ECONOMICS AND INDUSTRY STANDING COMMITTEE

INQUIRY INTO REGIONAL AIRFARES IN WESTERN AUSTRALIA

TRANSCRIPT OF EVIDENCE
TAKEN AT PERTH
WEDNESDAY, 6 SEPTEMBER 2017

SESSION ONE

Members

Ms J.J. Shaw (Chair)
Mr S.K. L'Estrange (Deputy Chairman)
Mr Y. Mubarakai
Mr S.J. Price
Mr D.T. Redman

_____

Hearing commenced at 9.29 am

Prof. JIANHONG XIA
Associate Professor, Department of Spatial Sciences, Curtin University, examined:

The CHAIR: Associate Professor Xia, thank you very much for agreeing to appear today to provide evidence in relation to the committee's inquiry into regional airfares. My name is Jessica Shaw and I am the Chair of the Economics and Industry Standing Committee. I would like to introduce my colleagues: deputy chair Sean L'Estrange, member for Churchlands; Terry Redman, member for Warren–Blackwood; Yaz Mubarakai, member for Jandakot; and Stephen Price, member for Forrestfield. It is important that you understand that any deliberate misleading of this committee may be regarded as contempt of Parliament. Your evidence is protected by parliamentary privilege. However, this privilege does not apply to anything that you might say outside of today's proceedings. I also advise that the proceedings of the committee's hearing will be broadcast live within Parliament House and via the internet. This broadcast may include documentation provided by you to assist the committee in its investigation.

Thank you very much for your submission to the inquiry today; we found it very interesting. Before we begin with our questions, do you have any questions about your appearance today?

Prof. XIA: No questions.

The CHAIR: Would you like to make a short opening statement about your submission?

Prof. XIA: I did prepare a short statement, thank you. Regional aviation is a growing and dynamic industry, which plays a vital role in the economic and social development of Western Australia. However, the cost of intrastate air travel in Western Australia is higher than that of most other Australian states. This may be because of the absence of the low-cost carriers and large portions of the price are insensitive to business customers. For this study, we used publicly available real-time flight data to build gravity models and we applied statistical analysis to forecast total available RPT—regular public transport—air passenger seats and airfares between airports in regional WA. From this study we found that regulated routes have lower airfares than unregulated routes, so competition alone does not necessarily result in lower airfares. Also, the airfares along tourist and recreational flight routes were relatively cheaper than those flight routes mainly for mining and business purposes. The major drivers for the regional airfares in Western Australian we found were distance, demand from the mining sector population, income and the total available seats.

The CHAIR: Thank you. What prompted you to look into this issue? Why this research topic?

Prof. XIA: I was trained as a geographer. I was interested in why people visit certain places and, fortunately, I have a few colleagues and students who helped form a team. I am leading this team doing a different type of transport and tourism study. Heng is one of my PhD students who is working on this air travel study. When we saw this public inquiry we thought, "Oh, that is interesting" because we have already done some work and maybe we can contribute. Frank actually worked hard and collected the airfare data based on what he had got already on the total available seats data so that we could conduct modelling and try to identify the factors affecting the airfares and the total available seats.

The CHAIR: Is this part of a broader body of work or program of research, or have you just prepared this information for this committee's inquiry? Is there a PhD thesis underway or some academic articles, or have you just specifically had some data available and thought it might be useful?

Prof. XIA: To be honest, this airfare study is just three weeks' work. We thought that it would be interesting, so we collected data and I ran modellings and then we wrote the reports in one week.

The CHAIR: We are very grateful that you did. I am familiar with gravity models in the context of international trade where you have two market centres and you are doing some projections about bilateral trade between two destinations. Could you give me a little more information on how the gravity model applies in this context?

Prof. XIA: Gravity models were used to predict the total available seats. We used online flight data that we collected from the Flightradar24 website. Every night poor Frank had to copy the public data and we used broad programs to organise them into a database. In this database we have how many flights there are per day for Western Australia. We also have the flight-type data, and then we joined them and looked for how many total available seats. That is what we call the dependent variable. The independent variables include the distance between places. Gravity models have to consider the two areas and the distance between them. We were always thinking distance decay because as distance increases, the possible interaction between the places decrease. Interestingly, we found that distance, in the Western Australia context, did not decrease. Instead, we found that as distance increased, the total available seats and airfares increased. Perhaps the geographical constraints could be a reason, because we have the coastal lines and also the mining companies that are located far from Perth.

