

EXECUTIVE SUMMARY

The utilization of a “chargeback” or “cost allocation” process has become more popular in the last ten years as companies attempt to align business support unit expenses with revenue generation business units. Usually an allocation associated with the incremental expense¹ incurred by operating the aircraft is the most common method we observe. A best practice does not exist on the amount or methodology of determining the incremental expense.

We recommend Company A develop a system that is culturally consistent with Senior Leadership’s strategic purpose for the use of aircraft as well as with the expense treatment of other support units.

COST ALLOCATION METHODS

Should a cost allocation system be used?

A cost recovery system is an effective way of quickly providing information that allows the user to determine if the use of the aircraft provides value. In organizations where little expense transparency exists for the user, we often observe excessive or inappropriate aircraft use that deviates significantly from the intended strategic value provided by the aircraft. When users are provided the financial impact of using the aircraft they are able to determine quickly if using the aircraft adds value. Expense transparency only is effective if two critical elements exist in the corporate culture:

- The user has the authority to request the use of the aircraft when the allocated charge is greater than travel by less expensive methods.
- Trip approval is not based solely on a calculation of the allocated expense versus other method of travel.

Approval for the use of the aircraft is often reserved for the C-Suite executives or line of business leaders. Providing a cost allocation expense that is related to the incremental expense of the aircraft allows the approving executive additional information before providing trip approval.

¹ The calculation of the incremental expense varies widely. Additionally, the percentage of the incremental expense that is allocated varies between companies. Some may only charge a small fraction of the incremental expense, while others fully load the allocation with 100% of the incremental expense. While rare, occasionally we find companies that allocate both the incremental and fixed expenses of the aircraft to the user on an hourly basis.

We recommend the following process to determine if a cost allocation system should be implemented:

- Determine if a cost allocation is consistent with the treatment of business support unit² expenses within the company.
- Determine the methodology of the cost allocation calculation. Will the cost allocation be reflective of the actual expense incurred to operate the aircraft or will be an arbitrary number that is used as a hurdle³ to quantify the value of the aircraft use.
- Will the allocation amount be used help determine if the trip will be approved? If so, the approval process must include a quoting and capturing of the expense early in the trip planning process.

Implementing a cost allocation system has the potential to significantly decrease the use of the aircraft. In companies with egalitarian cultures the cost allocation system may degrade into a strict financial analysis that may ignore the intangible values of aircraft use. Two trips that have the same cost allocation may have very different strategic values to the company, yet both could be judged as providing equivalent value. In egalitarian cultures the individual is often culturally prevented from championing the value of their individual trip request.

In companies with hierarchical cultures where only a few senior leaders use the aircraft and will use it regardless of the expense, cost allocations provide little value.

Different Methodologies of Cost Allocation

There are three major methods of calculating cost allocations⁴:

- Full Cost Allocation (FCA)
- Incremental Cost Allocation (ICA)
- Gateway Cost Allocation (GCA)

² Human Resources, accounting and finance functions, security, and facilities are typical support business units that allocate their expenses back to revenue generating lines of business.

³ In the same way that hurdle rates are used to determine the viability of financial investments.

⁴ We observe more than three methods of cost allocation, but each approach tends to be an individual variance of the three major methods.

Full Cost Allocation (FCA): An hourly expense is calculated by amortizing the total expense of the aircraft operation (all Direct and Indirect Expenses) over the total hours in fixed period of time. Typically the period of time is one year. Because a significant component of aircraft expense is capital costs and the asset generates a significant after tax cash flow component, it is critical to determine if a pre-tax or after-tax basis will be used for the calculation of total aircraft expense.

Using 2015 Company A historical data, we calculated the following hourly FCA charges per aircraft:

