REVIEW

GÁBOR KÉZDI MEMORIAL CONFERENCE – CONFERENCE REPORT

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The Hungarian Economic Association organised a conference in memory of Gábor Kézdi on 20 December 2021. Gábor Kézdi, one of the most influential Hungarian economists of his generation, died last year at the age of 50. His career as a researcher and teacher was an inspiration and an example not only to the economics profession but also to the wider social science community (including the author of these lines). His research addressed many topics of interest to sociologists and social policy researchers, such as educational inequalities, school segregation, prejudice and discrimination, the situation of the Roma population in Hungary and empirical studies of the effects of social policies.

Gábor Kézdi graduated from Budapest University of Economic Sciences (now Corvinus University) in 1995, and was a member of the Rajk College of the university. His teaching career started as a lecturer at the College and at the university's Department of Statistics, where he was employed between 2002 and 2004. Gábor Kézdi received his PhD degree in economics from the University of Michigan in 2003, and became a doctor of the Hungarian Academy of Sciences in 2015. From 2004 he taught at the Department of Economics at Central European University, where he became a full professor in 2013. Results of his research have been published in leading social science journals such as American Economic Review, Journal of Business and Economic Statistics, American Political Science Review, Population and Development Review, and others, and together with Gábor Békés he is the author of a recent textbook *Data Analysis for Business, Economics and Policy* published by Cambridge University Press in 2021.

The conference started with a presentation of the Data Analysis book by Gábor Békés. The book emphasises the application of data analysis methods with

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examples and case-studies and is accompanied by an ecosystem of exercises and codes that allow students to replicate the analyses found in the book. The book covers less often discussed areas of applied data analysis work such as data-cleaning, data-management, and data-visualization. In addition to the basics of regression analysis, the book explores predictive analysis (including tree-based machine-learning methods) and causal analysis. During the roundtable discussion that followed, Anikó Bíró, Dániel Horn, Ágnes Szabó-Morvai, and Ferenc Szűcs discussed the book and its potential for teaching data analysis at the MA and BA level. Participants in the discussion agreed that the book has great potential for teaching data analysis not only for economists but other audiences as well. The applied data-analysis section (parts 1 and 2 of the book) can be used as an introduction to data analysis at the BA level, while parts 3-4 (covering predictive analysis and causal analysis) could be more suitable for the MA level. By using many case studies, the book gives students the possibility to start analysing real data right from the beginning of the course. By offering codes in three coding environments (Stata, R, Python), the examples are accessible to students with different backgrounds.

In other sessions of the conference co-authors, colleagues, and students presented the results of their research inspired by or related to Gábor Kézdi's work. Four major topics of his research agenda were covered by the presentations: inequalities in human capital accumulation, discrimination against the Roma, the role of subjective expectations and methodology.

Several presentations addressed issues of inequalities in human capital accumulation, covering both inequalities in families and the education system. Gábor Kertesi presented the results of their research conducted jointly with Tamás Hajdú and Gábor Kézdi. The study examined the differences in parental investment in children between parents with different educational levels in Hungary during the period 1993-2011. They studied both parental time devoted to childcare and expenditure on goods and services aimed at children's development (e.g. books, electronic devices, sports equipment, educational services, cultural events, and holidays). The main findings of the research show that (ceteris paribus) higher educated fathers/mothers spend more time on childcare and less on housework/paid work than those with low education. Moreover, differences in time spent on childrearing by educational level increased over time, especially between 1993 and 2000. The research also shows that higher educated parents also spend more on consumption items related to child development. These findings are of high relevance because parental investment is important for human capital accumulation, and differences in parental investment contribute to the intergenerational transmission of parental social status.

In their presentation János Hubert Kiss and Ágnes Szabó-Morvai compared Roma and non-Roma students in terms of non-cognitive characteristics such as locus of control, depression, and self-esteem. The relevance of these factors is established in the social science literature, which shows that non-cognitive skills also contribute to labour market success. The authors used data from the Tárki Life Course Survey (principal investigator Gábor Kertesi and Gábor Kézdi), which contains information on 10,000 adolescents who participated in the national competence survey in the eighth grade in 2006 (8% of the sample are Roma). The main result of the analysis is that, on average, Roma pupils are characterised by more unfavourable non-cognitive indicators, but the difference disappears when differences in health, home environment, school characteristics, and family background between Roma and non-Roma pupils are taken into account. Thus, the difference in non-cognitive traits is not an ethnic specificity, but is due to observable social differences, and this is another argument for focusing on the elimination of social disadvantages rather than on ethnic specificities when seeking to reduce the disadvantages of the Roma.

Hedvig Horváth and Zoltán Hermann's presentation investigated teacher-student matching patterns in Hungarian primary schools. The main issue of interest was how the quality of teaching compares between students with different social backgrounds: is it true that students with poorer families are on average taught by worse teachers? The talk presented the first results of the research project, which directly follows from Kertesi and Kézdi's earlier finding that the quality of education in schools declines as the proportion of disadvantaged and lower-ability children increases. The research is based on a unique data collection in Hungary that allows for the measurement of the educational added value of teachers in schools of selected school districts. Based on this uniquely rich dataset, the authors estimated teacher's value added; i.e., how much a given teacher contributes to the change in their students' test scores between grades six and eight. The results of the analysis show for both mathematics and reading comprehension, that students with better family backgrounds tend to be taught by better – higher value-added – teachers.