The CHAIR: So the purpose of the travel being more like a commute than a leisure route is perhaps a key factor. Has the work that you have undertaken been peer reviewed?

Prof. XIA: For Frank's work, he actually just put together one paper. We are going to submit this paper on transport and geography for publication, hopefully. We are just waiting for his co-supervisor to double-check it then we can submit it, so that is on the go. But for the airfare study, we have not actually considered it for publication yet.

The CHAIR: Has the methodology you adopted been applied in other jurisdictions? Is there a particular reason why you choose the methodology and the approach to the analysis that you did?

Prof. XIA: Before we conducted this study, we did broader reviews nationally and internationally. We identified that the majority of studies actually adopted gravity models for predicting the total available seats for passenger movement or travel behaviours. It is quite a standard method used for this area.

The CHAIR: I have more questions but I do not want to dominate the show.

Mr D.T. REDMAN: That is a really interesting outcome to suggest that where you introduced some competition, which is the idea that we would like to see in the airline industry, it was slightly counterintuitive and that there was less, apparently, downward pressure on airfares than on the regulated routes. It might be an opinion-related question, but did any of your work suggest that there might have been market failure in those unregulated routes?

Prof. XIA: The first thing we need to discuss is the structure of the air travel network. So far, they are served by either the monopolies or duopolies. We have prepared this document, and I will pass some copies around. In the document there is a map—Frank made that. This refers to the total available seats mapped by the different companies.

Mr D.T. REDMAN: Are we looking at appendix 1?

The CHAIR: No, on the very back page.

[9.40 am]

Prof. XIA: The last page. From this graph it clearly illustrates Qantas actually dominated. It is not actually real competition between these two airlines, but, as I read in the literature, there is a war between Qantas and Virgin and it sounds like recently Virgin is facing this kind of a decline in profits, and battle Qantas—so making very good progress. My understanding—this is just my personal opinion—is that it sounds like, from this picture, it is a monopoly. But if Virgin can make—I saw that the CEO published articles online so they actually did decrease the cost by cutting the cost and doing some kind of reform. So maybe by increasing their capacity they can compete with Qantas in the future. If government encouraged this competition in the future, we can have the mechanism to push for airfare decreases.

The CHAIR: Do you have any information on how the airlines construct their fares? Have you got any line of sight to how the fares are constructed and the different fare classes and how things move around over time approaching the date of flight?

Prof. XIA: I do not have official information. I did have a chat with Ian, who has retired from Qantas, but he gave me some tips that I do not think I should say here.

The CHAIR: No, of course, that is fair enough. One of the things that you have observed is that the variance on airfares on regulated routes is much less or smaller than on unregulated routes. Why do you think that is the case?

Prof. XIA: My understanding is based on the strategies the Department of Transport puts together. The goals of the regulation are to make certain air routes more sustainable. So far they regulate it in certain ways. For example, certain routes only allow certain airlines to operate, and also they monitor the airfares. The airline company has to report the statistic to the Department of Transport, so maybe that is the mechanism to control the price.

The CHAIR: So you think the reporting and information disclosure obligations are what drives that lower variance?

Prof. XIA: Yes. I think maybe that is the mechanism because they have to be aware—with the government actually watching their performance they will not be able to charge whatever they want.

Mr D.T. REDMAN: There are two trains of thought about the interaction of the resource sector and the impact that it has on airline fares. One train of thought says that it is really important to have a baseload resource sector corporate client to help support the airline; therefore, the other users can piggyback on that. The other train of thought is that the resource sector has block bookings at a competitive price, therefore using their yield management models they have to have a higher price of what is left in order to meet their averages. Did you pick up any evidence of either of those trains of thought in your work?

Prof. XIA: For the airfares studies I only did this over the last month. I read a few, but only from some website and overseas they also have different regulations and mechanisms of how the airlines work. I read a few things. If you are interested, I can provide some evidence to you later.

The CHAIR: That would be fantastic, particularly the other jurisdictions and the regulatory frameworks. That would be of real interest to this committee.

Prof. XIA: Sure.

Mr S.J. PRICE: Cecilia, in the submission you have put in, it goes along the lines of saying that normally what we would expect when we have an increase in distance, we have an increase in the

number of seats available and an increase in the population that is travelling there and the cost of fuel is going down—collectively you mean it is putting downward pressure on the price, so that it becomes more affordable, but in WA it is almost the exact opposite of that. Those four things combined have led to an increase in the airfare. Do you have any considerations as to why that actually is, as a collective?