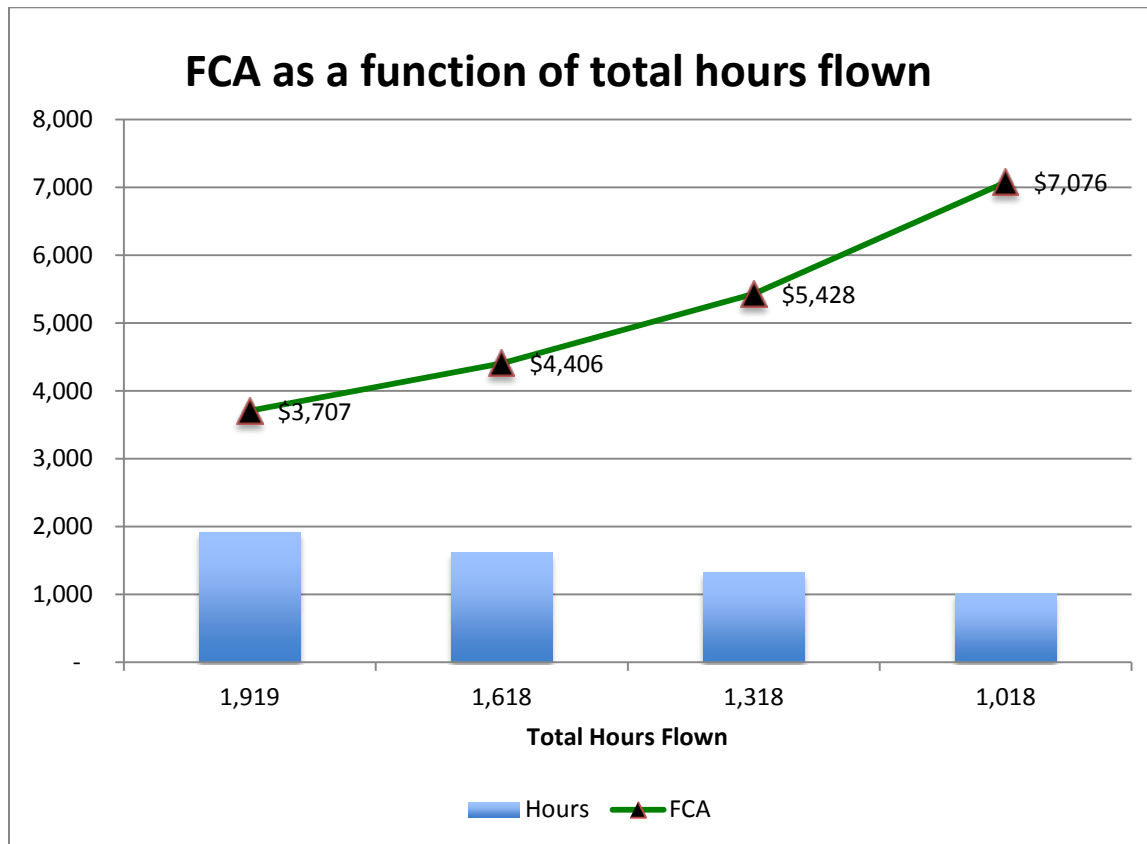
N123A	\$3,467
N123B	\$3,402
N123C	\$4,251

Full Allocation Method	2015 Historical Expense			Department
	N123A	N123B	N123C	
Incremental Expense	\$1,383,595	\$1,320,715	\$1,635,510	\$2,723,200
Fixed Expense				
Hours Flown	675.5	666.1	577.5	
% of Total Hours	35%	35%	30%	
Amortization of Department Expense	\$958,533	\$945,195	\$819,472	
Total Calculated Aircraft Expense	\$2,342,128	\$2,265,910	\$2,454,982	
Total Calculated Aircraft Expense Per Hour	\$3,467	\$3,402	\$4,251	

The FCA method has a couple of disadvantages that are clearly illustrated when applying this approach to Company A. First, there is a significant difference in the calculation of expense on an aircraft by aircraft basis even though they are identical types of aircraft. This is driven by significant maintenance events that only happen every few years. On any given year one aircraft may incur significant greater maintenance expense than another. We recommend using a multi-year average if the FCA approach is used. Second, this method generates a charge that is near the retail rate⁵ to charter the same type of aircraft.

⁵ January 2016 charter rates for a Hawker 800XP range from \$3,762 to \$4,300 per hour. These rates include Federal Excise Tax but do not reflect the expense of positioning the aircraft to Company A. Nor do these rates reflect discounts that can be obtained negotiating larger blocks of charter hours.

Implementing an FCA approach often decreases the use of the aircraft. Any reduction of flying significantly increases the hourly charge for the aircraft.



Using Company A's current expense structure we calculate that a 47% reduction in total hours flown results in a 91% increase in the hourly charge. The FCA method is viable as long as the current flying does not degrade more than 20%. If the total hours decrease more than 20% then the internal allocation for the aircraft will be significantly greater than the commercial market rate for the aircraft and the use of the aircraft may continue to decline, further increasing the allocated cost.

