What's Driving Costs Per Enplaned Passenger?

By Sasha N. Page

Airports today are obsessed with the c-word: costs. Understandably spurred by their airline partners, which are seeking every means possible to shed costs, many airports are considering extreme measures to keep overall costs low in face of higher security costs and stagnant passenger loads. This includes zero-based budgeting, across-the-board cuts, and, in some cases, staff layoffs.

This Measure of the Month hopes to clarify what is driving airport costs, particularly costs borne by the airlines. In as much as airports are competing for airline service, understanding costs and comparing them among airports has become more relevant than in the past, when many airport executives felt other market factors trumped airport costs in importance. Many are still skeptical that costs per enplaned passenger (CPEP)— defined as all landing fees, airside usage charges, fuel flowage fees, terminal rents and other airline payments to airports divided by enplaned passengers—truly influences airline service decisions, since airlines' internal costs and non-monetary costs such as airspace congestion are often more important factors in airport selection. Regardless of their true importance to airlines, cost is a dominant issue in today's airport management discourse.

This article focuses on CPEP, which allows for a more comprehensive comparison of airline-related costs than simply comparing landing fees or square foot rental charges. Passenger facility charges (PFCs), another per enplaned passenger cost that passengers must bear, are not included in this CPEP definition. Also, individual airlines' total CPEP may differ by airport, depending in part on whether they have special facility leases or if airport charges vary by signatory/non-signatory carrier designations.

The data is based on the *2002-2003 AAAE Rates and Charges Survey*, meaning that the information is from 2001 or 2002, depending on the airport's reporting year. Although much has changed in aviation in the last year, the data sample was fairly large with 28 large hubs (LH), 20 medium hubs (MH), and 50 small hubs (SH), so comparisons should still be valid.

Overview

The median CPEP for all airports in the survey is between $5 and $6, with large hubs having slightly higher costs than small and medium hubs, as shown in Figure 1 (Fig. 1). Except for large hubs, the average CPEP is similar to the median. Most airports' CPEPs are close to the average, except again for large hubs, which tend to vary more widely.

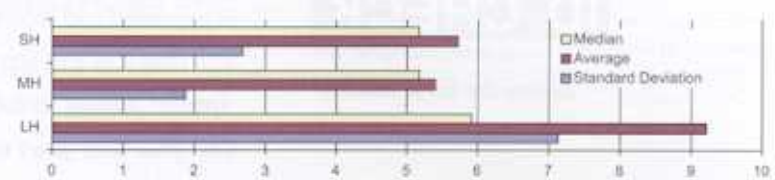
Fig. 2 illuminates CPEP variance among large hubs with significant connecting traffic (known as an airline hub, not to be confused with the FAA definition of hub, which is based on enplanements). Many of these airports have CPEPs a dollar below or above the large hub median CPEP of $5.91. Some, like Atlanta and Cincinnati, are well below the median and others, such as Chicago O'Hare and Denver, are well above, and Chicago's is likely to go higher after its multi-billion dollar expansion costs are passed through to the airlines. Denver's is especially high now since it is driven by approximately $4 billion of outstanding debt to pay for the new airport, a factor that appears to be the primary driver of CPEP for many airports, as discussed below. It should be some comfort to Pittsburgh—which is negotiating with US Airways—that its costs are not significantly above the median, although any major reduction in connecting passengers could change this quickly.

Looking at the airports with the lowest CPEPs, all regions of the country are represented. Fig. 3 shows the five lowest CPEPs among each airport size classification, with most of these airports' CPEPs below $4. Atlanta stands out at $1.93, lower than many small and medium hubs. In fact, Atlanta is typical of low-cost airports: an established facility that has carefully limited capital expenditures even as traffic has grown.

FIG. 2: LH CONNECTING AIRPORTS: CPEP DIFFERENCES

Airport	Airline Hub	CPEP	Below or Above LH Median of $5.91
ATLANTA	AIRTRAN, DELTA	$1.93	BELOW
BALTIMORE	AIRTRAN, SOUTHWEST	$4.61	BELOW
CHICAGO O'HARE	AMERICAN, UNITED	$8.70	ABOVE
CINCINNATI	AIRTRAN, DELTA	$3.91	BELOW
DALLAS-FT. WORTH	AMERICAN, DELTA	$5.53	BELOW
DENVER	FRONTIER, UNITED	$16.23	ABOVE
HOUSTON INTERCONTINENTAL	CONTINENTAL	$6.06	ABOVE
PITTSBURGH	USAIR	$6.11	ABOVE
SALT LAKE CITY	DELTA, SOUTHWEST	$4.87	BELOW
ST LOUIS	AMERICAN	$5.53	BELOW

Fig. 1 CPEP STATISTICS: SIMILAR MEDIANS, LARGE HUB DIVERSITY



It is also important to remember how this statistic is calculated: costs divided by enplanements. A large number of connecting enplanements, as in Atlanta's case, dramatically reduces unit costs. The question is whether this distorts the usefulness of the measure in Atlanta's or other large airports' cases, potentially concealing excess costs. Good cost analysis must go beyond the simple CPEP ratio and analyze gross costs and the level of service and facilities it buys.