Two presentations addressed another major topic of Gábor Kézdi's research agenda, namely discrimination against the Roma in Hungary. The study by Gábor Kertesi, János Köllő, and Tamás Szabó Lajos tried to find an explanation for the extreme spatial disparities found in the employment disadvantages of Roma living in different districts of Hungary. Observations show that Roma are less likely to work in small firms and that their jobs are less likely to require direct contact with co-workers and customers, especially if the job is in a small firm. This suggests that the employment disadvantages of Roma may be influenced by negative stereotypes of co-workers and consumers and the resulting statistical

discrimination on the side of employers. The authors' expectation was that the employment disadvantage of Roma in local labour markets would be affected by the importance of small enterprises, and would be especially strong in localities in which a large share of small firms is combined with a large share of more strongly prejudiced people. The result of the analysis (which also takes into account potential endogeneity bias) confirmed the initial hypothesis: districts where people are more prejudiced and in which there is a significant share of small firms in employment lead to an employment disadvantage among the Roma that is 10% points higher than average.

In Gábor Simonovits and Borbála Simonovits's study the aim was to explore discrimination against the Roma in a specific consumer market. The authors presented results from carefully designed randomized experiments that were carried out with the collaboration of a ride-sharing company in Hungary. The results of a field experiment showed that drivers who use the platform were less willing to accept ostensibly Roma passengers compared to non-Roma ones when they were contacted by test accounts of would-be passengers constructed by the authors. The researchers then designed an intervention (a short, animated video clip) with the intention of increasing feelings of compassion towards Roma people and stating that tolerance is considered a key value on the platform. The intervention was tested with the use of a survey experiment wherein respondents in the treated group were asked whether they would accept passengers with different profiles (varying ethnicity and other attributes) after watching the video clip, while respondents in the control group responded to similar questions after watching a placebo video. The intervention increased the probability of acceptance of Roma people but the effect was much more significant in case of high-skilled Roma people, while the acceptance of low-skilled Roma persons did not change as a result of the intervention.

More recently Gábor Kézdi was involved in research on the effect of subjective expectations on behaviour, e.g., in the area of retirement, savings and health. This research area was represented by Anikó Bíró's and Réka Branyiczki's study, which investigated the factors that determine people's willingness to take precautions (wearing masks, keeping a distance, locking themselves in, vaccinating) to avoid infection and contagion during waves of the Covid pandemic. The authors were particularly interested in the relationship between positive expectations and individual precautions during the Covid epidemic, as previous research has shown that people who have more positive expectations about the future are less likely to engage in risky health behaviours. The analysis used data from the Survey of Health, Ageing and Retirement (SHARE) international comparative study covering European countries and Israel. The

results show, as expected by the authors, that those with positive expectations are less fearful and take more precautions.

Gábor Kézdi's research also covered methodological issues in applied econometrics, which were represented by two presentations at the conference. The presentation by Anna Adamecz focussed on methods used to estimate the impact of schooling on economic and social outcomes (e.g., earnings, subjective well-being, fertility, etc.). As schooling is not an exogenous endowment, researchers need situations in which there are random differences in people's education levels in order to measure the causal effect. In many studies, some kind of educational reform – e.g., a change in the compulsory school attendance age – plays this role (and becomes an instrumental variable for education). The research question is whether such an increase in compulsory schooling age is a good instrument for schooling when one is working with survey data. A potential problem in such cases is that the reform can affect participation in the survey and the likelihood of respondents answering each question. In particular, it may be problematic that the poorest social groups are typically underrepresented in survey data while such reforms tend to affect the bottom of the distribution the most. This presentation examined, by reanalysing data from earlier studies, whether such reforms affected participation in the survey and the response to questions of interest. The author indeed found discrepancies in the surveys that were examined that may call into question the use of the reform as an instrument.

Anna Naszódi's presentation raised methodological issues in decomposition analyses of social change and illustrated them with an analysis of changes in educational homogamy (when members of a couple have the same education level) in a few selected countries. In order to separate the contribution of the possible drivers of these changes (eg. educational expansion or changes in preferences), one needs to construct counterfactuals that show what the share of educationally homogamous couples today would be had the different drivers remained unchanged (e.g., had the education levels of young men and women stayed the same as in earlier cohorts). The contribution of the research that was presented was a novel method for constructing the counterfactuals and the application of a path-independent variant of the well-known Oaxaca-Blinder decomposition method, which takes into account the interaction between the explanatory factors. The analysis illustrated that neglecting the interaction term can have an impact on the substantive results of the analysis.

The conference demonstrated that Gábor Kézdi has had a significant impact on the social science research community both as researcher and as professor. The research topics he was interested in continue to fascinate researchers, his results are widely cited and his research has become a motivation for further

inquiries. The data collected with his contribution are frequently used by researchers. His influence as a professor of data analysis will also continue through his recently published textbook and his former students many of them participating as presenters or discussants at the conference.