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Yuriy Bilan, Doctor of Economics, Professor, Kautz Gyula Faculty of Business and Economics, Széchenyi István University, Hungary; (Corresponding author)

Halyna Yurchyk, Ph.D. in Economics, Associate Professor, Department of Labour Resources and Entrepreneurship, National University of Water and Environmental Engineering, Ukraine.

Natalia Samoliuk, Ph.D. in Economics, Associate Professor, Department of Labour Resources and Entrepreneurship, National University of Water and Environmental Engineering, Ukraine.

Halyna Mishchuk, Doctor of Economics, Professor, Faculty of Economics and Business Administration, Vilnius University, Lithuania.



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Yuriy Bilan (Hungary), Halyna Yurchyk (Ukraine), Natalia Samoliuk (Ukraine), Halyna Mishchuk (Lithuania)

EVALUATING THE EFFECTIVENESS OF PUBLIC FINANCE USED FOR SOCIAL PROTECTION OF INTERNALLY DISPLACED PERSONS

Abstract

The increasing number of internally displaced persons (IDPs) in wartime Ukraine leads to growing problems in social protection funding. Under these circumstances, the evaluation of the effectiveness of public finance use is of increasing importance. The study aims to evaluate the effectiveness of public finance for internally displaced persons' social protection, adapting the KPI methodology for analysis on the national level. The effectiveness is considered following the OECD approach as the extent to which the intervention achieved its objectives and results. At macrolevel of research, the integral indicator was developed based on indicators of input (financing of social protection programs), output (involvement of IDPs in social programs), activity (funding per recipient and multiplicative effect in GDP growth), mechanism (administrative costs for achieving results), and control (effectiveness of IDPs' social protection compared to other demographic groups). Thirty indicators in total were used (e.g., budgetary funding allocated for housing assistance; budget expenditures on staff salaries of the authorities responsible for certain programs; coverage rate of unemployed IDPs receiving vocational training). The essential distance from the maximum level of expected results (1.0) allows concluding the low effectiveness in this area of public finance use: from 0.330 in 2020 to 0.668 in 2023. Gaps are evident in each direction, especially in input performance (the highest value did not exceed 0.370). The best results were achieved in housing funding and employment governance. The proposed approach is useful for analyzing gaps and identifying opportunities to improve the management of other social programs.

Keywords

internally displaced persons, social protection, social policy, public finance management

JEL Classification

H53, I38, J11

INTRODUCTION

Financing social programs involves combining social goals (meeting urgent needs, social protection of target groups) with the economic efficiency of taxpayer money management. The more extensive the problems addressed by social expenditures, the more difficult it is to find a compromise between their social and economic feasibility and to evaluate their effectiveness. In Ukraine, one such issue is the social protection of internally displaced persons (IDPs). Since the beginning of the full-scale invasion of the Russian Federation, their number has more than tripled compared to 2021 and, as of the end of 2023, amounted to over 4.9 million people (Ministry of Social Policy, n.d.).

During the war, the problem of the state budget deficit and the social vulnerability of IDPs increases proportionally to the duration and intensity of hostilities (Husieva et al., 2020; Sasse, 2020). Therefore, ensuring the effectiveness of social protection for IDPs is one of the most

urgent tasks of social policy, requiring a comprehensive assessment. At the same time, the theoretical foundation for evaluating the effectiveness of social protection for IDPs remains underdeveloped, as it predominantly focuses on the analysis of effectiveness in individual areas of social support for vulnerable groups (Bulakh, 2020; Perelli-Harris et al., 2024; Voznyak et al., 2023; Zavisca et al., 2023). Instead, the development of integrated indicators that would allow for the assessment of social protection effectiveness across the main areas of state efforts and meet the current needs of the population is essential today. The appropriate tools should be applicable for the evaluation of the effectiveness of public finance used for internally displaced persons' social protection on the national level.

1. LITERATURE REVIEW

Researchers most frequently evaluate the effectiveness of social protection for vulnerable groups through the indicators of service coverage. Such approaches are characteristic not only of social policies concerning IDPs but also of other groups facing difficult circumstances, such as older adults (Piekut & Rybaltowicz, 2024) and low-income individuals (Aleksandrova & Costella, 2021), who may experience various forms of deprivation (Roshchik et al., 2024; Sedefoğlu & Dudek, 2024; Voznyak et al., 2024). In their pursuit of optimal solutions regarding the scope and direction of social expenditures, researchers justify the connections between social protection spending and its macroeconomic effects (Androniceanu et al., 2022; Kutasi & Marton, 2020; Yurchyk et al., 2024). Conversely, they also examine the possibilities of financing social programs based on economic growth and tax revenues (Alekseyenko et al., 2021; Dudzevičiūtė, 2023; Szymańska, 2022).

The predominant approach in research on social protection for IDPs involves analyzing the outcomes of social support and guaranteeing rights in specific areas that traditionally fall under the state's responsibility for vulnerable groups. Common in this context are studies addressing issues related to the observance of civil rights and legal status, which entitles individuals to equal participation in community life (Bulakh, 2020; Dirikgil, 2023; Izarova et al., 2023). Equally significant is the research on humanitarian issues, primarily housing (Alekseyenko et al., 2021; Ekoh et al., 2022; Ekezie, 2022; Zavisca et al., 2023), ensuring health needs with special attention to stress and mental health (Cantor et al., 2021; Kaiser, 2023; Roberts et al., 2022). Recent examples of IDPs' social support in highlighted areas can be found in research related to the problem of internally displaced in coun-

tries affected by war, like Azerbaijan (Shoib et al., 2022; Guliyev, 2024; Wistrand, 2023) and Georgia (Singh et al., 2018; Torosyan et al., 2018).

Given the continuously increasing flows of IDPs in Ukraine and worldwide, their social protection requires a comprehensive approach, as the challenges of integrating into new communities are typically accompanied by the simultaneous presence of multiple issues. The most common problems in Ukraine include housing, food, medical care, and employment (Perelli-Harris, 2024; Voznyak et al., 2023). These issues significantly hinder the social inclusion of IDPs (Roshchik et al., 2024).

