

Where do Ukrainians live, work and pay taxes?



This report is based on the results of the “Study on the Fair and Effective Personal Income Tax Allocation” carried out by the Ukrainian Center for Social Reforms as commissioned by U-LEAD with Europe in cooperation with SKL International. Experts have analyzed the impact of population’s employment characteristics on local budget revenue, as well as assessed the consequences of changes in approaches to the personal income tax allocation for the financial capacity of rural municipalities.

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INTRODUCTION

Having completed the process of creating amalgamated municipalities (hereinafter – municipalities), Ukraine entered the next stage of the decentralization reform. At present, one of the key challenges is a stark mismatch between the budgets of municipalities and the authorities the latter have received. Many of them cannot in fact act on those authorities independently and require constant support from the state budget. It is particularly true for rural municipalities, an absolute majority of which rely on equalization payments. The single most important municipal revenue in Ukraine is the 60% share of the personal income tax they receive for people working on their territories. For many municipalities, however, this share yields them very little in the way of revenue because their residents work in other jurisdictions, work in the grey economy, or are officially paid only the minimum wage while receiving substantially more in cash. A lack of steady income sources inside the municipalities limits their ability to provide different services to residents, implement various infrastructure projects, create local development programmes, and finance other initiatives aimed at improving the quality of life.

The primary source of income for many municipalities is the personal income tax (PIT). Therefore, the changes in the procedure of allocating it to local budgets are seen as an opportunity to enhance the financial capacity of municipalities. PIT is currently transferred to local budgets at the location of a legal entity, which pays PIT for its employees. A number of issues emerge here, caused both by legislative contradictions and the conflicting nature of such a taxation model. An employee may live in one municipality and work in another. Consequently, their PIT is not paid to the budget of the municipality where they live, use infrastructure and receive public services, which can hardly be called fair.

According to the Decree of the President of Ukraine № 180/2021 of April 29, 2021, a change of the approaches towards adding PIT to local budgets is specified as one of the priority areas for the reform. More than a dozen draft laws have been registered at the Verkhovna Rada of Ukraine, which suggest different scenarios for change. Nevertheless, administrative statistics in Ukraine do not provide data about the place of actual residence and people's tax address, making it impossible to assess the potential outcomes of such legislative initiatives for the municipalities.

The findings of this study expose this issue through the prism of municipality residents' participation in economic activities, funding of municipality budgets by paying PIT, consumption of essential social services. Sociological methods were used to identify the employment status of municipality residents, their affiliation with the formal or informal economy sectors, and the location of their place of work to outline a circle of persons who pay taxes to local budgets and then simulate tax streams under different scenarios of income tax reform. What is notable is that such a methodological approach helps assess the potential for increased PIT revenue in municipalities based on employment policy aimed at formalizing labour relations and making salaries official, as well as compare potential risks and benefits.

SUMMARY

The study tackles the issue of the taxpaying capacity of rural municipalities through the prism of local residents' participation in economic activities. Rural municipalities of three types were studied with in-depth interviews and representative survey of the population of typical municipalities. The municipalities of the first type include suburban municipalities, which do not have enough employers on their territory to provide jobs for the majority of residents, and mostly receive equalization payments (so called "suburban"). There are about 240 municipalities of this type in Ukraine. The municipalities of the second type include rural municipalities remote from the regional center or other large city, receiving equalization payments (so called "remote subsidized"). There are more than 280 similar municipalities in Ukraine. The third type includes remote municipalities with a more developed industrial sphere, not receiving equalization payments (so called "remote non-subsidized"). Their number in Ukraine is significantly smaller and does not exceed three dozen.

This study highlights the key aspects of employment in municipalities and income tax payments. It attempts to assess the outcomes of changed procedures for allocating PIT to local budgets. Social services received by locals have also been analyzed. The study identifies the critical issues of information support of local self-governance bodies and looks into the possibility of getting necessary information by cross-referencing state administrative registries.

- Under current legislation, PIT share is allocated to local budgets at the location of a legal entity, which pays PIT for its employees. In three-quarters of municipalities studied, more than fifty percent of hired employees work outside of their municipality, i.e., PIT is not received by the municipality in which such employees reside, use infrastructure and receive public services. It is particularly common for suburban municipalities, where high concentrations of pendulum labour migration to neighbouring cities are recorded.
- If PIT share is allocated to the budget at the place of residence of an individual-taxpayer, the fiscal capacity of poorer subsidized rural municipalities will be enhanced significantly along with those of many suburban municipalities. Calculations show that PIT revenue can increase by 50-70% in this type of municipality studied.
- For rural municipalities with developed industries, the benefits of such legislative changes are not immediately obvious – the increase of PIT revenue will not exceed 10%.
- The average employment rate of residents from the selected municipalities aged 15-70 reached 57.6%. In reality, a significant percentage of employed people do not pay taxes as their employment is not official. The level of unofficial employment varies significantly between the municipalities and ranges between 28% and almost 60%. The primary industries for informal employment are sales, transportation, construction, and agriculture (for municipalities specializing in agricultural business).
- Taxable amounts also decrease due to unreported salaries of the formally employed. Findings show that for an average of 71% of employees, the tax agent transferred PIT from the entire sum of their salary. In 29% of cases – the tax was paid from the salary that was lower than the actual salary, including 24% paid from minimum wage.
- In most rural municipalities, rigorous measures of making salaries official will not result in significant improvement of taxpaying capacity, yet will likely cause a confrontation with business. Legalization of the unofficially employed will have more impact, at least on the level of minimum wage. According to calculations, PIT revenue can increase between 10 and 40% depending on the municipality.
- The interview data shows that many/some companies do not allocate the PIT pay-

ments of their employees to the municipalities in which they work and have business units but to the municipalities in which they are legally registered or have subdivisions.

- The majority of residents of the municipalities studied who received educational and/or healthcare services and/or so did their family members did not pay PIT to the local budget. This is because of unemployment, informal employment, or employment outside the municipality.
- It is a common practice for municipality residents to get education and healthcare services outside their municipality; if PIT is allocated to the local budget at the place of residence of individual-taxpayer, it may be expected that the municipality that renders the services will start complaining about reimbursement of the prices of such services. These aspects need to be clearly regulated within the mechanism of inter-budgetary transfers between local budgets.
- On the level of municipalities, there is a lack of statistical information about the demographic situation, employment market status, number of payers of PIT at the place of residence necessary for further monitoring and managerial decision-making. The prospects of getting relevant information are connected to using systems of electronic interconnected administrative registries.

1. FAIR AND EFFECTIVE MUNICIPAL FINANCES: THEORETICAL AND POLICY BACKGROUND

Theoretical papers dedicated to public finances in their overwhelming majority state that local authorities need to fund the majority of their activities with local taxes and duties, for which they have rate-setting powers. It is believed that an ideal taxation model is one using the benefit principle. According to this principle, payments of local taxes must be proportionate to services received by taxpayers from the local authorities. If local income is seen as a certain equivalent of local social benefits of a specific territory, then the sources of income must be connected with that same territory. To specify this statement, an additional requirement is put forward – decentralized budgets should not be filled by taxes that are “exported” from other regions, i.e. paid by their residents. According to R. Musgrave¹, property tax is better suited for municipalities, while progressive income and consumption taxes are optimal for central-level authorities.

Theoreticians claim that local budgets formed in such a way are spent inside the municipality for the benefit of local taxpayers and are an overt demonstration of the direct link between taxes and benefits received by the municipality in general. Consequently, accountability of local authorities increases, creating stimuli “for increased responsiveness by aligning the economic interests of citizens as taxpayers with their political interests as voters”². Theoretical sources name at least several other reasons why local budgets should be formed primarily with income coming from local sources: it will enable local authorities to change the number and quality of public services based on local benefits; if local authorities rely on subsidies, there is an increased risk of inefficient use of funds; central government subsidies are often tied to conditions and limitations in the ways of their use.

Nonetheless, there are few countries where these theoretical principles have been entirely or to a large extent implemented. Tony Levitas³ points to several reasons for the discrepancy between theory and practice. First of all, the administration of taxes that bring in the most income in present-day countries – value added tax, personal income tax, and corporate tax – is more efficiently and successfully done by the central government than the local authorities. Secondly, the price of provided public services (especially in the social sphere of education, healthcare, and utilities), which often belong to the competence of local self-government, significantly exceeds the scope of budgetary income from traditional local taxes, such as property tax. What is described here is the so-called “decentralization paradox” – the more powers in social services a local self-government gets, the more its finances become dependent on the central government.⁴

In most countries where local self-government plays a vital role in ensuring the functions of the social infrastructure and provision of social services, local budgets are formed by combining national and local taxes, targeted and non-targeted subsidies in various configurations and proportions. In practice, the distribution of tax income between the levels of the budgetary system of a state is the result of a compromise between fiscal interests of various

1 Musgrave, Richard A., and Peggy B. Musgrave. *Public Finance in Theory and Practice*. New York, McGraw-Hill Book Company, 1973. 762 pp.

2 Tony Levitas, *How Should the Personal Income Tax be Shared with Ukrainian Local Governments?* [Decentralization web-portal](#).

3 *Ibid*

4 Hansjorg Blochliger & David King (2006), “Less than You Thought: The Fiscal Autonomy of Sub-Central Governments,” OECD, *Economic Studies* No. 43 pp. 156-185.

levels of government which do not always follow theoretical ideas. A significant number of very different budget system models have emerged across the globe under the influence of political, historical, and local factors.

Ukraine is on the way to finding its efficient model of the budgetary system. During the past several years, a number of steps have been taken to achieve financial decentralisation and create resource potential for local self-government. Amendments have been made to tax and budget laws which deal with the norms of allocating national taxes and increase of the scope of local taxes and duties, namely: new taxes have been introduced; the list of taxation objects has been expanded; tax rates have been changed; the circle of taxpayers has been enlarged; some national taxes were transferred to local level taxes, etc.

According to the Budget Code, the general budget fund of a village, settlement and city territorial hromada is made up of the following sources of income: 60% PIT paid (transferred) to respective territories (40% for the city of Kyiv and 100% for Sevastopol); excise tax from retail of excisable goods by economic agents; corporate tax of companies and municipal financial institutions; shares of some national taxes and duties.

Article 10 of the Tax Code provides a list of local taxes and duties based on which each municipality decides whether such taxes and duties should be collected on its territory. Local taxes include property tax (made up of land tax, real estate tax (other than land), and transport tax); single tax. Local duties include a duty for parking spaces of transport; tourist duty. Local councils set an obligatory single and property tax (regarding transportation and land, excluding land tax for forest lands), while other local taxes and duties are not mandatory.

Over the past several years, an increase of real (with adjustment for inflation) municipality budgetary revenue has been registered. More than 80% of revenue came from three sources: PIT and local property tax and single tax (fig. 1.1).

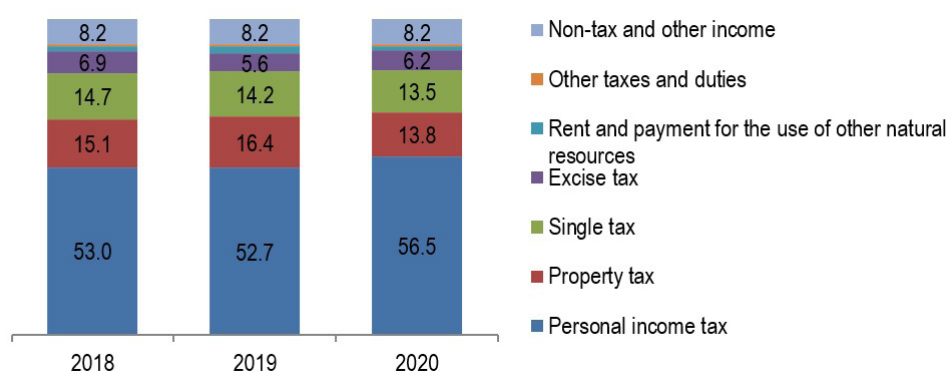


Figure 1.1. Structure of budgetary revenue of municipalities in 2018-2020, %
According to the Ministry of Finance of Ukraine data

When the new administrative division was completed in 2020, direct inter-budgetary relations were established with 1,438 municipalities. Significant differences in social and economic development, demographic potential, and type of employment result in high differentiation of municipality budgets based on their own revenue. As of 1 October 2021, the average revenue of the general budget fund of municipality per capita (without transfers) equalled UAH 4,719, with three-quarters of municipalities having revenue below the average indicator. The ratio between 10% of the richest and 10% of the poorest municipalities reached 5.7 times which attests to significant inequality between municipalities (Fig. 1.2–1.3).

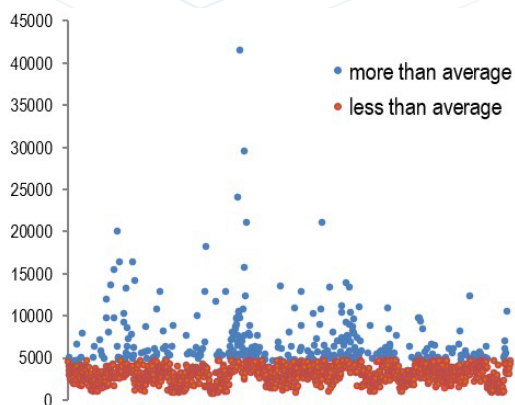


Figure 1.2. Distribution of municipalities according to the general budget fund revenue per capita (without transfers), UAH, as of 1 October 2021.

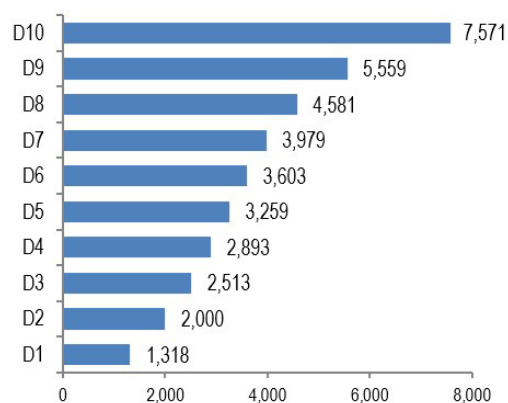


Figure 1.3. Average revenue of the general budget fund per capita (without transfers) for municipality deciles, UAH

According to the data of the Ministry of Finance of Ukraine

Determining the limits of conflating equality and fairness in the context of municipalities' social and economic development is a methodological issue. From the terminological standpoint, there is a very narrow justification for this conflation: not any equality is fair, and not all inequality is unfair. The complexity of social systems calls for a certain level of the unevenness of their elements under various criteria, which do not necessarily contradict the requirements of fairness.⁵ Around the world, it is quite common to have a situation when revenue per capita in large cities is two to three times higher than the revenue of medium-sized municipalities. At the same time, if we compare it with the revenue of the poorest municipalities, the gap may reach five and more times since big cities are where economic activities are concentrated and the level of salaries is also significantly higher. They are also the centres of spreading market infrastructure in municipalities of the entire region, stimulating their growth. Such inequality is to a degree fair and efficient.

In our case, the contact line between equality and fairness is a level of steady budget revenue for the municipality, which can provide for appropriate minimum living standards in the municipality and the functioning of infrastructure necessary for the life of residents and development of local economies. Currently, the majority of local self-governments in Ukrainian municipalities are practically incapable of exercising their authority and require constant financial support through transfers from the state budget. As of 1 October 2021, an average share of municipality expenses covered with the help of such transfers equalled 36.7%, while for more than a third of municipalities it exceeded 50%.

Around 14% of municipalities transferred reverse grant to the state budget. With respect to 11%, a horizontal equalisation was not applied, while three-thirds of municipalities relied on grants and received various sums of equalisation payments (Fig. 1.4).

Apparently, the current budget system cannot be considered fair if we consider these indicators. A lack of steady revenue sources in many municipalities limits their capacity to provide more quality and varied services to residents, implement social and infrastructure projects, create local development programmes, and finance other initiatives to improve the quality of life. Based on the results of 9 months of 2021, capital expenses in municipalities per capita reached UAH 778 on average. In 85% of municipalities, the numbers were lower, and in 22%, they did not exceed UAH 100.

⁵ Economic Efficiency vs Social Justice: Priorities of Ukraine's Development at the Stage of Overcoming a Crisis: Collective Monograph. Kyiv, 2019. 350 p.

