RAZGLEDI

THE ABILITY TO REGIONAL LABOUR MARKET ADJUSTMENT IN THE VILLAGES OF BARANYA

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ABSTRACT
The ability of Regional Labour Market adjustment in the villages of Baranya
In this paper the authors estimate the importance of the daily commuting from the village inhabitants of the Baranya County point of view, and analyse the regional differences of the working possibilities in differently located settlements. They use settlement-level data to study the relation between the geographical location of the villages and the capability of the regional adjustment. The results show the importance of the accessibility of the different central settlements, and the role of the major elements of the transport infrastructure. The analysis also confirms that the transport is an essential tool in compensating the regional differences, but these effects can be shown only within some distance because of the high cost and time requirement of the public transport.

KEY WORDS
unemployment, commuting, regional adaptation, regional differences, Baranya County

IZVLEČEK
Sposobnost prilagajanja regionalnega trga dela v vaseh Županije Baranja
Avtorji ocenjujejo pomembnost dnevnega migriranja z vidika prebivalcev Županije Baranja in analizirajo regionalne razlike glede na možnost zaposlitev v različno oddaljenih središčih. Na temelju podatkov po naseljih so raziskali povezanost med zemljepisno lego vasi in sposobnosti za regionalno prilagajanje. Rezultati kažejo na pomen dostopnosti do različnih centralnih naselij in vlogo glavnih elementov prometne infrastrukture. Analiza potrjuje, da je učinkovit prevoz bistveno orodje za preseganje regionalnih razlik, vendar pa so njegovi učinki zaradi visokih stroškov in porabe časa vidni le do določene razdalje.

KLJUČNE BESEDE
brezposelnost, dnevne migracije, prevoz, regionalne razlike, regionalno prilagajanje, Županija Baranja, Madžarska

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1 Introduction

Researching of potentials and distance overcoming possibilities of countryside population with special emphasize on unemployment situation, has gained much interest over the past fifteen years. Results of many analyses clearly proofed that the employment possibilities of people living in rural settlements are much more determined by the location (residence) than by the size of them (Fóti, Lakatos and Mészáros 1991; Dúsné Obádovics Cs. 1997). The effects of the geographical location of the residence and those of travel costs on commuting have also been the subject of research in several cases. A Hungarian study from 1999 (Bódi and Obádovics Cs. 2000) confirmed that employees living at least 10 km from major employing centres are faced with disadvantages, since travel costs are less and less covered by the employer. Several studies have examined the potentials of commuting with the conditions of travel costs, and the effects of the distance between home and the potential workplace and those of the potential travel cost refund from the employer on commuting (Köllő 1997, 2002; Kertesi 2000; Bartus 2003) *Köllő*. and *Kertesi* find out that unemployment is unlikely to decrease following the economic upturn because travel costs are higher than the difference between incomes in towns and villages. According to the results of *Bartus* (2003, 100), commuting typically goes along with the lack of its costs; the existence of travel costs radically decreases the possibility of commuting; low expectancy of commuting for women is in the case of a distance of more than 20 km and for men, is in the case of a distance of more than 50 km.

The outcome of the examination on a national level sample is true for Baranya as well; but in order to assess the local conditions and to know better the role of individual employing centres it is practical to prepare more detailed, local analyses. Besides travel costs one is to pay attention also to the important elements of access to transport, i. e. line frequency, time of travel. The examination and evaluation of the correspondence between ways of transport and daily commuting have also been analysed in certain regions of Baranya (Keresztes 2004, 2006).

The present paper focuses on regional differences being observed on a village scale in the *potentials of regional adaptation* to labour market possibilities with special concern on people who can not find employment near home, which is what possibilities villagers had for employment in distance comparing their place of residence.

2 Research methods

The evaluation of the regional adaptation potentials of village population and that of the determining factors were assessed through the results of calculations using the data on village level. The data used in the research are primarily taken from the database of 2001 census (www.nepszamlalas.hu; 6. Regional data – Tables 4.2.1.3. and 4.1.4.1.; 7. Data on employment and daily commuting – Table 2.11.4.; 14. Daily transport of employees). Also, the village scale reports of the National Employment Service were used (www.afsz.hu). An additional examination was carried out, too, applying GIS methods (details cf. Results), where again the data of the Central Office of Statistics were utilized.