The accumulation of social protection issues necessitates an increased role for the government in providing social support, which correspondingly raises scientific interest in this area. Research often focuses on analyzing and addressing the most urgent identified humanitarian problems according to the needs of IDPs (Ham et al., 2022; Husieva et al., 2020; Onuh, 2022; Sasse, 2020). Additionally, these studies aim to assess the overall effectiveness of government actions in social protection for IDPs (Aleksandrova & Costella, 2021; Yurchyk et al., 2023).

A common characteristic of existing studies in the field of social protection for vulnerable population groups is their focus on investigating specific urgent issues or sometimes a whole range of interrelated problems. An important omission in this regard is the lack of clear criteria for evaluating the effectiveness of actions aimed at the social protection of target groups. Researchers determine such effectiveness using various indicators: direct (satisfaction of the relevant need, coverage level of the target group by the service) or indirect (social security expenditure multiplier, changes in the labor market,

etc.). However, the comprehensive evaluation of the effectiveness of government actions in the social protection for IDPs remains an unresolved task.

The well-known and well-developed methodology for determining key performance indicators (KPIs) (Elwin & Hirst, 2007; Parmenter, 2015) can be applied to address this issue at the national level. Its widespread use at the project and organizational levels is associated with a clear understanding of the interconnection between processes and their management outcomes. Consequently, the KPI methodology is a crucial tool for evaluating the effectiveness of project participants' actions (Ahmed & Garvin, 2022), including scientific projects (P. Aithal & S. Aithal, 2023), company management, and groups of enterprises (Anjomshoa, 2024; Mishchuk et al., 2021), as well as economic sectors, particularly those as specific as energy (Faria et al., 2021), warehouse system (Faveto et al., 2024), water utilities (Walker et al., 2020), etc.

In the social sphere, KPIs are a common tool for evaluating the performance of personnel at various levels of managing specific socio-economic processes and entities, such as labor inspectorates (Williams & Sauka, 2022). Similar approaches to performance evaluation using KPIs are also prevalent at higher levels of governance in the public service. The use of KPIs as a planning and assessment tool in the balanced scorecard has become a typical example of process management organization in healthcare, occupational safety, public administration, and other public services (De Freitas et al., 2021; De Oliveira et al., 2020; Gomes & de Azevedo, 2024; Rahayu et al., 2023; Williams & Horodnic, 2022).

Adapting such approaches to evaluating the effectiveness of social protection for IDPs is a complex task. As with other applications of KPIs in public finance use, it is necessary to consider the connections between budget planning processes, which are further complicated by specific social requirements and political goals. At the same time, the processes of budget planning for expenditures must be aligned with the capabilities to measure performance, particularly through interconnected input and output indicators. The connection between budget processes and performance mea-

surement should be ensured by other KPIs – those that illustrate the effectiveness of activity and mechanism and enable control, as well as the assessment of progress in achieving goals within the time indicator group.

This task becomes more challenging as the management object becomes more extensive and socially significant. In the case of social protection for IDPs, assessing the effectiveness of government actions exemplifies such complexity, which may explain the low interest in applying the KPI methodology in this area of public administration. Through the agencies responsible for implementing the social protection function for IDPs, the state can and should employ the same approaches if the goal is not only a passive social policy but also ensuring effective management of the social sphere.

The existing methodological framework for evaluating social protection for IDPs and the application of KPIs in the public sector allows for the development of a new approach to assessing the effectiveness of public finance use for social protection for IDPs. Given this, the aim of the study is to evaluate the effectiveness of public finance used for internally displaced persons' social protection adapting the KPI methodology for analysis on the national level.

2. METHODOLOGY

For this study, the OECD definition of effectiveness is applied. Following it, the effectiveness is “the extent to which the intervention achieved, or is expected to achieve, its objectives, and its results” (OECD, 2022, p. 11).

The list of indicators for evaluating the effectiveness of public finance used for the social protection of IDPs is carried out using the KPI methodology. The established legislative norms and guarantees of social protection for IDPs, along with an analysis of the availability of necessary statistical data, were considered (Appendix A).

The adaptation of the KPI methodology to the objectives of this paper was carried out considering the specifics of the research object:

- indicators in block (1) reflect the volume of financial resources spent on implementing designated social protection programs for IDPs;
- block (2) is represented by quantitative indicators of IDP participation in various support programs, as well as their total number;
- indicators in block (3) show the relationship between the indicators of blocks (1) and (2), which includes the average size of social payments per IDP and the multiplicative GDP growth resulting from social payments for IDPs;
- indicators in block (4) reflect the administrative costs incurred by the state for maintaining relevant government bodies responsible for addressing IDP issues (including their relation to financial and quantitative support indicators for IDPs under corresponding programs);
- indicators in block (5) help identify the level of involvement in various support programs and the social status of IDPs compared to the general population or specific demographic groups;
- block (6) consists of temporal trend indicators that are essentially auxiliary and can be used for additional analysis of the indicators in blocks (1) through (5), particularly in assessing their progress.

Data collection for the compiled list of indicators was carried out from various sources (Appendix A), including requests for access to public information, reports and analytical materials from relevant institutions available in the public domain, and official statistical data from the State Statistics Service of Ukraine. Several indicators were derived from own calculations based on data obtained from the aforementioned sources. Additionally, some indicators were obtained from multiple sources simultaneously.

A significant informational limitation that prevents a comprehensive analysis of the social protection of IDPs is that data for several important social protection indicators are either not record-

ed at all or only tracked at the local community level. Additionally, there is no funding for certain areas, and aggregate indicators cannot be calculated due to the absence of partial components within certain blocks. To fill these informational gaps, the right guaranteed by the Law of Ukraine, "On Access to Public Information," was exercised; 28 requests were sent to state bodies responsible for social protection in relevant areas. However, only 15 responses provided the necessary information. The remaining replies either contained refusals due to the absence of recorded data or formal responses without the data needed for the research.

For the purpose of the study, data were collected for the period of 2020–2023, which was conditionally divided into periods before and after the full-scale invasion of the Russian Federation. Among the established list of indicators for which data are available, only indicators 2.4, 4.1, and 4.2 are disincentivizing factors.