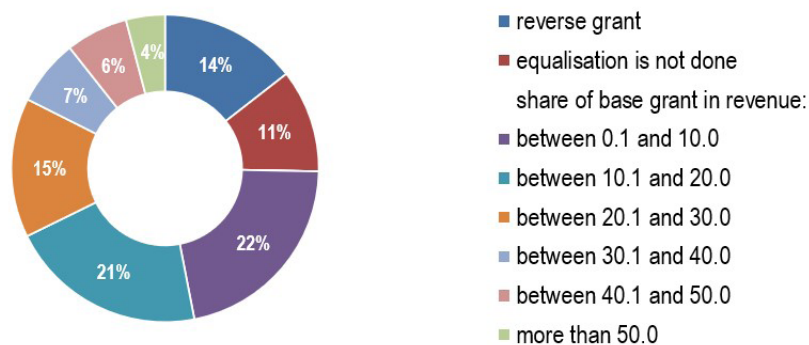


Figure 1.4. Distribution based on the level of budget subsidizing (equalisation grants), as of 1 October 2021, % According to the Ministry of Finance of Ukraine data

Experts, government representatives of different levels, and lawmakers are actively discussing further reforming of the budget system. The Decree of the President of Ukraine No. 180/2021 of 29 April 2021 puts into effect the decision of the National Security and Defense Council “On Measures of State Regional Policy in Support of Decentralisation” that instructs: the Ministry of Finance of Ukraine, the Ministry for Communities and Territories Development of Ukraine, together with local state administrations, to develop and approve a methodology for the assessment of the capacity of municipalities, based on indicators of financial capacity, including subsidies from the state budget; legislative acts on using a single approach to the system of horizontal equalisation of tax capacity of territories; the Cabinet of Ministers of Ukraine to develop and submit for the review in the Verkhovna Rada of Ukraine amendments to legislative acts on allocating a share of PIT to the municipal budgets at the place of residence of individual taxpayers.⁶

More than a dozen draft laws on changing the mechanism of allocating PIT are currently registered at the Verkhovna Rada of Ukraine.

WHY PIT?

PIT is the primary source of revenue in many municipalities. The change of the current system of its allocating, which, according to our current government, lawmakers and experts, is imperfect and flawed, is connected with the potential of enhancing the capacity of poor municipalities.

PIT is charged from the income of individuals of various forms of employment as well as rent, dividends, and accrued interest. For income accrued as payroll, other payments and bonuses made within labour relations and civil agreements, PIT rate is 18% of the taxable amount. In Ukraine, the tax agent who pays this tax is the employer. Thus, employees do not pay this tax; the employer does it for them.

According to the Tax and Budget Codes of Ukraine, PIT paid (transferred) by a tax agent-legal entity (its affiliate, department, other separate subdivision) is allocated to the respective budget at their location. If a separate subdivision is not authorized to pay taxes, the duties of the tax agent are performed by a legal entity. PIT accrued for employees of separate subdivisions is allocated to the respective budget at the location of such subdivision.

The model where PIT share is allocated at the place of work of an individual is connected to

⁶ [The Decree of the President of Ukraine No. 180/2021](#) On the Decision of the National Security and Defense Council of 15 April 2021 “On Measures of State Regional Policy in Support of Decentralisation.” Official Internet Publication of the President of Ukraine.

several issues stipulated by existing legislative contradictions and the conflicting nature of the very model.

First of all, because of the ambiguity of legislation, there is no standard practice that would specify to which municipal budget employer companies should pay PIT for their employees who work at one of their subdivisions. Tax agents challenge the current requirements as to the place of PIT payment, following Article 64 of the Economic Code of Ukraine. It foresees that the functions, rights, and duties of structural subdivisions of companies are stipulated by respective regulations approved according to the procedures specified by the charter or other statutory documents of the company. Since clause 168.4 Article 168 of the Tax Code applies only to separate subdivisions, some companies create production subdivisions (production facilities, workshops, departments, production divisions, laboratories, etc.) as well as functional subdivisions with management functions (departments, bureaus, services, etc.) located on other territories, which do have the right to pay taxes, keep accounting records, submit reports and hire employees. It is quite common practice to allocate PIT not to respective local budgets but to the budget of the locality where the company is registered or its regional office is located.

Vitalii Bezhin, Member of Parliament of Ukraine, Head of Subcommittee on Administrative Division and Local Self-Governance:

“The current system of PIT allocating to local budgets where tax is paid at the place of a company registration is not fair. The main beneficiaries, in this case, are big cities, even if a company is in fact located on the territory of other municipalities. That is why we already have 14 draft laws suggesting different approaches to changing the system. We have had discussions with the parliamentary budget committee for half a year now. I hope that we will enter the budget year 2023 with respective changes.”¹

Thus, municipalities where economic activities are actually conducted spend money on creating and supporting local infrastructure used by economic agents. Yet, they do not receive PIT share and cannot properly finance programmes to restore and improve infrastructure.

Available data do not allow for accurate assessment of the scale of the problem, namely identifying the number of detached company units, which do not have the status of “separate subdivision,” the number of their employees, sum, and place of PIT allocation. Within the study of Kyiv School of Economics – “Place of Income Tax Payment in Ukraine – Legal History and Current Practice,”² a survey of 25 large taxpayer companies and state institutions with the most extensive regional structure of departments has been conducted. The total number of employees in surveyed companies and institutions is almost 650,000 persons, total PIT paid is UAH 10 bln. Two typical and one atypical model of PIT payment for employees have been identified in the surveyed companies (typicality of model was determined based on the frequency of model used by employers), namely:

- PIT payment at the place of actual work of an employee (19 respondents).
- PIT payment at a place other than the place of actual work of an employee (5 respondents).
- PIT payment at the place of actual residence of an employee (1 respondent).

According to the results of the study, the practice of PIT payment at a place other than

¹ [Heated discussion on decentralisation](#) – quotes of Viacheslav Nehoda and Vitalii Bezhin.

² [The place of payment of personal income tax in Ukraine – legal history and current practice](#) / Daryna Marchak. Centre for Public Finances and Public Governance Analysis of the Kyiv School of Economics. Kyiv. 2021. 36 p.

the place of actual work of employees is not dominant – it is used by 5 out of 25 companies surveyed. However, these companies are large employers, tax revenue from which can significantly impact the capacity of the municipality. We have an example of a company which has several thousand offices, yet allocates 95% PIT in a centralized way on the level of oblast subdivisions (i.e. to the budget of the central oblast city where such subdivisions are located), not to split the administration of taxes for the level of villages and small localities.³ In-depth interviews with representatives of the local self-government prove that the issue is relevant.

Another aspect that the authors of the study emphasize is that sometimes companies use PIT to “haggle” with local authorities. In particular, for many economic agents, there is a problem of complicated access to engineering infrastructure, municipal buildings, unsuitable working conditions of employees that depend on local authorities (lack of heating, poor sanitary conditions), and the latter's unwillingness to accommodate these needs. PIT allocate has become a powerful argument in “negotiating” and stimulating local authorities.⁴

Secondly, the fairness of this approach is challenged when PIT is paid at the place of employment of an individual taxpayer and not at the place of residence. An employee may live in one municipality and work in another; consequently, their income tax is not transferred to the budget of the municipality where they live, use infrastructure and receive public services. As a result, rural municipalities often do not get significant sums in PIT and cannot fund their development programmes.

In the article “How Should the Personal Income Tax be Shared with Ukrainian Local Governments: Current State and Prospects,” T. Levitas stresses that all countries that give local governments a rate-setting power over PIT define the origin of PIT as the taxpayer's principal residency, not his or her place of work. Thus, among almost twenty European countries that provide local governments with more than 20% of their general revenue through PIT, only one – Romania – defines the origin of PIT as people's place of employment. Yet, there is a crucial difference between Ukraine and Romania: in Romania, multi-unit businesses are required to indicate to the tax authorities the actual location where their employees work. As a result, Romania does not have the problem that Ukraine has with large multi-unit businesses sending the tax payments of all their employees to the local governments where they are legally registered.⁵

Intense labour migration in Ukraine results in a significant mismatch between the place of residence, place of employment, place of PIT payment, and place of consuming social infrastructure services. One of the trends is a high concentration of pendulum migrations within 1.5-hour reach through transport corridors. Studies⁶ single out several directions of internal migration streams:

- “Municipality – big cities” which will remain the strongest under any social and economic conditions, its share in the structure of territorial mobility will remain practically unchanged in the nearest future;
- migration to municipalities located in close proximity to big cities as to attractive territories with business activities, jobs, and developed infrastructure. The role of this direction can increase significantly, for instance, under the influence of transferring

³ Ibid. P. 18-19.

⁴ Ibid. P. 20.

⁵ T. Levitas How Should the Personal Income Tax be Shared with Ukrainian Local Governments: Current State and Prospects. [Decentralization web-portal](#).

⁶ Ukrainian Society: Migration Dimension : National report / M. V. Ptukha Demographics and Social Studies Institute of the National Academy of Sciences of Ukraine. K., 2018. P. 182.

production facilities from big cities to suburban municipalities;

- move of workforce from outsider municipalities, predominantly rural, to more affluent municipalities with better employment opportunities. As a result, new local centres of gravity for labour migration streams can be formed. Competition for capital, including human, as a condition for municipality development, acquires new characteristics with risks of adverse outcomes in the form of even more profound territorial disproportionality in the capacity of municipalities;
- move between localities within the municipality in the direction “periphery – centre of the municipality.”

There is a direct correlation between the coefficient of internal migration and municipal budget revenue. As the experience of Poland shows, municipalities with low resource potential and inefficient local governance lose human resources faster as a result of the increased financial gap between them and prosperous municipalities. Aggravation of the inequality of economic development, payroll, and local market situation intensify migration from poorer municipalities to richer ones. In the nearest future, labour migration in more financially stable municipalities may be expected to remain at the same level with a gradual decrease. We can also expect an increase in the positive balance of labour migration to municipalities with high financial capacity, marked by high indices of municipality revenue and capital expenses per capita, robust entrepreneurial sector, developed infrastructure, and social sphere.⁷

Official statistics does not reflect the actual state of affairs. In Ukraine, there are practically no empirical studies of the mismatch between the place of residence and place of employment of municipality residents, nor any quantitative assessment of their impact on the municipal budget revenue. One may get a general idea of such mismatches from the data of state statistical overview – “Survey of the Workforce.” Thus, in 2020 in Ukraine, 15.3%, and in some regions – Lviv, Ivano-Frankivsk, Kyiv – more than a third of employed residents aged 15-59 worked outside the locality in which they reside (Fig. 1.5).

In the context of municipalities, the percentage of such persons varies noticeably. According to the assessment of local self-government representatives expressed during detailed interviews, in the majority of rural municipalities located near medium-sized and big cities, 40-60 % of the employed residents work outside the municipality. Under the current system of PIT allocation to the budget at the place of employment of an individual taxpayer, such municipalities lose on PIT from their residents and are strongly dependent on transfers from the state budget. Even with transfers, their capital expenses on local infrastructure development are meager.

Thirdly, the PIT issue is not limited to improving the procedure of allocating the tax to the respective municipal budget. Also important is how a PIT allocation model stimulates municipalities to create jobs, pursue endogenous development, and use local potential. There is a foundation to claims that switching to PIT allocating at the place of residence of individual taxpayers can negatively impact the motivation of the local self-government to support business in the creation of new jobs.

As mentioned before, more than a dozen draft laws have been registered at the Verkhovna Rada of Ukraine which aim to regulate the issue of PIT allocation to municipal budgets. They foresee different scenarios for change: allocating at the actual place of work of taxpayer; at

⁷ Ibid. P. 180-181.

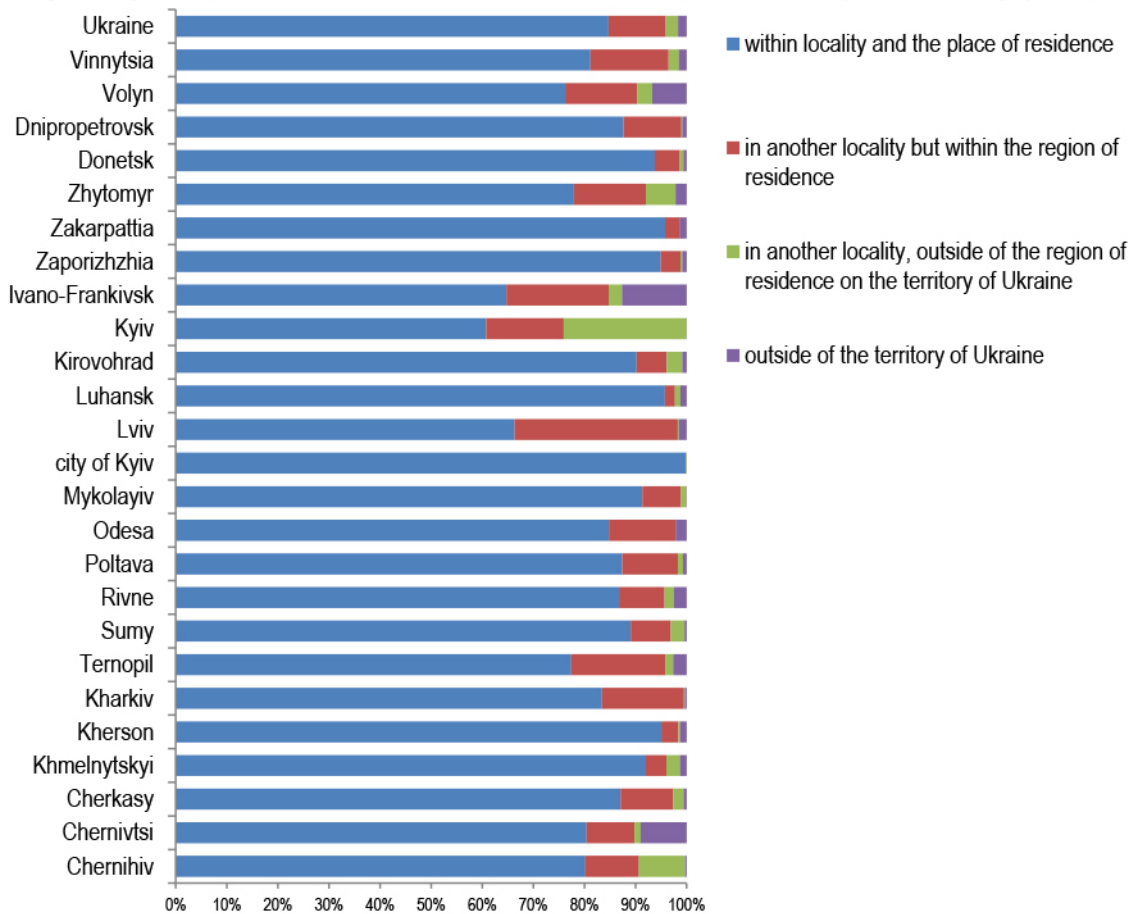


Figure 1.5. Composition of the employed population aged 15-59 based on the location of the place of work, % State Statistics Service of Ukraine data

the place of residence; distribution of various ratios of PIT between budgets of local self-governments where people work and where they live; giving taxpayers who live in one place and work elsewhere the right to choose where their PIT share will be paid; increase of the PIT share allocated to the general fund revenue from 60% to 65% and others.

At the same time, during the session of the Verkhovna Rada Committee on Finance, Tax and Customs Policy of 20 October 2021, a priority concept for the future has been voiced, “not to change the procedure of PIT allocating but only improve the procedure of PIT payment by separate subdivisions of legal entities so that they pay the tax at the place of business.”⁸ According to the meeting participants, it is the first immediate step, at least while the administration system is being improved. Later, a switch to other models of PIT allocating is possible.

Viacheslav Nehoda, Deputy Minister for Communities and Territories Development of Ukraine:

“Suggestion of Minregion is for PIT to be paid at the location of separate subdivisions. We believe that the first step can be implemented next year already. This model is not perfect, but it is fairer than the existing one. In the future, we need to look for a reasonable balance between the place of work and the place of residence. It is logical, and we need to move in this direction, find the right proportion and adopt the changes by the end of 2022.”⁹

⁸ [Transcript of the meeting of the Committee on Finance, Tax and Customs Policy of October 20, 2021.](#)

⁹ [Heated discussion on decentralization](#) – quotes of Viacheslav Nehoda and Vitalii Bezhin.

Unfortunately, the suggested draft laws do not contain justified calculations of the outcomes of adopting various changes for the municipality's budget and social and economic development. A significant hindrance to the process is the lack of official information about municipalities, namely the number of employed residents and the geography of their employment, average salary, etc. In this study, we want to expand the knowledge on the issue at hand using available and new information received with the help of sociological methods; information on the existing mismatch between the place of residence, place of work, place of PIT payment, and place of consuming services; assess possible scenarios for PIT allocation as well as potential ways of creating modern information and analytical support for monitoring the situation.

2. METHODOLOGY AND DATA

The study aims to assess the municipality budget impact caused by the discrepancy between the place of residence, place of work and PIT payment, and place of consuming infrastructure services.

STAGES OF THE STUDY

Analysis and generalization of existing information

Analysis has been conducted on the basis of a desk review of secondary information, namely: analysis of official documents; state and administrative statistics; results of Ukrainian and foreign studies, and prepared reports relevant for the topic of the present study.

Sources of information: legislative acts; annual reports / analytical certificates of employment centers, State Statistics Service, State Tax Service, etc.; expert assessments (national and local level); unofficial reports of non-profit organizations (insider assessment); results of studies conducted, on other territories in particular; other.

Selection of municipalities

A significant differentiation of municipalities according to the level of social and economic development, type of employment and mobility of residents, the ratio of resources, and the scope and structure of expenses in local budgets results in a high variability of approaches for the selection. The key criteria selected are as follows:

- difference based on the type of social and economic development and geography of regions for the selection of specific municipalities;
- remoteness from the central oblast city or another large city which is a centre of gravity for the workforce.

