

Yaroslava Babych, ISET Policy Institute (ISET-PI)
Norberto Pignatti, ISET Policy Institute (ISET-PI)
Archil Chapichadze, ISET Policy Institute (ISET-PI)
Guram Lobzhanidze, ISET Policy Institute (ISET-PI)
Erekle Shubitidze, ISET Policy Institute (ISET-PI)
February 2023

Would a Higher Minimum Wage Meaningfully Affect Poverty Levels Among Women? – A Simulation Case from Georgia

In economic literature the effect of minimum wage on the labour market and its relevance as an anti-poverty, equality-enhancing policy tool, is a matter of vigorous debate. The focus of this policy brief is a hypothetical effect on poverty rates, particularly among women, following an increase in the minimum wage in Georgia. A simulation exercise (Babych et al., 2022) by the ISET-PI research team shows that, in Georgia, a potential increase in the minimum wage is likely to result in an overall positive albeit small reduction in poverty rates in general. At the same time, women are likely to gain more from such minimum wage policy than men. The findings are consistent with the literature claiming that a minimum wage increase alone may not result in meaningful poverty reduction. Any minimum wage increase should thus be enhanced by other policies such as training programs increasing labor force participation among women.



Many countries around the world have enacted minimum wage laws. According to the International Labour Organization (ILO) “Minimum wages can be one element of a policy to overcome poverty and reduce inequality, including those between men and women” (ILO, 2023). In economic literature, the minimum wage debate has been particularly acute, with pros and cons of the minimum wage increases, their effect on the labor market, and their relevance as an anti-poverty and equality-enhancing policy tool fiercely contested in empirical studies and simulation studies. In this policy brief we focus on the effect of a minimum wage increase in Georgia on poverty rates, and in particular poverty rates among women.

Minimum Wage Effects

According to the European Commission (2020) a number of benefits is associated with the introduction of minimum wage. These benefits include a reduction in in-work poverty, wage inequality and the gender pay gap, among others.

International evidence, however, cautions against considering an increase in minimum wage as the silver bullet to end poverty. A 2019 report by the International Labour Organization (ILO, 2019) shows that the incidence of poverty among the working poor is comparable to the incidence of poverty among individuals outside of the labor market. Therefore, even if an increase in minimum wages would lift all working poor out of poverty, a substantial number of poor would remain.

Moreover, minimum wage can have a potential adverse effect on employment of the most vulnerable by deterring firms from hiring low-wage, low-skilled labor (Neumark, 2018). The adverse employment effect will be stronger if current wages correspond more closely to the real productivity of labor. In such scenario companies would lose by retaining low-productivity workers and, likely respond to the increase in minimum wage by laying off workers, resulting in the loss of wages, rather than in their increase. On the other

hand, if salaries are lower than the real productivity of the less productive workers, companies might still be able to profit from employing them and will not be forced to lay them off, resulting in a wage increase for low-wage workers.

Whether – and to what extent – the introduction of a minimum wage reduces poverty and/or assists low-income households then depends on how many individuals are going to lose their jobs, how many workers will maintain their jobs and receive a higher wage, and where these winners and losers are positioned along the distribution of family incomes.

With regard to employment effects, the results are not perfectly homogeneous. On the one hand, a large body of evidence suggests that minimum wages do lower the number of jobs accessible to low-skill employees (Sabia, Burkhauser and Hansen, 2012; Sotomayor, 2021; Neumark, 2018). On the other hand, some scholars argue that once the study design is changed to take into account the non-random distribution of minimum wage policies in different parts of the country in question, the “disemployment effect” of minimum wage policies (considering the example of United States) largely disappear (Allegretto et al., 2013; Dube et al., 2010).

With regards to poverty, a number of studies look at minimum wage as an anti-poverty policy tool for developing countries and consider its effectiveness in reducing poverty and/or inequality. For example, a study by Sotomayor (2021) suggests that poverty and income inequality in Brazil decreased by 2.8 and 2.4 percent respectively within three months of a minimum wage increase. Effects diminished with time, particularly for bottom-sensitive distribution measures, a process that is consistent with resulting job losses being more frequent among poorer households. The fact that the subsequent yearly increase in the minimum wage in Brazil resulted in a renewed drop in poverty and inequality shows that possible unemployment costs might be outweighed by benefits in the form



of higher pay among working persons and – potentially – by positive spillover effects such as increased overall consumption.

Minimum Wage and Female Poverty

As in the case of poverty in general, there is some discrepancy in literature on whether minimum wage increase would help reduce poverty among women. Single mothers have been the focus of research in this regard since they are typically the most vulnerable low-wage workers, likely to be hurt by the loss of employment following an increase/ introduction of a minimum wage. Burkhauser and Sabia (2007) argue that the minimum wage increases in the U.S. (1988-2003) did not have any effect on the overall poverty rates, on the poverty rates among the working poor, or on poverty among single mothers. They argue that an increase in Earned Income Tax Credit (EITC), which provides a wage subsidy to workers depending on income level, tax filing status, and the number of children, would have a higher impact on poverty, in particular among single mothers.