The ultimate goal of this study is to calculate the integral index of social protection efficiency for IDPs (I_{SP}^{IDPs}) based on sub-indices for the indicator blocks (1) – (5), in accordance with formulas (1) and (2):

$$I_{SP}^{IDPs} = \frac{\sum_{i=1}^5 I_i}{5}, \quad (1)$$

where I_i are sub-indices of social protection for IDPs for the indicator blocks (1)-(5).

$$I_i = \frac{\sum_{j=1}^n \overline{P}_{ij}}{n}, \quad (2)$$

where \overline{P}_{ij} is a normalized indicator P_{ij} from block i ($i = 1$ to 5) with an ordinal number j ($j = 1$ to n); n is the number of indicators P from block (i) that are included in the calculation (the number of indicators in each block will vary).

To ensure the accuracy of the calculations according to formulas (1) and (2), it is necessary to normalize the indicators P_{ij} using formulas (3) and (4).

Stimulatory indicators

$$\overline{P}_{ij} = \frac{P_{ij} - P_{\min}}{P_{\max} - P_{\min}}, \quad (3)$$

Disincentivizing indicators

$$\overline{P}_{ij} = \frac{P_{\max} - P_{ij}}{P_{\max} - P_{\min}}, \quad (4)$$

where P_{ij} is the actual value of the indicator in group i of ordinal number j ; P_{\min} , P_{\max} are the minimum and maximum values of the corresponding indicator.

The calculations for the integral index of social protection efficiency for IDPs (I_{SP}^{IDPs}) were conducted only on those indicators P_{ij} , for which data were available or were available for specific years (no fewer than two years). Clearly, the level of objectivity in calculating the integral index of social protection efficiency for IDPs (I_{SP}^{IDPs}) depends on the justification of the maximum and minimum values of the indicators (P_{\min} , P_{\max}) across blocks (1)-(5). The determination of minimum and maximum values in this study was based on an analysis of their actual values for the years 2020–2023, considering the government’s implementation of social standards for the protection of IDPs, and a series of structural comparisons. The detailed logic behind the justification of the maximum and minimum values of IDP social protection indicators and the results of their normalization are presented in Table 1.

The application of the methodological approach to assessing the effectiveness of social protection for IDPs in this study was based on the principle of parity in the significance of the corresponding sub-indices across indicator blocks (i) and individual indicators (j) within each block. This was ensured by their simple arithmetic averaging. The significance and impact of individual indicators can be taken into account (e.g., through expert surveys), and weighting coefficients can be introduced into formulas (1) and (2). At this stage, when a fundamentally new approach is being proposed and its initial testing is being conducted, the study did not set the goal of considering the significance of individual areas of social protection.

The interpretation of the results of the calculations for the integral index of social protection efficiency for IDPs (I_{SP}^{IDPs}) is as follows:

- 1) if $(I_{SP}^{IDPs}) < 0.5$, the level of efficiency is quite low (on average, for most indicators, the

maximum values have not been significantly reached);

- 2) if $I_{SP}^{IDPs} = 0$, the level of efficiency is critically low (on average, for most indicators, the minimum values have been reached);
- 3) if $I_{SP}^{IDPs} = 1$ or approaches 1, the level of efficiency is quite high (on average, for most indicators, the values are close to the maximum values).

Theoretically, the integral index of social protection efficiency (I_{SP}^{IDPs}) may take on negative values or exceed 1. At first glance, this might cast doubt on the validity of the minimum and maximum values. However, in reality, this is possible if the basis for determining minimum and maximum indicators is:

- 1) not a retrospective data series at the specific level of research (state or region), but rather indicators justified as reference standards (such as social standards or guarantees);
- 2) “external” objects and levels of research (e.g., other countries, groups of countries, or other social groups).

A similar approach can be used to interpret the sub-index of social protection for IDPs across indicator blocks (I_i ; where $i = 1$ to 5). This will allow for the identification of the most problematic structural components in ensuring a high level of social protection efficiency for IDPs.

3. RESULTS AND DISCUSSION

Among all areas of social protection for IDPs, the top priorities are securing their status and providing financial assistance. From 2014 onwards, displaced persons from Donetsk, Luhansk, and the Autonomous Republic of Crimea could obtain IDP status and guaranteed government financial assistance. However, as of February 24, 2022, following Russia’s full-scale invasion, this list expanded to include nine regions: Donetsk, Dnipropetrovsk, Kharkiv, Sumy, Kherson, Zaporizhzhia, Chernihiv, Mykolaiv, and Luhansk. As a result, the number of IDPs registered for the first time since the start

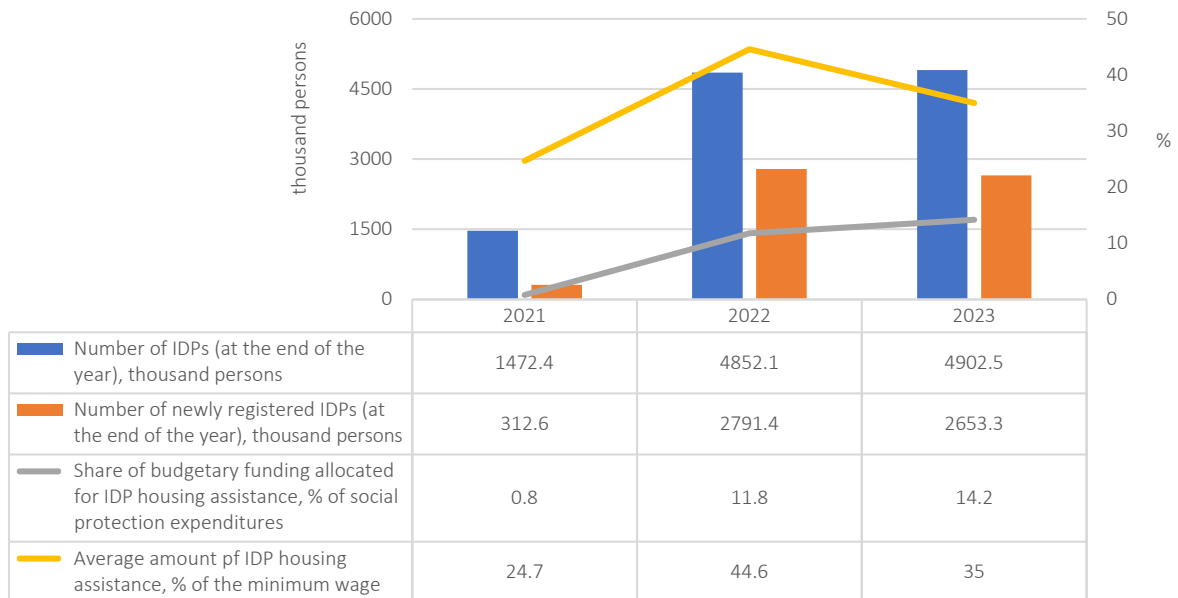


Figure 1. Dynamics of the number of IDPs and the volume of funding for IDP housing assistance

