Svabova, Lucia; Kramarova, Katarina; Gabrikova, Barbora

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Counterfactual Assessment of the Allowance for School-leaver Practice Performance as a Measure of Active Labour Market Policy in Slovakia[1]

*Lucia SVABOVA – Katarina KRAMAROVA – Barbora GABRIKOVA**

Abstract

The intervention Allowance for school-leaver practice performance is in Slovakia one of the active labour market policy instruments aimed at unemployed young school-leavers. It was put into practice to enable young jobseekers to gain their first contact with the labour market and first work experience and habits. As the state budget and EU social funds are used to finance this intervention, there is a natural need to evaluate its outcomes. In this study, the evaluation is carried out by a counterfactual approach. To cope with the problem of selection bias, the method of an instrumental variable is used. The results show that the intervention has a short to medium-term impact on the employability and a significant positive impact on wages. The results of this study have the potential to be used by the policymakers to create the conditions for the effective functioning of the measure and eligibility of the participants.

Keywords: *allowance for school-leaver practice performance, active labour market policy, intervention, youth unemployment, instrumental variable, counterfactual evaluation*

JEL Classification: C54, J08, J64

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* Lucia SVABOVA, corresponding author – Katarina KRAMAROVA – Barbora GABRIKOVA, University of Zilina, Faculty of Operation and Economics of Transport and Communications, Department of Economics, Univerzitná 1, 010 26 Žilina, Slovakia; e-mail: lucia.svabova@fpedas.uniza.sk; katarina.kramarova@fpedas.uniza.sk; gabrikova1@stud.uniza.sk

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1. Introduction

Unemployment is a serious economic, social and political problem negatively affecting the national economy, society, and directly the unemployed individuals (Ajufo, 2013). Therefore, the labour market policy (LMP) is logically oriented toward creating new jobs and reducing the burdens of unemployment itself (Jackman et al., 1990). Moreover, there is a great risk that the unemployed individual will lose work habits, faith in their abilities, or even build a passive attitude toward the need to be employed (Feather, 2012). This situation is even more acute in the case of young school-leavers who have little experience with the real labour market, are in the phase of building working habits and gaining skills and professional experience.

Because of the objective seriousness of the unemployment problem, governments are trying to keep the unemployment rate as low as possible through various measures to support unemployed persons with their successful integration into the labour market (Scarpetta et al., 2010). Youth unemployment poses a particular risk, which also applies to Slovakia. To support the employment of young school-leavers in Slovakia, the government operates various measures aimed at this group of unemployed (Svabova et al., 2021; Svabova and Kramarova, 2021). One of these measures in Slovakia is the Allowance for school-leaver practice performance. This is the name of the intervention in Slovak legislation, usually, in practice, it is referred to as "Graduate practice", in the LMP database of the European Commission referred to as "Support for graduate work experience". In this study, to unify with the most common designation, we will use the term "Graduate practice". It is one of the ALM measures in Slovakia aimed at young jobseekers.

In recent years, we have seen a decline in the number of participants in this intervention. This is also one of the reasons why policymakers need to pay attention to it. It is one of the most frequently used intervention measures for young school-leavers, and therefore it would be appropriate to raise awareness about it, optimise and rationalise its conditions and functioning so that it is beneficial and brings the desired effect both for young people in terms of the state budget and reducing youth unemployment. Therefore, the main aim of the study is to evaluate the impacts of the Graduate practice on the outcomes of the individuals in the labour market, expressed by their employability and sustainability of their jobs. The main evaluation question is how much the employability of the young school graduates is affected by their participation in the Graduate practice intervention and, moreover, whether this treatment also significantly affected the average wages of the participants. We want to know the impacts of the intervention and their sustainability, i. e. how long the effect of the treatment on the employment of the

participants remains. This evaluation is made by the counterfactual approach, bringing highly rigorous results by applying quantitative econometrics methods. The main contribution of the study is the application of the instrumental variable method, trying to mitigate the problem of self-selection and selection bias resulting from the voluntary nature of the measure in Slovakia. The originality of the research lies in the rigorous evaluation of the intervention often used among young people in Slovakia, quantifying the impact of the intervention on its beneficiaries. As the key to profiling this measure in the future, we consider 1. to ensure its better functioning (from the participant´s point of view) and 2. efficient spending of public resources (from the point of view of the state budget), whereas the implementation of the measure involves public expenditure.

The paper consists of four main parts. The next section represents a brief analysis of ALMP measures in Slovakia and describes the selected measure. Then, within the literature review, we present studies aimed at the evaluations of the measures of the ALMP and their results, paying special attention to the studies carried out so far in Slovakia. The third section describes the data and the framework of the study, including the variables used in the analysis. Finally, section Results presents the findings and final evaluation of the efficiency of the analysed measure. The conclusion summarises the results and proposes the future direction of the study.

1.1. Labour Market policy in Slovakia

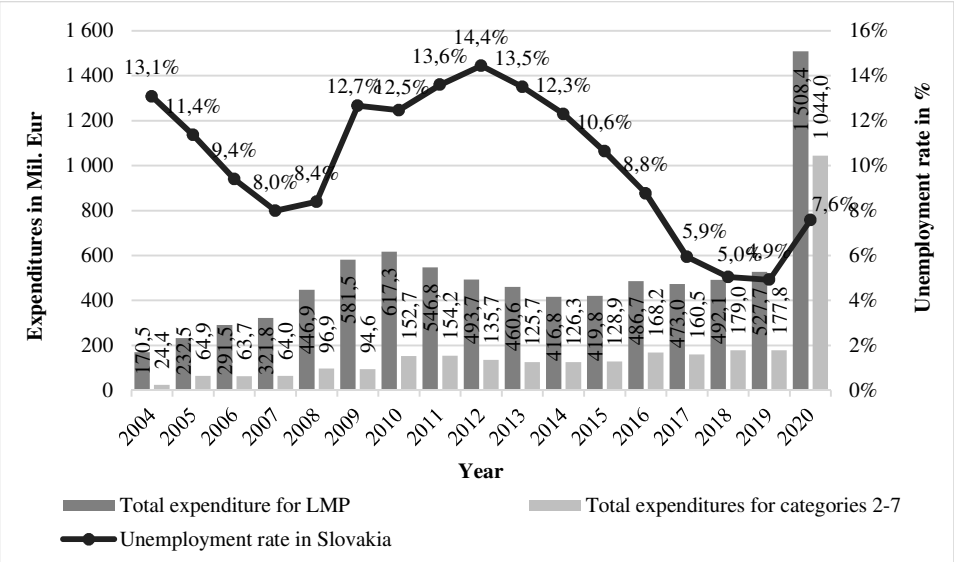
Figure 1 shows the development of the amount of funds spent on LMP in Slovakia (dark grey colour, data from 2018 is missing) as well as on ALMP instruments (light grey colour) between 2004 and 2017 (2018). It also shows the development of the unemployment rate in Slovakia (black line).

In 2020, the strong impact of the pandemic on the labour market was visible, as total labour market expenditure had almost tripled compared to the previous year. Contributions paid to ALMP (group 2, categories 2 – 7) increased almost sixfold compared to the previous year. The figure shows total expenditure on LMP and the implementation of ALMP measures, but if we look at them in more detail in an international comparison of the share of GDP, we have to say that SR belongs to the EU Member States with relatively low expenditure on ALMP. In 2019, spending on the whole LMP in Slovakia accounted for 0.56% of GDP and, in 2020, raised to 1.66% because of the rising unemployment caused by the Covid-19 pandemic. However, ALMP measures are still lagging behind spending on passive labour market supports (group 3, categories 8 and 9), accounting for 0.33% of the Slovak GDP in 2019 and 0.46% in 2020 (European Commission, 2022) and accounted for almost 83% of total spending on the implementation of

LMP in 2019 and almost 68% in 2020. For comparison, some countries such as Denmark, Portugal and Poland provide almost 90% of LMP spending directly to individual consumers (Stefanik et al., 2018).

