

HOW TO ESTIMATE TO GAINS TO INNOVATIVE ROMA INCLUSION PROJECTS

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The labour market inclusion of Roma would offer substantial economic and social gains. The first section of this note shortly summarizes these benefits in theory, while the second section offers a method to estimate the long-term economic gains of small, local Roma inclusion programs. In the third section we provide examples from the recently implemented programmes in the RARE project.

1. WHAT CAN BE THE ECONOMIC GAINS OF ROMA INCLUSION IN GENERAL?

The focus of this section is to discuss how investing into the labour market inclusion of the Roma would pay off on the short- and long run. Some of these social and economic benefits are quantifiable and will be quantified in the next section, while the rest is hard to put into numbers.

The most obvious social benefits of labour market inclusion are its direct fiscal (budgetary) benefits coming from being employed as those having a job contribute more to the national budget and/or receive less social transfers. Higher revenues in the national budget would come both directly in the form of income tax and contributions, paid both by employees and employers, and indirectly, in the form of VAT, coming from higher consumption expenditures¹. These budgetary benefits are straightforward to predict. Furthermore, Roma inclusion also means an increase in skills, which can further be enhanced by learning skills on the job. This contributes to growing productivity of Roma workers and a catching up of their wages, leading to higher state revenues.

Currently, due to social and economic exclusion, Roma might not invest sufficiently in their education, as their perceived and real future opportunities are constrained. However, if expected employment probability and expected wages go up due to an intervention, and hence the (perceived) pay-off to education might go up as well. Thus, on the long run, it is a fair expectation that labour market inclusion would contribute to the increase of the average

¹ In what follows, we will disregard higher VAT payments, thus slightly underestimating the benefits from the programmes evaluated.



educational attainment of the Roma.² In parallel, increasing work experience and education would increase the productivity of Roma workers and thus increase potential GDP and long-run economic growth. However, it is difficult to predict these knock-on effects, and we will not attempt to do so in this note.

2. HOW TO ESTIMATE THE ECONOMIC GAINS OF THE PILOT ACTIONS?

The interventions in the RARE programme, while they each have their own internal logic, all ultimately aim to increase the employment of Roma. It is worth first reviewing the logic of these interventions, in order to understand the outputs, intermediate outcomes, and to grasp which of these are possible to quantify.

2.1 INTERVENTION LOGIC

The first type of programme provides Roma youth with on-the-job vocational training or a workshop-based informal vocational learning. While neither leads to a formal qualification (rather, the output is a certificate of achievement), they increase Roma youths' skills, and puts them directly (or indirectly) in contact with employers (as these programmes are coupled with job search counselling). Thus, as an immediate result of the programme, Roma are expected to be employed in jobs that require higher skills and hence lead to higher earnings. Thus, following this programme, we can easily observe participants' (immediate) outcomes.

The second type of programme is a variation on the above, as they build either basic skills or they provide entrepreneurship training. While in these programmes the outputs are easy to quantify (increase in literacy, and number of business projects developed), the outcomes can be observed in the medium term – as business start-ups need additional funds to develop, and literacy skills are only a first step towards upskilling (and finding a job).

Finally, in programmes where the objective is sensitization and building mutual trust between the Roma community and public servants, the intervention logic is even more complex. While the immediate output is the training participation, the short term outcome is increased

² This in turn, would increase the probability of employment and expected wages, would positively affect health and fertility decisions and would further reduce crime rates as well.



tolerance and trust. This change in attitudes will result in the longer run in more local development projects or more Roma who enrol in PES funded training programmes, which will – even further down the line – lead to increased Roma employment. As is clear, in this type of intervention, the short term outcome is indirectly – the attitude of public servants - measurable, but the longer term outcome – change in the behaviour of public servants - is more complicated to quantify. Furthermore, other direct or indirect short- to medium-term outcomes of this type of action are also measurable. First, the number of (local) inclusion projects which have either incorporated a sensitisation element – which is evidence that RARE project implementers have convinced local stakeholders of the usefulness of this approach. However, it is very difficult to put a price tag on this kind of success (due to the reasons outlined above). Second, local partnerships between stakeholders might have become more effective in both attracting funding for and ensuring the better use of these funds for Roma employment. However, it is very difficult to show a clear causal link between the activities undertaken in the RARE project and these ultimate outcomes.

2.2 ESTIMATION OUTLINE

Our estimation methodology was based on estimating the difference of the potential gains and benefits, and, costs of the programs, using the impact of the programs on the probability of employment as their main outcome variable. We need to note that we were severely constrained by the fact that we could observe the outcomes of participants typically 3-4 months (or even less time) after the end of the programme – thus we could only estimate the immediate impact.