3 Results

3.1 The significance of daily commuting

Regarding Baranya, one can easily understand that the effects of geographical location is more important than village size; it is enough to take a look at the settlement system of the county. The area of the county and the population of a more than four hundred thousand are distributed among 12 towns and 289 villages. The overall population of villages is 150,000; this makes the average population of each village around hardly more than 500. Yet, 70% of the villages do not reach the population of 500, in

Figure 1: Position of Baranya County.

the case of 64 villages the population is below 200. It is generally true for these villages that they can provide the villagers with few jobs only, thus chances of employment are determined by the demand for employees in (bigger) settlements located at an accessible distance. If one examines the villages according to categorization by population, it is evident that the smaller village we approach, the fewer jobs we find; but in many cases it is the population of the smallest villages that have fewer opportunities for commuting (worse transport situation, inhabitants with less education, etc.). In accordance to it, the ratio of the unemployed compared to that of the active population is higher than average in smaller villages (Table 1). It is owing to the fact that the villages with the smallest and decreasing population can be found in the greatest number in marginal and less favoured areas. (The western regions of Baranya with less favourable potentials are of denser settlement structure.) If one examines the unemployment rate of the county broken down into settlements (Table 1), the effects of the distance from more significant towns or villages and that of a more favourable or more advantageous location are eye-striking.

Table 1: Average unemployment in Baranya villages according to population categories (calculated from National Employment Service data of December 2005).

village population	average rate
over 1000	9.9%
between 500 and 1000	11.9%
between 200 and 500	17.9%
below 200	19.6%

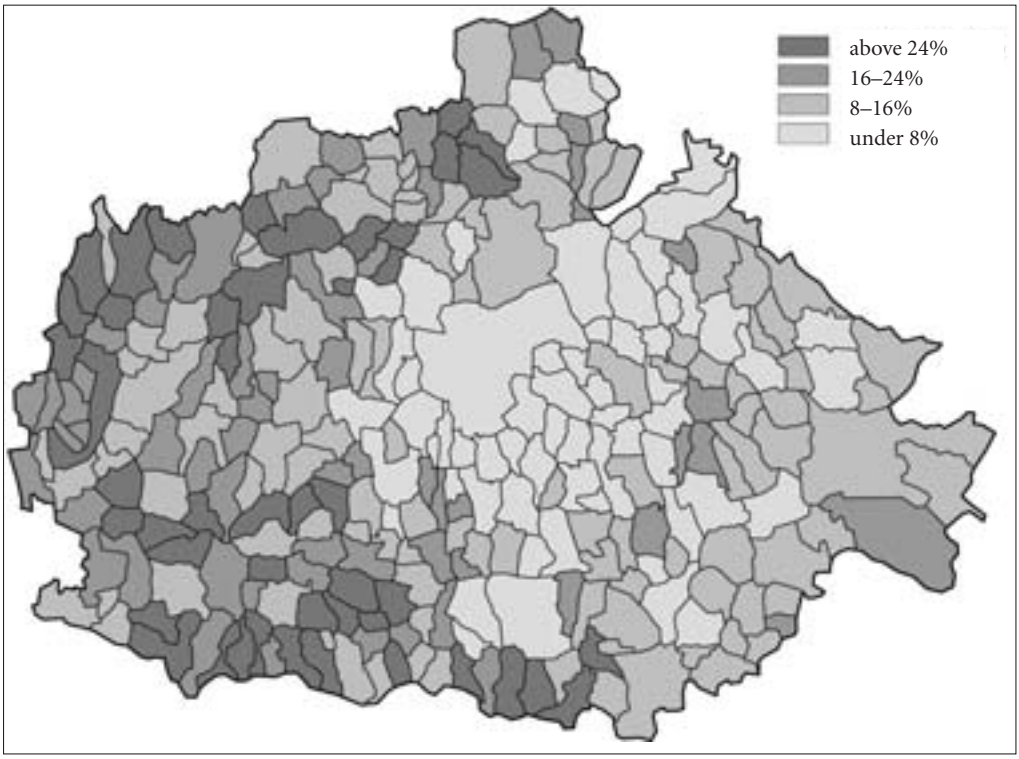

Figure 2: Registered job-seekers in Baranya county villages (National Employment Service).