Prof. XIA: To be honest, from the document, the model is based on two prices. One is the lowest airfare or best discount airfare result, which is different from the fully flexible airfare results. If you can go to the third page, the last page, and the two paragraphs. From this fully flexible airfare model, we actually found the highest number of the mine sites. We collected this data from the website of the Department of Mines and Petroleum, so how many active mine sites in the catchment areas of the airport. We used this data as one independent variable. We found out that the higher the number of mine sites relates to lower, fully flexible airfares. However, a greater population and driving distance pushed the fully flexible airfares higher. For the best discount airfares, we found the total available seats. So more seats and more mine sites lead to the best discount airfares, while the greater populations and the average incomes pushed the best discount airfares higher. My understanding is that if there is a higher demand in the catchment area of the airport, it could be like a supply and demand kind of thing. More demand drives the price lower so that economically it is reasonable. Also, we found the total available seats are also affected by this demand concept. However, if people have a higher income, they will be more comfortable paying, and this can drive the price higher. This is what we have found out from the data.

[9.50 am]

Mr S.J. PRICE: So income is probably an influence that we have not really considered a great deal because people's willingness to pay a bit more is certainly impacted by the disposable income that they have; therefore, if you are running a higher airfare in a higher income area, you are probably more willing to accept that than other areas.

Mr S.K. L'ESTRANGE: Price inelasticity for family emergencies we found was an issue as well whereby if the airfare was $400 to come from Kununurra to Perth or $1 500 to come from Kununurra to Perth, and if a family member had suddenly been diagnosed with cancer, they would pay whatever price to get there, up to a point. I know you mainly looked at the data. Did you go into the social aspects as well like that?

Prof. XIA: No, we have not gone there in the study. We are planning to do that in some future study. Hopefully, if we can get the funding to—so I will talk about these questions later that have some suggestions.

Mr D.T. REDMAN: Did you get any visibility on the airline's modelling strategy of how they approach airfares? Presumably, they have some sort of algorithm that you have different tiers of fares and strategies for when those fares get offered in order to achieve the average that they are after. Did you get any visibility on that?

Prof. XIA: No.

The CHAIR: You mentioned in passing in your submission, tax incentives to mining sectors as a possible factor increasing airfares in the Pilbara. Could you elaborate a little bit more on that point?

Prof. XIA: This is why I am preparing the implications of this for discussion. I searched the website and I saw this statement, so these may be the possibilities. I did not actually experience it. I just started this work, so it might be the reason.

The CHAIR: You observe on page 5 of your submission that regulated routes have lower airfares than unregulated routes and that the variance in fare is smaller and state —

This indicates that the regulation of air routes works in controlling airfares in WA.

Aside from regulation, are there any other factors you think that could produce that outcome?

Prof. XIA: I am also doing tourism studies. Recently, I received funding from Bankwest Curtin Economics Centre to investigate Chinese tourists' travel behaviours in Western Australia. We interviewed Chinese travel agencies, tour guides and Chinese tourists, trying to understand their perceptions of Western Australia in terms of tourism and transport. This study was done in two parts. One was to go to the Chinese travel websites and collect all their travel diary information. We actually found that quite a few of them mentioned that the reason they come to Western Australia was because they found discount airfares. That sounds like one of the major drivers for them to visit Western Australia.

The CHAIR: On inbound traffic from overseas?

Prof. XIA: Yes. Also, we did surveys in July in Perth Airport to interview the Chinese tourists. From the data we found out that only five per cent of tourists actually used the flying mode. The majority of them travelled by cars, bus and train, so flying was very limited. I also interviewed some tour guides. Their opinion was that three or four years ago, before the mining downturn, it was almost impossible to book accommodation up north. It was even hard to get flight tickets for the tourists. Now things have changed and there are opportunities for the tourism industry to develop that, and that will be the driver to push the airfares down.

The CHAIR: This is really interesting work. As you have acknowledged, it was done in a bit of a compressed time frame. Data collection and information availability is an issue that came up at the very outset of this inquiry in our hearing with the Department of Transport. One of the issues that we explored was the ability under the licensing regime to require airlines to make information sets available. In your evidence today you have talked about disclosure of certain data sets. If you could run your dream project and have any sort of vast array of information made available to you, what information would be most useful? What do you think would really drive prices down? What sorts of information would be useful from a research perspective and from a regulatory perspective?