of the full-scale war in Ukraine increased by 8.9 times (see Figure 1). Overall, by the end of 2023, the number of internally displaced persons reached 4.9 million, which is 3.3 times higher than in 2021. Of these, 2.5 million have relocated without the possibility of returning, as their homes were either destroyed, located in active combat zones, or on temporarily occupied territory. Therefore, the support program for IDPs has become one of the largest in the social sector. As shown in Figure 1, the share of budgetary funding for housing assistance for IDPs within total social protection expenditures has significantly increased, from 0.8% in 2021 to 14.2% in 2023. Despite the overall increase in expenditures, the average amount of housing assistance remains below the minimum wage.

Legal status is crucial for obtaining the right to benefits and guarantees within the national social protection system. However, as the amount of financial assistance demonstrates, it cannot fully meet the needs of IDPs. This underscores the importance of a comprehensive analysis of the effectiveness of social protection, taking into account the indicators defined in Table 1.

Following the methodology outlined above, the calculation of the integrated index of social protection effectiveness for IDPs was primarily based on the justification of the minimum and maximum values of the indicators (Table 1). For the

calculation of the minimum and maximum values (P_{min} , P_{max}) for block 1 “Input,” covering indicators 1.1-1.3 and 1.4, the assumption was made that there is no funding for the respective programs (P_{min}), and maximum funding is provided at a level corresponding to the subsistence minimum (1.1), the total (1.2), the maximum (1.3), or the potential (1.5) number of claimants (P_{max}). The only exception was indicator 1.4, for which the minimum unemployment assistance amount (650 UAH since 2020, 1500 UAH per person per month since 2023) and the maximum duration of payments (360 days for all unemployed persons since 2020, 120 days only for IDPs since 2022) are legislatively defined in Ukraine. Therefore, for indicator 1.4, the calculation of P_{min} was based on the legislatively defined minimum unemployment assistance amount. In contrast, P_{max} was based on the subsistence minimum as the basic social standard in Ukraine. It is evident that all indicators (P_{min} , P_{max}) in block 1 “Input” have a monetary expression and reflect the range of possible funding volumes for IDP support programs.

The minimum and maximum indicators for block 2 “Output” reflect the level of IDP participation (in percentage terms) in various social protection programs under two scenarios: a pessimistic scenario (where IDPs are not involved in any support programs) and an optimistic scenario (which assumes IDPs are involved at the most reasonable level for

Table 1. Justification of the minimum and maximum values of social protection indicators for IDPs for their subsequent normalization

Indicator Code	Minimum Indicator (P_{min})		Maximum Indicator (P_{max})			
	value	justification	value	Justification		
1. Input Indicators						
1.1.	0	No funding is provided	2020	34.9 billion	Program funding is provided at the level of the subsistence minimum	
			2021	38.7 billion		
			2022	139.3 billion		
			2023	152.3 billion		
1.2.	0	No funding is provided	2020	28.6 billion	Program funding corresponds to 100% of the number of claimants (based on the average amount of funding per person)	
			2021	35.4 billion		
			2022	48.0 billion		
			2023	62.0 billion		
1.3.	0	No funding is provided	2020	227.1 thousand	Program funding corresponds to the maximum proportion of IDPs who applied for and received a tax rebate during 2020–2023 (0.002%)	
			2021	322.0 thousand		
			2022	918.5 thousand		
			2023	–		
1.4.	2020	85.7 million	Funding is provided at the level of the minimum unemployment assistance amount, considering the specified payment duration	2020	277.1 million	Funding is provided at the level of the subsistence minimum for the able-bodied, considering the specified payment duration
	2021	83.1 million		2021	282.2 million	
	2022	447.9 million		2022	1709.7 million	
	2023	180.6million		2023	353.8 million	
1.5.	0	No funding is provided	2022	573.2 thousand	The maximum amount of program funding corresponds to the number of unemployed, non-working IDPs	
			2023	359.3 thousand		
2. Output Indicators						
2.2.	0%	IDPs do not receive this assistance		100%	The program covers 100% of the IDPs	
2.3.	0%	IDPs do not receive housing under the relevant programs		100%	The program covers 100% of the IDPs who registered for participation in housing programs	
2.4.	9.8%	The maximum proportion of unemployed IDPs among all registered unemployed during 2020–2023		0%	There are no IDPs among the registered unemployed	
2.5.	0%	IDPs are not employed		100%	100% of registered unemployed IDPs have been employed	
2.6.	0%	IDPs are not engaged in social training		6.5%	The maximum proportion of unemployed IDPs engaged in vocational training during 2020–2023	
2.7.	0%	Educational vouchers are not provided for IDPs		7.8%	The maximum proportion of unemployed IDPs who received educational vouchers during 2020–2023	
2.8.	0%	IDPs are not employed under the wage subsidy program		31.4%	The maximum proportion of unemployed IDPs who were employed through wage subsidy programs during 2020–2023	
2.9.	0%	Unemployed IDPs do not receive unemployment benefits		92.8%	The maximum proportion of unemployed IDPs who received unemployment benefits during 2020–2023	

Table 1 (cont.). Justification of the minimum and maximum values of social protection indicators for IDPs for their subsequent normalization

