

2.2 SURVEY-BASED AND ADMINISTRATIVE DATA ON PUBLIC WORKS

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This subchapter summarises and evaluates the most important available data sources on the size and costs of public works programmes in Hungary. Since the various types of programmes were organised and funded by different agents, available datasets might also differ by source, coverage and methodology of data collection. We provide here a short overview on the availability of data covering the different time periods by unit of observations (aggregate-, regional- or individual-level data) and assess the reliability of datasets and their potential for research purposes.

Official aggregate data on the number of participants

On the total number of public works participants, two official time-series datasets were available for public usage (*Cseres-Gergely–Molnár, 2014a, Molnár et al, 2014*) before 2015. The first one was included in an annual report published by the National Labour Office [Nemzeti Munkaügyi Hivatal; the office was dissolved on 31 December 2014] on the number of participants in active labour market measures (*Mód, 2013*). The relevant statistics are the *total* number of participants involved, which is the total number of people who were engaged in public works programmes for at least once (at least for one day) during the relevant period, thus it does not provide information on the number of days employed or intensity of work (part-time, full-time). Distributions by type of programme (municipal-, national or PES-type), county, gender and age group are available. The second relevant data source is a monthly report published by the Central Statistical Office of Hungary [Központi Statisztikai Hivatal] under the name ‘Wages’, which includes a table on its last page on the *average* number of participants (headcount) in public works programmes. This shows the daily number of participants averaged over the month (*KSH, 2014*). Data are published by month and by number of working hours.

A third official publication on total headcount exists since 2015, however it only includes data from the year 2013: these are published on the official website for public works programmes, launched in 2015 by the Ministry of the Interior. Available statistics cover both the total number of participants involved in a given month and the average number, and also the number of participants entering and exiting programmes per month. The source of data is the Integrated Information System maintained by the National Employment Service, and not the reports of the local jobcentres (as was the case in the annual reports of the Labour Office).

Settlement-level data

Treasury data on the number of participants in municipal public works programmes (unpublished)

The Hungarian State Treasury [Magyar Államkinctár] used to maintain two datasets on the number of participants and expenditures of municipal-type public works programmes, which existed until 2011. The source of the first database was the municipalities' (settlements) reports on local government spending and revenues. The information source consists of about 50 separate forms: it is not cleaned or assembled into a standardised and user-friendly dataset. In theory, data covers the total number of public works participants in every Hungarian settlement; however, item nonresponse is common, which limits the opportunities for analysis (see the methodological appendix of *Scharle et al.*, 2011 for details).

The other dataset of the Treasury contains data on the amount of municipal-type public works subsidies paid from the central budget to the municipalities. This encompasses data on the amount requested by the municipalities, the amount transferred, the number of subsidised workers (by number of working hours), and days spent in programmes in every month. This data source seems to be the most reliable information on the headcount and total costs, as aggregating the settlement-level data on the national level is the best approximation of the published official aggregate statistics. Data are only available until 2010, as from 2011 on it is the local PES offices instead of the Treasury who administer the costs of the programmes. A disadvantage is that it only provides information on municipal-type programmes (during this period, a total of three types of programmes ran in parallel, one of which was the municipal-type), and it only contains information on subsidies spent on wages, thus no information is available on material or administration and management costs.

T-STAR

The Regional Statistics Database System (T-STAR) is a settlement-level collection of data covering various topics, maintained by the Central Statistical Office and published annually. The two relevant variables, 'total number of participants in municipal-type public works' and 'total spending on municipal-type public works' belong to the topic 'Municipal welfare system'. Data that belong to this topic are based on the No. 1206 form of the National Data Collection Programme (OSAP), which is a questionnaire filled in by local governments and sent to the KSH. Between 2003 and 2010, the first variable contained the number of unemployment assistance claimants who participated in municipal-type programmes, weighting part-time and full-time workers equally (that is, headcount was not full-time equivalent). The second

variable was total spending on municipal-type programmes in the given year, accounted by the municipality (including both wage costs and material and administration costs). From 2011 on, the variable on the headcount represents the number of unemployment assistance claimants who participated in any public works programmes, while the information on total spending is no longer available.

In the case of Budapest, both variables are constituted as the sum of the district municipalities' relevant variables, meaning that data on Budapest do not include spending and headcount in programmes organised by the municipality of the capital (which covers all districts but has an independent separate budget), resulting in an underestimation of the actual spending and headcount in the case of Budapest.