67% of the employees living in the villages of the county were commuting daily (in 2001). That is, out of the 42,000 village employees 26,000 did travel every day to their workplaces. For the population of smaller villages, the dependence on commuting is significantly larger, so, among the employed inhabitants, the ratio of those working far from their homes is, in average, higher (Table 2).

Table 2: The ratio of commuters among all employees in Baranya villages according to population categories (calculated using data from Central Office of Statistics of 2001).

village population	average rate
over 1000	54.3%
between 500 and 1000	60.6%
between 200 and 500	71.5%
below 200	73.5%

3.2 Possibilities of commuting, regional variations

The possibility of getting a job for job-seekers, in the majority of cases, is in regional adaptation, which is daily commuting. One of the basic requirements of regional adaptation to labour market conditions is determined by the level of transport accessibility (first defined by Erdősi 1991, 16), which

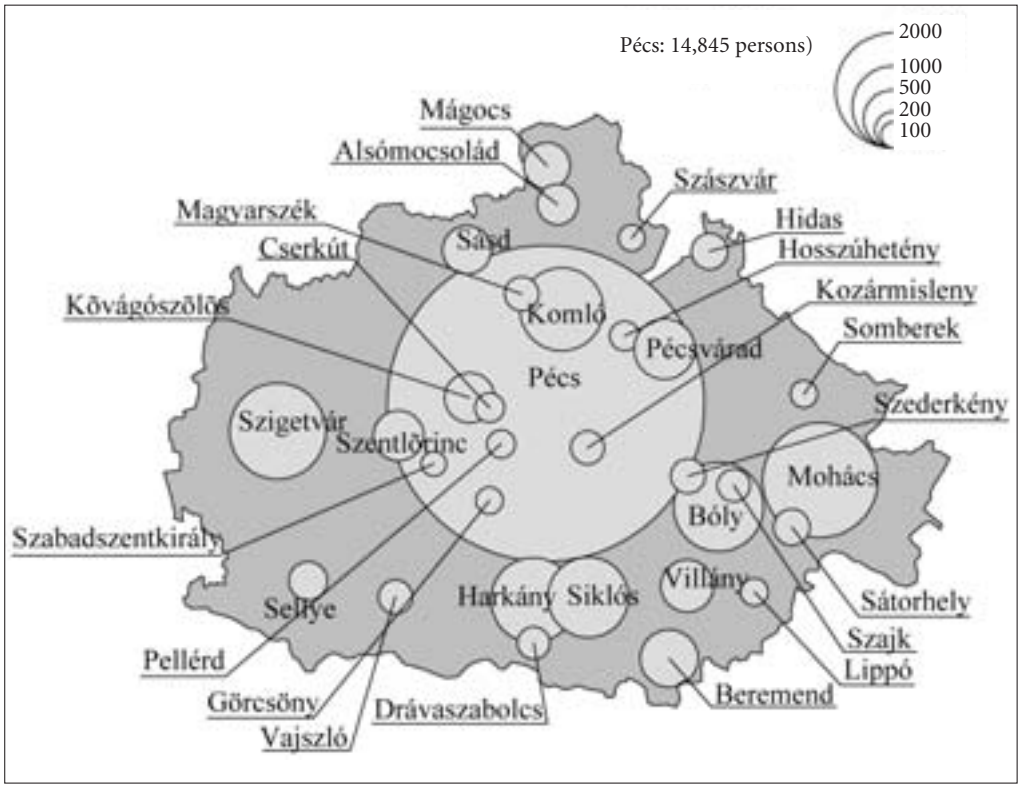

Figure 3: Settlements receiving more than 100 daily commuters in Baranya and the number of daily commuters (Ed: Keresztes L. L. according to 2001 census data).

is an overall list of factors: distance from the central settlements (offering employment), time needed for daily travelling, quality parameters of transportation possibilities at hand. This paper is shedding light primarily on the distance between home and the workplace, i. e. the effects of geographical location.

The significance of the centres with strong labour market appeal can be grasped through analysing the data of the Central Office of Statistics on the number of daily commuters. In Baranya, according to statistical data, the appeal of the seat of the county is highly paramount with its significance, since Pécs receives 15,000 commuters daily (received according to data of 2001). Further, major commuter recipients are catalogued in Figure 2. A location near towns or major employing centres, for their sizes of labour market, makes it possible for the job-seekers of villages »to compete« for available jobs, that is they can get jobs before other job-seekers. So, their disadvantages in the competition, for the more favourable location of their homes is smaller (yet noticeable) compared to town-dwellers, and they stand a lot better chance than those living in more distant villages. Still, one cannot disregard the fact that usually the number of job-seekers is higher than the number of jobs also in towns, so the significance of the favourable location is indeed meaningful if a high labour force surplus is not produced in the central settlement, which is structurally the same as the population of the numerous job-seekers of villages in the vicinity.