2.2.1 Estimation of the impact of the programme

We estimated the economic gains of the programs the following way. As a first step, the causal impact of the programs on the probability of employment needs to be estimated (counterfactual impact evaluation). This involves comparing the share of program participants that are employed 1 year after completing the program to the same ratio in a comparable control group (i.e., the counterfactual). The most credible way to set up a control group (a group of people who do not participate in program and would not be impacted by the program



in any ways) is using a random experiment, i.e. randomly allocating the members of the target group to treated (participating) and control (non-participating) groups.³ Then, the difference between the employment ratios of the two groups could be interpreted as the causal effects of the program on finding a job (or self-employment).

Then, the second step is the estimation of the average gross wage in the target group based on administrative, survey-based, or publicly available aggregate wage data. This estimation can be conducted many ways. The easiest way is using gross wage data for blue-collar workers published by the national statistical offices, or, by Eurostat, by gender.⁴ However, it can be directly observed from survey data as well.

In the case of sensitisation programmes the above strategy cannot be followed, as the most we can estimate is the change in public servants' attitudes (relative to a group who did not receive sensitisation), but not their behaviour, nor in potentially affected Roma persons' employment outcomes. This is due to primarily to the short observation window. Hence the best we could do is to consider alternative scenarios about the effect of the programme.

2.2.2 Costs and gains from the programme

First, in order to estimate the immediate gains from the programme we only consider a one-year window. Thus, we assume that the effects measured will last for only one year. In that case, it is straightforward to estimate the increased fiscal revenues from income taxes and social security contributions, as well as the decrease in public spending due to lower welfare participation.⁵ Second, the economic costs of the pilot programs are the direct costs including the actual expenditures of running the programs. Furthermore, we could consider indirect such as their related activities, research, communication, etc. – however it is very difficult to estimate these from an experimental programme.⁶ With access to an estimate of the costs and gains, we can directly calculate a gain-to-cost ratio.

³ We need to note however that in most pilots, there was no possibility of randomisation.

⁴ It would even be better to use gross wage data by educational attainment; however, such data is not readily available, neither at Eurostat, nor by the Hungarian Statistical Office. That measure needs to be calculated based on microdata. Clearly, if more detailed (potentially individual-level) data on earnings is available, it would be preferable to use that.

⁵ A further revenue would be the increase in VAT payments, which we will not consider here.

⁶ We could also consider Indirect costs including the alternative costs of program participation for the participants, i.e. the potential economic gain that they lost due to spending their time in the program. However, similarly to much



2.2.3 The long-run costs and gains of the programme in case of implementation

The first factor to consider when thinking about such an exercise is the relevant target population if the programme was to be scaled up. Clearly, programme involving giving entrepreneurial skills training to young Roma will likely reach a limited group – those who are interested in starting their own business. Similarly, an informal training programme in hand-crafts can only be implemented in those towns, where there are likely to be (older) masters willing to transmit their crafts. Thus, one needs to have an estimate of the potential number of persons affected, which is not necessarily easy to do given the paucity of surveys on the Roma population and their skills.

The second issue is how to project short-term effects (which can be directly estimated) to long-run trends. While one can assume that effects stay the same on the long run, but a more realistic projection of the potential results of the pilots, has make use of existing literature surveys, such as (Card et al., 2018)⁷ to calibrate results.

Third, it is not clear whether the same magnitude of effects for the participants will prevail in a large-scale roll-out as in a small-scale pilot. This might be due to the fact that the participants of the pilot (as well as the social workers, employment counsellors and employers) might be particularly motivated, and hence the potential positive effects of the pilot programmes are partially due to this selection.

Finally, in if the interventions happen on a large scale, they do not only affect their participants, but the total labour market as well. For example, such a programme might decrease the employment prospects of other people who are similar in their individual characteristics but not covered by the programme. Furthermore, while there might be demand for Roma on a small scale in local labour market, it is less clear that there is sufficient demand in case of a large-scale intervention. Here, we will assume that the above issues are not sufficiently large.

3. QUANTITATIVE ANALYSIS

of the literature, we ignore this factor.

⁷ Card, D., J. Kluge und A. Weber, What works? A meta analysis of recent active labor market program evaluations. *Journal of the European Economic Association*. 2018, 16 (3), 894 - 931



In this section, we provide a brief overview of the costs and gains from the six different pilots in the RARE project. For the pilot in Hungary, we will also show detailed calculations, as well as detailed economic predictions. For the other pilots, we only discuss the main findings of the evaluations. The overall picture which emerges is that where (potential) costs and gains to some extent measurable (or we were able to approximate them under reasonable assumptions), in the majority of cases the gains seem to outweigh the costs. We need to emphasize however, that a repeated measurement in Spring 2020 would be necessary to provide more reliable estimates.