Municipalities from Vinnytsia and Ivano-Frankivsk oblasts representing different geographical parts of Ukraine have been selected for the study. These regions are different under primary characteristics of economic activities and labor mobility of residents (Table 2.1). Vinnytsia numbers are closer to the average Ukrainian numbers, while Ivano-Frankivsk oblast has some of the highest rates of the employed population working outside their town of residence as well as a high level of informal employment which has a significant impact on the scope of PIT revenue to the budgets of municipalities.

Table 2.1. Specific indicators of economic activity of residents in 2020

	Ukraine	Vinnytsia oblast	Ivano-Frankivsk oblast
Employment rate of municipality residents aged 15-70 years, %	56,2	56,2	54,1
Share of the informally employed residents in the employed category aged 15-70, %	20,3	29,1	37,2
Employed residents of working age based on location of their place of work, %			
within the locality at the place of residence	84,7	81,2	64,8
outside the locality at the place of residence	15,3	18,8	35,2

Source: State Statistics Service of Ukraine data

We have selected rural municipalities which differ under such parameters as population, area, remoteness from the central oblast city, key financial indicators (Table 2.2). Analysis of programme documents and interviews with heads of municipalities showed that all the selected municipalities suffer from a lack of jobs and labour migration as well as other problems connected to PIT payment to local budgets. For the purposes of this study, they may be provisionally divided into two groups, stemming from the working hypotheses as to the potential impact of changing PIT allocating rules for local budgets:

1) rural subsidized municipalities close to the central city of the oblast or any other big city - economic centre (former cities of oblast significance). Typical representatives are municipalities 1 and 2. Research shows that labour migration flow “rural municipality – big city” within an hour’s reach remain quite powerful under any social and economic conditions. Respectively, it is assumed that many residents from the municipalities mentioned earlier travel to the central oblast city for work and receive some essential social services there – educational, healthcare, etc. – which must be provided on the municipal level. Changes in the rules of PIT allocation, namely to local budgets at the place of residence of individuals-taxpayers, can significantly impact the budgets of such municipalities and relations with neighbouring urban municipalities.

The characteristics of “being subsidized” points to an essential difference from other types of suburban rural municipalities: those that pay reverse grant and have large employers - taxpayers on the territory. Such municipalities may be centres of gravity for the workforce coming not only from neighbouring rural municipalities but also the central oblast city, with which it has reciprocal flows of pendulum migration;

2) rural municipalities remote from the central oblast city or any other big city - economic centre. Municipalities 3 and 4 belong to this group. It is assumed that for municipalities of this group, centres of gravity may be cities – central oblast cities or cities in the neighbouring municipality with better employment opportunities. Reciprocal pendulum flows of employees are possible, as well as different combinations of discrepancies between the place of residence, employment, PIT enrollment, and consuming social services resulting in more ambiguous outcomes of the change of PIT allocating.

Table 2.2. Key data about municipalities that participated in the survey, as of 1 January 2021

Indicator	Range of values
Number of councils that got amalgamated	between 2 and 8
Population, thousand persons	between 6 and 24
Distance from the administrative center of the municipality to the central oblast city, km	between 3 and 73
Revenue of the general budget fund of the municipality (without transfers) per capita, UAH	between 940 and 3960
Level of subsidization of municipality, %*	between 0 and 59
PIT revenue to municipal budget per capita, UAH*	between 550 and 2660
PIT share in the structure of municipal general fund revenue (without transfers), %	between 47 and 67

SAMPLE DESIGN

The main principle of sample formation for the survey was having a representation of permanent residents from the municipalities selected according to the criteria of age and location. This helps study each municipality as an independent object of research, on the one

hand, and use general assessments as average meanings of the situational sample, on the other hand. The scope of a sample is 1,000 respondents. Localities were selected using principles of consecutive sampling. The survey was conducted in 34 localities in the selected municipalities.

Since information on the territorial location of residents is insufficient (there is no verified data on the composition of population according to sex), the respondents were distributed according to routes (basic points of the survey). The number of routes has been selected for each municipality based on an optimal number of respondents for one point of the survey.

The interview was conducted at the place of residence of the respondents. Only one person aged 15-70 per household was the subject of the interview, with their characteristics meeting those specified in terms of reference. Place of residence registration, type of ownership of property (owner or tenant) did not matter as long as the person indeed resided at the place.

Extrapolation coefficient broken down by six age and sex groups was used for further analysis of all interviewed municipalities: 15–18 years (m/f); 19–29 years (m/f); 30–39 years (m/f); 40–49 years (m/f); 50–59 years (m/f); 60–70 years (m/f).

Field stage of the study

Target group of the study	Interview method	Method of obtaining information
Municipality leaders (head of the municipality, economists, financiers, revenue officers, etc.)	Detailed interview	Face-to-face interview at the place of work of respondent. Face-to-face interviews, including those conducted with the help of online resources (Skype, Zoom, Viber, WhatsApp)
Residents of the selected municipalities aged 15-70 years	Semi-structured interview	Face-to-face interview at the place of residence of the respondent.

Forty **detailed interviews** have been conducted: with leaders of municipalities from 14 oblasts of Ukraine, which represent almost all significant economic regions of the country; heads of financial departments of the city of Vinnytsia, Vinnytsia oblast and city of Ivano-Frankivsk; experts on migration, labour market, state statistics, and fiscal policy. All interviews relied on a unified guide that contained key statements and explanations of the main interview questions. Respondents were informed about the study's organizers, purpose, aim, and key tasks. Upon agreement between the parties, some quantitative details could be specified after the interview. All experts who conducted the interviews were warned about the need to allow the respondent to express their thoughts freely.

Characteristics of municipality residents sample selection

Oblast	Municipality	Number of respondents, persons	
Ivano-Frankivsk	Municipality 1	289	471
	Municipality 4	182	
Vinnytsia	Municipality 2	402	532
	Municipality 3	130	
Total		1003	

Field stage duration of local residents' survey: 14 calendar days (3 September – 13 October 2021).

The total number of refusals to participate in the survey – 461 persons. Accessibility of respondents – 68.5%.

Among the main reasons for refusal to participate in the survey, the following were mentioned: unwillingness to be part of a survey; refusal without specification of reason; lack of time caused by household chores; distrust in sociological studies in general; low level of trust and feeling suspicious about strangers (in particular, interviewers) since interviewers are sometimes perceived as con-artists (it is becoming increasingly hard to convince people to participate in surveys). The coronavirus disease (COVID-19) can be named as the primary reason for refusal as due to quarantine restrictions, some respondents simply refused to participate, would not open the door, even though the interviewers were wearing masks and followed all sanitary requirements.

Ethical aspects: Respondents received answers and explanations about the purpose of the study and the organizers. Potential respondents were informed that participation was voluntary and they could exit the survey without any consequences. Oral consent was a necessary condition for continuing the survey.

Training of regional teams: Two regional training events were organized for interviewers in the two designated oblasts. All the interviewers involved met the established criteria: at least two years of experience working as an interviewer; experience of face-to-face interviews at the place of residence of the respondent; being available for data collection during the entire field stage.

DATA CONTROL

Data processing. Upon receiving paperback documents of municipality residents' survey, primary processing of survey forms has been conducted, including data coding and input (transferring information to the electronic format in SPSS.PC programme). Interpretation of findings was based on the analysis of data collected ("body of data"). Logical control was conducted during the stage of the body of data check, where the following was checked: correctness of data entered and compliance with transitions and filters set in the survey form; potential duplication of survey forms; missed survey forms, which were added to the body of forms.

Phone validation. As part of data control by the research team, a select phone validation of answers was conducted based on the randomized choice of respondents according to their phone number recorded by the interviewers towards the end of the interviews. This helped control the work of interviewers by doing additional calls to respondents randomly selected from the entire list of respondents interviewed by each interviewer according to the established list of questions. In case of doubt about the validity of data provided during the previous stages of control, field stage managers conducted additional checks of respondents from the list of the particular interviewer. All the interviews included in the general database were conducted according to the requirements. Survey forms that did not pass the confirmation check were excluded from the body of forms.

3. LOCAL EMPLOYMENT: PLACES OF WORK AND TYPES OF EMPLOYMENT OF MUNICIPALITY RESIDENTS

Locals aged 15–70 fall into the following categories: employed, unemployed, and not part of the workforce. All the categories mentioned are essential for the analysis. Identifying the number of employed municipality members, the main types of jobs, and places of work helps outline the circle of taxpayers to the local budget and assess the scope of tax underpayment caused by unofficial employment, shadow wages, labour migration, or imperfect legislation. In addition, a specific number of the unemployed and potential workforce and the reasons for their unemployment are important for studying the potential of tax income revenue increase for municipality budgets and conditions under which such potential can be realized.

According to the study results, employment levels reached 57.6% on average and did not vary significantly for the municipalities: between 54 and 60 % (fig. 3.1). Several reasons may explain a higher number for municipality two: suburban location, relatively developed local economy, and a comparatively higher share of people aged 25-49 who are traditionally more economically active.

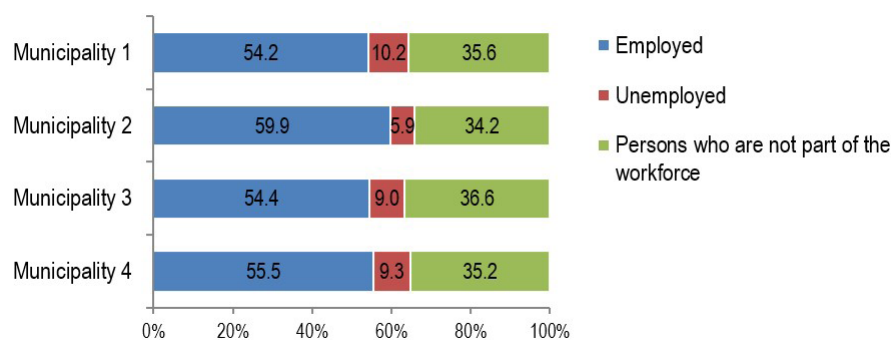


Figure 3.1. The distribution of municipality residents aged 15-70 according to their participation in the workforce, %

The sum of revenue from the income tax depends primarily on the following parameters:

- employment status: hired employee, employer, self-employed or family member working for free;
- type of employment: formal or informal;
- place of employment: within or outside the municipality;
- size of salary/income and the income declaration levels that stipulate the taxable amount.

An overwhelming majority of the employed municipality residents are hired employees (fig. 3.2). The PIT rate for income received from salary is 18% of the taxable amount. 60% of the PIT paid is transferred to the local budgets of the municipalities. For instance, if an employee gets a minimum wage of UAH 6,000, UAH 648 in tax will be transferred to the municipality budget. Self-employed persons, as a rule, pay a unified tax. The rate of unified tax depends on the taxation group. Thus, since January 01, 2021, the maximum tax rate for group 1 taxpayers (most of whom are salespersons at a local market) is set at UAH 227 per month,

group 2 taxpayers (provision of consumer services, manufacturing, and sales of products, restaurant business) pay a maximum of UAH 1,200.

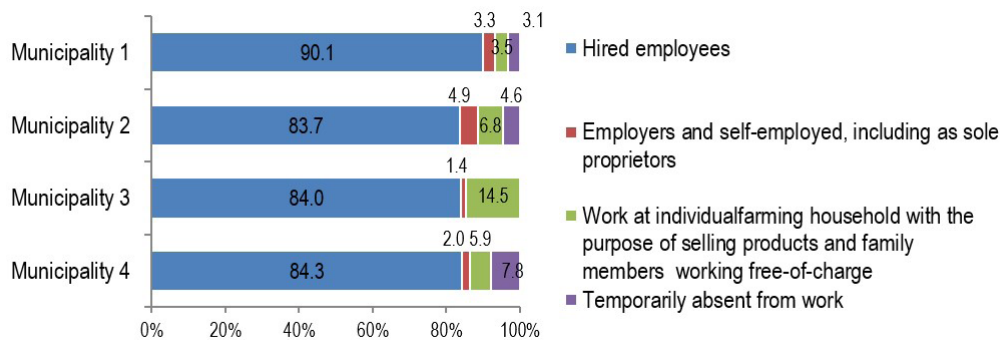


Figure 3.2. Distribution of municipality residents based on their employment status, %

In reality, a significant percentage of the employed residents of the municipality do not pay taxes as they are not officially employed: either as unreported self-employed, as non-registered entrepreneurs, working under the oral agreement as informal employees at formal sector enterprises, etc. The level of informal employment varies significantly between the municipalities: between 28 and 60 % (fig. 3.3), yet there is no significant correlation between these numbers and the location of the municipality (suburban or remote).

To analyze the issue of PIT underperformance, we are singling out a category of “disguised employment” within the group of formally employed. This disguised employment is also called fake or fictitious employment, fake sole proprietors, when de-facto hired employees are registered as sole proprietors who pay unified tax which minimizes the amount of taxes they pay. It has been established that their share in the employed group in some municipalities accounts for more than 10%. With this employment scheme, local budgets usually miss out as revenue generated by the unified tax is smaller than PIT.

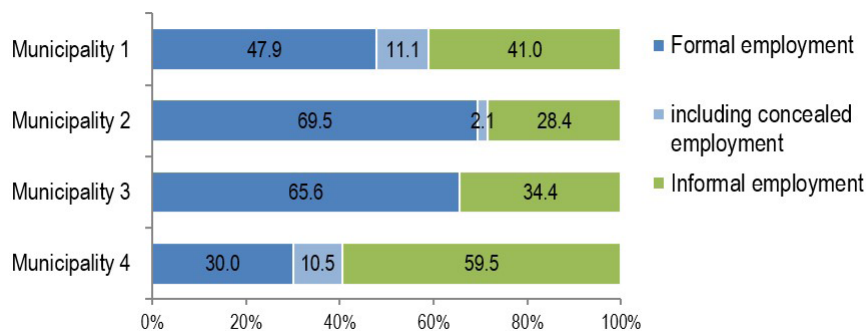


Figure 3.3. Formal and informal employment of municipality residents, %

The primary industries for informal employment are sales, transportation, construction, and agriculture (for municipalities specializing in agrarian business) (fig. 3.4). The industries listed employ between 54% and 60% of the total number of informal employees.

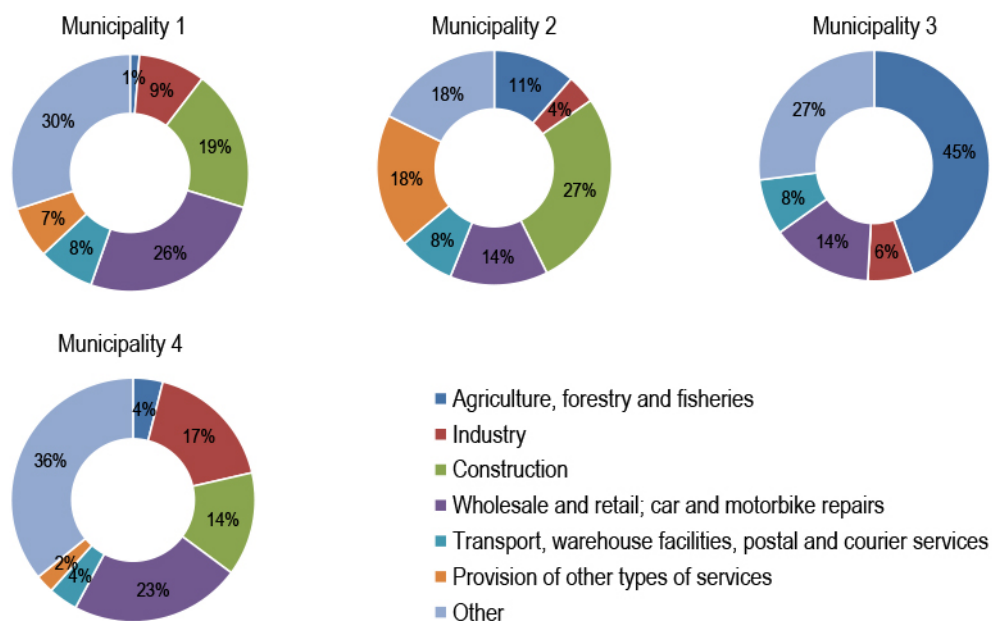


Figure 3.4. Distribution of informal employees according to types of economic activities, %

According to current legislation, PIT share paid (transferred) to the local budget by the tax agent-legal entity for their employees is included to the budget at the business address of the company (its branch, department, or other detached subdivision). An employee may live in one municipality and work in another; consequently, their PIT share is not paid to the budget of the municipality where they live, use infrastructure and receive public services.

Three-thirds of the municipalities studied had their employees work outside the municipal-ity territory (Fig. 3.5).



Figure 3.5. Hired employees based on the location of their place of work, %

We may observe a significant concentration of pendulum labour migration between sub-urban municipalities and the urban centre. Location near a diversified labour market such as a big city offers more opportunities for finding a better job. In the case of municipality 2, which has many employers on its territory, more than half of all hired employees travel outside the municipality for work.

Residents of remote rural municipalities have slightly different behaviour on the labour market. If a municipality has employers, locals try to find a job where they live, even if the position offered is below a person's qualifications. Thus, in municipality 3, which has several

agricultural enterprises, more than 60% of hired employees work on the territory. If there are no large employers on the territory of a municipality (municipality 4), the primary legal employer within the municipality is the public sector (for instance, in municipality 4, this sector employs more than 60% of all formally employed hired employees) and the majority of residents look for a job in the neighbouring cities or municipalities with a good transport connection, be it formal or informal employment.