Then, it is worth taking a look at which settlements show a significantly higher number of jobs than that of employees (Table 3).

Table 3: The most important employers of Baranya according to the difference between local job potentials and the number of local employees (according to Central Office of Statistics data of 2001).

name of the settlement	number of employees minus the number of employees living locally
Pécs	10237
Bóly	848
Mohács	746
Harkány	743
Szigetvár	393
Beremend	275
Alsómocsolád	213
Villány	123

Following these calculations, the list below shows the major »employee-producing« settlements:

Table 4: The most significant »employee-producing« settlements in Baranya (according to Central Office of Statistics data of 2001).

name of the settlement	number of employees minus the number of employees living locally
Komló	–1529
Szentlőrinc	–1052
Kozármisleny	–956
Lánycsók	–582
Hosszúhetény	–528

If, in the employment data of the settlements, one is to trace the positional advantages of the villages near major employing centres owing to geographical location, a distance gets outlined, along which the expansion of a major centres' positive influences can be visualised. If the regional variations of daily commuting potentials are to be analysed, data of the Central Office of Statistics allow us to do that. Utilizing data of a settlement scale, one can examine how many possibilities those villagers who cannot find jobs back at home have (had in 2001) for working as commuters, that is what the level of the regional adaptation potential is. In the analysis, the size of the population in active age, the number of daily commuters and that of those living and working at home were used (2001 census data of a settlement scale). The rate of daily commuters compared to those active individuals employed not locally was calculated in order to form Figure 3. Therefore the index of each village was calculated by the following formula:

number of daily commuters = size of population in active age – number of those employed locally

(Since the main aim was pure juxtaposition, the following were disregarded for the sake of clarity: number of students, inactive wage earners, further dependants, etc.) The average rate for the settlements of the county turned out to be 28.6% (the average indices of micro-regions are presented in Table 5). The highest index (59.4%) was of *Kökény* near Pécs where out of the 380 inhabitants 25 were employed locally, while 195 were commuters (195/[380–25], so more than half of those in active age not finding a job at home could work as commuters, i. e. (in this respect) the level of regional adaptation potential was the highest in this settlement, which is owing to its location close to the county seat and to good transport conditions (and also to the fact that it structurally fits the labour force demands of the county seat). It is not by chance, then, that the other high values were calculated in the immediate vicinity of the county seat.

The lowest value (1.8%) was experienced in *Alsószentmárton* fully inhabited by Romas, where out of the 677 individuals in active age 22 were employed locally and only 12 were commuters. In the case of this village it is clear that geographical location is not the primary reason for the fact that the population can with little chance take jobs distant form their homes (it is at 8 km from Siklós and at 13 km from Harkány), but rather other social factors are in the background. The labour force appeal of Pécs is obvious from the Table, especially for those settlements near the town or for those located along (or near) the main transport routes departing from the county seat. Besides the small geographical distance one can point out the importance of transportation choices as well. The distance to overcome on a daily basis is expanded by the main motor road 6, main roads 57 and 58 and the Szentlőrinc-Pécs tract of the Dombóvár-Pécs main railroad, they all make it possible for the job-seekers of settlements at a longer distance to travel every day. The paramount effect of the above transport routes lies in the fact that they are to serve communication among significant settlements (and groups of settlements); therefore besides rendering travel time shorter, the transport conditions of these studied smaller settlements from the aspect of line frequency are above average. The effects of the main roads enhancing access to the county seat are well demonstrated by the fact that for the settlements in the immediate area of these roads (3 km at maximum) and at not more than 30 km the same average value (38%) is calculated as for all the settlements within a distance of not more than 20 km (understood on public road).

Figure 3 shows clearly the positive effects of further employing centres (e. g. *Mohács, Beremend*, *Bóly*). It can also be observed that Szigetvár – as opposed to its function as a signficant labour market pulling centre – it cannot leave positive influence on the villages of the region, except for those by road 67 near the micro-regional centre (and those near it, such as *Hobol*).