Indicator Code	Minimum Indicator (P_{min})		Maximum Indicator (P_{max})	
	value	justification	value	Justification
2.10.	(a)	0%	100%	The program covers 100% of the IDPs who applied for tax rebates
	(b)	0%	1%	The program covers IDPs registered in other housing assistance programs who did not receive housing through those programs (constituting 1% of all IDPs)
2.11.	0%	Grants for starting a business are not available to IDPs	1.2%	The maximum proportion of unemployed IDPs who received grant support during 2020–2023
3. Activities Indicators				
3.1.	0%	There is no multiplicative growth in GDP	3.06%	The maximum multiplicative GDP growth is attributable to the provision of housing assistance to IDPs during 2020–2023
3.2.1.	(a)	0%	100%	The average amount of housing assistance corresponds to 100% of the subsistence minimum
	(b)	0%	100%	The average amount of housing assistance corresponds to 100% of the actual subsistence minimum
4. Mechanism Indicators				
4.1.	0.002	Minimum labor costs in MSP per 1 UAH of housing assistance to IDPs during 2020–2023	0.065	Maximum labor costs in MSP per 1 UAH of housing assistance to IDPs during 2020–2023
4.2.	4.23	Minimum labor costs in SES per 1 UAH of unemployment benefits for IDPs during 2020–2023	17.31	Maximum labor costs in SES per 1 UAH of unemployment benefits for IDPs during 2020–2023
4.3.	0	Relevant legislative acts have not been adopted	8	Maximum number of legislative acts in the field of IDPs during 2020–2023
5. Control Indicators				
5.1.	28.7%	Minimum proportion of employed unemployed individuals during 2020–2023	34%	Maximum proportion of employed unemployed individuals during 2020–2023
5.2.	5.4%	Minimum proportion of unemployed individuals covered by vocational training during 2020–2023	7.5%	Maximum proportion of unemployed individuals covered by vocational training during 2020–2023
5.3.	0.02%	Minimum proportion of unemployed individuals who received educational vouchers during 2020–2023	3.7%	Maximum proportion of unemployed individuals who received educational vouchers during 2020–2023
5.4.	67%	Minimum proportion of unemployed individuals who received unemployment benefits during 2020–2023	91%	Maximum proportion of unemployed individuals who received unemployment benefits during 2020–2023

Note: (a), (b) – different approaches in calculating the respective indicators.

each program). For indicators 2.2, 2.3, and 2.4, the maximum value (P_{max}) was determined based on the assumption that 100% of IDPs would be engaged in the respective support programs:

- 1) for 2.2 – receiving housing assistance (at the actual average amount);
- 2) for 2.3 – receiving housing among those who registered in housing programs (considering the application-based principle);
- 3) for 2.4 – all registered unemployed IDPs being employed.

The justification for the maximum values of other indicators in this block was based on the highest level of IDP engagement in the respective social protection programs observed during 2020–2023. To ensure the objectivity of the subsequent normalization of indicator 2.10, its maximum value was determined using two approaches:

- 1) $P_{max} = 100\%$ (assuming a tax rebate is provided to all IDPs who applied for it);
- 2) $P_{max} = 1\%$ (reflecting the potentially possible proportion of IDPs who registered in other housing programs and did not receive housing, leaving their need unmet).

The justification for P_{min} , P_{max} for blocks 3 “Activities” and 4 “Mechanism” was based on the achieved minimum and maximum levels retrospectively. An exception is indicator 3.2.1, for which the justification of the maximum value involved two approaches: an average amount of housing assistance equating to 100% of the official subsistence minimum (a) and 100% of the actual subsistence minimum (b). This is because the legally defined minimum amount of housing assistance is not specified (it varies among different social groups) and is generally lower than the official subsistence minimum. Therefore, for the purpose of monitoring the implementation of the basic social standard for indicator 3.2.1, it was taken as the benchmark maximum in the form of the official and actual subsistence minimums. Considering that indicators 4.1 and 4.2 act as disincentives (reflecting labor costs of

employees in relevant government institutions relative to the beneficial effect for IDPs from their activities), their minimum values correspond to P_{max} , and their maximum values correspond to P_{min} .

The indicators for block 5 “Control” are primarily represented by measures of IDP involvement in various labor market support programs (data for other indicators 5.5-5.9 are unavailable). Thus, the subsequent normalization is based on the minimum and maximum indicators of IDP coverage by different labor market support programs compared to the unemployed population overall (in %). This will allow for the assessment of the government’s policy toward IDPs in the labor market and evaluate their situation relative to the unemployed population as a whole.

The results of the calculations of the IDP social protection sub-indexes by indicator blocks I_i (i from 1 to 5) using formula (2) and the integrated index of social protection effectiveness for IDPs (I_{SP}^{IDPs}) are presented in Table 2.

The results of the calculations indicate that the lowest level of effectiveness is observed in block 1 “Input,” which primarily reflects the funding of IDP support programs. Unfortunately, it can be noted that during the wartime period, the effectiveness of this structural component has decreased compared to the pre-war period (with I_1 being 0.241 compared to 0.293). One of the reasons for the low effectiveness of this component of IDP social protection is the extremely low level of funding for housing programs for IDPs (1.2), where the funding amounts to less than 1% of the declared number of applicants. Next, unemployment benefits for IDPs are provided at a minimal level that does not meet the officially established subsistence minimum (1.4). Despite the generally low level of effectiveness, there has been some improvement in 1.1 (due to an increase in the average amount of housing assistance) and 1.5 (due to the activation of employment programs for IDPs through wage compensation for employers).

Analysis of sub-index I_2 for block 2 “Output” indicates an average level of effectiveness of social protection for IDPs under this block (with values approaching 0.5 during 2020–2022 and exceed-

Table 2. Calculation of the effectiveness indicators of social protection for IDPs in Ukraine