Prof. XIA: I understand there is competition between the airlines. Some information is really sensitive for their business, so let us start with small steps. For collecting the data, we do have the information of how many flights and, roughly, the total available seat capacities. But if we had this load factor information—for example, for each flight—and what are the average load factors, we would have a more accurate estimate for this kind of passenger movement without compromising their confidential information.

The CHAIR: So that would be the publicly available stuff. If you could have the dream outcome where you, on some sort of confidential basis, had access to far more detailed information to enable you to really have a clear picture of where the competition is working and where the market forces are operating, what, on a more confidential basis, would you like to be able to look at?

Prof. XIA: If we have that information, the passenger movement data would be great and also the airfares. On the BETRI website they publish the popular top 60 air routes, so the total passenger movement, total flights and the airfares data. On this confidential level, if they could provide that for all the routes—so far they actually have it monthly but even weekly would be great. I saw that some researchers can do daily forecasting. Frank has actually collected the data for almost one year now, but we have not got the capacity to process this data and then do the daily forecasting. That could be potentially done in future studies if we can get the funding for that.

The CHAIR: That is a really nice segue and picks up on something you mentioned before about the future program of research and future things that could be examined. Here is your chance: what

sorts of things would you think would helpfully contribute to the debate and be interesting areas for future research?

Prof. XIA: Just the questions you are asking about, the transparencies. Really, how many discounted seats are available for the public to purchase—no-one knows this—so from this data we could actually say it. It is very important for regulation, I guess.

Mr Y. MUBARAKAI: Professor, I was more interested to ask a question about the other comment you made with regard to the Bankwest Curtin survey that you did with the Chinese tourists. How many of these Chinese tourists did you actually interview? What were the numbers?

[10.00 am]

Prof. XIA: For this study, on the website we collected 666 pieces of data on trip information. Also—off the top of my head—240 pieces of data were used for analysis—this is the online side of the data. We also have data from TRA—Tourism Research Australia. They also did surveys with both parts of the data and analysed it. In the airport, I also collected information on the attractions together, so we have around 400 pieces of data.

Mr Y. MUBARAKAI: What was the duration? When did you start?

Prof. XIA: The project actually started at the beginning of the year. We started collecting the data around January and March until now. We are still kind of collecting but we are starting to close down because this is only a one-year study, so we are putting the report together. If you are interested, once we get the report ready we are happy to share it.

The CHAIR: That would be great.

Mr Y. MUBARAKAI: It would be interesting to see what the perception is of the tourism industry. The Chinese market is a big market that Western Australia relies on. It would be interesting to find out the impact that regional airfares have with regard to Chinese tourists really exploring the tourist destinations we have on the northern and the southern sides of Western Australia. You made comments before about when the mining boom was on, and now that mining boom has dropped off it is a good opportunity to tap into the tourism side of things and create the foundation so that in the years to follow as the mining sector builds up again, the tourist market becomes a core parallel as a revenue generator to boost those regional economies. It would be interesting to find out the conclusion of that study.

Mr S.K. L'ESTRANGE: Professor, have you given any thought to looking at, say, Queensland for a comparison? Queensland also has some resource-driven towns as well as its tourism destinations along its coastline. Perhaps that could maybe test the second paragraph on your second last page, which talks about the load factors. You mentioned in that paragraph the fact that flights for mining companies are loaded up one way and then half empty the next, and that might be impacting on higher airfares. You say it is complex, but that could be one of the possibilities. I would be interested to know—you do not have to do it—but if there is a look at Queensland in comparison with WA, because sometimes that has been the comparison that citizens in the various towns we have visited have made with us. They have said, "Well, how come airfares along that north eastern coast trip are so much cheaper than ours with the same air frames?" They are looking for reasons. That is something that we are interested in as well.

Prof. XIA: I am starting to put together an ARC linkage project, if I can, with hopefully the Department of Transport and professors from the east, so we can form bigger teams to do this comparison study and see it at a national level.

Mr Y. MUBARAKAI: Just another question to do with what Sean just raised about comparisons with Queensland. The other question I have is that your findings do not talk about alternative milk runs or opportunities in other sectors that could be linked to provide a more sustainable outcome for airfares.

