

[Operating Expenses and Allocation](#)

(Written by Dafang Wu on February 7, 2016; [PDF version](#))

This article discusses the first steps of airline rates and charges: recording operating expenses, identifying cost centers, and allocating operating expenses.

Airport finance can be simplified into two key questions: how much do we earn? And how much do we spend? Since airline revenues are typically based on recovery of a portion of operating expenses, recording operating expenses and allocating operating expenses become the first steps in calculating airline rates and charges. Recording operating expenses follows a set of predefined rules and does not involve judgments, while allocating operating expenses involves some management discretions.

Recording and Forecasting Operating Expenses

As discussed in [this article](#), operating expenses are defined differently under the three dimensions of airport finance, but rely on Generally Accepted Accounting Principles (GAAP) to record operating expenses. That is because the GAAP expenses are audited by an external auditor, and therefore are more reliable than other methods.

Airports establish a chart of accounts to record revenues and expenses in multiple dimensions:

1. Funds (operating vs. capital vs. revenues)
2. Departments (as specified in the organization chart)
3. Line items (such as 010 for salaries or wages)
 - a. Accounts and sub-accounts (such as 01001 for regular salaries of full-time employees)
4. Cost centers in some systems (such as MainTerm for the main terminal)

By Line Item

When reporting operating expenses in the annual audited financial statements, an airport may report by department or by line item. Since the annual report almost never includes a description of departments, operating expenses by department provides limited information to the readers.

Reporting operating expenses by line item in the annual report is more popular. For example, the largest U.S. airport, Atlanta International Airport, reported as follows, which allows us to conduct some analyses on the right side:

	2014	2013	% in 2014	% Change
Operating Expenses (000s)				
Salaries and employee benefits	\$ 91,691	\$ 82,050	35.3%	11.8%
Repairs, maint. and other	112,676	101,742	43.4%	10.7%
General services	16,898	20,504	6.5%	-17.6%
Utilities	8,990	8,768	3.5%	2.5%
Materials and supplies	4,720	4,353	1.8%	8.4%
Other	<u>24,742</u>	<u>12,146</u>	<u>9.5%</u>	<u>103.7%</u>
Operating Expenses Without Depreciation	\$259,717	\$229,563	100.0%	13.1%

Operating expenses are typically forecast based on line items because they are the building blocks driven by cost drivers. For example, when an airport opens a new runway, it will try to define incremental expenses such as additional employees, contractual services, utilities, and material and supplies. Those expenses are aggregated and added to each department.

Airport management maintains strong control over short-term operating expenses because they can implement procedures such as temporary hiring freezes, salary freezes, expense reduction measures, or organizational changes to reduce operating expenses. Therefore, management input is a key input to the forecasting of operating expenses. Historical expense growth rates can be used as a reference, but must be considered in the context of management intention.

With the annual inflation rate running at 2 percent annually, operating expenses are typically forecast to increase between 2 percent and 5 percent annually.

Salaries and Benefits

Salaries are the product of the number of employees and their compensations. Unless the airport is expanding facilities, the number of employees tends to stay flat. Therefore, the compensation level affects the amount of salaries and benefits, and can be influenced by:

1. Cost of living adjustments (COLAs) as negotiated by unions, which are typically slightly above the inflation level.
2. Step increase. Many job categories include multiple steps, and a new employee can receive a step increase after a certain interval, such as one step every two years. The step increase is typically 4 percent or 5 percent.
3. Merit-based increase.
4. Other adjustments, such as promotion or longevity pay.

Therefore, the salaries and benefits growth rate may exceed the overall expenses growth rate. Police and fire expenses, regardless of whether classified in salaries and benefits or contractual services, tend to increase faster than average growth rates.

In recent years, salaries and benefits are also influenced by the adoption of new accounting standards, such as GASB 45 and GASB 68.

Contractual Services

All airports rely on contractual services to a certain degree, which could include operating functions (such as parking), maintenance functions (such as electrical), or planning functions (such as a master plan). An increase in this category is typically driven by market conditions and forecast to at least match the inflation rate.

Utilities

Many airports enter into long-term supply agreements with local utility companies to lock in the utility rates. During the term of the agreements, utility growth rates are pre-defined. When such agreements are renewed, airports will re-negotiate utility rates, which to a large degree depend on the price fluctuation of raw materials. In places such as Hawaii that rely

heavily on oil-generated electricity, utility rates can swing significantly over the years. Recently, many airports have implemented energy-saving projects such as switching to LED lighting, generating solar power, and upgrading to more energy-efficient equipment. All those factors contribute to the changes in utility expenses.

Other Expenses

Other expenses include material and supplies, insurance, and miscellaneous expenses. Those expenses are generally forecast to increase at 3 percent to 5 percent annually.

By Department

Although forecasting operating expenses by department may not be the optimal approach, it is highly recommended to prepare a budget or to manage budgeted expenses by department, which will clearly spell out the responsibility for controlling operating expenses. [This link](#) provides a list of annual budgets for U.S. large-hub airports.