The FCA method does not account for the decision of senior leadership to provide an asset for Company A. This philosophy is similar to large capital investments in real estate. The expense of a major building is not allocated to the individual users as the building is considered a sunk cost required to facilitate business. When the aircraft are considered a sunk cost, FCA is not an appropriate methodology.

Incremental Cost Allocation (ICA): In most instances companies select a variation of ICA as the basis for allocations. The simplest of methods is to calculate the incremental expense incurred when operating the aircraft. Traditionally, these expenses include:

- Fuel
- Hourly Maintenance Charges⁶
- Operational Fees⁷
- Crew Expenses
- Deicing Expenses
- Miscellaneous Expenses

Company A currently calculates the ICA using this method:

	N123A	ICA	N123B	ICA	N123C	ICA
Block Time	676		666		578	
Flight Time	614		604		520	
Fuel Purchased (Gal.)	165,777	\$3.38	164,266	\$3.49	141,287	\$3.46
Fuel	\$559,759	\$911	\$573,315	\$949	\$488,424	\$940
Landing Fees	\$10,678	\$17	\$12,577	\$21	\$10,684	\$21
Parking Fees	\$12,319	\$20	\$20,058	\$33	\$13,876	\$27
Service	\$7,284	\$12	\$16,426	\$27	\$27,951	\$54
Catering	\$4,327	\$7	\$6,649	\$11	\$5,629	\$11
Pilot Fees	\$27,597	\$45	\$25,554	\$42	\$26,544	\$51
Crew Expense	\$86,143	\$140	\$33,952	\$56	\$75,806	\$146
Maintenance	\$273,936	\$446	\$251,389	\$416	\$677,778	\$1,305
MSP	\$401,536	\$654	\$380,637	\$630	\$308,569	\$594
Miscellaneous	\$15	\$0	\$158	\$0	\$250	\$0
TOTAL Expenses	\$1,383,595	\$2,252	\$1,320,715	\$2,185	\$1,635,510	\$3,148

Using this method of calculation there is an additional \$2,723,200 of aviation department fixed expenses that are unallocated. Typically, this unallocated expense is either absorbed by the larger corporate holding company as a sunk cost or it is allocated on a quarterly, semi-annually, or yearly basis to the business units who use the aircraft. This calendar allocation is either a flat charge or as a ratio of the business units historical use of the aircraft.

The ICA method may capture the same distortion of large maintenance events that we observed using the FCA method if certain maintenance charges are included in the ICA calculation. Company A's current ICA calculation includes this distortion.

⁶ There are many ways to amortize maintenance expenses. The most common methods are for large expenses like engine overhauls. There are manufacture provided and third party provided plans that will capture specific maintenance expenses or all of the maintenance expense.

⁷ Landing and Parking Fees, Catering Expenses, etc.

Using the ICA method provides the trip requestor an accurate reflection of the impact of the trip to the corporation and allows them to determine if the value is sufficient to justify the expense. A culture that allows aircraft use when it is more expensive than other methods of travel is critical when providing this level of transparency. If the culture is highly restrictive, aircraft use will decline and value may be sacrificed for short-term individual expense savings. It is important to remember that the implementation of any cost allocation system does not in itself reduce corporate expense, only shifts the expense from the larger corporate entity to the business units.

If Company A elects to use a variation of ICA we would recommend removing the maintenance expense from the calculation.

Gateway Cost Allocation (GCA): The gateway cost allocation system is similar to the use of hurdle rates when justifying significant capital projects. The aviation group in conjunction with finance and business leaders determine the overall value the aircraft provides and set a rate based on the following criteria:

- Desire for transparency of expense impact to user
- Short term strategic goals
- Specific business unit value

This method is very effective when you would like to provide an incentive for specific business units whose use of the aircraft provides incremental value.

For example:

Business Unit	Allocation Rate	Explanation
Human Resources	\$3,800	The use of the aircraft by this group tends to be tactical and individual trips do not generate revenue for Company A
Colonial Life	\$1,500	An incentive is provided to encourage activity in the business to support new market offerings
Senior Leadership	\$4,000	This group is not sensitive to the internal charge.
IT Support	\$4,500	The use of the aircraft by this group is discouraged.
Company A US	\$2,000	Aircraft use by this group is encouraged
Company A UK	\$5,000	Use is not desired by this group and supporting this group incurs significant additional expense.
Closed Block	\$2,500	Neutral approach to aircraft use
Shuttle Operations	Airline Market Rate	A rate is calculated to emulate the current refundable airfare.