Prof. XIA: Your question is about —

Mr Y. MUBARAKAI: At the moment, if we look at the map here and your findings and your studies, they are based on the fixed routes that we have regulated and unregulated, and those destination points with regard to distance. What I am asking is that I would also like you to consider in your findings, if you could look at, maybe, based on the loadings of seats for flights, how certain routes could add more passengers and make it more economical for airfares to be more affordable, if you know what I mean, like milk runs. For example, when we were in Broome, we had to fly back to Perth to go back to Karratha. If we look at the distance between Broome and Karratha, there is no internal flight to link it. I was trying to draw your attention to that maybe in your assessment, if you could look at possible milk runs between these tourist and regional destinations.

Prof. XIA: Sure.

Mr Y. MUBARAKAI: It is just an insight.

Prof. XIA: That is a very good thought. That is one of the objectives for this future study. We are planning to use this detailed information if we are able to get the load factor data. Because we have the daily information, we would like to do the forecasting—a time series analysis and a network analysis to look for connectivity of the air routes. We know that Western Australia has a hub-and-spoke service. The hubs are Perth and Broome, and there are kind of small regional airports. The connectivity between them is another piece to improve the performance, for sure. That could be a future study.

The CHAIR: Have you had any look at freight as, I guess, one of the variables or the things that underpins the viability of a particular air route?

Prof. XIA: No.

The CHAIR: I did not expect you had, but I thought I would ask the question.

Mr S.J. PRICE: Just going back to the survey information you collected from the Chinese tourists, and you note in your submission as well that driving distance is an important influence on airfares. With regard to tourists, it is a time versus cost experience for them. I suppose there is a perception that there is a limited amount of time and they would like to see as much of the state as possible. How predominant is cost in that arrangement? Was there any information you collected about that? If it was faster to fly somewhere but more expensive, would that be an option that they would consider, or would they rather take the less expensive option that actually gives you a little bit more time?

Prof. XIA: For Heng's study that he finished, the first objective was the forecasting for available seats. The second objective was trying to understand what factors could impact people's mode choice and the airline choice. Mode choice means either the car, bus or flight, so which one? What kind of factor impacted the user's choice between these three different modes and what kind of factors make them choose Qantas over Virgin—the two different airlines—so what kind of factor impacts that choice. We are putting together an ethics approval application now and we are going to submit it hopefully this week. After we get permission, we will hopefully get—so if you can help—a regional airport to do the survey. We are planning to do the survey in four regional airports and also the supermarkets. We are looking for people who use the air travel mode and also people who use the other travel mode. We are doing a survey —

The CHAIR: Which four regional airports?

Prof. XIA: That has not been finalised yet, but definitely—sorry, I now have my notes that I was looking for before.

We are looking at Albany and also Geraldton, because they currently have similar distances, but different purposes. We also have another two, but we are still deciding at this moment. In terms of bus and air travel competition, we might choose a small airport, like Mt Magnet, because they have very low volumes, like only 3 000 or 4 000 per year, but even the bus volume is much higher than that, so there is a kind of competition between them. It could be a potential candidate for us, and also Karratha, which is a mining-dominated airport, and Exmouth and Broome. We have to decide which one. We will negotiate with the local airports and get permission.

[10.10 am]

Mr D.T. REDMAN: Are there any compelling arguments in the work that you did to suggest that we should reregulate any of the deregulated routes?

Prof. XIA: I have not gone into that in detail, to be honest. We may do that in the future.

The CHAIR: Thank you, Professor Xia. That is very interesting and you have certainly really contributed some fantastic information to the work that we hope to do. We will certainly be interested to see the outcomes of your research project. If there is anything that you think is useful and we should take a look at, we would happily receive that information. We really want to try to address this issue as best we can.

I will proceed to close today's hearing and thank you for your evidence before the committee today. A transcript of this hearing will be emailed to you for correction of minor errors. Any such corrections must be made and the transcript returned within seven days of the date of the letter attached to the transcript. If the transcript is not returned within this period, it will be deemed to be correct. New material cannot be added by these corrections and the sense of your evidence cannot be altered. Should you wish to provide additional information for elaborate on particular points, and we hope you do, please include a supplementary submission for the committee's consideration when you return your corrected transcript of evidence. Thank you very much.

Hearing concluded at 10.12 am

_____