The management structure varies from airport to airport, and may include:

1. Chief Executive Officer
2. Chief Operating Officer
 - a. Operations (airfield, terminal, landside, police, fire, security, etc.)
 - b. Maintenance
 - c. Planning and Construction
3. Chief Administrative Officer
 - a. Accounting and Finance
 - b. Human Resources
 - c. Information Technology
 - d. Marketing, Communication, Government Affairs
 - e. Property Management

Identifying Cost Centers

A cost center is a pool of costs established in the accounting system for rate setting or performance evaluation purposes. It can be a geographic area within an airport (such as terminal), a department (such as maintenance), a type of expense (such as utilities), or a virtual concept (such as support). Cost centers can be divided into:

1. Direct cost centers, or final cost centers, where all expenses will be aggregated to the direct cost centers.
2. Indirect cost centers, which is an interim step in the cost allocation. Expenses in indirect cost centers will be further allocated to direct cost centers. Many airports have a simplified cost allocation procedure and do not have indirect cost centers.

Direct Cost Centers

Direct cost centers are typically defined in airline use agreements for rate-setting purposes. A majority of airports have at least three cost centers:

- Airfield or airside, which includes the runway and taxiway system, landing area, and support facilities such as aircraft firefighting and rescue
- Terminal, which includes all areas within the terminal and sometimes includes the curbside
- Landside or other, which includes all other areas and facilities, such as parking, rental car, ground transportation, roadways, general aviation, and cargo operations

Many airports set up additional cost centers for detailed rate setting, which may include:

- Apron or ramp, which is either part of airfield, part of terminal, or a separate cost center
- Terminal sub-centers, which may include:
 - Security fee to recover passenger and/or baggage-screening-related space and expenses
 - Common-use equipment
 - Baggage makeup
 - International arriving facility
 - Loading bridges
- Other landside cost centers

Indirect Cost Centers

Indirect cost centers are established to facilitate further allocation to the direct cost centers.

For example, an airport may set up a roadway cost center to capture operating expenses related to the roadway system, such as expenses from landscaping, cleaning, maintenance and repair, materials, and supplies. The roadway cost center expenses are then further allocated to airfield, terminal, and other direct cost centers.

Allocating Operating Expenses

Allocating operating expenses involve judgments and estimates because it is impossible to identify the cost centers benefiting from every single payment. For example, when an airport hires a Chief Executive Officer or purchases property insurance, the airport benefits as a whole. In order to allocate operating expenses, an airport classifies departments into two categories:

1. Direct departments, in which activities support one or more cost direct cost centers, such as police providing security for airfield, terminal, parking, and ground support. Direct departments typically include all departments managed by the Chief Operating Officer.

2. Indirect departments, in which activities support one or more direct departments, such as human resources providing services to all direct departments. Indirect departments typically include all departments managed by the Chief Administrative Officer

The airport can then allocate the expenses of each department according to one of the well-established procedures below:

Single-Step Allocation

In this allocation procedure, airport management allocates the expenses of each department to direct cost centers, based on either:

1. Cost drivers, such as allocating police expenses based on the number of police deployed at each geographic area, or
2. Management estimates, or
3. Negotiated results with the airlines, or
4. Recorded amounts in the accounting system. Some airports establish cost centers in the accounting system. Whenever possible, airport employees try to record a portion of expenses directly to each cost center. This practice provides some basis for cost allocation, although the result depends on how accurate each employee records their time and expenditures.

A two-step or multi-step allocation may provide better expense allocation that reflects the cost benefit relationship. However, single-step allocation is still used at some airports, especially when the airport and the airlines agree to use of the procedure.

Two-Step Allocation

Under this approach, an airport will allocate expenses of direct departments according to one of the methods discussed above, and allocate expenses of indirect departments according to the allocation results of the direct departments. For example, if 30 percent of total direct departmental expenses are allocated to the airfield cost center, 30 percent of total indirect departmental expenses will be allocated to the airfield too.

The two-step allocation procedure is the dominant form of expense allocation for U.S. airports. Although most airports won't provide cost allocation details to the public, some examples are available, such as:

1. Miami-Dade Aviation Department presents its cost allocation procedure in Appendix A of the [annual rates and charges book](#). It follows a two-step allocation procedure, with minor tweaks.

2. Albany County Airport Authority presents all rates and charges details in its [annual budget](#). Page 10-8 provides an overview of the cost allocation process, which is a four-step allocation modified from a two-step allocation procedure.

Implications

An airport generally allocates 70 percent of total operating expenses to airline cost centers; obviously, this ratio can vary significantly across airports. The airport then calculates rates and charges to recover a portion of allocable costs from the airlines, including operating expenses, debt service, and other fund requirements.

- For an airport with a residual ratemaking methodology, the cost allocation procedure determines how costs are split among airlines, but does not affect the total amount recovered from the airlines. At those airports:
 - Airline revenues = total cost – nonairline revenues + discretionary cash
- For an airport with a compensatory ratemaking methodology, we can visualize the airport as three components:
 - Airfield, where 100 percent of costs are recovered
 - Terminal, where a portion of costs are recovered, equaling airline rented space as a percentage of total rentable space
 - Landside, where no airline rates and charges are collected

Therefore, the financial success of a compensatory airport depends on whether the airport can generate enough landside profit and terminal concession revenues to cover the deficit in the terminal cost center. If the airport can reasonably allocate more operating expenses to the airline cost centers, it will be in a better financial position, relying less on nonairline revenues that are mostly traffic-driven.