Although expenditure data of the Treasury and those in the T-STAR do not cover exactly the same elements (for example, the T-STAR includes all costs accounted for programmes, whereas the Treasury only has data on subsidies for wage costs), not unexpectedly, there is a strong correlation between the two series. However, there are some controversies as well: there are some settlements where T-STAR data is missing or zero, while according to the Treasury data, a positive amount was transferred as a subsidy (about 1–5 per cent of all settlements, depending on year), suggesting item nonresponse from the municipalities' part during the KSH's data collection for the T-STAR. There are also some settlements where the difference between the two series is substantial: the value of either variable is greater or smaller by 30 per cent than the other variable's value (about 13–18 per cent of settlements). Assuming that the Treasury's data is more reliable (since it is not based on self-reporting of the municipalities and is linked with actual cash transfer), one must treat T-STAR data concerning these settlements with caution.

Individual-level data

The Hungarian Labour Force Survey (Central Statistical Office)

The questionnaire for the Hungarian version of the Labour Force Survey (LFS) contains more than one question on public works participation. Before 2014, there were two questions that touched upon engagement in public works. Those who claimed that they were employed with a temporary contract (as opposed to an open-ended one) are asked about the reason for that, and one of the options is 'Because I am employed in a public works programme' (employment in public works schemes always come with a temporary contract). The other relevant question was about whether the respondent received any benefits for active-age persons: one of the options until 2013 was 'I do not receive any benefits at the moment but participate in a public works programme'. Based on these two questions, two distinct estimates could be made on the

number of participants for the years before 2014, but neither could distinguish the participants of the three types of public works programmes (that existed until 2010). Besides that, some inconsistencies arise when comparing the two estimates (see the methodological appendix of *Scharle et al*, 2011 on the details of this comparison and calculations). The yearly estimates based on the question about benefit receipt are more in line with trends based on other data sources, hence this variable seems to be more reliable for estimating the total number of public works participants, compared with the responses to the question about the reason of the temporary contract (*Scharle et al*, 2011).

Since 2014, a direct question about participation in public works has been added to the questionnaire, while the relevant option of the question about benefit receipt was dropped. Another question has been added, which is about whether the respondent participates in training related to a public works programme.

The main advantage of the H-LFS is that it contains a rich set of variables on the labour market characteristics of the respondents, enabling researchers to analyse participants by several aspects. Another strength is the rotational panel design and the fact that all individuals in the household are observed. On the other hand, since it is a survey based on the self-reporting of the respondents (or one of their family members), responses to the relevant questions are prone to measurement error: for example, some participants might not be aware of the exact nature of their legal status and might misreport it as regular employment; some others might feel stigmatised by their participation and thus may not admit it to the interviewer.

Unemployment register data by the National Employment Service

The datasets of the unemployment register – administered by the National Employment Service – include basic information (e.g. residence, date of birth, sex, education level etc.) on all registered jobseekers as well as benefit receipt and participation in active labour market programmes. Data on public works participation come from two sources. First, engagement can be registered as a reason for temporary suspension of registered unemployment status or unemployment benefit receipt. Second, it can also be coded among the active labour market programmes. Data for the years before 2011, however, is of questionable quality: national-type and municipal-type public works programmes were not always registered by the local PES offices, as these were not organised by the PES (as opposed to PES-type programmes). With the reform of the public works institutional system in 2011, a new information system called Employment and Public Works Database (FOKA) was introduced in September 2011 that replaced the previous system called Employment and Social System (EADAT). In the new system, claims for benefits for active-age persons (namely, the unemployment assistance and the regular social assistance) are

registered by the municipality (by the notary's office)¹, while participation in ALMPs (including public works) is administered by the PES via their own integrated system. In the previous system, if an assistance-type benefit claimant entered a public works programme, it was the notary's office's responsibility to register this action. However, since there are no sanctions defined in the relevant legislation against failing to register this information, municipalities do not have incentives to enter all data they are theoretically required to do (Audit Report, *ÁSZ*, 2013). Hence, data on participation in municipal-type public works for the years before 2011, as well as data on assistance-type benefit claims for the whole period is not necessarily reliable.

Another drawback is that the location (the settlement) of the programme in which the worker participated cannot be observed: the dataset only has information on the permanent address of the jobseeker (which is not necessarily the same as the location where they live or work) and on the location of the local PES office.

