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Introduction

This paper explains the potential role that trade associations can play in the production of official statistics, leveraging their specific industry expertise. The paper highlights the example of the production of air transport statistics.

Traditionally, the production of official statistics lies within the realm of the respective national statistics system, typically led by the National Statistics Office (NSO). Contributing institutions are also foremost within the public domain, such as Ministries, Central Banks, Fiscal Authorities, etc. Not often do trade associations play a significant role.

Trade associations can contribute to the statistics making of their respective sector by leveraging their direct contacts and expertise, and by utilizing their data collection mechanisms provided that sufficient data coverage and data processing capacities are available.

The advantages of data collection through trade associations include:

- the timeliness of data collection
- the application of specific industry expertise
- direct contact with reporting entities
- industry ownership of and support for the resulting statistics and analysis reports

Trade associations may also have their limitations.

- Associations may not have sufficient industry coverage, through their limited membership coverage or other practical limitations to data gathering.
- Associations may not be able to disclose all relevant data of their members.
- Associations may not necessarily have the expertise to engage in the production of statistics.
- Associations may, in their role as industry advocators, be limited to certain topics of interest.

The Production of Air Transport Statistics

At the international level, two bodies oversee the production of official air transport statistics, the International Civil Aviation Organization (ICAO), and EUROSTAT. Statistical guidelines and productions are exchanged vis-à-vis the relevant authorities at national levels.

ICAO works closely with two industry trade associations: the Airports Council International (ACI), representing the world's airports, and the International Air Transport Association (IATA), representing the world's airlines. Both associations have data collection programs and in-house statistics productions and provide the statistics and analysis reports to their constituencies, as well as to a wider community through ICAO. In the case of airport statistics, ACI and ICAO have consolidated the principal data collection schemes. Methodological frameworks, concepts, and definitions are set under the auspices of ICAO in its role as secretariat on behalf of ICAO's

member states. The ICAO-ADAP (Aviation Data Advisory Panel), consisting of national member states delegations, and other industry partners including the two associations as observers, is in place to review challenges and statistics innovations.

The Role of Air Transport Trade Associations

Airports Council International (ACI)

Airports Council International (ACI) represents the collective interests of airports around the world to promote excellence in the aviation industry. As of January 2023, ACI serves 712 members, operating 1,925 airports in 171 countries. An important goal for ACI, is to be the most timely and accurate source of statistics on airport activity.

At the heart of this goal is collection, analysis and dissemination of data and publications on passenger and cargo traffic, aircraft movements as well as the economic and financial aspects of airports. Such information is sourced from multiple channels, including direct reporting of annual and monthly surveys from airports, statistics from airports or civil aviation authorities, as well as estimated figures. Like IATA, ACI engages in direct collaboration with airports worldwide in collection, validation, and dissemination of the statistics, thereby positioning itself as the most reliable and punctual source of statistics on airport activity.

To produce statistics that reflect the airport industry status as close as possible, ACI set its airport traffic data collection not only focus on the world's major commercial airports, but also strives to include as many smaller airports as possible in terms of traffic activity, even non-ACI member airports as well. In the latest ACI Annual World Airport Traffic Report (WATR), ACI expanded its reach, collecting data for more than 2,615 commercial airports in the year 2021. Simulations indicate that ACI's airport traffic data coverage accounts for approximately 95% of the world's scheduled passenger traffic.

ACI continues its cooperation with the ICAO in the development of the joint ACI-ICAO Airport Traffic Reporting Form that incorporates standardized statistical methodologies and nomenclature. This collaborative effort aligns with the recommendation made by ICAO-ADAP at its meeting in April 2014, subsequently reviewed by the Air Transport Committee in its 203rd session in September 2014.

This joint initiative encompasses the development of standardized statistical nomenclature and a harmonized ACI-ICAO Airport Traffic Reporting Form which have been piloted by ACI member airports and validated by ICAO's Member States. Initiated in 2016, the joint ACI-ICAO form serves as the foundational framework for the current collection of annual airport traffic data, from more than 2,600 commercial airports per annum in 2022.

The adoption of a standardized format among various stakeholders facilitated the consistent and timely production of statistical information by reducing duplicated efforts and simplifying the

data collection process. Additionally, through the direct sharing of traffic data with ICAO, the ACI airport traffic dataset serves as a centralized source of airport traffic, thereby enhancing data integrity, comparability, and operational efficiency. This harmonization ensures consistent and reliable analyses across various organizations and institutes.

ACI continues its effort in developing partnerships with various stakeholders. One example of industry-wide collaboration is the Airport Traffic Think Tank (at3), a sub-committee operating under the ACI World Economics Standing Committee, which is made up of subject matter experts from ACI member airports specializing in statistics and forecasting. The at3 initiative has yielded tangible outcomes including the development of industry best practices, guidance material, as well as standards regarding airport traffic statistics, forecasting and other related subjects within the domain of airport economics.