FIG. 3: AIRPORTS WITH LOWEST CPEPS: ALL SIZES

Large Hubs	CPEP
ATLANTA	$1.93
CHARLOTTE	$2.04
CINCINNATI	$3.91
PHOENIX	$4.13
Medium Hubs	**CPEP**
DALLAS LOVE FIELD	$1.50
HARTFORD	$2.29
NASHVILLE	$3.82
SAN ANTONIO	$3.95
MILWAUKEE	$4.04
Small Hubs	**CPEP**
GRAND CANYON NAT'L PRK	$0.48
BLOOMINGTON	$1.61
SIOUX FALLS	$1.73
FORT WALTON BEACH	$2.00
BOISE	$2.72

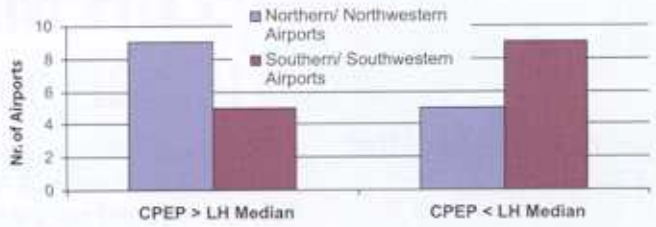
CPEP Drivers

A number of CPEP drivers were examined, including geography, type of airline use agreement, level of non-aviation revenues, and size of outstanding debt. Of these four major factors, the latter appears to have the greatest impact on CPEP.

Geography: Airports in the south and southwest of the U.S. are overly represented in Fig. 3, with Hartford the only northeast standout. Looking more closely at the 28 large hubs in the survey, airports in the north or northwest tended to have CPEPs above the large hub median; conversely, airports in the south or southwest had CPEPs below the median. This is not surprising given national cost-of-living patterns.

Airline use agreement: Another possible CPEP driver is the airline use agreement that an airport employs. Airports with residual agreements appear to have somewhat lower CPEPs than those with compensatory structures. Yet this conclusion is tentative, since more airports define their airline use agreement as "hybrid;" large hub hybrid airports tend to have CPEPs very close to the median of all large hubs.

Fig. 4 LH CPEP BY REGION: LOWER CPEPS IN THE SOUTH



Non-aviation revenues: For those airports with low CPEPs, one would expect—assuming similar service levels—that they would have higher non-aviation revenues per enplaned passenger (NARPEP). Again focusing on large hubs, there is a weak correlation between airports with low CPEP and high NARPEP or the converse. In other words, those airports with low CPEP do not seem to be aggressively seeking non-aviation opportunities—if they can—nor are ones with solid non-aviation businesses seeking to use surplus for aeronautical purposes. This supports some analysts' observations that airports with residual agreements may be less motivated to increase NARPEP if increased revenues must solely be used to reduce CPEP and not for necessary capital projects.

FIG. 5: OUTSTANDING DEBT AND CPEP: HIGH CORRELATION

Percent of airports with CPEP and debt outstanding either both below or both above respective medians	
LH	68%
MH	60%
SH	50%

Outstanding Debt: There appears to be a strong correlation between an airport's outstanding debt and CPEP, as Fig. 5 indicates. In other words, airports that have CPEP above the median tend to have debt outstanding above the median. Conversely, airports with low costs tend to have low outstanding debt.

The obvious implication of this is that airports looking to have greater control over CPEP need to focus on reducing debt. This means better financial management, tightly controlling capital spending, and/or maximizing grant funding. In addition, it means having a long-term view of CPEP, as CPEP may change significantly from year to year as debt is added or retired. As noted earlier, while Atlanta's CPEP is currently very low, its multi-billion dollar capital improvement program, in its beginning stages, will likely increase its CPEP, while Chicago O'Hare's relatively high CPEP is destined to rise further still over the next 10 years.

Conclusions

CPEP provides a useful overview of an airport's cost position, and at least one aspect of its competitiveness. CPEP statistics fail, however, to capture the level and quality of services each airport offers. In as much as passengers have different tastes and willingness to pay for them , some types of passengers may want what more expensive airports can provide; respite from the inevitable tension of delays and security lines, good food, and easy transportation access, are some airport attributes not captured in CPEP.

Yet if an airport's strategy is based on maintaining a low CPEP, what can it do besides keeping a lid on capital projects and moving south? A residual airline use agreement probably doesn't make sense since airports want flexibility in managing gates and facilities, given the tremendous flux in airline partners. What's left over is to seek other ways of earning a living, through non-aviation activities.

The analysis suggests that many airports have barely pushed the frontiers on non-airline revenues. Airports will need to think more strategically and systematically about their investments and reserves and with less emphasis on their master plan and more on the all-to-rare airport business plan.

How does this experience compare to your airport? If you would like to share your ideas and information, please e-mail spage@imggroup.com.

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