Indicator Code (according to Table 1)	Normalized Values (\overline{P}_y)				Mean		
	2020	2021	2022	2023	2020–2023	2022–2023	
1. Input Indicators							
1.1.	0.086	0.079	0.384	0.481	0.258	0.433	
1.2.	0.002	0.008	0.009	0.003	0.006	0.006	
1.3.	0.73	1.00	0.24	–	0.657	0.240	
1.4.	0.468	0.394	0.141	0.039	0.261	0.090	
1.5.	–	–	0.348	0.504	0.426	0.426	
Sub-index I_1	0.322	0.370	0.224	0.257	0.293	0.241	
2. Output Indicators							
2.2.	0.017	0.012	0.517	0.523	0.267	0.520	
2.3.	0.002	0.008	0.009	0.003	0.006	0.006	
2.4.	0.898	0.898	0.276	0	0.518	0.138	
2.5.	0.320	0.313	0.258	0.335	0.307	0.297	
2.6.	0.954	0.954	0.354	1.0	0.816	0.677	
2.7.	0.006	0.003	0.003	1.0	0.253	0.502	
2.8.	0.105	0.073	0.847	1.0	0.506	0.924	
2.9.	0.918	0.932	1.0	0.809	0.915	0.905	
2.10.	(a)	1.0	1.0	1.0	1.000	1.000	
	(b)	0.001	0.002	0.0005	–	0.001	0.001
2.11.	–	–	0.325	1.0	0.663	0.663	
Sub-index I_2	0.422	0.420	0.417	0.667	0.477	0.542	
3. Activities Indicators							
3.1.	0.056	0.046	0.742	1.000	0.461	0.871	
3.2.1.	(a)	0.503	0.676	1.212*	0.906	0.824	1.059
	(b)	0.27	0.36	0.621	0.445	0.424	0.533
Sub-index I_3	0.276	0.361	0.858	0.784	0.570	0.821	
4. Mechanism Indicators							
4.1.	0.004	0.198	0.986	1.00	0.547	0.993	
4.2.	0.065	0	1.0	0.358	0.356	0.679	
4.3.	0.50	0.75	1.0	0.63	0.720	0.815	
Sub-index I_4	0.190	0.316	0.995	0.663	0.541	0.829	
5. Control Indicators							
5.1.	0.62	0.49	–0.55**	0.91	0.368	0.180	
5.2.	0.38	0.38	–1.48**	0.52	–0.050	–0.480	
5.3.	0.01	0	0	2.11***	0.530	1.055	
5.4.	0.758	0.813	1.075***	0.338	0.746	0.706	
Sub-index I_5	0.442	0.421	–0.239	0.969	0.398	0.365	
Integral indicator (I_{SP}^{IDP})	0.330	0.378	0.451	0.668	0.456	0.560	

Note: Conventional symbols: * – the average amount of housing assistance exceeded the official subsistence minimum; ** – the corresponding indicators for IDPs in 2022 were below the minimum level: 5.1. For IDPs – 25.8% when P_{min} 28.7%; 5.2. – 2.3% for IDPs when P_{min} = 5.4%. *** – the proportion of IDPs involved in the relevant support programs exceeds the maximum proportion of unemployed individuals involved: 5.4. In 2022, for IDPs it was 92.8% when P_{min} = 91%; 5.3. In 2023, for IDPs it was 7.8% when P_{min} = 3.7%.

ing 0.6 in 2023). High effectiveness within this structural component of IDP social protection is achieved through the following indicators:

1) 2.6 and 2.8, due to a significant increase in the level of IDP participation in vocational train-

ing and wage compensation programs for employed IDPs;

2) 2.9 – as a result of substantial coverage of unemployed IDPs by passive support programs (unemployment benefits);

- 3) 2.10 (a) – through the provision of a tax rebate by the government for IDPs under rental agreements at a level of 100% of the number of applications (for objectivity, this indicator should be analyzed in conjunction with its normalization results under the second approach).

At the same time, factors reducing the effectiveness of IDP social protection under the “Output” sub-index include:

- 1) low correspondence between the number of IDPs who received housing and those who registered for housing programs to meet this need (2.3);
- 2) a significant increase in the proportion of unemployed IDPs (2.4); and
- 3) the persistence of a significant proportion (about 70%) of unemployed IDPs who were not employed (2.5).

Unlike the previous sub-index, the effectiveness of social protection under this sub-index has somewhat increased during the wartime period, indicating enhanced government efforts to involve IDPs in various support programs. In this regard, the authorities’ efforts are aligned with the current trends of the IDPs’ support, mainly in living expenditures assuring via housing costs compensation (Aleksyenko et al., 2021; Voznyak et al., 2023) and related programs aimed at providing the basic human needs (Aleksandrova & Costella, 2021; Husieva et al., 2020; Sasse, 2020).

Sub-index I_3 “Activities” has significantly increased during 2020–2023 due to the rise in the multiplicative GDP effect from the payment of housing assistance to IDPs (3.1) and the increase in the average amount of housing assistance relative to the official and actual subsistence minimums (3.2.1). Overall, social payments for IDPs are accompanied by substantial economic returns. Therefore, increasing these payments to the level of social standards is entirely justified.

The significant increase in effectiveness during the war is demonstrated by sub-index 4 “Mechanism.” This is due to a reduction in the costs of maintain-

ing personnel in relevant public institutions dealing with IDP issues relative to the amount of social payments for IDPs (4.1, 4.2) and a relatively high level of legislation in the field of internal displacement (4.3).

In contrast, sub-index I_5 “Control” shows a rather low level of effectiveness regarding the social protection of IDPs. This is because, for most labor market support programs, the level of involvement of unemployed IDPs is lower compared to the general unemployed population. This discrepancy was particularly noticeable in 2022, when a significant increase in the number of unemployed IDPs partly reflected the readiness of SES to engage them in existing active support programs alongside all unemployed individuals. However, by 2023, the situation has improved, indicating a gradual adaptation of SES to working with IDPs. These trends reflect the common practices on economic inclusion of IDPs, particularly in the employment sphere (Husieva et al., 2020; Roshchuk et al., 2024).

Overall, the effectiveness of social protection for IDPs in Ukraine is gradually increasing, although it remains at a relatively low level.

Besides, it is hindered by considerable informational limitations. These constraints cannot be solely attributed to the impact of the war or the need to withhold data. In a situation where the government has legally enshrined several guarantees for IDPs, the publication of statistical reports on fulfilling these commitments is essential. Currently, however, there is a lack of information on several critical indicators, such as 1.9, 1.10, 1.13-1.14, 2.14-2.17, and 5.6-5.9 (Appendix A). This absence of data creates a gap in understanding the effectiveness of social protection measures, distorts the reality of the situation, and undermines the ability to calculate the overall effectiveness index comprehensively. Such a lack of transparency and reporting contradicts the methodological principles of using key performance indicators (KPIs) in public administration. It impedes the comprehensive assessment of the government’s role as an effective manager and allocator of resources, particularly in implementing critical social policy functions.