Figure 1

Expenditures on LMP in Mil. EUR and the Unemployment Rate of the SR



Source: Own processing according to data from Eurostat, the COLSAF and the Statistical Office of the SR.

As regards the number of participants, in 2019, more than 127,000 people of the total number of more than 165,000 unemployed participated in LMP measures. In 2020, the impact of the Covid-19 pandemic caused that there were more than 2,500 000 participants in the ALMP measures, but 96% of them were the beneficiaries of the employee incentive program First Aid aimed at mitigating the negative impact of the pandemic on unemployment. In other measures, the number of participants mostly decreased (COLSAF SR, 2020; European Commission, 2022).

As was mentioned above, the Graduate practice we are dealing with in this study is one of the most widely used ALMP interventions among young jobseekers. The greatest interest in this measure was recorded in the crisis and post-crisis period (2009 – 2012), where the numbers of treated school-leavers ranged from 12,000 to 22,000. Between 2010 and 2012, the total expenditure for implementing this intervention amounted to 15 to 16 mil. EUR. In 2019, the number of treated individuals dropped to more than 3,500, and the total expenditure for this intervention was almost two mil. EUR. This decline was also related to the fact

that many school-leavers were included in other projects for young people under 29 of age, for example, the project "Graduate practice starts employment", and therefore they were in the Central Office of Labour, Social Affairs and Family (COLSAF) database registered as participants in this project, not as participants in the Graduate practice intervention (COLSAF SR, 2020). In 2020, 2,380 eligible jobseekers attended the Graduate practice intervention with a total expenditure of more than 1,5 mil EUR. At present, other measures of ALMP have been introduced in the law to create permanent jobs for those young people who have participated in Graduate practice. Eligible recipients of this intervention are those companies that enable the implementation of the Graduate practice.

1.2. Conditions of the Intervention Graduate Practice

The measure is primarily governed by Act No. 5/2004 Coll. on Employment Services and amending certain laws. It is provided voluntarily by the COLSAF through the local offices, following the conditions defined in Section 51 of the Act. The general aim of this measure is to reduce the unemployment rate among young jobseekers under the age of 26. The specific aim of the intervention is to support the competitive ability of young school-leavers and thus their employability and long-term sustainability in the labour market through the acquisition of working skills, professional experience and working habits.

The Graduate practice was put into practice for the first time in 2002. Since then, it has undergone several adjustments to reflect the best needs of the labour market. The period analysed in this study corresponds to the current wording of the Act. In general, the measure is intended for the school-leaver, who:

- is a person not older than 26 years,
- has left the continuous preparation for a job with relevant education stage in the full-time study less than two years ago,
- at the same time, did not have a regular paid job for longer than six consecutive months before the official registration in the register of jobseekers,
- is registered in the database of jobseekers for at least one month.

The granting of the contribution is subject to the signing of an agreement between the labour office and the participant and, at the same time, between the labour office and the employer. The duration of the Graduate practice is at least three months and a maximum of six months (20 hours daily) without the possibility of repetition and extension. During the Graduate practice, the participant remains in the register of jobseekers and cannot do any other job. For the employer who provides the Graduate practice, the young school-leaver performs the work assigned to him by the employer. The aim is to place a young individual in a company whose subject of activity corresponds to the participant's education.

During the Graduate practice, the relevant labour office pays the participant a monthly allowance. From 2011, this allowance is fixed to 65% of the subsistence minimum provided to one adult person in the given year. As the subsistence minimum varies according to Act No. 601/2003 Coll. on subsistence minimum and on amending certain laws, the allowance to the Graduate practice has varied, too. The amounts of these allowances are in Table 1 (Q means the quartile of the year).

T a b l e 1

Monthly Allowance of Graduate Practice Intervention

Period	2013 – Q2/2017	Q3/2017 – Q2/2018	Q3/2018 – Q2/2019	Q3/2019 – Q2/2020	Q3/2020 – Q2/2021	Q3/2021 – Q2/2022
Subsistence minimum in EUR	198.09	199.48	205.07	210.20	214.83	218.06
Allowance in EUR	128.75	129.66	133.30	136.63	139.64	141.74

Source: Own elaboration based on Act No. 601/2003 Coll. on subsistence minimum and amending certain laws, Act. No. 5/2004 Coll. the Act on Employment Services and on amending certain laws.

Stefanik et al. (2020) state that Graduate practice in Slovakia has relatively low costs in an international comparison, which is its main advantage and makes it one of the most effective measures among the Slovak ALMP measures from a cost-benefit perspective.

1.3. Literature Review

As the authors state in Kluve et al. (2019), despite the importance of the youth unemployment problem, there exists little systematic evidence about the effectiveness of intervention programs targeted at the group of youth unemployed. The authors state that several studies analyse the effectiveness of ALMPs for the general population or synthesise the findings of such research, but a few reviews have focused specifically on programs aimed at youth. Therefore, the authors collected 113 studies about 107 different youth employment interventions in this study. This study builds on previous articles by Kluve et al. (2017), in which the authors have described the selection criteria, process and results of summarising a large number of studies focused on youth programs. In Kluve et al. (2017), the authors collected analyses of selected active measures in 31 countries, a totally of 107 interventions aimed at young jobseekers. They found that investing in youth through active measures yields positive results on average. However, the impacts of the analysed measures were greater in low- or middle-income countries than in high-income countries. Interventions aimed at young jobseekers in low- and middle-income countries impacted both employment and earnings outcomes. The finding is considered to be very important since it points to the potential benefits of combining supply- and demand-side interventions to support youth in

the labour market. A similar approach was chosen by Caliendo and Schmidl (2016), who also summarise the results of 37 implemented studies of intervention programs for unemployed youth, specifically labour market training, job search assistance and monitoring, wage subsidies and public sector work programs. The authors first analyse the labour market for young people, the role of ALMP programs for them and then summarise the results of studies of programs in different countries, either programs for youth or general programs, but the study included a sub-analysis for youth.

Similarly, McKenzie (2017), in his study, critically evaluates the realised evaluation studies of the effects of vocational training programs, wage subsidies and search and matching assistance in various countries. In addition to summarising the results, the author adds his own views on many aspects of the studies, such as the approach to evaluation, measuring the outcome variables or estimating the costs and benefits of the studies performed. Finally, it also summarises the findings for policymakers and also for the implementation of impact evaluations.

If we look in more detail at individual studies carried out as evaluations of programs for the young unemployed, Rotar (2021) used the classical propensity score matching approach to find the causal effect of subsidised employment programs on the probability of re-employment and the probability of participation in the regular educational system of young unemployed Dutch people. The authors found a positive but small short-term impact of the program on re-employment probability and a negative long-term impact. The probability of participation in regular educational systems proved to be positive in the short-term as well as in the long-term but evidently decreases in the long-term. The author appreciates the reforms in the Dutch system and mentions the need to continue them to improve the system of operation of these programs.

Bratti et al. (2022) focused on analysing the effectiveness of a vocational training program for unemployed youth in Latvia as part of the EU Youth Guarantee scheme. The authors used a regression discontinuity design and examined the effect of program participation on the employment and wages of treated individuals. However, it turned out that the program did not have a positive effect, which the authors attribute to the specific characteristics of the program and also the way it is implemented. The authors point out that this study is one of the first evaluation programs implemented under the Youth Guarantee scheme.

