and population
  - Same type and amount of service and fleet
  - Same budget



# **COST MODELING AND SERVICE EVALUATION**



## WHY FULLY ALLOCATED COSTS ARE NEEDED

- ❖ The sum of the costs of all your services must equal the system budget.
- ❖ If it does not, then not all your costs have been included in the cost model.
- ❖ You do not have a complete and accurate picture of your costs. Your decisions may be flawed.



## WHY FULLY ALLOCATED COSTS ARE NEEDED

- ❖ Our Goal - To Answer the Questions:
  - How Much Does the Transportation Service Cost?
  - How are We Going to Pay For It?
- ❖ In Order to Achieve These Goals, Agency and Program Managers Must Use Cost Analysis as a Key Element of Financial Planning



## WHY FULLY ALLOCATED COSTS ARE NEEDED

- ❖ A fully allocated cost model is needed to:
  - Compare the costs of individual routes and services (even by time of day and day of week), so their cost-effectiveness can be evaluated, and changes made
  - Compare the costs of potential alternative services
  - Calculate the costs or savings of potential increases or decreases in service (frequency, capacity, hours and days of service)



## WHY FULLY ALLOCATED COSTS ARE NEEDED

- ❖ A fully allocated cost model is needed to (cont'd):
  - Calculate the costs or the savings of proposed reorganizing or rationalizing of services
  - Calculate the cost of potential new services (may be hard to determine costs if never have done the new service before)





## WHY FULLY ALLOCATED COSTS ARE NEEDED

- ❖ A fully allocated cost model is needed to (cont'd):
  - Calculate the cost of a potential new or revised contract service
  - Help set the fare structure
  - Cost out a proposed contract with a local social service agency
  - Cost out a coordinated transportation effort



## WHY FULLY ALLOCATED COSTS ARE NEEDED

- ❖ A fully allocated cost model is needed to (cont'd):
  - Make operational changes
  - Increases or Decreases in Services, Revenues, and Staff
  - Change Procedures or Other Activities (Such As Marketing or Public Relations)
  - Report to the Funding Sources or Purchasing Agencies How Money was Spent and What Revenues were Realized