Assessing the progress in the government’s efforts regarding the effectiveness of social protection for

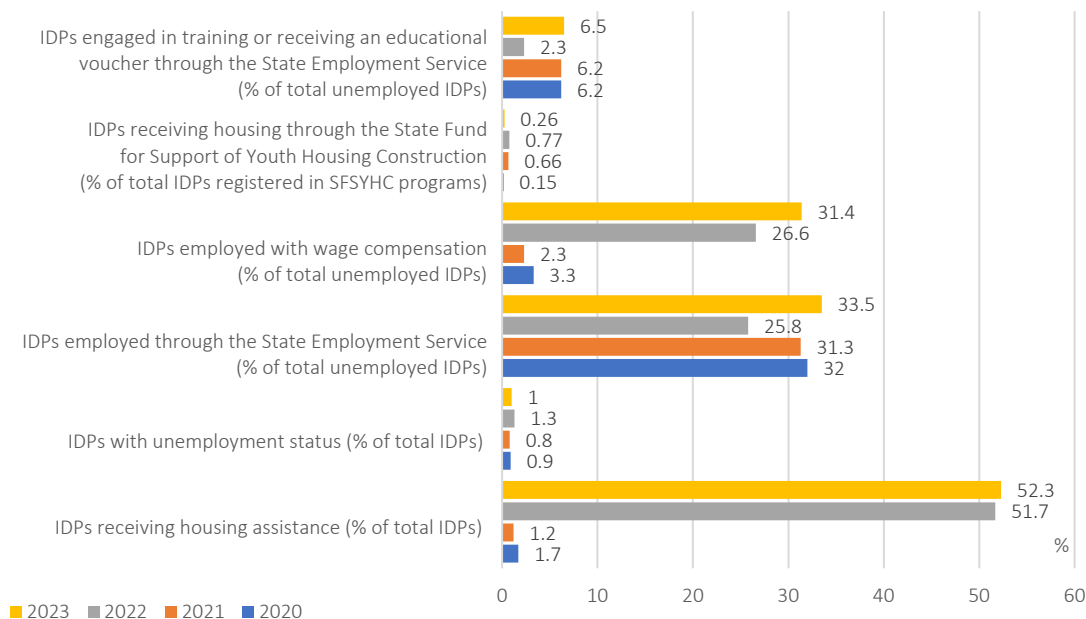


Figure 2. Resulting indicators of social protection for IDPs from 2020 to 2023

IDPs can be enhanced by incorporating time indicators. The most crucial indicators are related to housing provision and support for self-sufficiency opportunities, primarily through employment and vocational education. The relevant output indicators are used as an example to illustrate the application of time indicators. As shown in Figure 2, the proportion of IDPs receiving housing assistance fluctuated between 1.2% and 1.7% in 2020 and 2021 but reached 51.7% at the beginning of 2022. Meanwhile, the proportion of officially registered unemployed remained relatively stable throughout the studied period, ranging from 0.8% to 1.3%. A similar trend is observed regarding the proportion of IDPs employed through the State Employment Service, with 25-33% of unemployed IDPs finding work. At the same time, there was a significant increase in the number of IDPs employed with wage compensation for their employers (from 2.3% in 2021 to 31.4% in 2023). It is worth noting that each year, only about 6% of unemployed IDPs were engaged in training programs through the State Employment Service

(except for 2022, when the primary need for IDPs was survival). Unfortunately, very few IDPs (less than 1%) obtained housing through programs administered by the State Fund for Support of Youth Housing Construction.

As seen from the results, evaluating the effectiveness of social protection for IDPs at the national level today is more feasible through the execution of specific tasks. These include urgent responses to needs arising from the war, such as providing financial assistance and employment opportunities. These traditional and prevalent areas of humanitarian aid (Alekseyenko et al., 2021; Perelli-Harris et al., 2024; Voznyak et al., 2023; Sasse, 2020) are the primary focus for evaluating the effectiveness of social protection efforts. The integral assessment was not used previously at the national level. However, the further development of the given approach is important for a holistic understanding of the effectiveness of public finance use for certain national priorities or social programs.

CONCLUSION

The aim of the study was to evaluate the effectiveness of public finance used for internally displaced persons' social protection based on the KPI methodology adapted for analysis on the national level.

According to the results, the effectiveness of public finance for IDPs' social protection in Ukraine remains low in all directions, especially in resource use (input indicators). Some achievements were typi-

cal for activities and mechanisms indicators, but the dynamics were unstable. Besides, there are significant differences from the possible maximum level of effectiveness (1.0) in each block. One of the possible reasons can be the lack of responsibility in the authorities' actions aimed at the social protection of IDPs. This conclusion is supported by the inaccessibility of part of the information needed for calculations. Therefore, the practical application of the proposed methodology can enhance the use of public finance, especially when the KPI methodology is combined with the decisions related to the personal effectiveness of managers responsible for a certain direction.

The proposed approach to evaluating the effectiveness of social protection for IDPs based on KPIs necessitates effective government management across all functions, beginning with objective information provision. The complexity of applying this methodology at the national level is significant, as it involves evaluating an entire network of public agencies responsible for different indicator blocks.

An important conclusion from this investigation is that, currently, relying solely on official statistical data is insufficient for a comprehensive evaluation of social protection effectiveness for IDPs in Ukraine. The identified gaps in information across several crucial areas suggest that a holistic assessment requires complementing existing statistical indicators with results from sociological surveys of IDPs regarding their perceptions of social protection. Addressing this need for enhanced data collection and methodological adaptation is an important area for future research.

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AUTHOR CONTRIBUTIONS

Conceptualization: Yuriy Bilan, Halyna Yurchyk, Halyna Mishchuk.

Data curation: Yuriy Bilan, Halyna Yurchyk, Natalia Samoliuk, Halyna Mishchuk.

Formal analysis: Yuriy Bilan, Halyna Yurchyk, Natalia Samoliuk, Halyna Mishchuk.

Funding acquisition: Yuriy Bilan, Natalia Samoliuk.

Investigation: Halyna Yurchyk, Natalia Samoliuk, Halyna Mishchuk.

Methodology: Yuriy Bilan, Halyna Yurchyk, Halyna Mishchuk.

Project administration: Yuriy Bilan, Natalia Samoliuk, Halyna Mishchuk.

Resources: Yuriy Bilan, Halyna Yurchyk, Natalia Samoliuk, Halyna Mishchuk.