It is worth mentioning that the public sector is usually the most reliable employer who pays PIT regularly. Yet, a severe dependency of budgetary revenue on taxes paid by public sector employees may attest to an unfavourable economic situation for a municipality. There is a correlation here – the higher the share of PIT from public sector employees in the municipality budget, the lower the average income level per capita. In the absence of other budgetary income sources, funding the essential services for municipality residents will be done through government transfers and basic subsidy, which will hardly be enough for a municipality's mid and long-term development. At the same time, it should be noted that the dependence of municipality budget on one or two large employers registered on its territory is risky from the standpoint of budget stability. When such large companies change the place of registration, which is not rare, budget performance indices and the opportunity to finance necessary expenses deteriorate.¹

The average salary of hired employees ranged between UAH 8,400 and UAH 11,700 (fig. 3.6). In suburban municipalities, the share of those working within the municipality was smaller than those working outside. As already mentioned, the proximity to a big city increases the chances of finding a better-paid job. The correlation was reversed in remote municipalities.

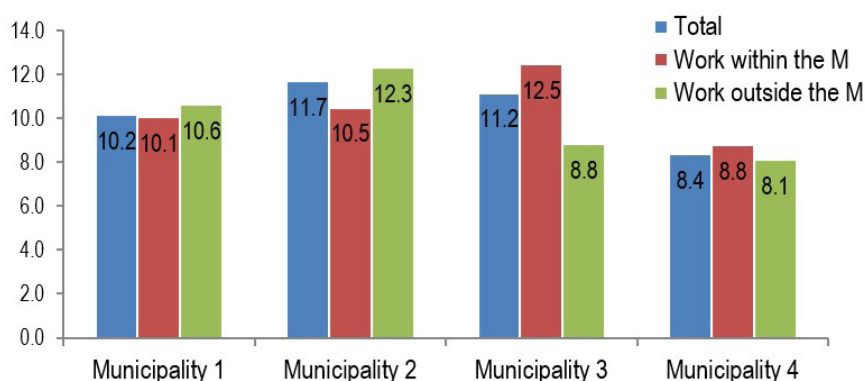


Figure 3.6. The average wage of hired employees, UAH, thousand

Tax base for PIT, except for informal employment, also narrows down due to “shadow” wages of the officially employed. It is not easy to assess how common the latter is within the municipalities, as many of the respondents refused to answer such questions or did not know the answer. Among those who responded to the question “What is the sum of your salary that your employer pays tax from?”, an average 71% of employees answered that the tax agent transferred PIT from the entire sum, in 29% of cases – tax was paid from a salary that was lower than the actual salary, including 24% paid from minimum wage. The situation varies across municipalities (fig. 3.7). Based on research data, an unusually high level of “shadow” salaries is recorded among hired employees who live and work in the municipality 3. Since many of them work at agricultural and agricultural processing companies, which

¹ [Results of management system assessment in amalgamated hromadas: final report](#). U-LEAD with Europe. Kyiv, 2020. 34 p.

traditionally have the highest indices of unreported labour relations, the survey results may reflect the actual state of events.

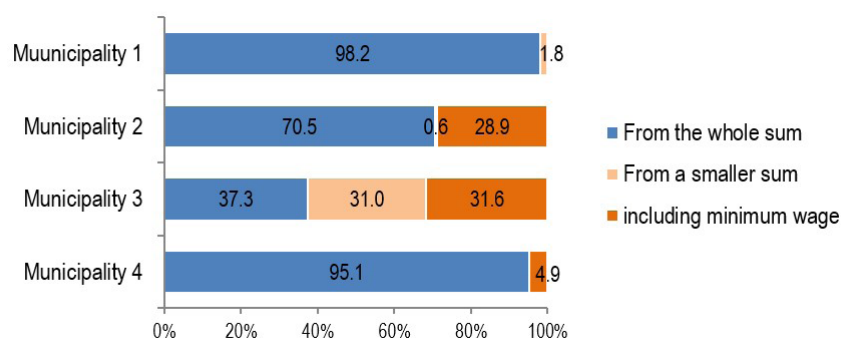


Figure 3.7. The sum of salary from which the employer pays income PIT for hired employees, %

THE UNEMPLOYED AND POTENTIAL WORKFORCE

In the municipalities studied, 7.5% of residents aged 15-70 are unemployed (searching for a job or trying to start their own business), and 34.9% are not part of the workforce. Within the latter category, there is a subgroup of the potential workforce – people not looking for a job but ready to work if they find it. Under favourable circumstances, such residents can find a job and bring income to the municipality. Together with active unemployed, the latter may be reasonably considered the operative potential of employment.

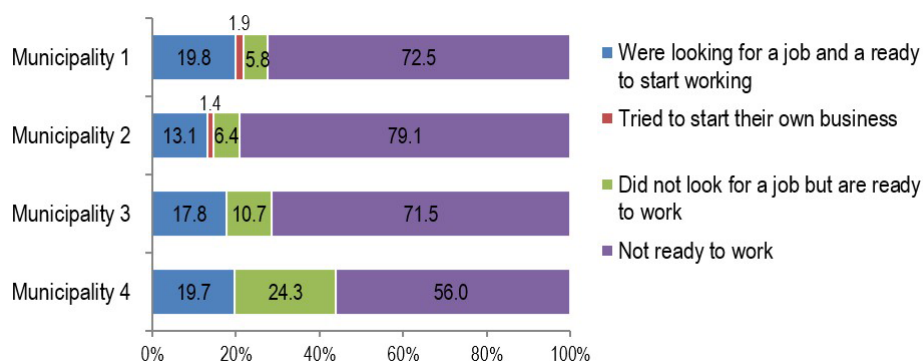


Figure 3.8. Unemployed municipality residents aged 15-70 years, %

Regional differences are noticeable. In Vinnytsia oblast (municipalities 2 and 3), there is a considerably higher level of determination to make the employment official, and the percentage of those aimed at informal employment is significantly lower (fig. 3.9).

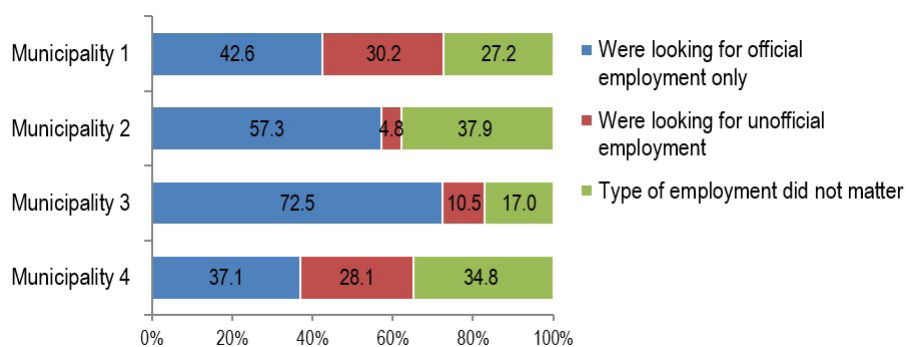


Figure 3.9. Conditions under which active and passive unemployed aged 15-70 are eager to work, %

Notably, firm determination to work outside the municipality is not typical for all municipalities reviewed (fig. 3.10). The good news is that municipality residents are quite pragmatic about employment and value not the location but other job characteristics.

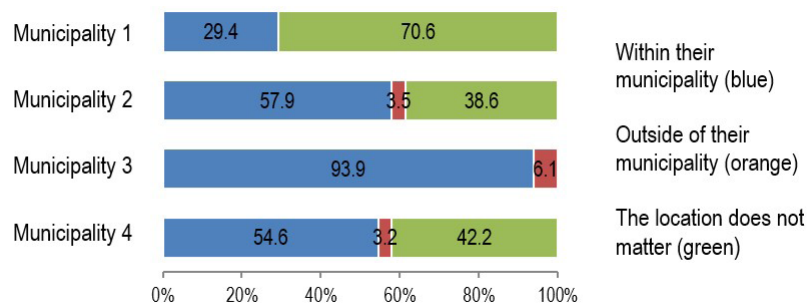


Figure 3.10. Where the unemployed municipality residents aged 15-70 years are ready to work, %

4. EMPLOYMENT POLICY vs. FISCAL POLICY: IMPACT ASSESSMENT FOR MUNICIPAL BUDGETS

Identifying the main characteristics of employment in the municipality based on employment status, being part of the formal or informal sector of the economy, place of work, and salary helps create an information database necessary for the assessment of the potential impact of specific measures on the labour market, tax or budget policy on the budgets of selected rural municipalities. We are considering several scenarios for change under the following directions:

- 1) formalization of employment within the municipalities;
- 2) change of norms for PIT allocation to the budget of a municipality;
- 3) combination of those above.

FORMALIZATION OF EMPLOYMENT

As established, the problems of shadow wages and informal employment are to a degree relevant for all municipalities studied and directly impact the sum of PIT allocated to the budget. Accordingly, the calculations of employment formalization impact on local budgets are based on the following assumptions:

- (a) PIT is paid from the entire sum of salary, “fake” sole proprietors are transferred to the category of hired employees;
- (b) labour relations of informal employees are legalized, they receive minimum wage established by the legislation.

Figure 4.1 illustrates how PIT revenue in the local budgets would increase if the assumptions are implemented compared to budget numbers planned for 2021.

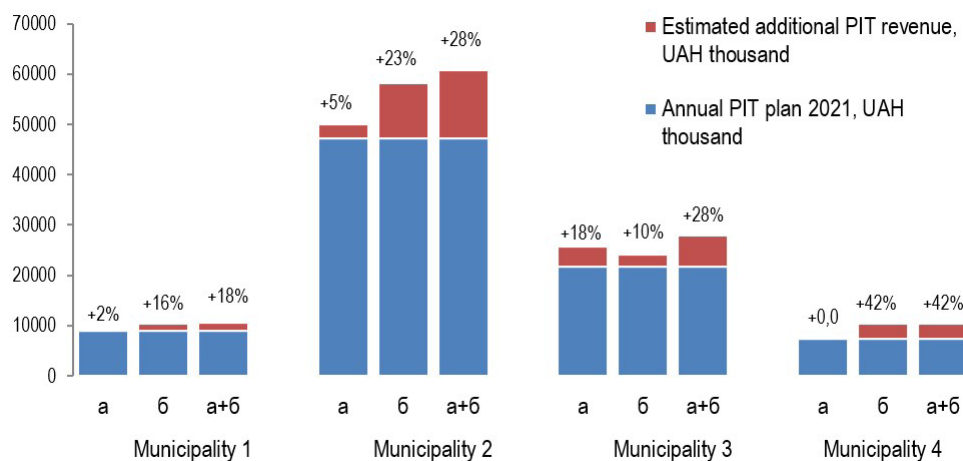


Figure 4.1. Assessment of additional revenue from PIT along the direction of “employment formalization”.

It is apparent that these scenarios cannot be implemented in practice in full. To a larger extent, they demonstrate the significance and priority of specific budgetary measures for the municipality. As can be seen, for most rural municipalities, strict measures of making

salaries official will not improve tax-paying abilities yet will likely result in a confrontation with business. Similar opinions were expressed by some mayors and heads of financial departments during the interviews. Legalization of the unofficially employed will have more impact, particularly for municipality 4.

CHANGE OF NORMS FOR PIT ALLOCATION TO LOCAL BUDGETS

Several bills dealing with the issue of PIT allocation to budgets have been registered at the Verkhovna Rada of Ukraine. The first group of bills suggests regulation of PIT payment by structural subdivisions of employer-companies. It is rather common to transfer PIT not to respective local budgets but to the budget of the locality where the company is registered or its regional office is located. This issue is studied within the Kyiv School of Economics research: *The Place of Personal Income Tax Payment in Ukraine – Legal History and Current Practice*,¹ and is not the subject of our analysis. It should be noted that during detailed interviews, most municipality heads pointed to the feasibility of such changes and assessed them as appropriate and most realistic in terms of implementation. Most municipalities have branches of financial institutions and post offices that do not transfer PIT to the local budget. Some interviewees also mentioned situations when taxes were paid not at the place of the actual operation of large agriholding branches, which are often among the few large employers on the municipality territory.

The second group of bills suggests allocation of PIT share **at the place of residence of individuals-taxpayers**. Such a decision would cause two opposite revenue streams for any municipality:

- from municipality residents working outside the municipality, which is an additional stream of PIT revenues;
- from residents of other municipalities working inside the municipality, which is a decrease in the stream of PIT revenues.

A logical assumption can be made about the unequal or random distribution of such revenue streams. In most rural municipalities located far from agglomerated cities or mineral mining or processing sites, the first stream dominates. Yet, there is a relatively smaller number of municipalities towards which workforce gravitates, where the number of people coming from other municipalities exceeds the number of local residents working outside. Indeed, cheaper land and often lower local taxes contribute to the location of big companies employing a considerable number of people on the territory of satellite municipalities. Similarly, formally rural municipalities become an integral part of a single economic space of agglomerated cities which calls for separate calculations of income and expenses following amendments to legislation.

Research findings help us identify the scope of the revenue stream (Table 4.1). The share of officially employed hired employees working outside the municipality differed significantly and ranged between 35% and 86%.

¹ [The place of payment of personal income tax in Ukraine – legal history and current practice](#) / Daryna Marchak. Centre for Public Finances and Public Governance Analysis of the Kyiv School of Economics. Kyiv. 2021. 36 p.

Table 4.1. Distribution of hired employees-municipality residents based on the type of employment and place of work

	Formal employment	Informal employment	Total
Municipality 1, total	1166	952	2118
Including employed, %			
on the territory of the municipality	13,9	18,8	16,1
outside of the territory of the municipality	86,1	81,2	83,9
Municipality 2, total	7410	2416	9826
Including employed, %			
on the territory of the municipality	33,7	57,6	39,6
outside of the territory of the municipality	66,3	42,4	60,4
Municipality 3, total	1604	496	2100
Including employed, %			
on the territory of the municipality	64,6	59,1	63,3
outside of the territory of the municipality	35,4	40,9	36,7
Municipality 4, total	1148	2077	3225
Including employed, %			
on the territory of the municipality	42,9	19,0	27,5
outside of the territory of the municipality	57,1	81,0	72,5

An important factor influencing the outcomes of changing the rules of allocating PIT to municipality budgets is informal employment. A study of four municipalities revealed that for rural municipalities located near central cities of oblasts, where it is common for the residents to work in the cities, the share of informal employment is lower than among those working on the territory of their own municipality (Fig. 4.2). In rural municipalities located further from central oblast cities, the share of informally employed is conversely higher among those who work outside of their own municipality.

For hired employees living in suburban municipalities who travel to neighbouring big cities for work, the average monthly salary was UAH 11,000-12,000 and was more differentiated, while in the same category of employees from remote rural municipalities, the majority of those who disclosed their income was getting a salary of UAH 9,000 per month (Fig. 4.3). An average of 23% of employees getting higher than a minimum wage paid PIT from a smaller sum, including 16% who paid tax from the minimum wage.

According to calculations, in the three municipalities studied, revenue from PIT of hired employees working outside the municipality may reach between 58% and 93% of the index planned in budgets of municipalities for 2021, which is higher in comparison with the scenario of employment formalization. In municipality 3 additional income PIT revenue will be significantly lower (fig. 4.4) since most of its residents work inside the municipality.