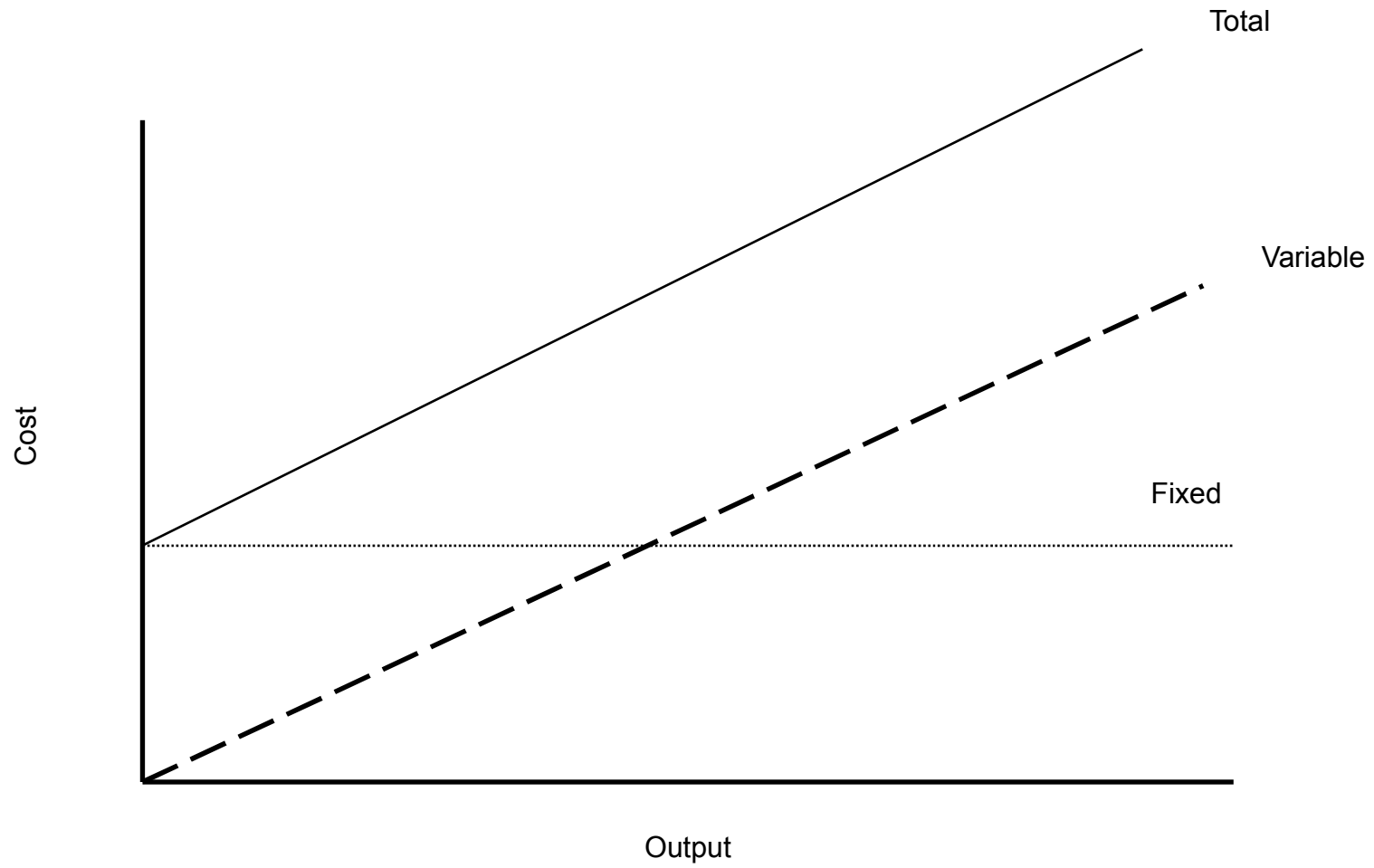
## TOTAL COSTS

- ❖ Total Costs = Fixed Costs + Variable Costs
- ❖ Total Costs = Direct Costs + Indirect Costs
- ❖ Total Costs = Operating Costs + Capital Costs



# Fixed And Variable Costs

Module 3





## Fixed And Variable Costs

- ❖ Total Costs = Fixed Costs + Variable Costs
- ❖ Fixed Costs Do Not Vary with the Amount of Service Provided (*e.g.*, Administrative Salaries)
- ❖ Variable Costs Change Relative to the Amount of Service Provided (*e.g.*, Drivers' Wages)



## Fixed And Variable Costs

- ❖ The average cost of service increases as service decreases.
- ❖ The average cost of service decreases as service increases.
- ❖ This is because of the fixed costs.



## Direct and Indirect Costs

- ❖ Total Costs = Direct Costs + Indirect Costs
- ❖ Direct Costs are strictly related to the public transit service.
- ❖ Indirect Costs occur in an agency that has several functions (transportation, case management, food stamps, etc.) and where it is necessary to break out those costs that are related to transit



# Direct and Indirect Costs

- ❖ Indirect Costs usually require overhead costs (such as Executive Director time, phone system, etc.) to be split between transit and the other functions of the agency.
- ❖ Documentation and reasonable assumptions are required.
- ❖ For example if (after reviewing a time log for a week) it is found that the Executive Director devotes 10% of her time to transit, then 10% of her wages, fringes and office costs would be assigned to transit.





## Direct and Indirect Costs

### ❖ Direct Costs

- 501.01 – Operator's Salaries & Wages
- 501.03 – Dispatcher's Salaries & Wages
- 503.05 – Contract Vehicle Maintenance
- 504.01 – Fuel & Lubricants Consumed
- 504.02 – Tires and Tubes Consumed
- 508.00 – Purchased Transportation



## Direct and Indirect Costs

### ❖ Indirect Costs

- Certain Central Service Costs
- General Administration of the Organization
- Accounting and Personnel Services Performed Within the Organization that Delivers Public Transit Services
- Costs of Operating and Maintaining Facilities



## Direct and Indirect Costs

- ❖ Indirect Cost Rates and Cost Allocation Plans Have Specific Documentation Requirements:
  - Organization Chart
  - Comprehensive Annual Financial Report
  - Certification
  - Use of a standard chart of accounts



