**Dr Michael Moritz**
**Institute for Employment Research (IAB), Nuremberg**
**22 May 2013**

**Referee report on the dissertation**
**"Essays on Access to Higher Education, Welfare Traps and Welfare Migration"**
**submitted by Martin Guzi**

**Background & Overview**
The dissertation of Martin Guzi is composed of three papers concerning education and welfare issues. While the first two essays address subjects in the Czech Republic, the third essay focuses on a transnational topic.
In Essay 1 the author investigates the role of distance to universities on spatial imbalances in application and admission probabilities of Czech high-school graduates. Essay 2 deals with incentives within the Czech welfare system and its impact on outflows of beneficiaries from unemployment to employment. Finally, Essay 3 concentrates on the question whether migration flows to a range of European countries are motivated by welfare incentives. All three essays clearly focus on the empirical analysis of the research issues, whereas theoretical models receive less attention or are shifted to the appendix respectively. The methods used by the author in order to achieve results are up to the standards of a Ph. D. dissertation. The results definitely deliver valuable contributions to the assessment of education systems and welfare structures.

**The major contents of the dissertation**
Essay 1 "Unequal Access to Higher Education in the Czech Republic: The Role of Spatial Distribution of Universities" (with M. Franta) explores regional imbalances in applications and admissions to universities in the Czech Republic. Martin Guzi and his co-author come to the conclusion that a higher local share of tertiary-educated people fosters applications to universities, whereas a local university providing the favoured program specialization increases the probability of being admitted. The authors show several descriptive statistics, whereby the differences between the groups living or not living near a university are partly quite marginal. With regard to descriptive statistics in Tables 2 to 5, no statement is made about whether the mentioned differences, e.g. in application and admission shares (p. 15), between the two residence groups are significant. Concerning the composite score, its comparability should be clarified, as the authors state that maturita examinations are not standardized (p. 8). The regression results might be subject to some more sensitivity checks. Applying a Heckman selection model, for instance, could be useful for combining the two steps of being chosen by a university (1. stage: application; 2. stage: admission). Not surprisingly, the local environment, e.g. with respect to the skill level of the population, influences the application probability. The impact of a larger share of highly skilled people in a district on the admission probability, however, turns out to be significantly negative in most estimations. When interpreting the results in Tables 8 to 10, the coefficient for living within a commuting distance to a university, that is significantly negative for gymnasiums, should also be taken into account and part of the discussion. Besides, it could be rewarding to take a closer look on the role of Prague and Brno as major university cities. Eventually, the question is whether all relevant individual characteristics are sufficiently considered (for example, computer ownership looks to be a rather coarse measure as proxy for family income), and the lower admission share of applicants living remote from universities can for the most part be attributed to heterogenous information. Regarding the temporal consistency of the findings, one has to bear in mind, that the study is based on data of the year 1998. Much time has passed since then, and it is chal-

lenging whether conclusions on communication flows are still valid in current times of ubiquitous internet access.

Essay 2 "The curse of social assistance in the Czech Republic" deals with the impact of social benefits on the labour supply of the recipients. The aim of the analysis is to identify groups that are mostly endangered of being caught in the welfare trap. This assessment is done by investigating the chances of leaving unemployment conditional on the characteristics of the welfare beneficiaries. The literature survey is very limited to the Czech labour market and transition countries. It appears desirable to incorporate some links to the international literature on ALMP. Martin Guzi presents plausible results, as not surprisingly, low-skilled persons with long duration of unemployment are most prone to remain out of employment. The question remains, however, whether or not lower transition rates for certain groups are caused by the extent of social benefits. The calculation of potential household incomes and subsequently the Net Replacement Rate (NRR), e.g. the selection of variables for Equation 2 in the Heckman model in order to predict wages, leaves room for discussion. The author should clarify why the set of explanatory variables in the log-wage regression is reduced to work experience, education and the indicator of partial disability. Likewise, the explanation of the logit estimation strategy, that is introduced in order to identify the determinants of employment entries, is kept relatively short. Is there not a collinearity problem between Net Replacement Rate and other controls? After all, the NRR represents a composition of characteristics that for specific combinations are, in sum, unfavourable for entering the labour market. If, for instance, firms were generally less willing to hire long-term unemployed mothers of minor children, then lowering social assistance possibly would not augment employment entries, but only impair the economic status of this group. So, first it is important, whether the effect on employment is captured by the NRR or the single characteristics. Second, we cannot conclusively evaluate whether labour supply or labour demand is more decisive for transitions into jobs. Finally, the interpretations of the results by the author need to be specified. What is exactly meant by "In general findings advocate for a better harmonization of tax and social security systems in the Czech Republic in order to prevent situations of high NRR." or "…further changes to tax and social security systems are desirable." etc.? The basic problem consists in the absence of a perceptible gap between labour income and social security benefits that can be changed by higher wages or lower benefits. Therefore, Martin Guzi should state in the conclusions whether the outcome of his analysis are a plea to lift minimum wages or to reduce social assistance.