In the neighbouring Czech Republic, Hora and Sirovatka (2020) focused on the apprenticeship program for youth. The authors found very heterogeneous effects among young people, with the program performing best in the long-term unemployed and medium-skilled youth groups. Therefore, the authors point out that the program needs to be adjusted and interventions targeted to achieve better results.

In her study, Wesseling (2021) focused specifically on a group of highly educated young people who participated in a 6-month traineeship program in the Netherlands. The author emphasises that in the Netherlands, there were several programs for young people aimed at people with lower education, while a group with higher education achieved high unemployment. However, existing programs did not suit this because educated young people have different expectations, experiences and characteristics. The author focused on predicting employment status and subsequently also employment quality for placed applicants. After one year after participation, the program proved beneficial for young people with high education.

Niyadurupola and Esposito (2021) focused on programs for young unemployed people from another interesting point of view by tracing attitudinal and behavioural change processes of unemployed young participants of a variety of activation-oriented job training programs in Germany. The authors contacted training organisations and focused on 29 training interventions for young people. Subsequently, they examined change processes in seven defined phases. Their results should contribute to recognising the successful activation of young people through dedicated programs.

In Slovakia, there are already several studies aimed at evaluating the effects of policies for young people. The first study analysing the effects of ALMP programs in Slovakia, in general, is considered the study presented by Burda and Lubyova (1995). In the study, the authors analysed the impacts of the measures on unemployment in 1991 – 1994 and compared it with the situation in the neighbouring Czech Republic. A positive correlation was found between using the ALM measures and the number of vacancies in both countries. The measures also had a significant positive impact on the placement process of jobseekers in the labour market. Borik and Caban (2013) and Harvan (2011) also focused on evaluating the Graduate practice intervention. The authors of these studies found out that participants of the Graduate practice achieved better results in the labour market than the non-participants of the intervention. A more comprehensive evaluation study is realised in Svabova et al. (2019a). The study shows that the Graduate practice intervention positively impacts the employability of young school-leavers compared to individuals who did not participate in the measure. The authors point to the rather short-term impact of the intervention on the placement of the participants in the labour market during the impact period. Moravcikova (2015) and Stefanik (2014) emphasise, among other things, the institutional aspect of implementing the Graduate practice since the way of implementation plays an important role in determining the net impact of the intervention. Also, the authors mention that the implementation of this intervention among

responsible institutions (labour offices) was not uniform, which was reflected in the great variability of net impacts. Svabova et al. (2019b) focused on evaluating the Graduate practice on the Slovak state budget by the cost-benefit analysis and stated that this intervention saved on average 20% of the expenditure spent on every unemployed individual in 2014 and more than 70% in 2015. Among the last implemented studies that also focused on Graduate practice and its effects on young people's employment, the studies by Stefanik et al. (2020) and Svabova and Kramarova (2021) could be mentioned.

Despite the studies mentioned above, we have to say that although the European Commission is putting pressure on applying evaluation methods to empirically test the impact of EU cohesion policy (Potluka et al., 2016), there are not many impact evaluations of ALMP instruments in Slovakia. According to the recommendations of the European Commission formulated in the EU regulation No. 1303/2013, implementing impact evaluations results in evidence-based policy-making is mandatory for the EU Member States. Currently, the National Project Building and Development of Capacity of Analytical Units at Selected Central State Administration Bodies is underway in Slovakia, within which several evaluations have been carried out. One of them was the evaluation of the impacts of the Graduate Practice, but the results have not yet been published.

2. Methodology

In this study, the impact evaluation of the Graduate practice intervention is realised by the counterfactual approach, where the creation of the most accurate counterfactual situation is realised through the matching of individuals based on their pre-intervention characteristics. We used the propensity score matching, which represents the probability of the individual's involvement in the Graduate practice, estimated using the logistic regression model. This score is then used for matching treated individuals with control non-treated individuals. We used the caliper matching with replacement in this study, with the maximum caliper 0.0001.

The impacts of Graduate practice are evaluated using the outcome variables, monitoring the course of the employment and unemployment of the individuals during the impact period. For this purpose, we used the second above-mentioned administrative database – the Social Insurance Agency (SIA) database. SIA performs registration in this database for all payers of compulsory insurance payments resulting from legal forms of employment. Based on the start and end dates of registrations in SIA, the type of the registration and the recorded monthly assessment base, we determine the individual's employment and the amount of

monthly wage during the individual impact period. The outcome variables used in this study are:

- *wage* – the average monthly wage of an individual (in €) over the impact period;
- *employment* – number of days of registration of an individual in the SIA as self-employed or full-time employed. When constructing this variable, we determined the length of individual records during the impact period based on the dates of the beginning of the registration in the SIA database and the end of the registration. If an individual had multiple registrations during the impact period, we aggregated them by the sum. In the case of the current registration of an individual in the form of full-time employment and self-employment, only longer registration was taken into account.

However, the so-called selection bias problem should also be considered when evaluating the impact of this intervention based on the mentioned propensity score matching. In the case of the Graduate practice intervention, the individual's participation in this program is voluntary, resulting from the young jobseeker's decision to participate in this practice. Thus, the use of a control non-treated group as a substitute for the counterfactual situation of a treated group would result in a selection bias, as the intervention impact can be influenced by the self-selection of individuals' participating in the Graduate practice, i. e. their motivation to find a job and keep it. However, this motivation may also affect their results in the labour market in the post-intervention period. At the same time, we must take into account the impact of the unobservable characteristics of the individual, such as talent, motivation, skill etc. This would also result in a bias of estimates of the intervention effects, which are then overestimated.

To solve this problem, in this study, we used the instrumental variables (IV) method or, more concretely, its generalisation, the two-stage or three-stage regression. Let's use the notation:

- D is the binary variable identifying the participation in the intervention, i.e. $D_i = 0$ for non-participant i and $D_i = 1$ for participant i,
- Y_i is outcome variable for an individual i measured in the impact period after the end of the intervention; in this study, the impact period is 24 months after the completion of the Graduate practice,
- Z is the instrumental variable.

The procedure for estimating the ATE effect of an intervention using the two-step least squares method is as follows (Cerulli, 2015):

1. Regression model of D dependence on X and Z in the form

$$D_i = \alpha + \delta_x X_i + \delta_z Z_i + \varepsilon_i$$

From this model, we obtain the predicted values $\hat{D}_1$ of D_i. By analysing the first regression model, we also verify the validity of the assumption of the relationship between instrument Z and state of support D (KPMG, 2015).

2. The second regression model of the dependence of Y on X and on $\hat{D}_1$. The coefficient of the variable $\hat{D}_1$ in this second regression represents the ATE estimate (Cerulli, 2015).

Cerulli (2015) recommends using the logit or probit model instead of the OLS model in the first step to obtaining more accurate estimates of the selection variable (and thus more accurate ATE estimates).

However, the above-mentioned two-stage approach has an important shortcoming. The consistency of the estimates obtained depends very much on the correctly specified propensity score model in the first step of the procedure. If this assumption is not met, deviations are transferred from the first model to the second model, disrupting the resulting ATE estimate. To solve this problem, Cerulli (2015) proposes using a three-step model as a combination of a probit model and a two-stage least squares method. The three-stage estimation process of the intervention impact is then as follows:

1. Logit model for D on X and Z from which the probabilities for an individual's participation in the intervention $\hat{p}_1$ (D_i) are predicted.