# Capital and Operating Costs

- ❖ Total Costs = Operating Costs + Capital Costs
- ❖ Operating Costs are Consumed in Less Than One Year (*e.g.*, Wages, Fuel) and Generally Have a Unit Acquisition Cost Lower Than a Threshold Set by the State Department of Transportation
- ❖ Capital Costs are Expenses for Long-Term Assets (*e.g.*, Vehicles, Garages)
- ❖ Definitions May be Set by the Grantor Agency

## SOME BASIC FULLY ALLOCATED COST MODELS



- ❖ Sometimes, keeping things simple is the best approach.
- ❖ Unfortunately, that is not the case with fully allocated cost models.
- ❖ Simple cost models have inherent weaknesses.
- ❖ But, by making them a little more complex, the weaknesses are addressed, and you end up with a very powerful management tool.

## SOME BASIC FULLY ALLOCATED COST MODELS



- ❖ Here are a few simple example models that might appear correct (but are found not to be so):
  - Average cost per mile
  - Average cost per hour
  - Average cost per passenger
- ❖ To calculate the cost of a route, take its miles or hours or passengers and multiply by the average unit costs



## SOME BASIC FULLY ALLOCATED COST MODELS

- ❖ What is wrong with the models?
  - They give different costs for the same route.
- ❖ Let's take an example and see what happens.
  - You have a system that has annual costs of \$1,000,000, vehicle miles of 500,000, vehicle-hours of 25,000 and ridership of 100,000.
  - The system has four routes:
    - ❑ Route A: 100,000 miles, 4,000 hours, 30,000 riders.
    - ❑ Route B: 75,000 miles, 4,500 hours, 35,000 riders.
    - ❑ Route C: 200,000 miles, 8,000 hours, 20,000 riders.
    - ❑ Route D: 125,000 miles, 8,500 hours, 15,000 riders.

## SOME BASIC FULLY ALLOCATED COST MODELS



- ❖ You want to see what each route costs.
- ❖ Let's start off with Route A.



## SOME BASIC FULLY ALLOCATED COST MODELS



- ❖ First calculate the average system costs; we will use these for all 4 routes:
  - Divide total system annual cost (\$1,000,000) by total system miles (500,000) to get average cost per mile of \$2.
  - Divide total system annual cost (\$1,000,000) by total system annual hours (25,000) to get average cost per hour of \$40.
  - Divide total system annual cost (\$1,000,000) by total system annual ridership (100,000) to get average cost per trip of \$10.



## SOME BASIC FULLY ALLOCATED COST MODELS

- ❖ Calculate the cost of Route A, using each of the different models:
  - 100,000 miles x \$2/mile = \$200,000
  - 4,000 hours X \$40/hour = \$160,000
  - 30,000 riders x \$10/rider = \$300,000
- ❖ What? How can we get three very different answers for the same route? Which model is correct? Any, all, none?

## SOME BASIC FULLY ALLOCATED COST MODELS



- ❖ What if we wanted to rank our routes based on costs.
- ❖ The rankings would be different depending on which cost model was used.
- ❖ What good is a simple management tool that does give us reasonable answers?

## SOME BASIC FULLY ALLOCATED COST MODELS



- ❖ One might say “let’s just use one model consistently, and not use the others”.
- ❖ This just begs the question, because sooner than later, someone will pose the other models and bring the problem to light, much to your professional embarrassment.
- ❖ But, maybe this was just a fluke. Let’s try another example.

## SOME BASIC FULLY ALLOCATED COST MODELS



- ❖ Let's cost out route B.
- ❖ Route B is slower than Route A, with 16.7 mph ( $75,000/4,500 = 16.7$ ) vs. 25 mph ( $100,000/4,000 = 25$ ) but carries more riders (35,000 vs. 30,000).
- ❖ Maybe Route B travels in a more populated and more congested area than Route A.
- ❖ What does Route B cost?



## SOME BASIC FULLY ALLOCATED COST MODELS

- ❖ Calculate the cost of Route B using the same average system costs for each of the 3 different models:
  - 75,000 miles x \$2/mile = \$150,000
  - 4,500 hours X \$40/hour = \$180,000
  - 35,000 riders x \$10/rider = \$350,000
- ❖ Again, a wide discrepancy among the simple models.