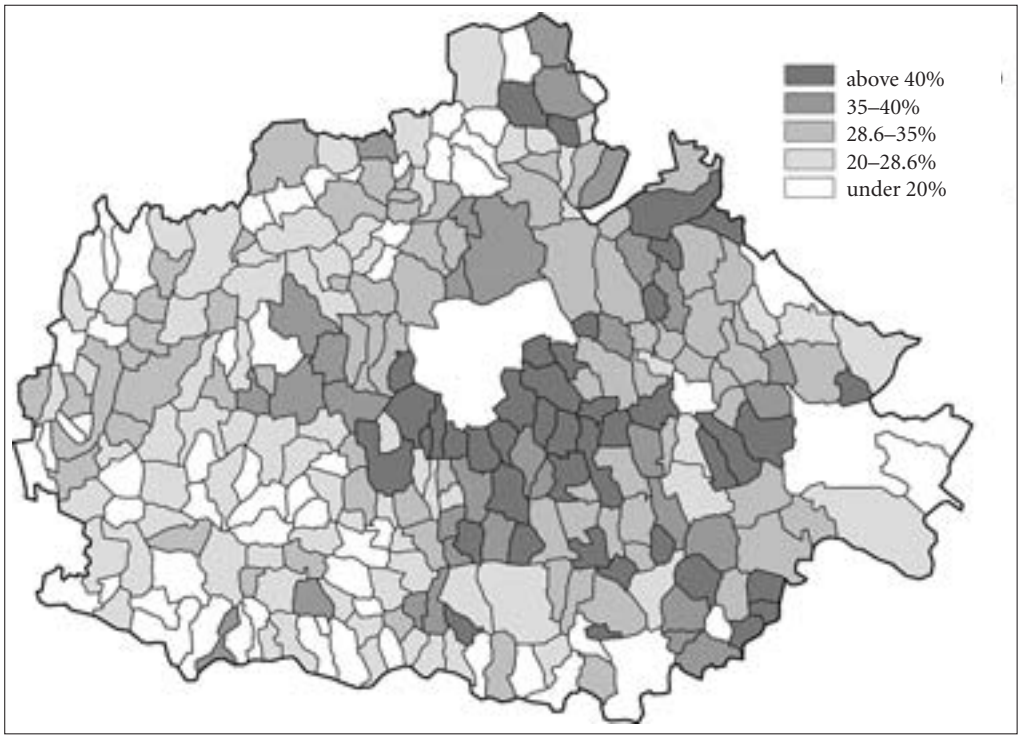

Figure 4: Rate of daily commuters in per cents compared to employees in active age working non-locally (Ed: Keresztes L. L. according to calculations from 2001 census data).

Szentlőrinc itself can be regarded as a town of agglomeration; it does not qualify for the employing centre of its region. Yet, the rate of 37% calculated in its case (the highest among towns) well demonstrates that the commuting opportunities of its inhabitants not finding jobs at home are way better than average. 1400 of them commuted on a daily basis, most of them heading for Pécs. This favourable result is owing to the town's excellent transport ties to the county seat (main road 6, railway and high line frequency in both cases).

In the case of the villages of the Sellye micro-region and the settlements of the Siklós micro-region along the border have additional social problems besides poor transport accessibility to make the disadvantages caused by unfavourable geographical location worse and to account for the lack of taking jobs in distant settlements. Due to the vast distance, Pécs, starting form Sellye can be reached in considerable time, still, working in the county seat means finding existence for many. (In these cases travel cost refund would be out of the question without the consent of the employer.) The lack of public transport from several settlements of the Ormánság is covered for by individually organised transport (mostly by employers seeking cheap labour). The table rightly shows that the level of regional adaptation potentials of those living in the area is extremely low.

Table 5: Rate of commuters compared to employees in active age working non-locally, the average micro-regional values calculated in a settlement scale.