Unfortunately, observation of the residents cannot help establish an approximate sum

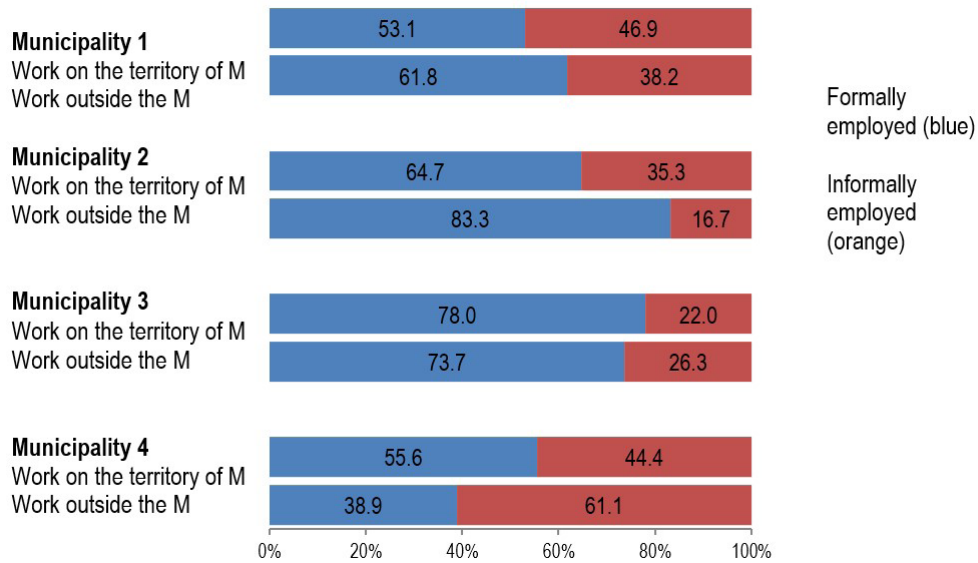


Figure 4.2. The distribution of the employed municipality residents based on the type of employment depending on the location of the place of work, %

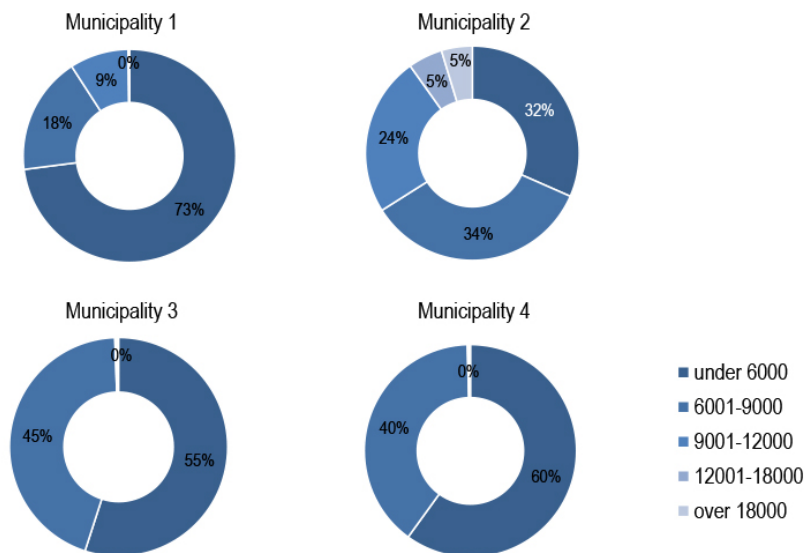


Figure 4.3. The distribution of formally employed residents working outside the municipality based on salary levels, %

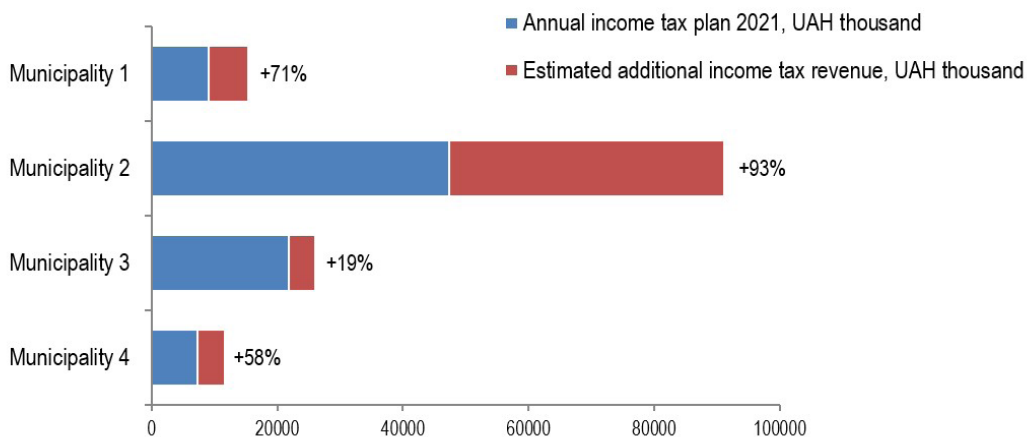


Figure 4.4. Assessment of additional PIT revenue in case of its allocating at the place of residence of individual-taxpayer.

of PIT paid by hired employees who are not residents of the municipality and only work in it. State Tax Service of Ukraine and companies refuse to provide such data. That is why we rely on numbers mentioned by heads of municipalities during the respective detailed interviews. Upon analysis of more than three dozen interviews, it has been established that in subsidized rural municipalities, the body of employees who come there for work is not extensive; the majority work in the public sector, and the share of such employees among all hired employees does not exceed 5%. In rural municipalities where large companies are located, an average of 30-40% of employees of such companies are residents of other municipalities, which is 20-25% of all hired employees of a municipality.

In such a way, for municipalities 1 and 4, additional budgetary revenue from PIT of residents working outside the municipality will decrease due to the outflux of PIT (fig. 4.5). The first conclusion we can make here is that **for subsidized rural municipalities, the generally positive impact of the transfer of PIT credited at the place of residence of individual taxpayers will be significant and will be seen in their taxpaying capacity.** An identical conclusion may be applied to the majority of suburban village municipalities which do not transfer reverse subsidies.

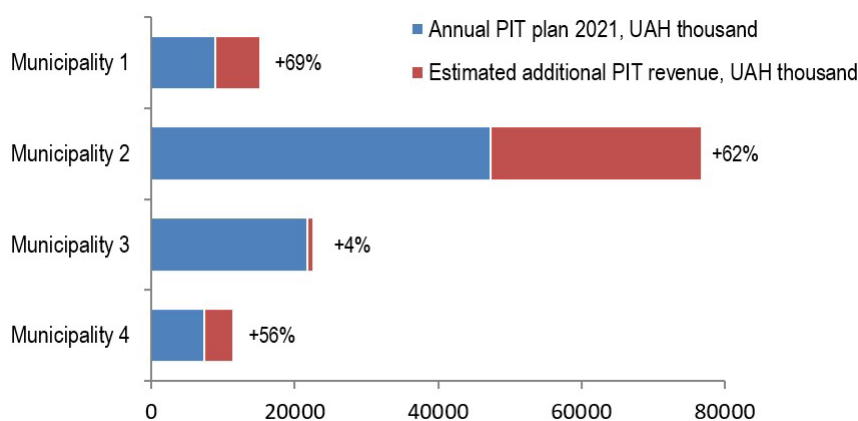


Figure 4.5. Assessment of additional PIT revenue in case of its allocating at the place of residence of individual-taxpayer

In remote rural municipalities, where large and medium-sized companies are located (such municipalities, as a rule, do not receive subsidies), the advantages of such legislative changes are not immediately obvious. Thus, in municipality 3, given the loss of revenue from PIT of individuals who come here for work, net PIT revenue will reach only 4-6% (see fig. 4.5). The second conclusion is that **economically active rural municipalities may be uninterested in such legislative changes, which is confirmed in the interviews of heads of municipalities. Despite the technical difficulties of implementation, the idea of PIT distribution in various proportions between the donor-municipality and employer-municipality may be considered feasible and requires additional justification.** To a large extent, it balances out the principles of equity and cost-effectiveness, stimulates municipalities to pursue endogenous development and use of local potential.

THE CHANGE OF NORMS FOR PIT ALLOCATION IN COMPARISON WITH THE FORMALIZATION OF EMPLOYMENT

Calculation of the outcomes of allocating PIT to the budget of the municipality where the individual taxpayer resides may be different from respective assessment voiced by

heads of municipalities. For instance, for municipality 1 a sum of at least UAH 10 mln was mentioned in an interview, whereas according to our calculations it was supposed to be UAH 6.4 mln. Probably, in the first case, all municipality residents working outside of the territory of the municipality were taken into account, without discriminating between formal or informal employment. According to the examination, between 17% and 61% of hired employees working outside the municipality are unofficially employed. Thus, the effect of the above proposed legislative changes can be enhanced if it is accompanied by measures aimed at making labour relations official both in donor and recipient municipalities (fig. 4.6). Such a scenario is targeted and reflects the upper limit of PIT paid to the municipality budget on the condition that employment rates and salary levels remain unchanged.

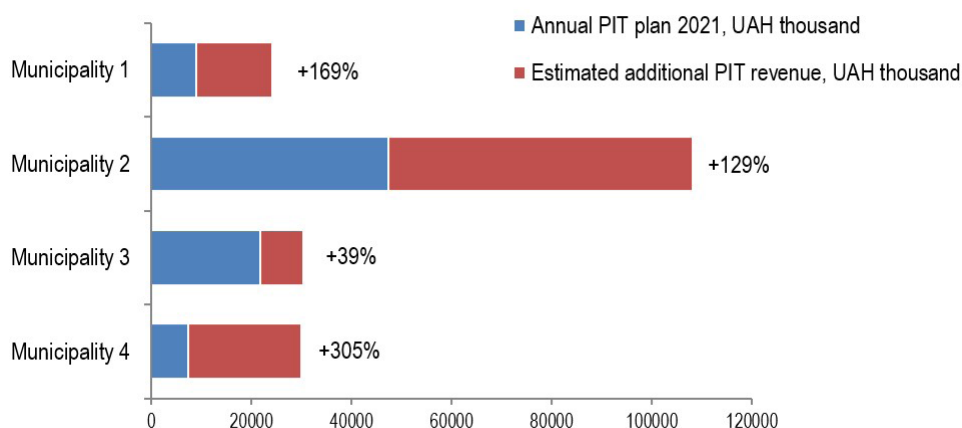


Figure 4.6. Assessment of net additional PIT revenue in case of its allocating at the place of residence of individual-taxpayer accompanied with measures of employment formalization.

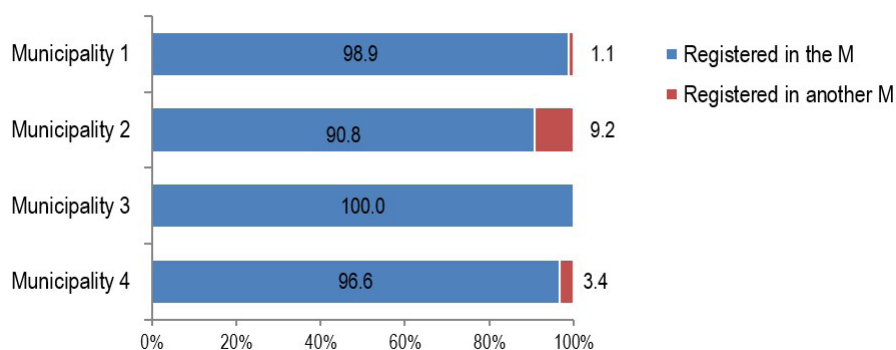


Figure 4.7. Place of registration of municipality residents who are payers of PIT, %

One of the arguments against allocating PIT share at the place of residence that the experts single out is a widespread mismatch between the place of actual residence and the officially registered place of residence of a taxpayer. In this case, PIT may be unfairly transferred to a municipality where the employee is neither registered nor uses local services. It has been established that in the examined municipalities, approximately 94% of residents-taxpayers are registered at the place of their actual residence. The mismatch between the place of registration and place of actual residence is more relevant for suburban municipalities, while for remote rural municipalities the numbers did not exceed 2% (fig. 4.7). It is expected that the solution to this issue will become available due to the recently adopted law on the change of place of residence online.

5. CONSUMPTION OF SERVICES FINANCED BY MUNICIPALITIES: SCALE, PARTICIPATION IN FINANCING, QUALITY AND AVAILABILITY

EDUCATIONAL SERVICES

Educational services are mostly provided for the children aged 4–17 who are studying in preschools and secondary schools. In the municipalities of Vinnytsia oblast, the percentage of this age group against the total population was 15.9% (municipality 2) and 16.4% (municipality 3). Municipalities in Ivano-Frankivsk oblast have a slightly higher rate that is 18.1% and 17.6% in municipalities 1 and 4, respectively.

However, the share of people aged 15–70 who are directly interested in the development of education (have children of the appropriate age) is much higher. It is based on the survey of children in municipalities. An average number of parents was 1.831. Overall, this figure was 39.9%, and 4.8% of the overall rate were parents whose children attended educational institutions outside the municipality. Differentiation of the indicator “percentage of the population aged 15–70 whose children receive educational services in the municipality and beyond” among the surveyed in the municipalities is presented in Table 5.1.

Table 5.1. Distribution of population in municipalities aged 15–70 by the presence of children and the location of institutions where they receive educational services

	People whose children receive education in the municipality	People whose children receive education in another municipality	People whose do not have children and who do not receive education	The whole population aged 15–70
Municipality 1	45,5	1,2	53,3	100,0
Municipality 2	27,2	8,2	64,6	100,0
Municipality 3	31,0	1,5	67,5	100,0
Municipality 4	52,0	0,0	48,0	100,0
Total	35,1	4,8	60,1	100,0

The receipt of educational services outside the municipality is more typical for municipalities located outside oblast centers (for example, this was indicated by 14.7% of the residents in municipality 2, whose children attended primary schools, and 23.6% attended secondary schools) (Fig. 5.1). A special position on the territorial localization of educational services is occupied by municipality 4, where, according to the survey, children attend educational institutions almost exclusively in the municipality.

For the respondents in the municipality, as well as in 30 other municipalities where interviews with heads were conducted, education expenditures are the largest item of budget expenditures (from 38% to 72%). Part of the expenditures is covered by an educational subvention from the state budget. However, significant funds are needed to maintain the premises, improve a school’s material and technical base, etc. Local people should be also responsible for the state of the education sector by paying taxes, participating in decisions on the development and optimization of the educational network, or via other opportunities.

¹ The indicator is calculated on the principle of weighted average according to the structure of the population, taking into account that in Vinnytsia municipalities there are 1.96 parents per child, while in Ivano-Frankivsk municipalities - 1.7. In addition, the weighting factors are adjusted for the difference in the age structure of the population.

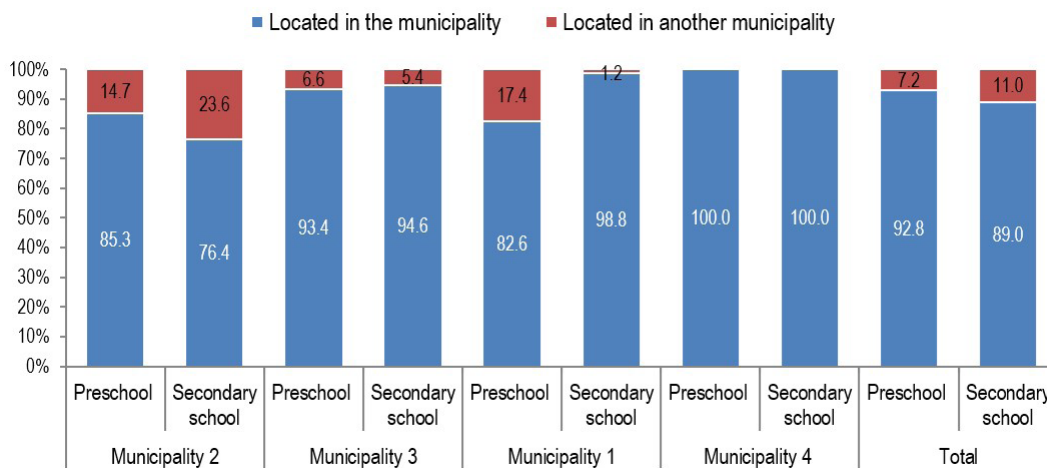


Figure 5.1. The location of preschool and preliminary school attended by children (in %)

Among the municipality residents whose children receive education, the majority (on average 63.4% in the surveyed municipalities) do not participate in their financing, i.e. they do not pay taxes to the municipality budgets, no matter if that is their own municipality or some other. The best situation is in municipality 2, where the mentioned indicator is equal to 54.9%, and the worst in municipality 4 where it is 78.3% (Fig. 5.2). The reasons for this were unemployment and unofficial employment, which averaged 35.8% and 27.6%, respectively, out of 63.4%. Another situation appears in municipality 4 where the main reason for non-participation in the financing of educational services is unofficial employment.

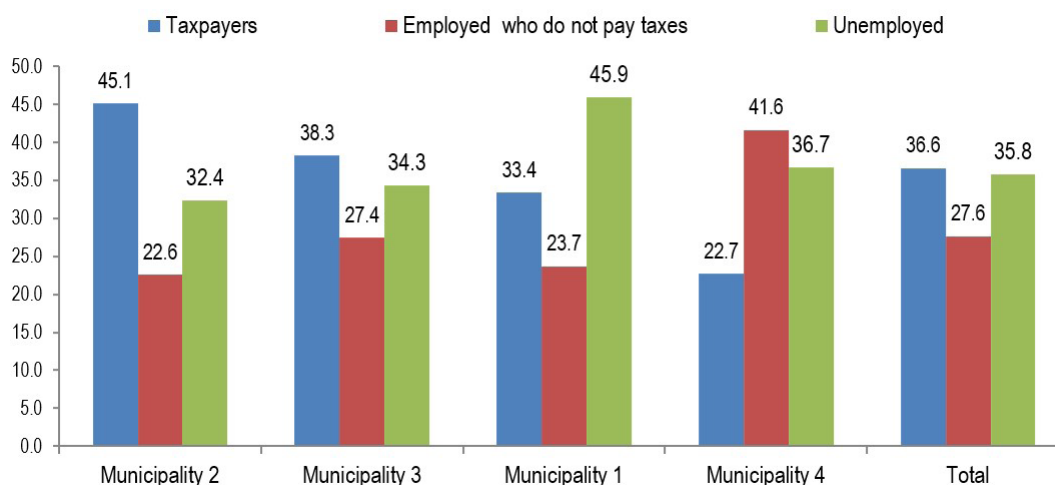


Figure 5.2. Distribution of the municipality population in terms of taxes payment to municipal budgets, who have children of preschool and school age (in %)

However, all the funds of taxpayers are not allocated to the municipalities at the place of educational services. In three quarters of the studied municipalities, the majority of the population whose children study at the place of residence work and pay PIT in another municipality (Fig. 5.3). Only in municipality 3 the situation is the opposite: 71% of families whose children attend preschool and 64.2% attending secondary school have at least one parent who pays taxes at the place of study of their own child.