The advantage of the GCA method is the ability to adjust rates based on strategic changes. There may be times when the allocation rates are similar and others when they are different. This approach is difficult to implement in egalitarian cultures. It may generate frustration or be viewed as manipulative.

It is not a requirement when using the GCA method that individual groups are allocated different rates. One rate could be set for all users and then adjusted to control utilization.

Application of the Allocation Rate

Once Company A determines how they want to calculate the Cost Allocation rate (FCA, ICA, GCA) a determination will need to be made how the rate will be applied. In order to determine how to apply the rate the following questions should be considered:

Is the purpose of the allocation rate to inform the user of the actual incremental cost to use the aircraft? Will the rate be used during the trip approval process?

If the allocation rate is being used to provide awareness to the aircraft user, then the development of a “quote” system is required. During the scheduling phase the user will be provided an estimate of the allocation for the trip. Some companies utilize the estimate during the trip approval process.

Should the allocation be the estimate or the actual expense incurred?

The complexity of generating a post trip allocation based on actual time flown versus the estimate prior to the trip rarely is beneficial. It is reasonable to expect estimates to be within 3% - 5% of actual, when averaged over a larger period of time⁸.

Is there a desire to minimize empty legs⁹?

Positioning the aircraft (empty legs) may decrease the financial efficiency of the aircraft¹⁰. Allocating the expense of moving the aircraft may reduce the inefficient positioning of the aircraft. Four methods could be considered for positioning legs:

- No charge is made for unoccupied legs (positioning legs). This may lead to excessive inefficient movement of the aircraft.
- The same allocation as the passenger occupied legs is used for positioning legs. This is the simplest of methods and is easy to communicate to aircraft users.
- The full incremental cost of moving the aircraft is charged to the user regardless of the normal allocation rate. This enables the user to consider the real impact of the aircraft use to move the aircraft.

⁸ 6 to 12 month period.

⁹ Empty legs are flights without passengers. Most commonly used to position the aircraft to pick up passengers or to drop passengers off.

¹⁰ There are occasions when the strategic use of the aircraft in another location offsets what appears to be an inefficient movement of the aircraft.

- An allocation that is a multiple of the aircraft incremental movement costs is used as a penalty to discourage positioning the aircraft. This may limit use of the aircraft when positioning may provide strategic value, but it is not financially apparent.

Will passengers be allowed to add on to trips that are already scheduled? Will they be charged for their travel?

In most cases the travel by individuals who are “adding on” to an aircraft user’s trip are allocated a pro-rate allocation based on the number of seats they use. This can become a cumbersome process when add-on passengers do not occupy the seat for the whole trip and requires an allocation be calculated based on a leg by leg, seat by seat basis.

The simple method of allocating add-on passengers is to allow them to ride “for free.” Because the trip is already being flown.

How complex should the quoting and allocation system be?

It is important to remember that allocations never reduce the expense of the aircraft, only redistribute the accounting within the company. The system should be developed to be simple as possible while still achieving the strategic intent behind the allocations. Leveraging the capability of current dispatch software can often minimize workload generated by implementing an allocation system.

RECOMMENDATIONS

We recommend that Company A consider the following actions:

- Confirm the strategic value of the aircraft. It is critical to understand where the aircraft use provides the highest and best value to Company A. This focus is critical to defining a cost allocation system that encourages actions consistent with the highest and best use.
- If Company A changes its current allocation methodology, consideration should be given to the development of a transition plan to the new process. The current allocation amount is significantly less than the incremental costs of the aircraft. We recommend the following process:
 - Communicate to all users the significant of the change and the rationale behind the change.
 - Affirm with the users the highest and best use.
 - If the new allocation rate is a significant increase from the current amount, using a graduated implementation will minimize the potential that flying will be significantly reduced with the rate change.

Target Allocation Rate: \$3,000 per hour

Rate for 1st Quarter 2016 \$1,000 per hour

Rate for 2nd Quarter 2016 \$1,500 per hour

Rate for 3rd Quarter 2016 \$1,500 per hour

Rate for 4th Quarter 2017 \$2,000 per hour

Rate for 1st Quarter 2018 \$3,000 per hour

The stepped increase allows time for the users to adjust and to monitor the impact on the total demand for aircraft.

- An hourly charge should be used for the aircraft regardless of the number of passengers. Add-on passengers should ride for free. This is to facilitate a simple cost allocation system that does not place an administrative burden on Company A that only has a nominal financial efficiency improvement.