In Essay 3 "Unemployment Benefits and Immigration: Evidence from the EU" (with C. Giulietti, M. Kahanec and K. Zimmermann), Martin Guzi investigates the impact of unemployment benefit spending (UBS) on immigration flows to European countries. This is definitely a topic of current interest. The article carefully differentiates between correlation and causal interpretations. Due to potential endogeneity, whose different aspects and consequences are thoroughly explained, the authors tackle the issue of reverse causality between unemployment benefits and immigration. Martin Guzi and his co-authors use a subtle instrumental variable, the number of government parties, in their estimation strategy in order to investigate causal effects of welfare spending on immigration. Undoubtedly, this is a tricky approach. One can argue, however, whether the selected instrument is actually a good choice. The plot in Figure 1 shows rather scattering results with regard to the correlation between UBS and the number of parties. An interesting issue is whether immigration really does not alter the number of parties in the governing coalition, at least in the long term − a crucial point concerning the validity of the instrumental variable. In three out of four specifications in Table 4 the lagged immigration inflows or the stock of immigrants respectively is the only significant explanatory variable. This result is, without exception, also obtained in the OLS estimations for EU immigrants (Table 1). These outcomes can be interpreted in the way that network effects are

the main drivers of migration. It remains open whether there are further essential determinants of cross-border flows of people. Since, altogether, the results for non-EU immigrants are mixed, further robustness checks are needed to corroborate the conclusion that welfare spending does not affect immigration. In the conclusion, Martin Guzi et al. refer to the limitations of the study. As the authors correctly state, in-depth research is also appropriate with regard to the countries of origin of immigrants. In summary, Martin Guzi contributes to the literature by dealing with a topic of greatest importance. The analysis is based on data until 2007/2008. It would be interesting to see updated results, as currently immigrants from the 2007 EU-accession countries, Romania and Bulgaria, and the southern European countries affected by economic troubles are on the move northwards.

**Overall assessment**

All things considered, Martin Guzi delivers very valuable contributions to contemporary research topics. The three thesis papers on educational structures, welfare systems and migration have a clear structure and comprise potential policy responses. The dissertation is well written and the author proves his expertise on all treated subjects.

The final conclusion about Martin Guzi's dissertation is that it warrants a defense and the subsequent award of a doctorate title.

**Smaller points:**

– Essay 1, p. 23: "7 Concluding remarks" should be "**6** Concluding remarks" – it should be referred to the concluding remarks when the structure of the paper is explained (p. 5).
– Essay 1, p. 34: "Green**e** 200**0**" instead of "Green 2003", also References, p. 41 "Greene".
– Essay 1, p. 52, Table 7: What is the reference category in the case of gymnasiums?
– Essay 1, p. 56: Table 11 is redundant (copy of Table 5). The high negative correlation that is mentioned on p. 27 with reference to Table 11, is not tabulated.

– Essay 2 should be checked for the correct use of English and misspellings.
– Essay 2, p. 6: "… can lead to involuntary unemployment if social benefits are accepted as an alternative to low and insecure earnings." – **voluntary** unemployment?
– Essay 2, pp. 26, 28: "Table 9" should be "Table **10**".
– Essay 2: There is no reference to Table 4 in the text.

– Essay 3, p. 17, Figure 1: Why are *predicted* UBS values conditioned on covariates in Equation 1 used, and not *real* values?