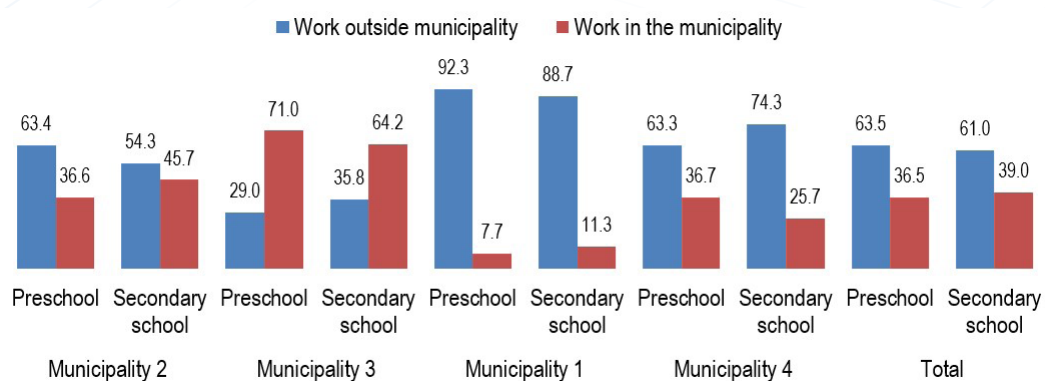


Figure 5.3. Distribution of families by location of work whose children attend educational institutions in their municipality, (in %)

Thus, there is a significant imbalance between obtaining public services and participating in their financing indirectly through the payment of taxes. This conclusion can be clarified by detailing the distribution of the population in a municipality according to these criteria (Fig. 5.4).

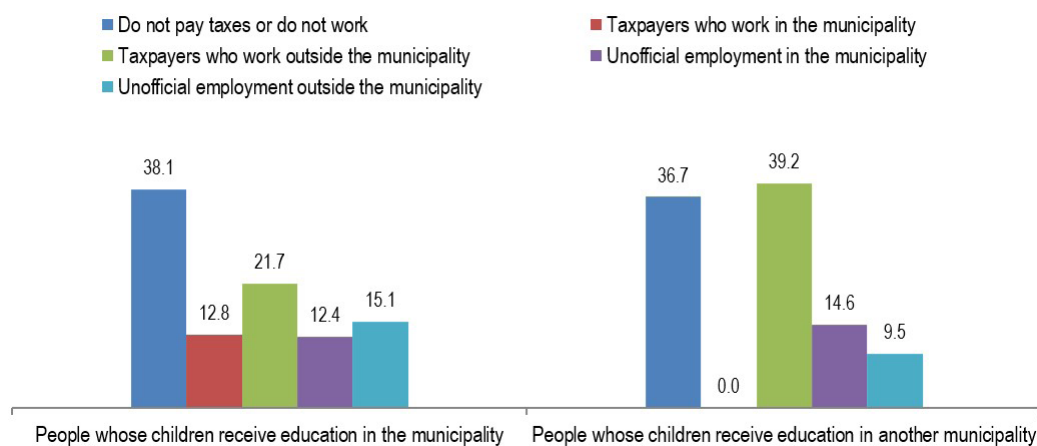


Figure 5.4. Distribution of the population of the studied municipalities (in total) by the status of participation in education financing through the payment of taxes (in %)

In general, the share of people participating in the financing of educational services for their children at the place of residence was only 12.8%. Another 21.7% of people whose children study in the municipality work or do business outside the municipality and pay taxes there. A significant part that is 27.5% of the population, whose children receive educational services in the municipality, works without registration both on the territory of the municipality and outside it, and does not pay any taxes.

In terms of the municipality, provided conclusions above are valid despite the variability of some indicators (Fig. 5.5).

In case of PIT allocating at the place of residence of a sole entrepreneur, municipality 1 will be able to significantly improve the situation, because 27% of people, whose children study in its territory, officially work outside the municipality and are PIT payers. For municipality 4, the effect of such changes will be much smaller. At the same time, it should be taken into account the disapprovals of the municipality, i.e. service providers for compensation for their value, that could appear. These issues should be clearly regulated in the framework of the mechanism of intergovernmental transfers between local budgets.

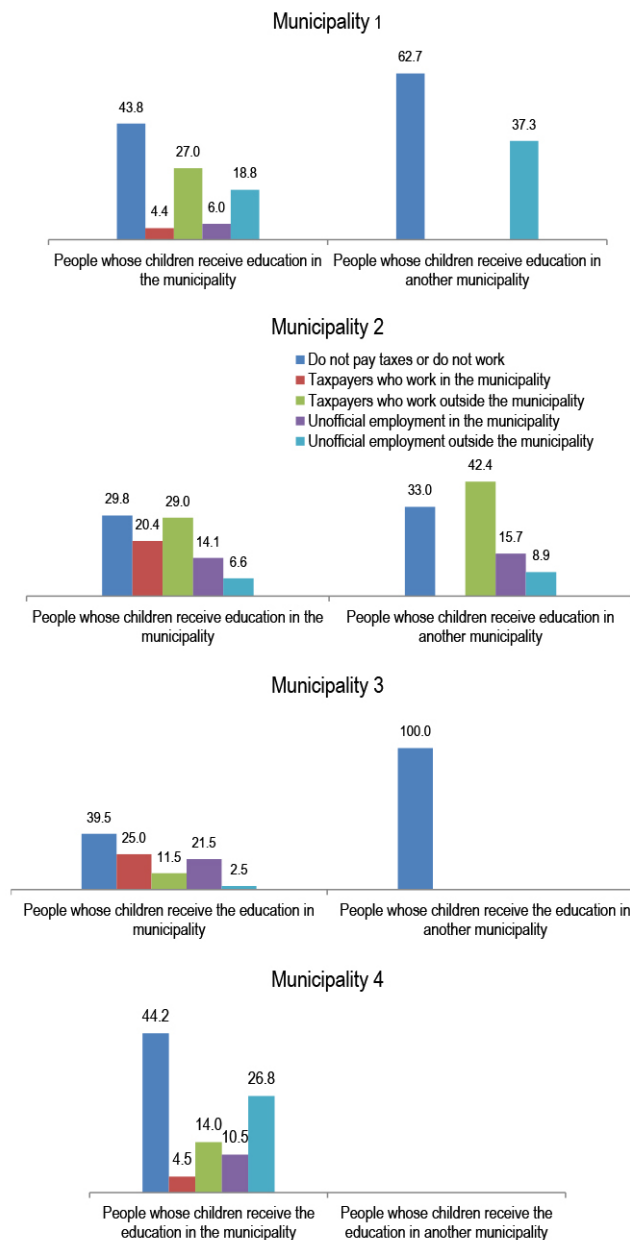


Figure 5.5. Distribution of the population of the studied municipalities by the status of participation in education financing through payment of taxes (in %)

MEDICAL SERVICES

Medical services are part of the main areas of expenditure of the municipal budgets. Despite the fact that primary health care workers are paid by the National Health Service of Ukraine, many municipalities are trying to pay extra salary to stimulate the desire of health workers to work in rural areas. In addition, a significant part of the costs is related to the maintenance of municipal infrastructure of medical institutions, purchase of equipment, tools and medicines, as well as transportation.

The population of the surveyed municipalities more often looked for medical help in medical institutions located on their territory. This ratio is different only in the suburban municipality 2, where more than half of the residents received medical services in the oblast center. In their municipalities, residents mostly used the services of general family practice outpatient clinics - 52.4% of those who reported seeking medical care this year. In second place in

terms of attendance are medical and obstetric institutions - 23.7%. Only 1.6% of the population used the services of private medicine.

The structure of the choice of medical institutions is different if residents visit them in other municipalities. Thus, the vast majority of residents of municipalities 2, 3 and 4 applied for primary health care to primary health care centers (from 72.1 to 86.9%). For residents of municipality 1, this type of institution also prevailed, but its share was only 49.3%. A characteristic feature of appointments outside their own municipality is a significant percentage of private medicine. In general, this was stated by 17.1% of the residents of the studied municipalities. The exception to this trend is municipality 3.

As in case of education, not all recipients of medical services in their own municipality paid PIT to the budget at the place of residence. This is especially true of the municipalities of Ivano-Frankivsk oblast. Thus, 57.9% of users of services in municipality 1 worked outside it, but applied at the place of residence to general practice outpatient facilities, 22.9% - to medical and obstetric institutions. Only 15.2% worked and paid taxes in the municipality. The situation is more balanced with regard to residents who used services of medical institutions of other municipalities. In all studied municipalities, except for municipality 3, the majority of residents who went to medical institutions in other municipalities also paid PIT there (Fig. 5.6).

It should be emphasized the ambiguity of the consequences for the municipality population, which will take place in the case of allocating PIT to the budgets of the place of residence. The additional funds received by a municipality will in most cases not be able to significantly change the availability and quality of medicine, but may impair the access of their residents to health services concentrated in large and district cities. It is possible that in practice this will encourage local authorities to create barriers for residents of other municipalities to access medical services, which will violate the constitutional right of Ukrainian citizens to freely choose the place and type of required medical care. This problem is important and needs to be resolved through inter-municipal cooperation or transfers between local budgets.

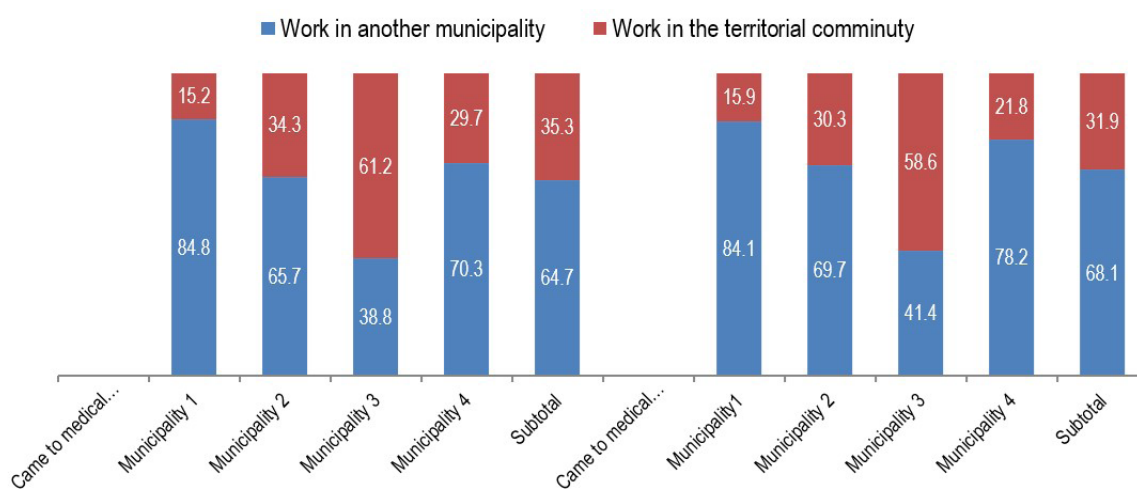


Figure 5.6. Distribution of the population of the studied municipalities seeking medical services by location of work,%

SATISFACTION OF MUNICIPALITY RESIDENTS WITH THE STATE OF MASS CULTURE, PUBLIC AND HOUSING INFRASTRUCTURE

The specificity of medical and especially educational services is that their users are either certain categories of residents, or the need for them arises periodically, and they can be obtained in other municipalities. According to the theory of public (collective) choice, such services are part of quasi-collective goods: everyone has the right to access them, everyone has to finance them, but the actual users in the selected period of time are mostly certain categories of the population. According to a large part of municipality heads, the population is fully aware of this contradiction and expresses marked dissatisfaction with the concentration of financial and organizational capabilities of the municipality on the relevant expenditures. Significantly different is the attitude of municipality residents to the infrastructure, the services of which are consumed by all and all times¹. According to the heads of the majority of municipalities who provided interviews, and according to the answers of the surveyed population, most residents want to spend municipal money on transport and communication infrastructure, useful leisure and personal development, heat and energy, water supply and sewerage, solving the problems of environmental pollution and waste disposal. Without discussing the adequacy of the priorities of municipality residents in the hierarchy of collective needs, we note that the subjective but mass attitude to municipality spending is a powerful factor in both individual motivation for activity and legitimization of informal collective attitude to the payment of taxes.

In the process of surveying municipalities, it became possible to explore this issue to some extent. Residents were asked to express their satisfaction with the state of various types of infrastructure in the municipality. We can compare the estimates obtained depending on whether residents work within or outside the municipality, as well as pay taxes or hide employment.

For clarity, indicators of the level of satisfaction of municipality residents were calculated in the form of scores². The received estimates by types of infrastructure in general show that mass culture infrastructure is in the best condition (602 points). In addition, it is the smallest variability of estimates between the categories of the employed population, determined by the characteristics of the place of work and the legal nature of employment (standard deviation - 93.8).

In second place in terms of satisfaction with its condition is housing and municipal infrastructure. On average, it is estimated at 448 points in the surveyed municipalities, and the standard deviation of the score of different categories of the employed population in different municipalities is 142.6.

The state of the general public infrastructure is assessed the worst on average - in all municipalities it received a score of 368 points, and discrepancies in the score on it among different categories of employed residents were characterized by a maximum deviation of 206.6.

1 The questionnaire suggested the following types of infrastructure: a) cultural and mass: Internet, clubs, cafes, restaurants, clubs, parks, entertainment centers, other conditions for organizing and conducting leisure and personal development; b) public: provision of administrative and social services in the municipality, public transport, public lighting, public order and safety, roads; c) housing and public utilities: maintenance of environmental cleanliness, waste collection and disposal, water supply and sewerage; heat and energy supply

2 They were obtained by adding the percentage of answers to each of the options for answering the question about the level of satisfaction of a person with certain services and the appropriate scale. To ensure equal proportionality of the gradations of responses in the integrated score, the values of the scale were chosen on an exponential scale - 30; 31; 32. As a result, the integrated score = (percentage of choice option SATISFIED multiplied by 32) + (percentage of option selection AT THE SAME TIME AND SATISFIED AND NOT multiplied by 31) + (percentage of option choice NOT SATISFIED multiplied by 30).

MASS CULTURE INFRASTRUCTURE

Residents who are employed on the territory of their own municipality in all municipalities assess the state of mass cultural infrastructure higher than those employed outside it. The distribution of estimates among the categories of employed by the legal nature of employment shows a more contradictory picture. In the municipalities of Vinnytsia oblast, people who are formally satisfied with the state of mass cultural infrastructure are more satisfied than informally employed (for example, in municipality 2 the corresponding ratio was 655 points compared to 581 points). While in the municipalities of Ivano-Frankivsk oblast - on the contrary (Fig. 5.7).

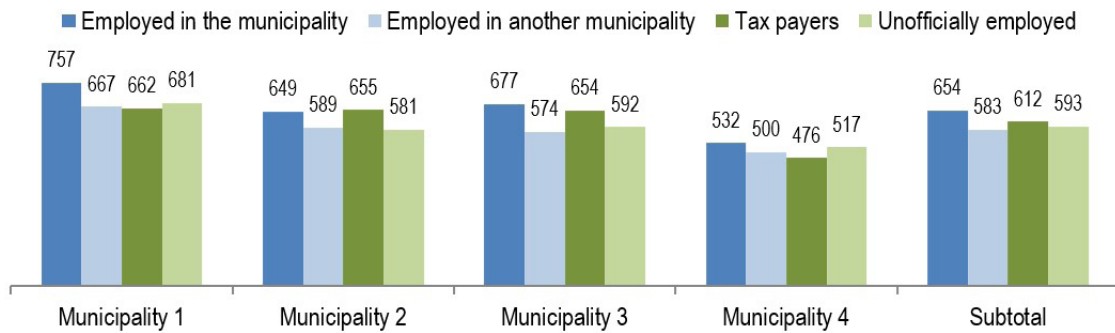


Figure 5.7. The level of satisfaction with the state of mass cultural infrastructure of the surveyed in municipalities by place and legal nature of employment (in points)

In general, according to the studied municipalities, taxpayers in their own municipality gave a higher score than persons employed informally (683 vs. 624) (Fig. 5.8). However, if in the municipalities of Vinnytsia the situation is the same as in Ivano-Frankivsk oblast, on the contrary - informally employed people give a mass cultural infrastructure higher points than taxpayers.