2. OLS regression model of D on X and $\hat{p}_1$ (D_i). The predicted values from this model are $\hat{p}_2$ (D_i).

3. Second OLS regression model of Y on X and $\hat{p}_2$ (D_i) The regression coefficient of the variable $\hat{p}_2$ (D_i) in this third regression represents the estimate of the average treatment effect (ATE).

When used instead of the two-stage method, the resulting standard deviations of estimates do not need to be adjusted to use the predicted values from the first two models as the consistency assumption required in such cases is met (Wooldridge, 2010). Therefore, in this study, we used the least-squares method as a combination of the probit model and the two-stage least squares method, according to Cerulli (2015).

In the studies, various variables are used as appropriate instrumental variables, usually the characteristics of the environment in which the jobseeker lives or works. For example, CRIE (2014) proposes instrumental variables such as geographical distance from the participant's place of residence from the place of work or from the labour office; dummy variables determining randomisation of program participation; characteristics of the partner, parents or parents, relatives. On the other hand, KPMG (2015) emphasises that the estimated average impact of the intervention is dependent on the used instrumental variable, as different

instruments may produce different variations in the intervention variable. In this study, we use the distance of the jobseeker's permanent residence from the local labour office as the instrumental variable. We assume that this distance affects the individual's decision to participate in the intervention because too long a distance to the local labour office may demotivate the jobseeker, for example, to undergo an administrative process before the intervention. However, the individual's employment and job sustainability are not affected by this distance. The distance (in kilometres) was measured using the matrix of distances between municipalities in Slovakia, published by Janosikova (2019). To determine this distance, we used the individual's permanent residence data and the data on his affiliation to the local employment office. A similar variable but expressed as travelling time to the nearest COLSAF regional office, was used in their study by Stefanik et al. (2020).

The correlation between the instrumental variable Z (*distance* from the permanent residence from the local labour office) and participation in the intervention *D* is 0.203 (p-value of the test of its significance is < 0.05). This means a relatively weak but statistically significant correlation. Moreover, the correlation coefficient between the instrumental and outcome variables minutes is weaker (0.04 for outcome variable *wage* and 0.08 for *employment*). Thus, it can be said that this variable influences an individual's decision to participate in the program. It can also be argued that this variable distance is not directly related to the probability of finding employment in the future. This variable is also not associated with the individual's motivation. There is no obvious reason to believe that the distance between the jobseeker's permanent residence and the local labour office is associated with the individual's motivation or probability of finding a job. Therefore, we consider it a relevant instrumental variable for this analysis.

However, a heterogeneous effect of the intervention can be expected to some extent, and the variable distance can be considered a weak instrument. According to Imbens and Angrist (1994), the estimator then expresses the effect of support only on units that change their status from non-treated to treated when the instrument changes but does not identify the treatment effect on units that would be treated regardless of instrument changes. The result of the estimation using the instrumented variables method will then be the local effect of the intervention (LATE – Local Average Treatment Effect). Although this is usually interpreted as a disadvantage of the instrumental variables method, the estimated parameter may be of interest to policymakers. Moreover, the analysis of the first stage regression model and with all covariates and the instrument in a regression equation, using the F-test, brought results that speak more in favour of the instrument, although it can be considered a weak instrument, providing only LATE estimates.

3. Data

For the purpose of this study, we used two official administrative databases. The first one was the official database of unemployed jobseekers, administrated by the governmental public employment agency COLSAF. Registration in this database is necessary for every unemployed jobseeker to obtain related benefits such as unemployment allowance, participation in intervention programs or payment of health insurance by the state (Stefanik et al., 2020). We obtained data on all individuals who were registered in the jobseekers database during the specified period from this database. We selected those individuals who were eligible beneficiaries of the evaluated intervention from this database. The evaluation carried out in this study covers the period 2014 to 2017, taking into account those treated school-leavers who started the Graduate practice at the earliest on 1st October 2014 and, at the same time, the 24-months impact period under review expires on 31st December 2017. This limitation is due to data availability from the COLSAF and the Social Insurance Agency (SIA).

To evaluate the impact of Graduate practice, we created a treated group of eligible intervention participants and a control group of those jobseekers who were also eligible but decided not to participate in the practice. All sample eligibility checks as well as logical checks (such as date sequence, exclusion of individuals outside the period of evaluation, elimination of duplicate registrations in the database of jobseekers, elimination due to individual's departure abroad or due to death, etc.) were performed. We only considered those individuals who participated in the intervention that met the basic conditions, for example, repeated participation in Graduate practice or failure to meet the age limit were considered errors in the database and were the reason for the exclusion of the individual. At the same time, we considered only those individuals who did not participate in any other intervention in the given period.

After all controls and restrictions, the samples consist of 12,953 treated and 83,907 non-treated individuals. There are much more control individuals than treated ones in the sample, so we can also conclude the low interest of eligible jobseekers to participate in this intervention during the years under review. For every individual, we have the values of the variables listed in Table A in the Annex, along with their function.

As the sample is dominated by young people under the age of 26 (as determined by the eligibility criterion), their marital status is predominantly single (93.9% in both groups), complete secondary vocational education prevails (45.7% for non-treated and 54% for treated), and they predominantly have no disadvantages (non-treated 62% and treated 35.2%) or have the disadvantage "long-term unemployed" (24.5% non-treated and 45.4% treated). Regarding gender, non-treated

men (58.6%) and treated women (64.8%) predominate. In both samples, most individuals are from the Presov region (18.9% non-treated, 22.8% treated) and the Kosice region (16.3% non-treated and 13.9% treated). Approximately every third treated and non-treated jobseeker owns a license for motorcycles, cars, and small trucks. Selected descriptive characteristics of the samples are listed in Table B in Annex.

4. Results

The evaluation in this study is realised using the three-stage least-squares method recommended in Cerulli (2015) as a combination of the logit model and the two-step OLS. In addition, however, we will also discuss the results with the 2-stage method. A coefficient of the variable quantifies the intervention effect in this three-step procedure $step_2$. That represents the predicted values of participation in the intervention from the second step of the procedure. Since there are more than 90 variables in these models, we list them entirely in Table C (for output variable *employment*) and Table D (for output variable *wage*) in Annex.

The resulting estimates of the coefficients for the selected two outcome variables are as follows.

For the outcome variable wage, the coefficient of the independent variable $step_2$ in the regression model is 278.19 EUR. This means that the treated individuals who participated in the Graduate practice had, on average, 278.19 EUR higher wages during the 24-months impact period than the non-treated. The regression coefficient of the variable $step_2$ is in a given regression model is statistically significant (p-value < 0.05). Thus, participation in the intervention significantly influenced the wages of the participants.

For the outcome variable *employment*, a regression coefficient of 138.74 was estimated for variable $step_2$. This means that participation in Graduate practice caused treated individuals to stay in employment for, on average, almost 139 days (4.6 months) longer than non-treated individuals. This effect is also statistically significant in the model (p-value < 0.05).