On the other hand, register data have the advantage of containing rather detailed information on all jobseekers registered, which offers a good opportunity for research. For example, *Molnár et al* (2014) analyse employment chances on the open labour market for those exiting public works programmes, using unemployment register data after the introduction of the new FOKA system.

Database on employment spells – data by the National Tax and Customs Administration

This database was created in May 2004, and originally only contained data on employment spells that were covered by the Labour Code. To assemble the dataset, initial data was provided by the National Health Insurance Fund of Hungary (OEP). On 1 January 2007, the Standardised Hungarian Employment Database ('EMMA'), managed by the PES, was terminated, and since then, employers are required to report all changes concerning employment spells to the tax administration agency. Since 1 September 2011, this reporting obligation also applies to the legal relationships of engagement in public works. Besides the start and end dates of the employment spell, the number of working hours as well as the code for the occupation [based on the Hungarian Standard Classification of Occupations (FEOR)] are registered.

The tax administration agency shares the contents of the dataset with the Central Office for Administrative and Electronic Public Services (KEKKH), which is a data managing authority that belongs under the responsibility of the Ministry of Interior; it is also the legal successor of the National Labour Office in managing the dataset. Based on this dataset, exits from public works programmes can be monitored: the Ministry of Interior calculates the ex-participants' rate of employment on the open labour market within the first 30 and on the 180th day after the end of the programme. The anonymised ver-

¹ As of 1 April 2015, it is the general government office at the micro-region level.

sion of the dataset is also frequently used by researchers, as it can be linked with other administrative datasets through a special hash code generated for individuals based on their social security number. Although data is not always precisely reported by employers (missing data is not uncommon), the dataset is still rather well-suited for analysis purposes: it provides an opportunity for examining the history as well as the exit rates of participants of public works programmes.

Aggregate data based on this dataset is not published by the tax administration agency.

Further data sources on the characteristics of public works participants

There are some other data sources that focus explicitly on the characteristics or living conditions of public works participants; these are usually small-sample survey or interview data that are not necessarily representative of the whole population of public workers. For example, *Koltai* (2013a) examines the labour market attachment of a total of 283 participants in five micro-regions through a survey designed directly for this purpose. Another example is a report made by the Hungarian Anti-Poverty Network (*Farkas et al*, 2014), which is based on another survey on a total of 533 public workers (and in-depth interviews with 42 additional workers): it contains questions on the history, income status and employment prospects of the respondents. A third survey conducted by *Bass* (2010) is, contrary to the previous two surveys, a representative one, although it only covers the 33 least developed micro-regions of Hungary. The survey was conducted during June and July 2009, which is shortly after the Road to Work programmes were launched: the sample covers a total of 1,718 households (with 7,844 individuals) in 52 settlements.

On the deviations among statistics based on different data sources

As discussed in the beginning section of this subchapter, aggregate headcount statistics are published both by the Central Statistical Office and by the Ministry of the Interior. In addition, in the case of the Central Statistical Office [KSH], two different data sources provide a basis for the aggregate statistics: the Hungarian Labour Force Survey and the data collection through the institutional system. Due to methodological reasons and the peculiarity of each data collection process, aggregate statistics on the headcount might differ. These peculiarities are the following:

1) The KSH's data collection through the institutional system: data providers are all firms that employ at least 50 workers, a representative sample of firms with employees numbering between 5–49 and of non-profit organisations, and all public institutions financed by taxes or social security contributions. Deviations from other statistics might arise from the fact that not all employers are covered by this data collection, even though the number of

public workers hired by firms with less than 5 employees or by non-profit organisations is not significant (however, non-profit organisations show a slowly increasing trend in hiring public workers, especially since 2015).

Official statistics on the average stock headcount concerning those engaged in public works are published once a month. It is important to note that the headcount is not in full-time equivalent: all participants are considered with a weight of one who, at the time of the data collection, have a contract concerning engagement in public works for at least 60 working hours per month (even if the contract is terminated before the end of the month). Corrections by KSH on previously published statistics are frequent.

2) The Hungarian Labour Force Survey, conducted by the KSH. As previously described, the LFS is a regular household survey with questions on the economic activity of persons between the ages of 15 and 74. The objective of the survey is to monitor employment and unemployment trends using statistics that are comparable among countries and are not affected by changes in the Hungarian regulation and methodology. Statistics are therefor based on the standard definition of the International Labour Organisation (ILO): an employed person is defined as someone who, during the week before the questionnaire is conducted (reference period), performed some work for at least one hour and received compensation (wage or salary) for it, or who had a formal attachment to their job but were temporarily not at work (e.g., due to illness or vacation) during the reference period. In the case of public workers, those who participated in training related to a public works programme are also considered as public workers, regardless of whether they actually performed work or not during the reference period.