The International Air Transport Association (IATA)

IATA is an association that represents, leads, and serves the airline industry. It has some 300 member airlines, which represent about 83% of global traffic. In its industry representational role, it collects data from both member and non-member airlines on topics such as traffic, financials, employment, safety, security, and sustainability.

From a statistical perspective, industry representation is achieved thanks to the global and extensive coverage of IATA. The culminating statistics have resulted in publications of such quality and popularity that also non-members have been willing to contribute to the collections. Depending on the specific collection, data coverage typically varies between 75% and 95% of the industry, sample sizes that are sufficient to produce quality industry statistics. In addition to the data collected directly from airlines, a wide range of administrative data records[i] as well as third-party repositories[ii] complement the statistics productions.

Collecting data directly from airlines has enabled IATA to produce timely industry statistics, where data are not at first collected and processed by third parties, for example at national or regional levels. Monthly industry traffic statistics at global and regional levels are already available three weeks after the month's closing. Although this process at first bypasses the additional expertise that exists at these intermediate levels, a centralized trade association is still able to efficiently assess the quality of the data thanks to its industry expertise. Direct contact with airlines and industry partners enables immediate clarification in case of questions, feedback on the relevance of the industry statistics programs, feedback on the ease of the collection schemes, etc. Perhaps most importantly, given that the association acts as a direct representation of the industry on behalf of its members, contributing airlines have a strong sense of ownership of the data and the resulting analysis reports, which in turn favors the quality of the submitted data.

Being at the forefront of the airline industry, IATA has been able to observe and adapt to several statistics challenges inherent to an ever-changing and dynamic industry. Especially the Covid-19 pandemic has resulted in several new industry realities that the traditional concepts and collection schemes were not able to cover. Examples include the deployment of

preighters (cargo-only operations on passenger aircraft) and the increased deployment of non-scheduled operations, both types of operations not sufficiently covered by the existing collections; the high number of furloughed airline employees distorting the traditional employment statistics calculations; aircraft being parked for extensive periods distorting the traditional methods of fleet utilization statistics calculations; flights having empty seats due to sanitary restrictions resulting in skewed passenger load factors; etc.

IATA has submitted several of these challenges, where these exposed shortcomings in the existing definitions and conceptual frameworks, to the ICAO-ADAP (the Aviation Data Advisory Panel of ICAO), to share the findings with the wider industry and to seek clarification, or amendment, of the existing statistics definitions or conceptual frameworks. Examples include the treatment of non-flying passengers (*no-shows*)[iii] in the passenger traffic statistics and the shortcomings of the measurement of non-scheduled cargo traffic[iv]. In the case of the counting of *no-shows*, the Panel has adopted a Resolution for the attention of the member states confirming that *no-shows* should not be included in the passenger counting, and as such clarifying the existing statistics regulation. In the case of the measurement of non-scheduled cargo traffic, the Panel concluded that further research on this topic is necessary, to be led by IATA and the ICAO Secretariat.

IATA publishes industry statistics and accompanying analyses in a wide variety of publications, many of which are freely available. ICAO, in addition to its publications based on its own airline statistics collections, frequently uses the statistics of IATA for referencing, especially for the timelier (monthly) industry statistics.

Conclusions

This paper has highlighted the positive role that trade associations can play as partners in the production of official statistics, showcasing the contributions of the Airports Council International and the International Air Transport Association.

Through their respective data collection programs, the publication of the resulting statistics and analysis, as well as the ongoing efforts to further develop the statistical frameworks and regulations, both trade associations have proven to be instrumental partners in the production of official air transport statistics. This may serve as an example to other industries or sectors that have not fully benefited from the potential contribution of trade associations. Being close to their constituencies, trade associations may have access to a wealth of relevant industry data that would be more challenging to collect through other means and embody high levels of industry expertise. As such, by taking advantage of the potential of all industry partners, entire industries can benefit from more and better statistics becoming available.

It must be noted that, relatively speaking, the air transport industry is rich in available data. Other trade associations may not find themselves in similar situations, for example due to the absence of established data collection programs or the limited availability of administrative data records, and the possibly limited industry coverage of their members. Other critical aspects include the

available technical capacity and expertise to conduct statistical programs and analysis, and the potential to collect and process data from individual entities that may be sensitive or confidential in nature. Trade associations may also be limited to certain topics of their specific interest. But even in the absence of in-house statistics production processes, a trade association may contribute to the official statistics production of the respective industry by sharing its valuable expertise, contributing to the validation of statistics and analysis, and vowing for the accuracy and relevancy of the industry statistics programs.

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[i] For example, data captured through financial settlement schemes (passenger air tickets, cargo airway bills)

[ii] For example, industry-specific classifications, and flight-radar captured data.

[iii] *No-shows*, passengers who forfeit on non-changeable and non-refundable tickets, have been included in the passenger counting by several airlines with the justification that the associated ticket revenues had been retained.

[iv] The current definition of non-scheduled traffic is geared toward, and more relevant to, passenger operations. For dedicated cargo operations, the definition is not fully applicable due to some specific characteristics of these operations that are not comparable to passenger operations.