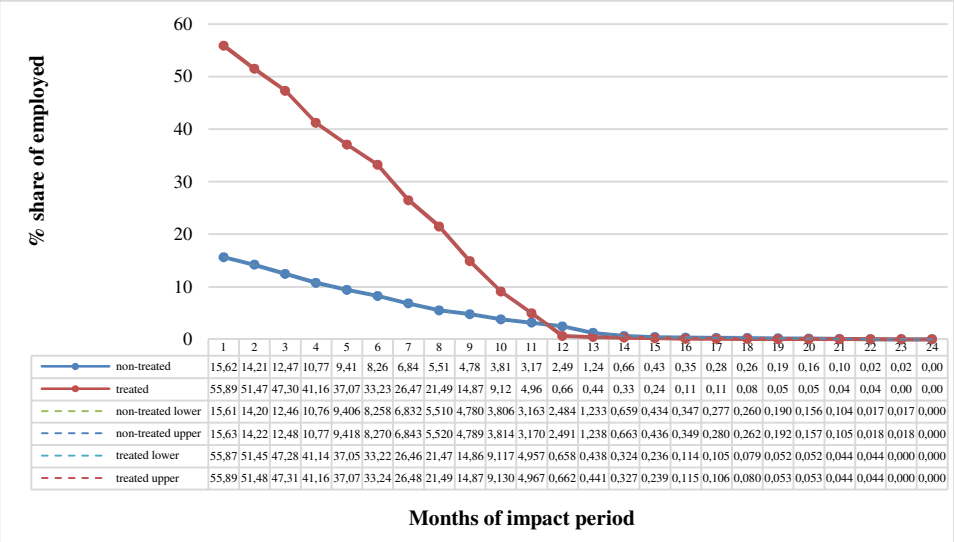
In summary, this intervention positively affects the values of the outcome variables. The evaluation confirmed that participation in Graduate practice brings the desired effect in the form of a higher share of employed individuals and also higher wages. The effect of the intervention on both outcome variables is statistically significant.

The following figure illustrates the course of job sustainability of school-leavers for both the treated group and the non-treated control group during the 24-month impact period. The 90% confidence interval values for both shares of

employed individuals are also listed. In this figure, we can see the decreasing percentage of jobs retained over the impact period.

Figure 2

Sustainability of Jobs during the Impact Period



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
non-treated	15,62	14,21	12,47	10,77	9,41	8,26	6,84	5,51	4,78	3,81	3,17	2,49	1,24	0,66	0,43	0,35	0,28	0,26	0,19	0,16	0,10	0,02	0,02	0,00
treated	55,89	51,47	47,30	41,16	37,07	33,23	26,47	21,49	14,87	9,12	4,96	0,66	0,44	0,33	0,24	0,11	0,11	0,08	0,05	0,05	0,04	0,04	0,00	0,00
non-treated lower	15,61	14,20	12,46	10,76	9,406	8,258	6,832	5,510	4,780	3,806	3,163	2,484	1,233	0,659	0,434	0,347	0,277	0,260	0,190	0,156	0,104	0,017	0,017	0,000
non-treated upper	15,63	14,22	12,48	10,77	9,418	8,270	6,843	5,520	4,789	3,814	3,170	2,491	1,238	0,663	0,436	0,349	0,280	0,262	0,192	0,157	0,105	0,018	0,018	0,000
treated lower	55,87	51,45	47,28	41,14	37,05	33,22	26,46	21,47	14,86	9,117	4,957	0,658	0,438	0,324	0,236	0,114	0,105	0,079	0,052	0,052	0,044	0,044	0,000	0,000
treated upper	55,89	51,48	47,31	41,16	37,07	33,24	26,48	21,49	14,87	9,130	4,967	0,662	0,441	0,327	0,239	0,115	0,106	0,080	0,053	0,053	0,044	0,044	0,000	0,000

Source: Own elaboration.

It is evident that the treated have a higher employability percentage than the non-treated individuals. The biggest differences are in the first ten months of the impact period favouring the treated group. Since the 11th month of the impact period, the differences between the groups almost disappeared, and during the second year, the non-treated reached a higher percentage of jobs maintained than the non-treated, but in fact, this percentage is very low in both groups. This clearly shows that the Graduate practice has an effect in the first year after its completion, the significant effect is short to medium term, but no long-term effect on job sustainability is visible. For non-treated jobseekers, if they found a job, they kept it for more than one year more often than treated individuals, although the numbers of individuals employed in this way are very low.

To verify the robustness of the obtained results, we subjected the results to two objections, similarly to Lubyova et al. (2015). In doing so, we will monitor whether our main findings change. First of all, the following could be objected. As an instrumental variable, we used the distance from the jobseeker's permanent residence to the local employment office, which partially affects the individual's participation in the intervention. However, it may not be crucial for university school-leavers who often study at a university outside their place of residence,

and it can be assumed that even after graduation, they could find a place of Graduate practice in the city where they studied. We focused mainly on university students because they often live in dormitories outside their place of permanent residence. Suppose the effectiveness of the measure for this group was different from the effectiveness of the measure on all participants in the Graduate practice. In that case, it could distort the results presented together for all intervention recipients. Therefore, we excluded individuals with a university degree from the set of treated participants and tried to analyse whether this step would affect the results so far. The number of treated individuals thus fell to 9,425. Despite reducing the number of participants, the measure's overall positive and statistically significant effect persists. The effect of the intervention on employment increased slightly from 138.74 to 140.09 days. The difference in income of participants and non-participants in the measure decreased slightly from 278.19 EUR to 261.49 EUR. The change in both monitored indicators can be considered marginal.

A second possible objection to the reliability of the results could be the possible bias of the results because the participant's permanent residents, which is decisive for determining the value of the instrumental variable, could be non-current. This permanent residence may not be up to date, which we actually encountered when working with the COLSAF and CIA SR databases. Therefore, we used such an objection that the jobseeker's permanent residence region should coincide with the region of the place of Graduate practice for the treated participant because we assume that few people would attend this practice in another region of Slovakia. If these regions do not match, we assume that some of the data is not current, and therefore the determination of the value of the instrumental variable may not be correct for the individual. To monitor this possible bias in the overall evaluation results, we repeat the recalculations for those treated whose region of permanent residence coincides with the region of intervention. Therefore, we excluded all cases whose employer was located in another region from the analysis. The number of subsidies thus fell to 5993. The effect on employment increased from 138.74 days to 145.38 days. The income gap also did not change significantly, from 278.19 to 294.68. The observed effect of the measure remains positive and statistically significant.

5. Discussion and Conclusions

The issue of counterfactual impact evaluation of Graduate practice as one of the most frequently used tools of ALMP among the unemployed young school-leavers in Slovakia is not yet very widespread and elaborated in Slovakia, and the implementation of impact assessment interventions for the unemployed is in

most cases associated with the development of pilot projects. The evaluation of policy intervention programs in Slovakia has so far been carried out very little, despite the demands and recommendations of the European Commission. In recent years and last programming periods, the EU has insisted on conducting rigorous impact evaluations of the programs financed in the Member States and developing evidence-based policies. In the past, program evaluations were mostly carried out using qualitative methods. In recent years, quantitative econometric methods have become more widely used in the Member States of the EU. The issues dealt with in this paper are thus gaining in importance and are, and will continue to be, high current in the following years.

