

Project EMAH

Investigation of the cross border traffic in the Austrian-Hungarian border region

Summary

In the course of the project, small travel surveys were carried out to capture the actual traffic and the information about the travellers crossing the border occasionally or regularly. Several surveys on the railway and road traffic over the regional border crossing points were carried out; the outcomes bring about a detailed picture of commuting and travel behaviours in the border region. The main findings are summarized as follows.

Passenger traffic on the railway

Surveys were carried out twice in the border-crossing trains; one was in spring and the other was in summer 2013. In total, more than 30,000 passengers on the five cross-border railway lines were sampled to analyse the passenger traffic.

The survey result shows that the train lines play important roles in the regional transport in both countries: approximately 35 to 40% of the passengers crossing the Austrian-Hungarian border travel with the trains. The main destinations of them are Sopron, Győr and Mosonmagyaróvár in Hungary and Vienna, Wiener Neustadt, Neusiedl am See and Graz in Austria. Other important destinations include Parndorf and Mattersburg in Austria.

The analysis of the passenger traffic flow shows the following important findings: the passenger traffic flows are relatively large during the morning and evening hours; especially, the passenger traffic from Hungary to Austria in the morning and from Austria to Hungary in the evening is large. This implies that there are a large number of commuters from Hungary to Austria.

The domestic passenger traffic is reduced in summer as the schools are on holidays in both countries; eventually the proportion of the cross-border passenger traffic increases in this period. In other words, the inland traffic decreases more than that of the cross-border traffic during summer. This can also be seen from the fact that that the minor changes of the number of passengers and the important destinations.

Railway Line 524: Deutschkreutz – Sopron – Wiener Neustadt – Vienna

Along this railway line, the section between Vienna and Sopron has the largest number of passengers. On this partly non-electrified line (the section between Sopron and Wiener Neustadt are not electrified), the oldest train sets are used: this brings about an important problem during the peak hours that the small DMUs used on this line have insufficient seating capacity and the trains are overcrowded during the rush hours.

In summer, the number of passengers on the entire section of this line is slightly higher than spring, while the number of the passengers crossing the border is largely reduced.

Railway line 512: Deutschkreutz – Sopron – Ebenfurth

On this line connecting these cities with Vienna, the situation is different from the aforementioned one. The frequency of the service is lower than that of the train line 524, while modern train sets with larger seating capacity are used. The result shows that the number of passengers is in general 30% less than the train line Deutschkreutz – Sopron – Wiener Neustadt – Vienna. Numbers of passengers observed along the entire line during the two survey periods are not significantly different. In summer, the number of cross-border travellers increase slightly compared to spring.

Railway line 700: Győr – Hegyeshalom – Bruck an der Leitha – Vienna

The seat occupancy of the trains on the Austrian side was relatively high compared to the Hungarian side. In summer, strong reduction of the ridership by -16% was observed on this line. The cross-border passenger traffic is also reduced but relatively less.

Railway line 530: Szentgotthárd – Fehring – Feldbach – Graz

On this line between Szentgotthárd and Graz, the number of passengers is just about a fourth compared to that of the train line to Hegyeshalom, although the same service frequencies are provided on the both of the lines. Despite the small seating capacity of this train line, the occupancy remains also low on the trains.

The Hungarian domestic passenger traffic is reduced in summer by 30%. The percentage of cross-border passengers increases from 35% to almost 50%; this is the largest increase among the surveyed train lines.

Railway line 731: Fertőszentmiklós – Pamhagen – Neusiedl am See

On the train line between Fertőszentmiklós and Neusiedl am See, very small number of passengers crossing the border are observed (5 to 10 passengers on average) and the proportion of these passengers are not significant compared to that in the Austrian side of the line. This is probably because of unfavourable timetable settings and the slow train speed on the cross-border section.

Travel destination and purpose of railway passengers

In total, 3,000 passengers are asked their travel destinations and the travel purposes. This corresponds to about 10% of the total passengers, and if only the passengers crossing the border being considered, this corresponds to about 20%.

An analysis in detail shows various aspects and differences of the commuting behaviour: the travel to the educational facilities drastically decreases in summer (-19%) and the touristic travel increases strongly (+15%) compared to the questionnaire in spring.

The percentage of the passengers who have their own vehicles available for travel increases by 10% in summer. This is probably because the majority of the schoolchildren are not on board during the school holiday. As the reason to choose the train travel, majority of the respondents answers the favourable travel cost as the main reason, while the percentage of the respondents who changed from cars to the train considering the environment is marginal.

Road traffic

During the three days of the road traffic survey in October 2013, 79,554 vehicles crossing the seven border point between Austria and Hungary were counted. Among them, 59.5% have Hungarian number plates and 32.1% have Austrian number plates. Most of them are passenger vehicles (88%), followed by small trucks (5.5%).

Friday is the day with the highest traffic volume; on that day, traffic with the purpose other than commuting such as shopping and visiting someone else are observed more. The most frequently used cross-border point is the one between Sopron and Klingenbach on all of the three days surveyed.

The largest traffic volumes on the weekdays of the Hungarian cars are recorded at Fertőd, Hegyeshalom, Köszeg and Bucusu, while among the Austrian cars, Kópháza, Sopron and Rábafüzes are the most often used border points. Cars from the other countries are recorded most frequently at Rábafüzes, Kópháza and Köszeg.

The high hourly traffic of Hungarian cars going to Austria implies that there are a large number of commuters. The catchment area of the border post Sopron is larger than the other border points; in Sopron, most of the vehicles crossing the border had Austrian number plates. Among them, a high percentage of them are from the Districts of Oberpullendorf and Eisenstadt. At the border at Hegyeshalom, the most frequent ones are from Vienna and the District of Neusiedl am See. The border at Köszeg had a relatively small catchment area and the most frequently observed vehicles crossing the border are from the District of Oberpullendorf.

The second border-crossing point with a relatively large catchment area is Rábafüzes, where the vehicles from the Districts Güssing and Jennersdorf are observed more than others. The border-crossing point Fertöd and Kópháza have a catchment area with special characteristics: most of the vehicles going through these border-crossing points are from Austrian Districts of Oberpullendorf and Neusiedl am See and they are travelling between two Austrian places through Hungary.

The catchment area for the border-crossing point Bucsu is relatively large as well; here, most of the vehicles are from the Districts Oberwart and Hartberg.

It has to be noted that the catchment analysis could be carried out only for Austrian cars as the Hungarian car number plate does not contain such information while Austrian does.

Travel destination and purpose of private vehicle users

2,625 people on the 13% of the counted vehicles during the survey on the border are surveyed in detail with questionnaires. 54% of the drivers responding on the weekdays report commuting as their purpose for travel. The percentage of the travel purpose “visiting someone” and “tourism” increases on the weekend while the level of the change varies among the different border crossing points.

60% of the questionnaire-surveyed driver travel alone. Among the vehicles with more than one person, 75% of them have the same destination for all of the passengers.

Most of the cross-border travellers makes both onward and return journey on a same day. On weekdays, the percentage of the commuters is 80% and this group crosses the border many times in a week.

Majority of the commuters crossing the border typically works for the manufacturing or service sector.

A three-fourth the respondents both on the weekdays and weekend answer that they do not have any other alternative transport mode enabling the travel.

As for the improvement possibilities, about half of the respondents points out an improvement of public transport and the placement of new border crossing points, while the other half wishes the improvement for the private vehicle.