Pécs micro-region	36.9%
Pécsvárad micro-region	35.2%
Mohács micro-region	32.4%
Siklós micro-region	29.7%
Komló micro-region	29.5%
Szentlőrinc micro-region	27.2%
Sásd micro-region	24.2%
Szigetvár micro-region	22.7%
Sellye micro-region	21.1%

It is worth examining how the high (or low for that matter) number of jobs within a range of 10 km (more easily accessed distance for everybody) is represented in the value reflecting adaptation potentials. For this, a part of the county was delineated and those 84 villages located here were placed in a matrix, where the distance between the elements stood for the actual distance of the villages (between settlement centres) understood on public road. This method allowed the calculation of a value that catalogued the difference between the total number of jobs in settlements within a 10 km range (locally, Central Office of Statistics) and those employed locally. (The data on the unemployed, inactive wage-earners and students were not considered in this case, either, since the result, as it is, is fit for juxtaposition.) This value was divided by the number of employees in active age of a given settlement, which resulted in the number of theoretically available jobs within 10 km per an employee in active age. The indices outlined categories which could be juxtaposed to the classification made after the rates of the first examination. Then, it could be seen which settlements deviate (positively or negatively) significantly from the »expected« category. It is not by chance that compared to the number of jobs available within 10 km is way higher for villages closer to Pécs or for villages having good transport ties to the county seat. The most principal information is not the better understanding of the (so far known) influence of the county seat; but shedding light on more inferior centres (e. g. Harkány, Siklós) and the poor adaptation potentials of some villages (poorer than expected) along the border or inner margins. Some villages (*Drávacsehi, Drávaplakonya, Gordisa, Rádfalva*) are in vain located within a 10 km range of Harkány or Siklós, their inhabitants can take commuting jobs in a rate significantly lower than average. This cannot be explained by the lack of transport, but rather by structural, other social reasons are behind unemployment and the limited possibilities of commuting.

4 Conclusions

Daily commuting determined mostly by the geographical location of the settlements (besides further major factors) and, following from that, the potentials to overcome the distance plays an important role in finding employment for the provincial population of Baranya constituting a settlement structure of little villages. The influence of the location of major employing centres and that of their accessibility is demonstrated in the labour market adaptation potentials of the population of the settlements. Analysing it, one finds that transport is crucial in the levelling of uneven regions, still, the influence can truly be indicated within a certain range from major employing centres because transport is time-consuming and costly. Regarding daily commuting, the population of a given settlement indeed is present in the labour market of a town (or other village); but for the labour surplus present in towns, disadvantages in competition are still to be faced. This is especially evident around minor employing centres and in settlements located in regions with unfavourable potentials.

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6 Povzetek: Sposobnost prilagajanja regionalnega trga dela v vaseh Županije Baranja

(prevedel Drago Perko)

V vaseh manj razvitih območij Županije Baranja ni dovolj zaposlitvenih možnosti, visoke cene nepremičnin pa zavirajo seljenje vaščanov v zaposlitvena središča. Vaščani večinoma sploh ne želijo zapustiti svojih vasi, meščani pa se zaradi zdravega okolja in večjega miru vse pogosteje selijo na podeželje. Za zadovoljevanje zaposlitvenih potreb vaščanov in želja po zdravem okolju meščanov je edina rešitev učinkovit in urejen promet med podeželjem in mesti.

Na možnosti zaposlitve daleč od kraja stalnega bivanja vplivajo številni dejavniki, najpomembnejša pa sta zemljepisna lega naselja glede na oddaljnost od pomembnejših zaposlitvenih središč ter dostopnost teh središč. Članek se osredotoča na ugotavljanje regionalnih razlik v možnostih zaposlovanja glede

na oddaljenost kraja stalnega bivališča in dostopnosti ter glede na možnost prilagajanja trgu delovne sile. Pomembna je predvsem možnost dnevnega migriranja, saj je tedensko migriranje možno tudi iz najbolj oddaljenih naselij in v tem primeru zemljepisna lega ni odločujoč dejavnik.

Oddaljenost naselja in dostopnost, zlasti prometne povezave, določata sliko uspešnosti podeželskega prebivalstva Baranje pri iskanju zaposlitve. Analiza kaže, da razvit promet pomembno vpliva na izenačevanje neenakih možnosti različnih območij, poudariti pa je treba, da se vpliv prometa spreminja glede na oddaljenost od zaposlitvenih središč, saj so dnevna potovanja za prebivalce pri večji oddaljenosti časovno potratna in predraga. Čeprav je podeželsko prebivalstvo zaradi možnosti dnevnega migriranje prisotno na trgu deloven sile v mestih, pa ima v primerjavi z mestnim prebivalstvom vendarle slabše možnosti, še posebej v okolici manjših zaposlitvenih središč z omejenimi možnostmi.