The counterfactual evaluation of the Graduate practice program showed that this intervention is beneficial for the young unemployed school-leavers, both in terms of their employment in the labour market, in terms of sustainability of their jobs and, last but not least, in terms of wages earned during the impact period after participation in the intervention. In this study, intervened individuals were followed for 24 months after their individual date of finishing the Graduate practice. As outcome variables, their days of employment were recorded mainly in the form of full-time or self-employment, but we also observed average monthly wage. The employment situation of the treated intervention participants in the impact period was compared with the counterfactual situation created by the control group of non-treated eligible young unemployed who were not interested in the intervention. By including an instrumental variable (distance of the individual's permanent residence from the local labour office), we tried to mitigate the impact of selection bias on the evaluation results of Graduate practice. The evaluation showed the positive and significant impact of this intervention on employment and the level of wages, where the sustainability of the jobs was rather short or medium-term. We can compare these results with the results of some studies, which also focused on evaluating the impacts of Graduate practice in Slovakia. For example, Stefanik et al. (2020) found a positive long-term impact of this intervention in their study. According to the authors, the intervention positively impacts the participants' employment from the 30th month after the end of participation. This study was realised by the instrumental variable method with the travelling time to the nearest COLSAF office as the instrument and propensity score nearest neighbour and kernel matching of individuals. The impact of the Graduate practice was also analysed in the study of Svabova and Kramarova (2021). The authors used exact matching, where the variables for this matching were identified by verifying their statistical dependence with participation in the intervention. This study was focused on the participant of the intervention in 2016, and the impact of the Graduate practice on employment was

insignificant. On the other hand, the author found a significant impact of the intervention on the wages of its participants. Svabova et al. (2019a), in their study, found the positive impact of the intervention on employment for the participant of the intervention in 2014 – 2015. Moreover, Svabova et al. (2019b) found a positive impact of the intervention on the state budget.

This study, of course, has some limitations and weaknesses. As the limits of the presented study, we consider the use of only one evaluation method with one chosen instrumental variable. We, therefore, consider it appropriate in the further direction of this study to compare and confirm the results with the application of other counterfactual methods or using another instrumental variable. One of the main problems we encountered during the evaluation is that in Slovakia, some variables were in our database of jobseekers recorded statically, i.e. at the moment of an individual's registration. Some of the variables, such as the individual's age, can be updated to the start date of the intervention. This actualisation was even necessary to verify the eligibility criterion for the Graduate practice. However, the problem arises with such types of variables as marital status, level of education, region of permanent residence etc. The values of these variables may change over time for every jobseeker, but the evaluator is not able to update them. Therefore, it was not possible in this case to carry out the evaluation for smaller target groups of jobseekers and to compare their results achieved during the impact period. However, according to our information, there has been a recent change in the upload of data to the database and this data about the individual is updated in every registration. However, some of them are not mandatory to be listed by the individual, so some distortion still occurs.

The topic of the presented paper provides a wide space for discussion and further research, and we believe that our results will contribute in part to the future expansion of the knowledge of the public about this topic, especially in Slovakia.

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Annex

Table A

Variables Used in the Evaluation of Graduate Practice

Variable name	Description
ID	Anonymised individual's identification code
Intervention	Participation in graduate practice
School code	Last graduated school of jobseeker according to the list of study and vocational fields
Age at registration	Age of the jobseeker on the date of entry into the jobseekers database for this particular registration
Previous evidence	Sum of days of all previous registrations of the individual in the database of jobseekers
Profession before registration	Last profession before this registration according to the international classification of occupations isco-08
Start of registration	The date of entry into the database of jobseekers
End of registration	The date of termination from the database of jobseekers
Evidence length	Number of days of the last evidence in the database of jobseekers
Start of intervention	Date of start of graduate practice for the treated individual
End of intervention	End date of the graduate practice for the treated individual
Duration of intervention	Number of days of graduate practice
Grant	The amount of allowances paid during graduate practice
Age shifted	The age of the individual shifted from the beginning of the registration in the database of jobseekers to the date of the start of the intervention (for the treated individual) or to 1st october 2015 (for non-treated individual)
Gender	Gender of the jobseeker
Marital status	Jobseeker's marital status at this particular entry in the database of jobseekers *Categorical variable* with the values: single, married, divorced, widow, not specified
Level of education	Degree of the individual's highest education at the time of this particular entry into the database of jobseekers *Categorical variable* with the values: 10 levels of education from unfinished primary education to the highest level of higher education, plus the category not specified
Region of residence	Region of permanent residence at the time of this particular entry in the database of jobseekers *Categorical variable* with the values: 8 regions of slovakia (bratislava, trnava, trencin, nitra, zilina, banska bystrica, presov, kosice), plus category not specified
Disadvantages	Disadvantage of jobseekers under act no. 5/2004 on employment services, § 8 disadvantaged jobseeker *Categorical variable* with the values: school-leaver, long-term unemployed, low education, childcare, disability, (according to act no. 5/2004 on employment services, § 8 disadvantaged jobseeker), plus category no disadvantage
Last school	The type of individual's last (attended) school at the time of this particular entry into the database of jobseekers *Categorical variable* with the values: the type of the last school graduated, we recorded 40 different types of schools;
Driving license group 1	Ownership of the driving licence of the motorcycle category: am, a1 and a *Binary variable*: 0 – the individual does not own the license, and 1 – owns the license
Driving license group 2	Ownership of the driving license of the cars and small lorries category: b1, b and b + e *Binary variable*: 0 – the individual does not own the license, and 1 – owns the license
Driving license group 3	Ownership of the driving licence of the truck category: c1, c1 + e, c and c + e *Binary variable*: 0 – the individual does not own the license, and 1 – owns the license
Driving license group 4	Ownership of the driving licence of the large lorries and buses: d1, d1 + e, d and d + e *Binary variable*: 0 – the individual does not own the license, and 1 – owns the license
Driving license group 5	Ownership of the driving licence of the tractor category: *Binary variable*: 0 – the individual does not own the license and 1 – owns the license

T a b l e B

Selected Descriptives of Treated and Non-treated Individuals

Variable	Non-treated	Treated
Age at registration	22.48	21.62
Previous evidence	493.91	245.12
Evidence length	287.92	462.59
Age shifted	23.19	22.09
Shares in%		
Men	0.59	0.35
Marital status		
Married	0.05	0.06
Divorced	0.20	0.20
NA	0.70	0.00
Level of education		
Primary	9.70	0.60
Lower secondary	0.70	0.30
Secondary vocational	17.00	7.70
Complete secondary vocational	45.70	54.00
Upper secondary vocational	6.70	9.90
Higher vocational	0.20	0.20
University 1st	1.70	2.10
University 2nd	2.80	21.30
NA	14.50	3.90
Disadvantages		
School-leaver	13.40	19.30
Long time unemployed	24.50	45.40
No regular paid job	0.10	0.00
Last school		
Transport Academy	0.00	0.00
Girls' Vocational School	0.00	0.01
Gymnasium	0.07	0.10
Hotel Academy	0.03	0.03
Conservatory	0.00	0.00
Business Academy	0.05	0.11
Eight-year grammar school	0.00	0.00
Pedagogical and Cultural Academy	0.00	0.00
Pedagogical and Social Academy	0.01	0.01
Practical school	0.00	0.00
Secondary Forestry School	0.00	0.00
Secondary vocational school	0.27	0.16
Vocational school	0.10	0.09
Academy of Social Law	0.00	0.00
Social care school	0.00	0.00
Pedagogic high school	0.00	0.00
Secondary Agricultural and Industrial School	0.00	0.00
Secondary agricultural school	0.00	0.01
Secondary technical School	0.06	0.06
High school	0.02	0.03
Secondary art school	0.01	0.00
Secondary medical school	0.01	0.02
Special primary school	0.00	0.00
Technical Academy	0.00	0.00
University	0.01	0.01
University of Architecture and Civil Engineering	0.00	0.01
University of Economics	0.01	0.05
College of Electrical and ICT specialization	0.00	0.00
University of Philosophy and Humanities	0.01	0.05
College of pedagogical and teaching focus	0.00	0.02
University of Agriculture and Forestry	0.00	0.01
College of Law	0.00	0.02
College of Science	0.00	0.01
College of Mechanical Engineering	0.00	0.02
College of other technical specialisation	0.00	0.02