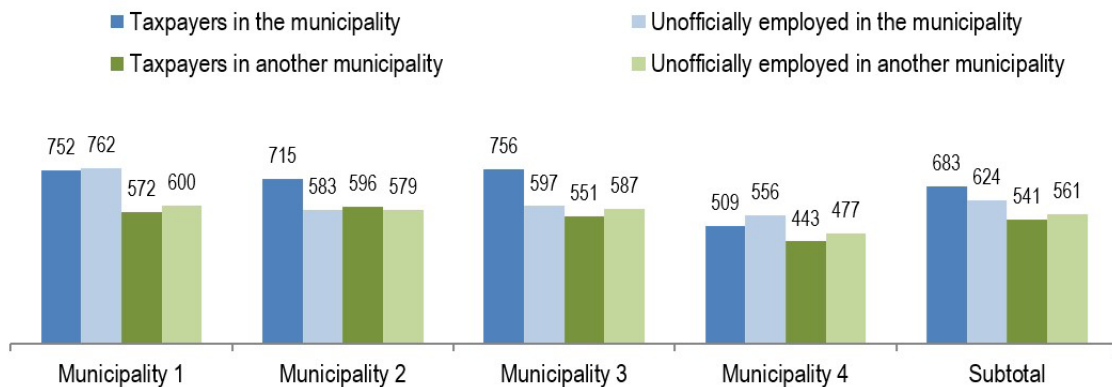


Figure 5.8. The level of satisfaction with the state of mass cultural infrastructure in the studied municipalities according to the legal nature of employment of residents with different location of the place of work (in points)

Among residents who worked outside the municipality, the situation with the distribution of evaluation is the opposite. Informally employed people (561 points) express a higher level of satisfaction with the state of mass cultural infrastructure of their own municipality than taxpayers (541). The only exception is suburban municipality 2. Its residents, who legally work in the oblast center, assess the state of mass cultural infrastructure of their own municipality higher than those who worked without proper registration.

HOUSING AND MUNICIPAL INFRASTRUCTURE

In general, according to the respondents in the municipalities, residents who work in their own municipality and residents who are informally employed assess the state of housing and municipal infrastructure higher than their antipodes by category (Fig. 5.9). Only municipality 2 stands out where the difference in evaluations between those employed within and outside the municipality is almost non-existent, and taxpayers rate housing and municipal infrastructure slightly higher than those employed unofficially.

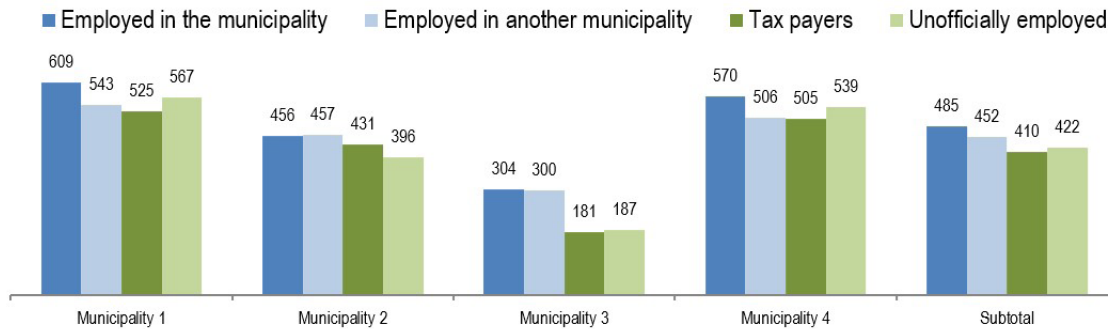


Figure 5.9. The level of satisfaction with the state of housing and municipal infrastructure by respondents from municipality by place and legal nature of employment (in points).

Among residents employed in the municipality, taxpayers rate local housing and municipal infrastructure higher than those employed informally. The only exception is municipality 3 (Fig. 5.10).

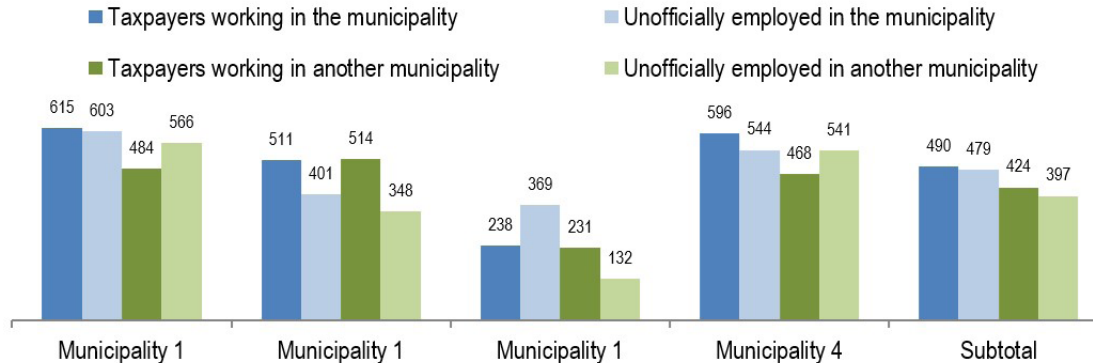


Figure 5.10. Level of satisfaction with the state of housing and municipal by the respondents of the municipalities depending on the legal nature of employment of residents with different location of the place of work (in points)

Among residents who work outside their own municipality, as well as among those who work within it, taxpayers rate a local housing and municipal infrastructure higher than those employed informally (Figure 5.10). However, among those employed in their own municipality, there are significant regional differences. If in Vinnytsia municipality taxpayers employed in other municipalities assessed the state of infrastructure higher than those unofficially employed (for example, in municipality 2 the corresponding indicators were 514 and 348 points), in the municipalities of Ivano-Frankivsk region, on the contrary, the highest score is given by unofficially employed (for example, in municipality 1 it is 566 and 484 points).

PUBLIC INFRASTRUCTURE

Public infrastructure is rated higher in Vinnytsia municipality than in Ivano-Frankivsk one, as well as in a municipality closer to the oblast center (in municipalities 1 and 2, 362 and 595 points, respectively), compared to remote municipalities (in municipalities 3 and 4, 194 and 146 points, respectively).

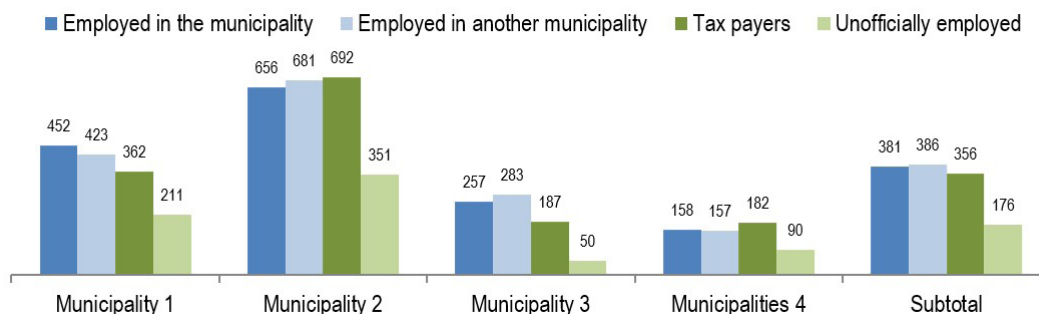


Figure 5.11. The level of satisfaction with the state of public infrastructure of the respondents in the the municipality by place and legal nature of employment (in points)

In general, according to the respondents in the municipalities, people employed in other municipalities estimate public infrastructure as slightly better compared to those who work on their own (386 and 381 points, respectively), and taxpayers are definitely better than those unofficially employed (356 and 381, respectively). 176 points). However, at the municipality level, the distribution of estimates is not so clear (Fig. 5.11).

Among the population employed within their municipality, most of the studied municipalities rate the state of public infrastructure of persons employed unofficially (Fig. 5.12). The only exception is municipality 4, where taxpayers give a higher score (186 points).

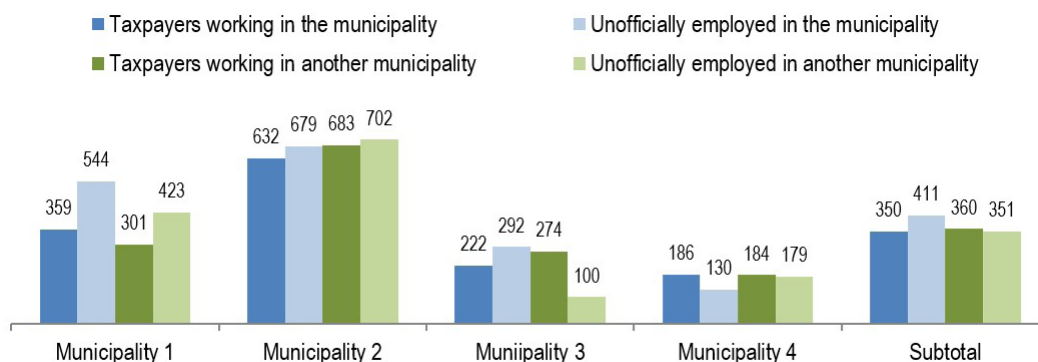


Figure 5.12. Level of satisfaction with the state of public infrastructure by respondents of the studied municipalities depending on the legal nature of employment of residents with a different location of the place of work (in points)

Summarizing the results of the distribution of state assessments of different types of infrastructure between different categories of the employed population, it should be noted their marked variability. In most cases, people tend to overestimate its condition in the municipality where they pay taxes. We cannot draw a clear conclusion from the survey data. Most likely, there is a projection of indirect participation in municipality funding, there is a sense of involvement in a common cause also creates a sense of satisfaction.

At the same time, the situation often occurred when people employed informally gave a higher rating. There are other reasons for this. Most of the people who are unofficially employed within their municipality are not employees, but work on their own land to grow products for sale. Their requirements for the state of infrastructure may well correspond to the level of their economic activity and be simply somewhat lower. Another explanation is possible. Lower demands on the legislative protection of employment relations, inherent in unofficially employed persons, are extrapolated to the formation of requirements and assessments of the state of infrastructure.

It is impossible to exclude the existence of such motives for high assessment of infrastructure in their municipality, as a sense of guilt caused by the fact that a person either does not pay taxes at all, or understands that his taxes are transferred to another municipality, therefore, it would be unfair to place high demands on the infrastructure of the place of residence.

6. INFORMATION SUPPORT TO MUNICIPALITIES

We can trace the significant achievements in Ukraine in the field of information support of budget analysis at all levels. Thus, the state web portal "Open Budget" contains open data on the indicators and implementation of state and all local budgets (revenues, expenditures, loans and financing), and the tool BOOST-analysis allows to analyse budget policy. The financial indicators dashboard of municipalities² reflects the main financial and budgetary indicators of municipalities. The web portal "Tax Map of Ukraine"³ provides information on tax revenues to local budgets. At the same time, there is a lack of relevant information at the local level related to the real demographic situation, the state of the labor market, the amount of PIT paid at the place of residence, etc. The biggest problems we encountered during the study are:

- inaccuracy of official statistical information on the population and in terms of age groups;
- lack of data on the number of employed in municipalities and labor migration;
- incomplete data in terms of the remuneration fund for enterprises, institutions and organizations located in the municipalities;
- incomplete information in municipality registries and lack of access to some state registries.

During the interview, the municipalities' heads often point to discrepancies between the population data provided by the State Statistics Service of Ukraine and the local registry data. In some cases, the deviation is up to 15% that distorts the calculations of the Ministry of Finance of Ukraine in terms of the amount of equalization grants in the state budget.

The ability to obtain the necessary statistical information from authorized state bodies is limited. The State Tax Service refuses to obtain data on the number of employees actually working and living in municipalities other than those where companies pay PIT for them, highlighting that in order to obtain such data, it is necessary to receive the new information and conduct analytical work (which does not comply with the Law on Access to Public Information). And in terms of information about the residence of employees they refer to the fact that the collection of such information is not required by law and therefore is not carried out⁴.

Decree of the President of Ukraine No. 180/2021 of 29 April 2021 implemented the decision of the National Security and Defense Council of Ukraine "On measures of state regional policy in support of decentralisation of power," which, by the way, instructed to take measures to establish an information-analytical system for monitoring statistical and administrative indicators of municipalities, taking into account the current needs of local self-government reform from January 1, 2022 by the Ministry for Communities and Territories Development of Ukraine and the State Statistics Service of Ukraine.

However, State Statistics Service of Ukraine currently has limited opportunities to form such an information and analytical system. It operates on data, mostly obtained through

1 <https://openbudget.gov.ua/>

2 <https://decentralization.gov.ua/finance/dashboard>

3 <https://map.tax.gov.ua/main>

4 [The place of payment of personal income tax in Ukraine – legal history and current practice](#) / Daryna Marchak. Centre for Public Finances and Public Governance Analysis of the Kyiv School of Economics. Kyiv. 2021. 36 p.

specialized observations. Thus, on a regular basis, the state statistical survey "Labor Force Survey" (until 2019 there is a sample survey of the population (households) on economic activity). Its purpose is to obtain data on the composition and structure of the labor force, to measure the volume of employment and direction of society activities, as well as to determine the level of unemployment. However, the methodology of forming the territorial sample of the survey allows to obtain relevant indicators only in the whole country and by region, and not by municipalities.

Sources of information on quantitative and qualitative characteristics of salaried labor, the level of salaries at enterprises, institutions, organizations are data of: the state statistical survey "Survey of enterprises on labor statistics"; sample survey of enterprises "The level of salary of employees by sex, age, education and occupational groups"; sample survey of labor costs of enterprises. Thus, the program of the survey of enterprises on labor statistics includes issues related to the number of employees, the payroll and its structure, the distribution of employees by salaries, etc. Regarding the reporting unit, it is forecasting to obtain data on its name, location (legal address), address of economic activity (actual address), main type of economic activity under the Classification of Economic Activities, etc. However, the survey covers only legal entities and separate divisions of legal entities with 10 or more employees, while small enterprises consisting of 10 to 49 employees are surveyed selectively. Thus, there is no comprehensive information about micro-enterprises, as well as individual-entrepreneurs.

We believe that there are significant opportunities to obtain information for the needs of socio-economic development planning and modeling the impact of certain legislative initiatives on local budgets and the financial capacity of municipalities related to the use of electronic administrative registers.

Currently a new use of registries has been the creation of their systems, e.i. registries interconnected on the basis of certain keys, which has allowed government agencies to share information without the involvement of additional sources. Currently, the most advanced in this area are the Nordic countries (Denmark, Norway, Sweden, Finland). They have central population registers and many registers that link information about individuals from different areas of their activities and lives. Estonia also has extensive experience in implementing an effective register system, which has managed to establish a full-fledged register-based e-government system in a short time. There are several ways to use registries:

- administrative (to ensure the implementation of functions entrusted on state and local governments, as well as to provide administrative services to the population);
- statistical (for the formation of generalized statistical information);
- researchal (to analyze the situation in a particular area of research and develop appropriate proposals and recommendations for management decisions);
- informational (to inform the public about current issues)⁵.

All northern European countries have a Central Population Register (CPR) with a unique identifier that is a personal identification number. The register contains basic information about all persons (sex, age, military age, nationality, etc.). There also included the references to parents and spouses, which allows you to create a family unit. Another important field in the register is the address of residence. In countries with a housing registry, the household is established by linking individuals and housing. The 23 countries out of the 30 surveyed have local population registries, all of which, except Germany, Italy and Switzerland, are developing a central population registr. However, these three countries are currently testing the possibility of creating a CPRI.

As for the labor market, UNECE experts emphasize that there is no single administrative registry covering all types of jobs, so labor-related statistical registries (so-called activity registries) depend on different administrative sources in different countries. The main types are tax registers, various registers of employees and registers of pension systems. The unit of the work place in the register has two identification keys: the code of the enterprise (organization or institution) and the personal identification number (for the individual). Thus, the characteristics of the employed person (sex, age, place of residence, education, etc.) and the enterprise (industry, location, etc.) are noted in the register of jobs (labor market). Other activity registers contain information on changes in unemployment and training in the labor market.

For example, Denmark is the country with the most developed registry system. Statistics of Denmark is responsible for maintaining the Employment Classification Module. The purpose of the registry is to provide information on the professions and employment status of those who has to pay taxes. The register is formed on the basis of reports of companies and state remuneration systems, as well as on the basis of an automated process by which each person is assigned a code of employment and position based on information from a wide range of registers, such as the Registry of Salary Information (COR) and the Central Register of Taxes (CSR). It contains information on persons over the age of 15 who have to pay taxes or have income during the year. The attributes of the register are information on employment, education and finances.

Denmark's Integrated Labor Market Survey (IDA) aims to make data on people and jobs available at the individual level. The information in the database can be used to highlight a number of issues related to the labor market (for example, individual mobility, job creation by companies, as well as human-company interaction). This database is unique because it can combine data about employees and companies. Thus, people can be characterized on the basis of information about the company-tenant (employer). Similarly, a company can be described on the basis of information about its employees. The database contains more than 200 attributes, including a wide range of background attributes for individuals.

IDA is relational and consists of 12 data sets with 12 different aggregates and contains the following attributes: personal information (gender, age, marital status, education, employment and work experience, unemployment, income; employment (position, full-time / part-time, hourly wages, experience, change of employment, admission / leaving), jobs and companies: time of creation, industry, location, etc., salary level of employees, status for a certain period of time (maintained, closed, installed). Register of Wage Information at the Central Customs and Tax Administration, Population Statistics, Education Classification Module, Danish Employment Classification Module, Income Statistics Register, Business Employment Statistics, Labor Register Statistics, Unemployment Register Statistics.