3.1 DETAILED EXAMPLE FOR HUNGARY

Here, we quantify the effects for one RARE pilot from Pécs which provided (informal) vocational training – by the way of senior artisans - to Roma from two segregated settlements. The recruitment process, started with an information session, followed by a short questionnaire (including a simple skills test). The second step, which was a random allocation of the 30 eligible, Roma who had sufficient basic skills and motivation into a ‘participant’ and a ‘control’ group guaranteed a credible evaluation strategy.

Given this setup, we could estimate the immediate effect: the earnings of participants improved by 25 percent more than those of non-participants after the programme, contributing to an increase of around 45 EUR per month in terms of per head household earned incomes. Furthermore, 6 months after the end of the programme, 70 percent of participant were (still) employed. By contrast, the control group participated in PW programmes, and the employment rate (on the primary labour market) was similar to the nationwide figures, with 20 percent re-employment rate.

Building on the above results, we present the full effect of the programme, under two scenarios. First, that in case of a larger scale implementation, the effect on re-employment rates (which in this case was 50 percentage points) will prevail. Second, that the effect will only be half of what was observed in Pécs. Furthermore, we assume that there is no decay of effects trough time, and that no additional training will be necessary in the future. Given the above, we believe that the more pessimistic scenario is more realistic. We also assume that the costs of the programme will be as low as in the pilot if there is a roll-out. Finally, we presume that a similar programme, with similar participant numbers can be implemented in



all larger towns in Hungary (of which there are 20). We reason that in these towns there is a sufficient number of artisans who can be motivated to participate in the programme, and that the labour market is sufficiently large to easily integrate the trained Roma. Thus, altogether 300 participants will be included.

Table 1: The estimation of the benefits and costs of the pilots

Benefits			
	Assumptions	RARE (optimistic)	RARE (pessimistic)
Avg gross wage EUR/month	1 EUR=320 HUF	500	500
Welfare benefit EUR/months	Only basic benefit	70	70
Impact of the pilot on the probability of employment	Optimistic: observed in pilot; pessimistic: half of effects	0.50	0.25
Gross wage impact per person, EUR/year		3000	1500
Avg length of lifetime active period	The avg age of pilot participants is 30	30	30
Gross wage impact per person, EUR/active period	Active period is 35 years	90,000	45,000
No. of treated people	Assume 15 in the 20 larger towns of Hungary = 300	300	300
Gross wage impact in the treated group, EUR/lifetime active period	The estimated 10 pp employment impact stays constant for 35 years, labour productivity is constant, discount rate equals to wage increase	27,000,000	13,500,000
Direct fiscal effects in income tax and contributions, paid by both the employee and the employer, EUR/lifetime active period	According to the 2019 tax schedule in Hungary, base tax schedule with no reductions	10,044,000	5,022,000
Indirect fiscal effect: welfare benefit savings	Those not in employment would be on welfare benefits	3,780,000	1,890,000
Costs			
Pilot costs, EUR per person	Observed costs	2070	2070
Total for participants	Assume only one-time programme participation	621,000	621,000

Even in the pessimistic scenario, the lifetime total fiscal benefits of the programme would be on the order of 7 million EUR, which is more than ten times larger than the total costs of the programme. To put it differently: even if further training is necessary to keep up the impact



of the programme, the fiscal benefits are sufficiently large that if trainings are necessary every 3 years, the programme would likely break even.

3.2 ANALYSIS OF TRAINING PROGRAMMES IN THE CZECH REPUBLIC, ROMANIA AND SERBIA

The three other pilots delivered some kind of training coupled with mentoring, however the target groups and accordingly the content of the training differed substantially. Clearly, the most disadvantaged target group was found in Sfântu Gheorghe (the segregated settlement of Örkő): a large number of them did not finish primary education and could not read/write in the official state language (Romanian), and did not work at all in the previous two years. Thus, the training had to incorporate not only vocational skills, but also basic skills training. In contrast, among the persons included in the pilot in Vojvodina half of them finished basic vocational secondary education. Finally, the participants in Brno also had relatively high levels of education.

In the Romanian pilot, there was a sizeable attrition, only half of the initial intake group finished the programme with a certificate (meaning 15 persons). Among this group, four persons were hired and two others found a job which was better (higher paid) than their original one.⁸ The new hires potentially resulted in an increase in state revenues of 200-240EUR/month/person (depending on family situation) and the increase in incomes also mean an additional 100EUR/month/person in the form of social security contributions and taxes. Thus, under the assumption that these jobs last at least one year, the programme yielded a potential fiscal gain of around 13,000EUR. This needs to be contrasted to the total outlay of 32,000EUR. In this case, the pilot did not yield positive net gains in the short run. It needs to be kept in mind that this was the first similar programme in the settlement, with a high attrition rate, and with the beneficiaries needing very intensive support. Furthermore, since this pilot was not coupled with intensive jobs search support and job mediation, which likely would have improved the results in terms of short term employment gains.