University of Theology and Theology	0.00	0.01
College of Arts and Fine Arts	0.00	0.00
Military and police college	0.00	0.00
University of Medical, Health, Pharmaceutical and Veterinary Specialisation	0.00	0.01
Associated high school	0.05	0.09
Primary school	0.10	0.01
Driving license group 1	37.00	0.34
Driving license group 2	0.37	0.67
Driving license group 3	0.02	0.01
Driving license group 4	0.20	0.20
Driving license group 5	0.03	0.02
Region of residence		
Bratislava	6.30	3.30
Trnava	9.10	9.30
Trencin	10.30	9.00
Nitra	12.30	12.50
Zilina	13.50	15.30
Banska Bystrica	13.20	13.70
Presov	18.90	22.80
Kosice	16.30	13.90

T a b l e C

Regression Model for Output Variable *Employment*

Parameter Estimates						
Dependent variable:	***Employment***					
Parameter	*B*	*Std. Error*	*t*	*Sig.*	*95% Confidence Interval*	
					Lower Bound	*Upper Bound*
Intercept	–422.068	35.536	–11.877	0.000	–491.718	–352.417
[gender = 0]	26.993	20.919	1.290	0.197	–14.008	67.993
[gender = 1]	30.689	20.918	1.467	0.142	–10.311	71.688
[marital_status = 1]	34.807	4.508	7.721	0.000	25.972	43.643
[marital_status = 2]	40.509	4.735	8.555	0.000	31.228	49.790
[marital_status = 3]	44.160	8.932	4.944	0.000	26.653	61.668
[marital_status = 4]	12.023	39.755	0.302	0.762	–65.897	89.942
[level_of_education = 1]	19.318	7.664	2.521	0.012	4.298	34.339
[level_of_education = 2]	28.069	6.972	4.026	0.000	14.405	41.733
[level_of_education = 3]	36.165	7.905	4.575	0.000	20.672	51.658
[level_of_education = 4]	40.389	6.764	5.971	0.000	27.132	53.646
[level_of_education = 5]	32.092	6.733	4.766	0.000	18.894	45.290
[level_of_education = 6]	–3.999	7.741	–0.517	0.605	–19.171	11.173
[level_of_education = 7]	11.406	9.630	1.184	0.236	–7.468	30.281
[level_of_education = 8]	8.356	18.779	0.445	0.656	–28.450	45.162
[level_of_education = 9]	–7.704	18.767	–0.411	0.681	–44.487	29.079
[level_of_education = 10]	–47.247	39.584	–1.194	0.233	–124.831	30.337
[disadvantages = 1]	–15.545	24.031	–0.647	0.518	–62.645	31.555
[disadvantages = 2]	–24.566	24.029	–1.022	0.307	–71.662	22.530
[disadvantages = 3]	–24.774	24.013	–1.032	0.302	–71.839	22.292
[disadvantages = 4]	26.475	36.139	0.733	0.464	–44.357	97.307
[disadvantages = 5]	–12.384	28.044	–0.442	0.659	–67.350	42.582
[disadvantages = 6]	27.312	36.832	0.742	0.458	–44.879	99.503
[driving license_group1 = 0]	–2.088	5.891	–0.354	0.723	–13.633	9.458
[driving license_group2 = 0]	9.891	5.900	1.676	0.094	–1.673	21.455
[driving license_group3 = 0]	–22.070	4.908	–4.497	0.000	–31.689	–12.451
[driving license_group4 = 0]	6.524	7.368	0.886	0.376	–7.917	20.965
[driving license_group5 = 0]	5.632	4.205	1.339	0.180	–2.610	13.875
[region = 1]	81.686	9.612	8.498	0.000	62.845	100.526
[region = 2]	85.582	9.577	8.936	0.000	66.811	104.354
[region = 3]	82.983	9.573	8.668	0.000	64.219	101.747
[region = 4]	76.428	9.561	7.994	0.000	57.689	95.168
[region = 5]	74.467	9.555	7.793	0.000	55.739	93.195
[region = 6]	66.437	9.557	6.951	0.000	47.705	85.169
[region = 7]	64.158	9.545	6.721	0.000	45.450	82.867
[region = 8]	72.452	9.550	7.587	0.000	53.734	91.170

[school = 1]	–25.684	6.973	–3.683	0.000	–39.351	–12.017
[school = 2]	30.506	9.839	3.100	0.002	11.221	49.792
[school = 3]	25.088	10.593	2.368	0.018	4.325	45.850
[school = 4]	13.333	9.050	1.473	0.141	–4.404	31.070
[school = 5]	12.734	8.424	1.512	0.131	–3.778	29.246
[school = 6]	–0.932	15.250	–0.061	0.951	–30.822	28.959
[school = 7]	13.762	8.350	1.648	0.099	–2.603	30.127
[school = 8]	16.521	24.547	0.673	0.501	–31.590	64.633
[school = 9]	61.592	15.923	3.868	0.000	30.384	92.801
[school = 10]	10.516	9.361	1.123	0.261	–7.831	28.863
[school = 11]	0.339	18.510	0.018	0.985	–35.941	36.619
[school = 12]	24.289	12.608	1.926	0.054	–0.423	49.000
[school = 13]	24.016	8.234	2.917	0.004	7.879	40.154
[school = 14]	15.684	8.264	1.898	0.058	–0.513	31.881
[school = 15]	–0.794	52.899	–0.015	0.988	–104.475	102.887
[school = 16]	41.456	43.444	0.954	0.340	–43.693	126.606
[school = 17]	–55.766	11.381	–4.900	0.000	–78.074	–33.459
[school = 18]	–90.171	18.664	–4.831	0.000	–126.752	–53.591
[school = 19]	2.489	10.307	0.241	0.809	–17.714	22.691
[school = 20]	15.820	8.328	1.899	0.058	–0.504	32.143
[school = 21]	11.379	8.567	1.328	0.184	–5.412	28.171
[school = 22]	–1.783	9.429	–0.189	0.850	–20.263	16.698
[school = 23]	23.500	8.680	2.707	0.007	6.487	40.513
[school = 24]	81.193	60.339	1.346	0.178	–37.070	199.457
[school = 25]	42.132	14.544	2.897	0.004	13.626	70.637
[school = 26]	–30.943	19.601	–1.579	0.114	–69.361	7.476
[school = 27]	–48.867	22.133	–2.208	0.027	–92.247	–5.487
[school = 28]	–14.570	19.645	–0.742	0.458	–53.074	23.935
[school = 29]	–24.319	21.075	–1.154	0.249	–65.627	16.988
[school = 30]	–16.326	19.667	–0.830	0.406	–54.873	22.221
[school = 31]	–18.975	19.990	–0.949	0.343	–58.155	20.205
[school = 32]	–23.652	21.382	–1.106	0.269	–65.561	18.257
[school = 33]	–23.117	20.088	–1.151	0.250	–62.489	16.256
[school = 34]	–18.945	20.267	–0.935	0.350	–58.668	20.777
[school = 35]	–12.171	20.026	–0.608	0.543	–51.423	27.080
[school = 36]	–13.195	20.161	–0.654	0.513	–52.711	26.322
[school = 37]	–23.817	22.139	–1.076	0.282	–67.210	19.576
[school = 38]	–54.849	26.810	–2.046	0.041	–107.396	–2.302
[school = 39]	–2.892	23.094	–0.125	0.900	–48.157	42.372
[school = 40]	–35.351	20.068	–1.762	0.078	–74.685	3.982
[school = 41]	9.627	8.337	1.155	0.248	–6.715	25.968
age_at_registration	–42.152	0.887	–47.498	0.000	–43.891	–40.412
evidence_length	–0.144	0.002	–62.430	0.000	–0.149	–0.140
previous_evidence_records	–0.059	0.005	–12.877	0.000	–0.067	–0.050
age_shifted	56.925	0.863	65.976	0.000	55.234	58.616
step2	138.742	2.365	58.670	0.000	134.107	143.377