A similar approach is used in Norway. The State Register of Employers and Workers (Aa-registeret) is owned and operated by the Norwegian Labor and Welfare Administration (NAV) and is the main register providing information on all employment mechanisms in the country with a few exceptions. The purpose of the register is to meet the information needs of public authorities to perform their official functions. The employer is obliged to report information about all its employees to the register according to a certain scheme (a-ordningen). The register should provide information at the enterprise (company) level on the employees employed by each employer, as well as information on employment relationships.

The register is linked to the Central Coordination Register for Legal Entities, and all information about employers in the Register of Employers and Employees comes from there. When employers are registered in the Central Coordination Register for Legal Entities, they are assigned an "organization number". This is a unique number that is used to identify the company. An employer who has several companies can get several numbers of organiza-

tions. Employees are registered at the number of the entity where they work. The company's organization number is required to register employees, and all employers must have at least one organization number other than the legal one.

Employers must provide the following information to the register: type of employment (normal work or maritime working conditions); employment ID; date of employment; completion date; employment rate; the date of the change in the percentage of employment; number of hours per week for full employment; working time arrangements; the date of the change in wages; professional code; vacations; temporary dismissals. All income, employment and tax deductions are combined into a single email called a-melding. Employers and other entities must submit preliminary data at least once a month².

There are more than three dozen state administrative registers in Ukraine. We have identified a list of key indicators for the needs of municipality labor market analysis and the impact of employment parameters on local budgets, as well as registers from which they can be obtained (Table 6.1). The choice of registers took into account the completeness of their content, the level of coverage of the population, the possibility of interconnection between the registers. At the same time, it should be understood that the condition of some of the necessary registers is not the best, in particular the registers of municipalities, which are currently at different stages of completion, and access to a number of state registers is limited. Therefore, the creation of an information system for the needs of municipality will take time and considerable effort.

Table 6.1. State registers containing the necessary information

Nº	Indicator	Register
1.	Identity document details	Registers of municipalities
2.	Address registration of residence / location	Registers of municipalities
3.	Date of birth / death	Registers of municipalities
4.	Sex	Registers of municipalities
5.	Belonging to the place of residence / location in the municipality	Codifier of administrative-territorial units and areas of municipalities
6.	Place of actual residence (location)	Register of insured persons of the State Register of Compulsory State Social Insurance
7.	Registration number of the taxpayer's registration card Реєстраційний номер облікової картки платника податків*	Register of insured persons of the State Register of Compulsory State Social Insurance
8.	Employment status: a person who works under an employment contract; natural person - entrepreneur, self-employed person; another status	Register of insured persons of the State Register of Compulsory State Social Insurance
9.	Professional title of the work	Register of insured persons of the State Register of Compulsory State Social Insurance
10.	Employer: code (branch code), name	Register of insured persons of the State Register of Compulsory State Social Insurance
11.	Location of the employer (branch)	Unified State Register of Legal Entities, Individuals - Entrepreneurs and Public Associations
12.	Place of registration of a natural person - entrepreneur in the tax authorities	Unified State Register of Legal Entities, Individuals - Entrepreneurs and Public Associations
13.	Status of the registered unemployed	Database of jobseekers and registered unemployed
14.	The amount of accrued wages	State Register of Individuals - Taxpayers
15.	The amount of withheld tax income	State Register of Individuals - Taxpayers

*Note. If the person does not have a registration number of the taxpayer identification number, the data of the identity document are used.

Data sources come from different registers. Regulation (EU) N° 1151/2010 explicitly indicates the possibility of linking records, i.e. combining information from different data sources by comparing records for certain statistical units and combining information for each identical statistical unit. If both data sources are registers, the Regulation uses the term "reconciliation (correspondence) of registers", i.e. linking records corresponding to the same unit of the register in order to obtain balanced extended information. In northern European countries, personal identification numbers of individuals are located in almost all registers that contain information about the population. Similarly, practically uniformly unified identification systems are used for other basic registers, such as registers of enterprises, addresses, buildings and dwellings¹.

Currently in Ukraine it is not possible to identify the entire population at the age of 15 and older on the basis of the unique number of the entry in the Unified State Demographic Register, as it began to be assigned to relatively recently. Other "key indicators" can be used to link different registers for information extraction purposes (Table 6.2).

Table 6.2. Indicators which ensure the interconnection between information in state registers

N°	Register 1	Register 2	Indicator (s) by which information (key) can be linked
1.	Registers of municipalities	Register of insured persons of the State Register of Compulsory State Social Insurance	Identity document details
2.	Registers of municipalities	Database of jobseekers and registered unemployed	Identity document details
3.	Registers of municipalities	State Register of Individuals - Taxpayers	Identity document details
4.	Register of insured persons of the State Register of Compulsory State Social Insurance	Unified State Register of Legal Entities, Individuals - Entrepreneurs and Public Associations	Employer: Uniform State Register of the Enterprises and Organizations of Ukraine or unique identification code

Each person at the age of 15 and older who is registered in the municipality according to the register of the municipality can be identified by the identity document. At the first stage, an amount of data with information on the following blocks is formed for each person on the basis of indicators from different registers connected by keys (see Table 4.2):

a) general information:

- 1) age;
- 2) sex;
- 3) place of residence / location;
- 4) the code of the place of residence / location in accordance with the Codifier of administrative-territorial units and areas of municipalities;

b) the status of participation in the workforce:

1) officially (legally) employed:

- works on the terms of the employment contract;
- sole entrepreneur, self-employed person;
- other status;

- 2) officially unemployed;
- 3) other;
- c) for employees:
 - 1) professional title of work;
 - 2) place of work:
 - in the municipality;
 - outside the municipality but within the region of residence;
 - in another region;
- d) income and taxes:
 - 1) the amount of the accrued salary;
 - 2) the amount of withheld PIT.

A separate group consists of people who work in the municipality, but live outside it. The following procedure of information base formation is applied to them: by means of the Unified state register of legal entities, sole entrepreneurs and public formations the enterprises or their branches, and also sole entrepreneurs operating in municipality are defined; using the key indicator "enterprise code (branch)" according to the Register of Insured Persons of the State Register of Compulsory State Social Insurance, employees of certain enterprises, as well as according to taxpayer identification number - employees of individual-entrepreneurs except those registered in municipality are identified; the amount of information data on the above blocks are formed for the selected employees.


In the second stage, the obtained amount of data is aggregated according to certain parameters (sections) and, if necessary, analytical indicators are calculated.

At the third stage, analytical tables for information users are formed.

Thus, it is possible to form an information base within municipality for the needs of socio-economic development and local budget planning by local governments, including modeling the impact of different options for implementing the changes in the norms of income tax charging to local budgets.

It is worth noting that for a relevant assessment in the information base formation, it is appropriate to identify the person by place of actual residence, rather than place of registration. Formally, data on the address of actual residence / location are contained in the Register of Insured Persons of the State Register of Compulsory State Social Insurance, the State Register of Individuals - Taxpayers, registers of municipalities, but in practice they often do not correspond to reality. It is proposed to introduce a requirement for regular (for example, annual) informing of employers by employees about the confirmation of the actual place of residence and adjustment of relevant information in the registers when employers submit tax returns (SSC and income tax). It is also possible to check information between different registers. A promising area is the use of data from the e-health system eHealth, in which patients along with their general practitioners mostly indicate the address of actual residence.

Another problem is that the registers allow assessing only the registered segment of the labor market (legal employment and official unemployment). Unofficial employment, which is significant, is left unobserved, according to the results of the municipality survey. An urgent task is to develop methods for studying the amount of unofficial employment in municipality on the basis of data from the registers using indirect methods of evaluation and integration of other



data sources. The use of various data sources both for statistical purposes and for solution of public administration problems will allow to reduce financial and organizational costs and decrease the time of incoming information in the event of provision the proper quality of data and appropriate procedures for their transformation and use.

CONCLUSIONS

The study of employment characteristics of municipalities residents, their affiliation to formal or informal sectors of the economy and place of work allowed to identify the range of PIT payers to municipalities budgets, to model tax flows in different scenarios of the PIT reform, and to assess opportunities to increase tax revenues through employment policy aimed at legalizing employment relations.

The problems of shadow payroll and informal employment are to some extent relevant for all rural municipalities and they directly affect the amount of PIT revenue. However, harsh measures to de-shadow payroll are unlikely, for the most part, to significantly improve their fiscal capacity, but might quite probably lead to a confrontation with businesses. Legalization of informally employed employees will have a greater effect, at least at the level of the minimum salary. Local self-governments should step up their cooperation with labor inspectorates to assess such opportunities and the risks involved and to make joint decisions.

In the in-depth interviews, most stakeholders called for the legislation to regulate the payment of PIT by structural divisions of the employer companies. It is a common practice for the tax on behalf of the employees is paid not to the relevant local budgets, but at the legal entity's main place of registration or its regional office. The magnitude of the problem varies considerably from one municipality to another - such divisions may employ from a few to several hundred employees. In any case, the issue of mandatory registration of a structural division of a legal entity at the place of its actual activity must be regulated by law. Moreover, businesses often use the opportunity to choose the place of paying PIT as a way to exert pressure on local authorities.

For the subsidized rural municipalities (those receiving equalizing grants), the biggest positive effect on the increase in tax revenues will be the transition to the allocation of PIT at the place of residence of a natural person-taxpayer. They can significantly improve their fiscal capacity, and in some cases transition to the group of non-subsidized municipalities. The positive effect will be enhanced if legislative changes are accompanied by measures at the national level to legalize employment relations.

For economically active municipalities where large and medium-sized enterprises operate, the benefits of such legislative changes are not obvious. They may be uninterested in the reform, as evidenced by interviews with municipality leaders. Despite all the technical difficulties of implementation, the idea of allocation of PIT in different proportions between the municipality - donor of labor and the municipality - employer has a right to exist and needs additional justification. It mostly balances out the principles of equity and economic efficiency, encourages municipalities to develop endogenously and use local potential.

In rural municipalities, especially suburban ones, it is common for the residents to receive educational, medical, or other basic social services outside the municipality. In the case of transition to the PIT allocation at the place of residence of a natural person-taxpayer, we should expect an increase in claims by the municipalities that are service providers to compensate for their cost. There are also risks of discrimination against the rights of service recipients. These issues should be clearly regulated in the mechanism of intergovernmental transfers between local budgets. The state authorities need to develop appropriate methods for calculating the cost of services, templates of model contracts, and to disseminate best practices among municipalities.

It is necessary to set up an information and analytical system for monitoring and managing the development of municipalities. The State Statistics Service of Ukraine has limited capacities for its development, as it mainly operates data from specialized observations, which provide indicators only by region. Prospects for obtaining the necessary information are related to the use of electronic administrative registries (individuals, economic entities, taxpayers, education, etc.), interconnected on the basis of certain key indicators, which allows the authorities to integrate data on individuals from different areas of their life. Currently, the most advanced in this are the Nordic countries, France and Estonia, whose experience can be used in Ukraine.

It was discovered that a number of administrative registries in Ukraine contain data for the analysis of local labor markets and modeling of tax flows in municipalities that can be linked. A problematic issue is to determine the actual place of residence of a person. Formally, such information is available in several registries, but in practice it is not updated and often does not correspond to the reality. It is proposed to introduce a requirement for employees to periodically inform their employers about the confirmation of the actual place of residence and to correct the relevant information in the registries when submitting tax returns. There is a possibility to reconcile data between registries, in particular by using the electronic health care system eHealth, where patients mostly indicate the address of actual residence in their contracts with family physicians.

Administrative registry systems make it possible to assess the registered segment of the labor market, i.e. the legal employment and official unemployment. Informal employment remains unobserved. A promising task is to develop methods for estimating the scale of informal employment in municipalities on the basis of data from registries using indirect evaluation methods, as well as the addition (imputation) of other data, including sample surveys. This will reduce financial and organizational costs and decrease the data collection time.

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APPENDICES

Appendix A. Population composition in the surveyed municipalities aged 15-70 by employment market relations characteristics, persons

	Name of municipality				Total
	Municipality 1	Municipality 2	Municipality 3	Municipality 4	
Employed population	2577	11398	2500	3956	20431
including:					
Employers and self-employed	84	559	36	81	760
Employees	2322	9543	2101	3334	17300
Working on own land plot to sell produce at the market and free-of-charge help by family members	91	772	363	233	1459
Were temporarily absent from work due to serious causes	80	524	–	308	912
Unemployed (looked for a job or tried to start own business and are ready embark on it)	487	1111	411	659	2668
Not part of the workforce (not looking for a job)	1694	6514	1681	2512	12401
including:					
Perspective workforce (not looking for a job, but are ready to start it)	126	486	224	769	1605
Retired (included due to illness and disability)	803	3366	789	1277	6235
Maternity leave or housework	332	1182	107	145	1766
In the course of education / professional training	283	1186	343	220	2032
Other	150	294	218	101	763
Total	4758	19023	4592	7127	35500

Appendix B. Distribution of the employed population in the surveyed municipalities aged 15-70 by place of employment, persons*

		Categories of population by legal nature of employment			Total
		Formally employed population	Informally employed population	Disguised hired labor	
Municipality 1	Working outside the municipality	1016	788	244	2048
	Working in the municipality	219	179	41	439
	Total	1235	967	285	2487
Municipality 2	Working outside the municipality	5228	1078	193	6499
	Working in the municipality	2690	1391	48	4129
	Total	7918	2469	241	10628
Municipality 3	Working outside the municipality	568	203	–	771
	Working in the municipality	1072	293	–	1365
	Total	1640	496	–	2136
Municipality 4	Working outside the municipality	655	1683	415	2753
	Working in the municipality	532	436	–	968
	Total	1187	2119	415	3721
Total	Working outside the municipality	7467	3752	852	12071
	Working in the municipality	4513	2299	89	6901
	Total	11980	6051	941	18972

*Note. Except persons working on own land plots to sell produce on the market.

Appendix C. Average salary of hired employees and entrepreneurs' income in the surveyed municipalities, UAH per month

		Categories of population by legal nature of employment			Total
		Formally employed population	Informally employed population	Disguised hired labor	
Municipality 1	Employees	7130	7918	11323	8638
	Entrepreneurs	29237	27065	–	28378
Municipality 2	Employees	7659	6397	10664	7928
	Entrepreneurs	15356	23284	–	16896
Municipality 3	Employees	5607	5507	–	5583
	Entrepreneurs	4333,3	0,0	–	4333
Municipality 4	Employees	6490	8627	9250	8225
	Entrepreneurs	7719	16378	–	11797
Total	Employees	7195	7339	10241	8399
	Entrepreneurs	15213	23190	–	18592

Appendix D. Unemployed and potential workforce, persons

		Ready to work in their munic- ipality	Ready to work in other mu- nicipality	Ready to work no matter where	Total
Municipality 1	Looking for a job and ready to start work	63	—	369	432
	Started own business and ready to launch it	13	—	42	55
	Not looking for a job or business but ready to start	104	—	22	126
	Total	180	—	433	613
Municipality 2	Looking for a job and ready to start work	492	—	510	1002
	Started own business and ready to launch it	53	56	—	109
	Not looking for a job or business but ready to start	380	—	106	486
	Total	925	56	616	1597
Municipality 3	Looking for a job and ready to start work	372	39	—	411
	Started own business and ready to launch it	—	—	—	0
	Not looking for a job or business but ready to start	224	—	—	224
	Total	596	39	—	635
Municipality 4	Looking for a job and ready to start work	230	—	396	626
	Started own business and ready to launch it	33	—	—	33
	Not looking for a job or business but ready to start	517	46	206	769
	Total	780	46	602	1428
Total	Looking for a job and ready to start work	1157	39	1275	2471
	Started own business and ready to launch it	99	56	42	197
	Not looking for a job or business but ready to start	1225	46	334	1605
	Total	2481	141	1651	4273

Appendix E. Impact assessment of the employment policy measures and changes in norms of PIT allocation to the municipalities' budgets

	Municipality 1	Municipality 2	Municipality 3	Municipality 4
De-shadow of salary and legalization of disguised hired work				
mIn UAH	0,21	2,59	3,85	0,00
Percentage of the 2021 annual plan:				
Personal income tax and charges	2,3	5,5	17,6	0,0
Revenues to the general municipality budget	0,5	1,8	7,5	0,0
Legalization of employment relations for informally employed hired workers				
mIn UAH	1.39	10.82	2.28	3.06
Percentage of the 2021 annual plan:				
Personal income tax and charges	15.5	22.9	10.4	41.6
Revenues to the general municipality budget	3.2	7.6	4.4	5.0
Allocating PIT share to the municipality budget at the actual place of residence of a hired employee				
mIn UAH	6,25	29,43	0,86	4,09
Percentage of the 2021 annual plan:				
Personal income tax and charges	69,5	62,2	4,0	55,5
Revenues to the general municipality budget	14,5	20,7	1,7	6,6
Allocating PIT share to the municipality budget at the actual place of residence of a hired employee accompanied by formalization of employment				
mIn UAH	15.18	60.90	8.57	22.52
Percentage of the 2021 annual plan:				
Personal income tax and charges	168.9	128.7	39.3	305.6
Revenues to the general municipality budget	35.2	42.8	16.6	36.6