## SOME BASIC FULLY ALLOCATED COST MODELS

❖ We find the following costs for Route C:

- Using cost/mi of \$2: \$400,000
- Using cost/hour of \$40: \$320,000
- Using cost/rider of \$10: \$200,000

❖ We find the following costs for Route D:

- Using cost/mi of \$2: \$250,000
- Using cost/hour of \$40: \$340,000
- Using cost/rider of \$10: \$150,000

## SOME BASIC FULLY ALLOCATED COST MODELS



- ❖ We could try example after example and still find the same problems.
- ❖ Obviously, there is something wrong with the simple models.



## SOME BASIC FULLY ALLOCATED COST MODELS



- ❖ The one good thing is that the sum of the costs of all 4 routes equals \$1,000,000, no matter what simple model we use.
- ❖ For example, using cost/mile: A (\$200,000) + B (\$150,000) + C (\$400,000) + D (\$250,000) = \$1,000,000.

## SOME BASIC FULLY ALLOCATED COST MODELS



- ❖ Our error has been in not realizing that some of the system costs are variable costs that are attributable to miles operated, some are variable costs that are attributable to hours operated, and some are fixed costs.
- ❖ It is that extra level of detail and disaggregation that will provide us with a useful fully allocated cost model.



## CORRECT FULLY ALLOCATED COST MODEL

- ❖ Remember the earlier discussion about fixed and variable costs: Total costs = variable + fixed?
- ❖ We can break this down further and show this as: Total costs = variable mileage related costs + variable hourly related costs.



## CORRECT FULLY ALLOCATED COST MODEL

- ❖ Some costs attributable to miles operated are: fuel, fleet maintenance, etc.
- ❖ Some costs attributable to hours operated are: wages and fringes, etc.
- ❖ Some fixed costs are: utilities, legal, administrative, etc.



## CORRECT FULLY ALLOCATED COST MODEL

- ❖ There are No Hard and Fast Rules on how to assign costs to mileage, hourly or fixed, but:
  - Project Administration Costs are Almost Always Fixed
  - Understand the Basis of Each Cost Item and Assign Accordingly
  - Be Logical
  - BE CONSISTENT



## CORRECT FULLY ALLOCATED COST MODEL

- ❖ Look at the Excel spreadsheet and see how cost line items are assigned to variable mileage, variable hours, fixed.
- ❖ We see 5 main columns:
  - The cost account line item
  - The mileage related variable cost column
  - The hourly related variable cost column
  - The fixed costs
  - The total for the line item



## CORRECT FULLY ALLOCATED COST MODEL

- ❖ If we sum up across any cost line item, we see that all the costs for that line item are fully allocated, and the total of the columns is the total of the line item.
- ❖ If we sum up all the way down any of the 3 columns (mileage, hourly, fixed) we will get a subtotal for that column.
- ❖ Adding all three subtotals gives the system cost, as it should.



## CORRECT FULLY ALLOCATED COST MODEL

- ❖ All the system costs have a place in the budget matrix.
- ❖ So, now we have three column totals:
  - Mileage related variable costs for the system
  - Hourly related variable costs for the system
  - Fixed costs for the system
- ❖ They all sum up to the total system cost.



## CORRECT FULLY ALLOCATED COST MODEL



- ❖ We now have all that we need to calculate the fully allocated cost model.
- ❖ Remember when we calculated cost/mile and cost/hour for the system averages, in the simple models?



## CORRECT FULLY ALLOCATED COST MODEL

- ❖ We now use the same math, and calculate an average cost/mile by taking the mileage related costs and dividing by the number of system miles.
- ❖ We also now use the same math, and calculate an average cost/hour by taking the hourly related costs and dividing by the number of system hours.

## CORRECT FULLY ALLOCATED COST MODEL



- ❖ These two new unit costs will each be less than those calculated in the simple model, since we are dividing by the mileage costs and the hourly costs, each of which is lower than the system costs (which includes mileage, hourly and fixed).