T a b l e D

Regression Model for Output Variable *Wage*

Parameter Estimates						
Dependent Variable:	***Wage***					
Parameter	*B*	*Std. Error*	*t*	*Sig.*	*95% Confidence Interval*	
					Lower Bound	*Upper Bound*
Intercept	–826.157	68.217	–12.111	0.000	–959.861	–692.452
[gender = 0]	71.117	40.157	1.771	0.077	–7.591	149.825
[gender = 1]	54.267	40.156	1.351	0.177	–24.439	132.973
[marital_status = 1]	67.002	8.654	7.743	0.000	50.041	83.963
[marital_status = 2]	69.916	9.090	7.692	0.000	52.100	87.733
[marital_status = 3]	40.453	17.147	2.359	0.018	6.845	74.061
[marital_status = 4]	–68.011	76.316	–0.891	0.373	–217.589	81.567
[level_of_education = 1]	38.585	14.711	2.623	0.009	9.751	67.419
[level_of_education = 2]	55.567	13.383	4.152	0.000	29.336	81.797
[level_of_education = 3]	70.235	15.174	4.629	0.000	40.494	99.976
[level_of_education = 4]	71.265	12.984	5.488	0.000	45.815	96.714
[level_of_education = 5]	65.378	12.926	5.058	0.000	40.044	90.713

[level_of_education = 6]	5.157	14.860	0.347	0.729	–23.969	34.283
[level_of_education = 7]	30.986	18.486	1.676	0.094	–5.248	67.219
[level_of_education = 8]	–4.618	36.049	–0.128	0.898	–75.273	66.038
[level_of_education = 9]	0.698	36.026	0.019	0.985	–69.912	71.309
[level_of_education = 10]	–63.899	75.987	–0.841	0.400	–212.834	85.035
[disadvantages = 1]	–26.941	46.131	–0.584	0.559	–117.356	63.475
[disadvantages = 2]	–28.967	46.127	–0.628	0.530	–119.374	61.441
[disadvantages = 3]	–28.341	46.097	–0.615	0.539	–118.691	62.010
[disadvantages = 4]	75.772	69.375	1.092	0.275	–60.202	211.745
[disadvantages = 5]	–22.515	53.835	–0.418	0.676	–128.030	83.000
[disadvantages = 6]	30.527	70.706	0.432	0.666	–108.056	169.109
[driving license_group1 = 0]	–3.953	11.308	–0.350	0.727	–26.117	18.210
[driving license_group2 = 0]	21.128	11.326	1.865	0.062	–1.071	43.326
[driving license_group3 = 0]	–28.934	9.421	–3.071	0.002	–47.399	–10.469
[driving license_group4 = 0]	13.459	14.144	0.952	0.341	–14.263	41.181
[driving license_group5 = 0]	4.162	8.073	0.515	0.606	–11.661	19.984
[region = 1]	168.495	18.452	9.131	0.000	132.329	204.662
[region = 2]	167.341	18.385	9.102	0.000	131.306	203.376
[region = 3]	153.800	18.378	8.369	0.000	117.781	189.820
[region = 4]	139.816	18.354	7.618	0.000	103.842	175.791
[region = 5]	141.493	18.343	7.714	0.000	105.541	177.444
[region = 6]	125.672	18.347	6.850	0.000	89.712	161.631
[region = 7]	117.204	18.324	6.396	0.000	81.289	153.118
[region = 8]	132.310	18.333	7.217	0.000	96.378	168.242
[school = 1]	–40.347	13.386	–3.014	0.003	–66.583	–14.111
[school = 2]	58.183	18.888	3.080	0.002	21.162	95.204
[school = 3]	40.541	20.335	1.994	0.046	0.684	80.398
[school = 4]	30.391	17.372	1.749	0.080	–3.659	64.440
[school = 5]	16.707	16.172	1.033	0.302	–14.990	48.403
[school = 6]	–1.082	29.275	–0.037	0.971	–58.462	56.297
[school = 7]	31.478	16.028	1.964	0.050	0.063	62.893
[school = 8]	–6.986	47.122	–0.148	0.882	–99.344	85.372
[school = 9]	81.595	30.567	2.669	0.008	21.685	141.505
[school = 10]	17.261	17.970	0.961	0.337	–17.959	52.482
[school = 11]	0.464	35.533	0.013	0.990	–69.181	70.109
[school = 12]	62.308	24.203	2.574	0.010	14.870	109.746
[school = 13]	51.315	15.806	3.247	0.001	20.336	82.294
[school = 14]	28.298	15.864	1.784	0.074	–2.795	59.390
[school = 15]	–56.627	101.547	–0.558	0.577	–255.658	142.405
[school = 16]	5.064	83.397	0.061	0.952	–158.393	168.522
[school = 17]	–91.687	21.849	–4.196	0.000	–134.510	–48.865
[school = 18]	–189.438	35.828	–5.287	0.000	–259.660	–119.216
[school = 19]	–3.973	19.787	–0.201	0.841	–42.755	34.809
[school = 20]	42.552	15.988	2.662	0.008	11.217	73.888
[school = 21]	22.919	16.446	1.394	0.163	–9.315	55.152
[school = 22]	5.896	18.100	0.326	0.745	–29.580	41.372
[school = 23]	46.937	16.663	2.817	0.005	14.278	79.596
[school = 24]	78.390	115.830	0.677	0.499	–148.635	305.415
[school = 25]	85.485	27.919	3.062	0.002	30.765	140.206
[school = 26]	–35.728	37.628	–0.950	0.342	–109.478	38.021
[school = 27]	–44.091	42.487	–1.038	0.299	–127.366	39.184
[school = 28]	34.412	37.712	0.913	0.362	–39.503	108.327
[school = 29]	10.975	40.458	0.271	0.786	–68.322	90.271
[school = 30]	21.377	37.754	0.566	0.571	–52.620	95.374
[school = 31]	1.265	38.374	0.033	0.974	–73.947	76.478
[school = 32]	–11.596	41.047	–0.283	0.778	–92.047	68.855
[school = 33]	–9.776	38.562	–0.254	0.800	–85.357	65.805
[school = 34]	27.574	38.906	0.709	0.478	–48.680	103.829
[school = 35]	17.305	38.444	0.450	0.653	–58.044	92.655
[school = 36]	41.112	38.703	1.062	0.288	–34.746	116.970
[school = 37]	–20.469	42.500	–0.482	0.630	–103.769	62.830
[school = 38]	–95.066	51.466	–1.847	0.065	–195.938	5.806
[school = 39]	37.513	44.333	0.846	0.397	–49.378	124.405
[school = 40]	–26.530	38.524	–0.689	0.491	–102.037	48.978
[school = 41]	14.967	16.005	0.935	0.350	–16.403	46.336
age_at_registration	–75.672	1.704	–44.420	0.000	–79.011	–72.333
evidence_length	–0.264	0.004	–59.522	0.000	–0.273	–0.255
previous_evidence_records	–0.108	0.009	–12.416	0.000	–0.126	–0.091
age_shifted	103.376	1.656	62.413	0.000	100.129	106.622
step2	278.185	4.540	61.280	0.000	269.287	287.082