Software: Halyna Yurchyk, Natalia Samoliuk

Supervision: Yuriy Bilan, Halyna Mishchuk.

Validation: Yuriy Bilan, Halyna Yurchyk, Natalia Samoliuk, Halyna Mishchuk.

Visualization: Halyna Yurchyk, Natalia Samoliuk.

Writing – original draft: Yuriy Bilan, Halyna Yurchyk, Natalia Samoliuk, Halyna Mishchuk.

Writing – review & editing: Yuriy Bilan, Halyna Yurchyk, Natalia Samoliuk, Halyna Mishchuk.

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APPENDIX A

Table A1. List and structuring of indicators necessary for evaluating the effectiveness of social protection for IDPs

No.	Indicator	Source	
1. Input Indicators			
1.1.	Budgetary funding allocated for housing assistance to IDPs	**	
1.2.	Funding for preferential mortgage loans for IDPs to purchase housing	*	
1.3.	The total amount of tax relief provided under rental agreements for housing of IDPs	*	
1.4.	Funding allocated for unemployment benefits for IDPs	*	
1.5.	Funding for compensation of labor costs and single social contributions (SSC) to employers for the employment of IDPs	*	
1.6.	Budgetary funding for assistance to IDPs facing difficult life circumstances/targeted aid/provision of social services	**	
1.7.	Budgetary funding for compensation for destroyed housing	*	
1.8.	Budgetary funding for a one-time free educational program with stipend support in preparatory courses at higher education institutions, lasting up to one year, followed by admission as IDPs	*	
1.9.	Budgetary funding for assistance to low-income families among IDPs	*	X
1.10.	Funding for social housing for IDPs	*	X
1.11.	Funding by the Social Insurance Fund for unemployment-related vocational training for IDPs	*	X
1.12.	Funding by the Social Insurance Fund for unemployment-related educational vouchers for IDPs	*	X
1.13.	Budgetary funding for a program providing free meals to infants and children up to two years of age among IDPs	*	XX
1.14.	Budgetary funding for a program providing free meals to IDP children attending preschools, general education, and vocational institutions	*	X
1.15.	Budgetary funding for IDP education in vocational institutions	*	X
1.16.	The total amount of humanitarian or charitable assistance provided to IDPs	*	X
1.17.	The total amount of budget expenditures on social protection for IDPs	****	XXX
2. Output Indicators			
2.1.	Number of IDPs	*/**	
2.2.	Number of IDPs who received social assistance for housing	**	
2.3.	Number of IDPs who obtained housing through housing provision programs	*	
2.4.	<i>Number of IDPs registered as unemployed</i>	**	
2.5.	Number of IDPs employed with the assistance of the State Employment Service of Ukraine (SES)	*	
2.6.	Number of IDPs who underwent training in the SES system	*	
2.7.	Number of IDPs who received educational vouchers to enhance their competitiveness in the labor market	*	
2.8.	Number of IDPs employed with compensation for labor costs/SSC for employers	*	
2.9.	Number of IDPs receiving unemployment benefits	*	
2.10.	Number of personal income tax (PIT) refund claimants under housing rental agreements	*	
2.11.	Number of positive decisions made to provide microgrants/grants for the creation or development of businesses among IDPs	*	
2.12.	Number of IDPs enrolled in vocational education institutions	*	
2.13.	Number of IDPs receiving assistance due to difficult life circumstances/targeted aid/social services	*/**	
2.14.	Number of IDPs receiving assistance for low-income families	*	X
2.15.	Number of IDPs who deregistered as IDPs	*	X
2.16.	Number of IDPs living in temporary housing without basic amenities	***	X
2.17.	Share of IDPs who sought medical assistance without signing a declaration	*	X
3. Activities Indicators			
3.1.	Multiplicative GDP growth due to social payments for IDPs (specifically housing assistance)	****/*/**	
3.2.	Amount of social payments for IDPs per person by type of assistance:		
3.2.1.	- housing assistance	****/*/**	
3.2.2.	- assistance due to difficult life circumstances/ targeted aid		
3.3.	Amount of humanitarian aid per IDP in UAH per person	*	X
4. Mechanism Indicators			
4.1.	<i>Budget expenditures on staff salaries of the Ministry of Social Policy (MSP) related to housing assistance for IDPs</i>	****/*	
4.2.	<i>Budget expenditures on staff salaries of the SES related to unemployment benefits paid to IDPs</i>	****/*	

Table A1 (cont.). List and structuring of indicators necessary for evaluating the effectiveness of social protection for IDPs

No.	Indicator	Source	
4.3.	Number of developed and adopted legislative acts in the field of IDPs	****	
4.4.	Number of civil servants involved in the social protection of IDPs	*	X
5. Control Indicators			
5.1.	Employment rate of unemployed IDPs relative to the total unemployed population	*/**	
5.2.	Coverage rate of unemployed IDPs receiving vocational training relative to the total unemployment population	*/**	
5.3.	Share of unemployed IDPs who received an educational voucher relative to the total unemployed population	*/**	
5.4.	Share of unemployed IDPs who received unemployment benefits relative to the total unemployed population	*/**	
5.5.	Share of IDPs enrolled in vocational education institutions compared to other population groups	*	
5.6.	<i>Employment/unemployment rate of IDPs compared to the general population</i>	***	X
5.7.	<i>Rate of informal employment among IDPs compared to the general population</i>	***	X
5.8.	<i>Mortality rate of IDPs compared to the general population</i>	***	X
5.9.	<i>Share of IDPs living in housing without basic amenities compared to the general population</i>	***	X
6. Time Indicators			
The growth of indicators in groups 1-5 is analyzed as supplementary to each block. These indicators are not included in the integral indicator due to the impossibility of normalization		–	
Conventional symbols:			
indicators with data available for specific years	indicators with data unavailable	<i>italic</i>	italicized indicators are disincentivizing factors

Note: * – requests for access to public information; ** – reports and analytical materials from relevant institutions available in the public domain; *** – official statistical data from the State Statistics Service of Ukraine; **** – own calculations based on data obtained from the aforementioned sources; / – indicators obtained from multiple sources simultaneously; X – indicators are either not recorded at all or only tracked at the local community level; XX – there is no funding for certain areas, XXX – aggregate indicators cannot be calculated due to the absence of partial components within certain blocks.