## CORRECT FULLY ALLOCATED COST MODEL

- ❖ Let's use the numbers for the 4-route system that we considered earlier.
- ❖ Say, for example, that the \$1,000,000 system cost is broken down as follows:
  - \$200,000 mileage related
  - \$700,000 hours related
  - \$100,000 fixed costs

## CORRECT FULLY ALLOCATED COST MODEL



- ❖ To get our new mileage related variable unit cost, divide the mileage total (\$200,000) by total system miles (500,000) to get average cost per mile of \$0.40.
- ❖ To get our new hour related variable unit cost, divide the hour cost (\$700,000) by total system hours (25,000) to get average cost per hour of \$28.



## CORRECT FULLY ALLOCATED COST MODEL

- ❖ The rest of the system costs is fixed (\$100,000).
- ❖ What do we do with the fixed costs in our refined model?
- ❖ For Most Demand Response Systems in Rural Areas, Fixed Expenses are Expressed as a Percentage or Ratio of Allocated Variable Expenses (Miles Cost + Hours Cost)

## CORRECT FULLY ALLOCATED COST MODEL



❖ That is:

○  $\text{Total fixed costs} / \text{total variable costs} = \text{Total fixed costs} / (\text{mileage costs} + \text{hours costs})$

❖ In our example, this would be:

○  $\$1,000,000 / (\$200,000 + \$700,000) = 1.11$

❖ This is called the fixed cost proportional factor

## CORRECT FULLY ALLOCATED COST MODEL



- ❖ Then the final model is:
  - (Mileage unit cost x miles + hours unit costs x hours) x fixed cost proportional factor
  
- ❖ What????
  
- ❖ In our example, the model would be:
  - $(\$0.40 \times \text{miles} + \$28 \times \text{hours}) \times 1.11 = \text{cost}$
  
- ❖ That is not so bad, is it?





## CORRECT FULLY ALLOCATED COST MODEL

- ❖ Let's try the fully allocated cost model with Route A from above.
- ❖  $(\$0.40 \times \text{miles} + \$28 \times \text{hours}) \times 1.11$ 
  - $(\$0.40 \times 100,000 + \$28 \times 4,000) \times 1.11 =$
  - $(\$40,000 + \$112,000) \times 1.11 = \$168,720$
- ❖ This is between the 3 cost estimates that we calculated using the 3 simple models: \$200,000 and \$160,000 and \$300,000



## CORRECT FULLY ALLOCATED COST MODEL

- ❖ If we were to do this with the other routes, we would find that the new model always falls within the ranges of the simple models.
- ❖ Many years of using these models in many transit systems has proven their reasonableness and usability.
- ❖ They are not perfect, but they are much, much better than the simple models.



## COMPLEXITIES

- ❖ Here are a few complexities that we need to consider even with this model:
  - Ridesharing
  - Wait Time
  - Out-of-County Trips
  - Mixed Fleet (*e.g.*, Different Sized Vehicles)
  - Brokerage: Trips Assigned to Other Providers
  - Contracted Services
  - Subsidies



## COMPLEXITIES

### ❖ Ridesharing:

- Occurs When the Clients of Two or More Agencies that Contract for Service Ride the Same Vehicle
- Some Rate Structures Will Require Sub-Allocation of Costs
  - ❑ Per Hour and Per Mile Pricing Methods



## COMPLEXITIES

### ❖ Suggested Approaches

- Pro-Rate Trip Costs Based on:
  - ❑ Percent of Agency "A" Passengers as Percent of All Passengers (Percent x Overall Route Cost)
  - ❑ Calculate Trip Cost Based on Total Number of Passengers ((Overall Trip Cost ÷ No. of Passengers) x Passengers Agency "A")
- Problems
  - ❑ Assumes Uniform Trip Characteristics
  - ❑ Gives Appearance of Uniform Rate



## COMPLEXITIES

### ❖ Wait time:

- Labor Costs Associated with Wait Time is a Problem
- Suggested Approach
  - Adopt Time-Based Pricing
    - Cost Per Hour
    - Added Wait Time Charges on Top of Existing Pricing Strategy (*e.g.*, \$10.00 per Hour)



## COMPLEXITIES

- ❖ Out of area service trips:
  - Use The Cost Allocation Model as the Pricing Structure