The pilot in Vojvodina yielded positive results in terms of work take-up and job advancement. However, the time elapsed after the end of the training in the companies was far too short to

⁸ At the same time, there was no change in the employment status of the persons in the control group.



have a realistic estimate of the effect of the programme. However, the costs of this programme was relatively low, at about 667EUR/head. This means that if programme participants were re-employed thanks to the company-based training for on average 5 months (or 40 percent were re-employed for an additional year) the pilot would break-even.

Training for business ideas and self-employment is also complicated to assess, as such plans need time and assets to mature. The inherent uncertainty is also demonstrated by the fact that out of the 27 Roma participants starting a business training, 14 persons developed business intention projects by the end of the course. Finally, five complete business plans were created, and of these 4 persons were also re-employed for a period of 8 months during the pilot project to test their business plans. The financial implications of this latter is straightforward to assess: it led to the saving of around 22,000EUR and further 6,500EUR in the form of taxes and contributions. Finally three businesses were set up by the end of the project, but the gains of these are not possible to assess at this stage. These gains need to be contrasted to the value of services received through the business training, which amounts to around 19,000EUR as well as further administration and mentoring costs estimated at 8,000EUR. Thus, the pilot project had a zero balance even if all the businesses created immediately failed (and hence did not generate any additional revenues for the state).

3.3 THE RESULTS OF SENSITISATION PROJECTS IN BULGARIA AND SLOVAKIA

As previously mentioned, the case of sensitisation type programmes is much more complicated than programmes providing direct help to Roma beneficiaries. Due to this reasons, as well as the fact that with these programmes no outcomes for a possible 'control group' could be observed, we will only sketch the elements of a qualitative cost-gains evaluation.

In Slovakia, the picture emerging from focus groups with labour office employees following the sensitisation training were only mildly positive. On the one hand, the counsellors showed an openness to such trainings and felt the need for further, more practice-oriented sessions. On the other hand, they seemed to only slowly loose some of their long-ingrained views about the Roma population. Nonetheless, one can think of different scenarios regarding the effect



of the re-employment of long-term unemployed Roma, whose number in Kosice is currently estimated to be around 4000 persons. The cost of the sensitisation campaign was on the order of 55,000 EUR, and it reached about 80 employment counsellors.

This needs to be contrasted with the potential savings on benefits (including activation supplements on the benefit in material need) and the additional income if a person is re-employed (legally) on minimum wages. The sum of these two can range between 5,250 EUR/person/year (for a single person) to 6,630EUR/person/year (for a person living in a family with two children). Thus, if at least 10 long-term unemployed persons are re-employed due to the sensitisation training (meaning an 0,25 percent effect) the programme breaks even within one year.

It is difficult to estimate what the effect of more regular (rather than one-off) trainings might bring, but one might consider that repeated sensitisation trainings might have exponential effects (up to a limit).⁹ This might be due to the fact that repeated (and more practice-oriented) trainings will lead to a better understanding of the situation of Roma on the part of employment counsellors. However, without a more systemic change in the way active labour market programmes and services are administered (which might have further implications for the costs of labour market services to long-term unemployed Roma) it will be impossible to achieve a more radical improvement.

A similar programme in Bulgaria had slightly different objectives: it was to have all local stakeholders (municipal workers, local employment office counsellors, local school principals, local Roma representatives, and even employers) participate in sensitisation trainings (with the objective of fostering more co-operation). The immediate output was 171 persons participating in the trainings (in 12 different locations). On top of this, 25 persons long-term unemployed Roma persons also received mentoring in order for them to stabilise their employment status (this cost 2550 EUR). The total cost of these actions was on the order of 42,700EUR.

The same types of issues as in the case above are encountered when calculating potential gains from the programme. In principle, the gains of the state from the re-employment of a

⁹ For instance, two (repeated) trainings might lead to an effect that is three times as large as a single one.



single person on minimum income benefits to a minimum wage jobs in Bulgaria amounts to around 1800EUR/person/year¹⁰. First, it is likely that of the persons receiving mentoring, at least part of them was able to find and retain a job thanks to the programme so this element of the pilot was highly cost effective¹¹. Second, partly thanks to the sensitisation campaigns, local stakeholder agreements were signed in all 12 settlements. Related to this, the settlements were successful in obtaining additional funds (emanating from ESF social inclusion project) to the order of 450,000EUR. Furthermore, in the twelve settlements, there were 352 Roma persons re-employed during the period of the RARE pilot programme. If only 25 of these were due to the pilot programme, the project would break even. However, we are not including in this calculation the additional (potential) future employment contracts due to the funds secured.

¹⁰ Notice that this is due to the very low level of benefits in Bulgaria (on the order of 30EUR/person/month), as well as the low minimum wages.

¹¹ Note that a beneficial side-effect of the RARE seemed to be the higher attendance rate of Roma children in school.