Data collected from the questionnaires are weighted using sampling weights and aggregated to the level of the population. Monthly statistics are not published, instead, the KSH calculates three-month averages. Since they are estimated on a sample, the headcount statistics are subject to sampling error on the one hand, and measurement error on the other. The smaller the sample is, the larger the sampling error is; measurement error can result from the fact that household members can respond to the questionnaire on behalf of their family members, and might not know the exact nature of the legal relationship the other is engaged in.

3) Statistics based on administrative data and published by the Ministry of Interior. The source of the data is the information system used by the PES² to keep track of clients (registered jobseekers); the database is managed by the Central Office for Administrative and Electronic Public Services. The relevant statistics concerning the number of public works participants is the monthly average stock headcount, which is the daily number of participants averaged over the month. During the calculations on the total headcount – contrary to the KSH's statistics based on its institutional data collection –

² Before April 2015, the local PES offices; from April 2015 on, the micro-regional general government offices.

participants who exit from public works programme during the month are weighted by a number less than one. Since it is based on administrative data instead of a sample, the total population of participants can be observed. It is important to note that – consistently with the methodology used for other labour statistics – monthly headcounts are calculated by taking into account participants between the 20th day of the relevant month and the 20th day of the consecutive month. This can make a substantial difference, especially in months when a large-scale programme starts or ends. In statistical reports, new clients or events are feature in the period when they were recorded in the register. As of January 2015, data for a given month are recorded on the 20th day of the following month.

Summary

There are several data sources that can be used for the estimation of the number of participants or total costs of public works programmes in Hungary. However, they differ by exact content, methodology, the period for which they are available, and level of reliability. For the period before 2011, some of these datasets (for example the T-STAR or the expenditure data of the Treasury) solely relate to municipal-type programmes that existed until 2011, whereas other databases (such as the unemployment register data) have more reliable data on PES-type public works programmes. We summarise the most important data sources that are available on the settlement or at individual level in *Table 2.2.1*.

Comparing the data sources above, we can conclude that it is basically impossible to assemble a dataset that covers all types of public works programmes and calculates headcounts or costs based on a consistent methodology over a longer period. As pointed out by the State Audit Office of Hungary (Audit Report, *ÁSZ*, 2013), even headcount calculations that are supposed to refer to the same period and to the same programmes (but are based on different data sources) are not always consistent with each other. Since the changes of the institutional system and reduction of the fragmentation of the funding mechanism in September 2011, the reliability of the database managed by the labour institutions has improved. Official aggregate statistics on total headcount are published by both the Central Statistical Office and the Ministry of Interior; these statistics might differ due to the methodological details of the data collection process and ways of calculation.

Table 2.2.1: Overview of the most important data sources on public works programmes

Database	Source of data	Content	Unit of observation	Advantages	Disadvantages
Treasury data on municipal public works programmes	municipalities' requests for funding [62/2006 (III. 27.) gov. decree, appendix No. 6]	amount of subsidies requested and transferred to settlement, monthly headcounts	municipality (month)	supposedly reliable data on expenditure	only cover municipal-type programmes, only for the years before 2011
KSH T-STAR	OSAP form no. 1206 (obligatory reports from the municipalities' part)	number of participants & total expenditure on municipal-type public works	municipality (year)	consistent (harmonised) time series, available for a longer period	in some cases, less reliable data; only cover municipal-type programmes
KSH H-LFS	household survey	participation in public works at the time of response	individual (quarter)	rich data on individual characteristics	potential misreporting
PES register (Eadat, Foka)	unemployment register	reason for suspension of benefit or jobseeker status, participation in ALMPs	individual (spell)	rich data on individual characteristics; covers all registered jobseekers	not necessarily reliable data on public works for the years before 2011
NAV data	Form No. 15T1041 on employed persons covered by social security insurance	engagement in public works, FEOR-code, number of working hours	individual (spell)	rich data on individual characteristics; covers all public workers	occasionally missing data

Notes: KSH = Central Statistical Office, OSAP = National Statistical Data Collection Programme, NAV = National Tax and Customs Administration, PES = public employment service, FEOR = Hungarian Standard Classification of Occupations.