## COMPLEXITIES

### ❖ Mixed fleets:

- Different Operating Cost Structure of Large Buses over Minivans/Standard Vans
- Options:
  - Adopt Tiered Pricing Structure
  - Use Uniform Structure





## COMPLEXITIES

- ❖ Brokered trips:
  - Adopt Uniform Rate Structure Despite Differential Costs/Charges Among Multiple Providers



## COMPLEXITIES

- ❖ Contracted services:
  - Fully Allocated Cost Pricing Means System Administration Costs Plus Contractor's Rate are Incorporated Into the Pricing Structure



## COMPLEXITIES

### ❖ Subsidies:

- Deduct Subsidy Amount Prior To Calculating Average Unit Rates in Your Cost Allocation Model
- Run Cost Model With and Without Subsidy so Users Understand True Cost of Service



Module 3

# ASSET MANAGEMENT



# Fuel Management

## ❖ Fuel Management

- Cannot change the basic cost of fuel.
- But, can reduce fuel costs somewhat.

## ❖ Reducing The Cost Of Fuel:

- Location of the fueling depot(s); one central location or several within a reasonable corridor to reduce deadhead costs.
- Own the fuel depot, use public agency depots, or use private filling stations.



# Fuel Management

- ❖ Reducing The Cost Of Fuel (cont'd):
  - Use care in scheduling and dispatching vehicles to reduce vehicle miles, and deadhead to/from fueling; specify when and where to fuel.
  - Bulk purchase of fuel.
  - Fuel futures to contain cost.
  - Reimbursement of fuel tax.



## Fuel Management

- ❖ Reducing The Cost Of Fuel (cont'd):
  - Change the type of vehicles used for maximum fuel efficiency and capital costs.
  - Change the type of vehicles used to be able to use different fuels.
  - Improve vehicle maintenance and tuning.
  - Smoother driving.



# Fuel Management

- ❖ Reducing The Cost Of Fuel (cont'd):
  - Monitor and control access to the fuel supply and purchases, whether they be on-site or at gas stations.
  - Fuel is valuable.
  - Fuel can easily “disappear” (steal and conceal).
  - Fuel can be disposed of quickly, used by the thief, or sold/given to friends and family, and sold on the black market.





# Fuel Management

- ❖ Reducing The Cost Of Fuel (cont'd):
  - The fuel usage records for vehicles and drivers need to be monitored closely.
  - Use surveillance cameras at fuel depots and in vehicle storage areas.
  - Gas credit cards or fueling keys can also be a problem.



## Inventory Management

- ❖ Inventory Management
- ❖ Office equipment and supplies
- ❖ Maintenance equipment , inventories and supplies



# Fleet Management

- ❖ The fleet and maintenance facility are the biggest asset of the transit system
- ❖ The system should develop a fleet maintenance plan that provides for a long vehicle life, a safe fleet, and the lowest overall cost over the life of the vehicles
- ❖ Maintenance should focus on preventative, accident and unexpected maintenance needs

## Facility And Land Management



- ❖ The facilities should have a plan for maintenance and upkeep.



# RISK MANAGEMENT



## Risk Management

- ❖ Transit systems face risk from safety issues and from security issues.
- ❖ Risk management plan describes how to:
  - Identify safety and security risks
  - Prevent risks
  - Respond to safety and security incidents
  - Recover from incidents



# Risk Management

- ❖ Risk management plan describes (cont'd):
  - Training
  - Coordination with community response
  - Coordination with first responders and community emergency management agencies
  - Dealing with special needs and needs of those who do not speak the local language
  - Insurance
  - Federal, state, and other government requirements
  - Policies and procedures



## Risk Management

- Establishing new contact information and command/control arrangements for emergency management agencies and first responders
- Establishing clear internal responsibilities and roles





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# COMPLIANCE



## Financial Integrity

- ❖ Financial audits
- ❖ Ethics, honesty and accuracy
- ❖ Internal controls
- ❖ Financial policies and procedures
- ❖ Formal methods
- ❖ Accountability: At least 2 sets of eyes/sets of hands



## Policies and Procedures

- ❖ Each system should develop and adopt policies and procedures that are appropriate for the system and that meet accepted standards.