In the meantime, Neumark and Wascher (2011) find that EITC and minimum wage reinforce each other's positive effect for single women with children (boosting both employment and earnings), but negatively affects childless single women and minority men. Another study on the U.S. (Sabia, 2008) looked at the effect of minimum wage increases on the welfare of single mothers, finding that most of them were unaffected as they earned above-minimum wage. Single mothers with low-education levels did not see an increase in net incomes due to the negative effect on employment and hours worked: for low-skilled individuals, a 10 percent increase in minimum wage resulted in an 8.8 percent decline in employment and an 11.8 percent reduction in hours worked.

Yet another study (DeFina, 2008) focus on child poverty rates and show that minimum wage

increases have a positive (reducing) impact on child poverty in female-headed families. The effect is small but significant (a 10 percent increase in the minimum wage decreases child poverty rates by 1.8 percentage points), controlling for other factors.

Ultimately, the effect of minimum wage on poverty among women or female-headed households is somewhat ambiguous. It depends on the poverty threshold used, other policy instruments (such as the EITC), existing incentives to enter employment and how, in the specific country of interest, labor laws may affect the employer's cost of hiring (e.g. for France, see Laroque and Salanie, 2002).

The discussion is however relevant for countries like Georgia, where the wage gap between men and women is quite large, and where more women than men tend to work in low-wage and vulnerable jobs. While the overall poverty gap between men and women in Georgia is insignificant (mainly because poverty is measured at the household level), the gap becomes apparent when comparing female-headed households to male-headed ones. The poverty rates in the former case are nearly 2 percentage points higher in Georgia (20 percent vs. 18.3 percent in 2021). The poverty rates are the highest among households with only adult women (39.3 percent for all-female households vs. 20.1 percent overall in 2018).

A Simulation of a Minimum Wage Raise in Georgia

The Georgian minimum wage legislation dates back to 1999. The presidential decree N 351 from June 4, 1999 states that the minimum (monthly) wage that is to be set in Georgia is equal to 20 GEL (with some specific exceptions in the public sector). This is a non-binding threshold. Therefore, one has to think carefully what consequences might arise from raising the minimum wage to a much higher level. In addition to previously discussed aspects, one issue to keep in mind is the different average wages across



different regions in Georgia. For example, a national minimum wage increase might have more of an impact in poorer regions, where both wages and incomes are lower, while it may still be non-binding in Tbilisi.

The ISET-PI research team (Babych et al., 2022) use Georgian micro data from the Labor Force Survey (LFS) and the Household Integrated Expenditure Survey (HIES), to simulate the effect of instituting a nation-wide minimum wage on both employment and poverty rates in different regions of Georgia. One focus area of the study was to analyze the effects of a minimum wage increase on female poverty. As with any exercise using a simulation approach, this study is subject to limitations imposed by the assumptions used, e.g. how much labor demand would respond to changes in the minimum wage, etc. The study considered two hypothetical thresholds of the minimum wage; 250 and 350 GEL respectively.

Figure 1. Share of private sector employees earning below certain thresholds, by gender, 2021.

	Share of male employees earning below 250 GEL	Share of male employees earning below 350 GEL	Share of female employees earning below 250 GEL	Share of female employees earning below 350 GEL
National	5.4%	11.9%	11.7%	24.6%
Tbilisi	1.0%	4.6%	5.1%	11.9%
Other Cities	6.8%	14.1%	17.7%	34.6%
Rural	8.6%	17.6%	16.5%	36.1%

Source: Authors' calculations based on the Labor Force Survey (Geostat, 2021).

The expected household income after the minimum wage increase was calculated and then compared to the poverty threshold (for each household in a standard way, using the “adult equivalence” scale). According to this methodology, any person who lives in a household which falls below the poverty threshold is considered to be poor. A “working poor” household is defined as a household below

the poverty threshold where at least one adult is working.

Figure 1 shows that there is a substantial share of both men and women whose monthly wage income falls below the hypothetical minimum wage thresholds. In addition, women are more than two times as likely to be earning below these thresholds. However, the possible impact from an increased minimum wage on female vs. male poverty is not clear-cut. Since many women are part of larger households which include adult males, their possible income losses/gains may be counterbalanced by income gains/losses of male family members, leaving the overall effect on household income ambiguous.

In addition, poverty rates are not likely to be much affected by a minimum wage increase if most poor households are “non-working poor” (where adult family members are either unemployed or outside of the labor force), a consideration particularly relevant for Georgia. The share of poor individuals who live in “working poor” households (with at least one household member employed) is just 41 percent nationally (and 35 percent in rural areas), meaning that close to 60 percent of poor individuals nationwide (and 65 percent in rural areas) are not likely to be directly affected by minimum wage increases.

Female vs. Male Poverty: Scenarios Following a Minimum Wage Increase

As one can see in Figure 2, increased minimum wages tend to reduce poverty, but the impact is not larger than one percentage point. Not surprisingly, females benefit more than males (0.3 and 0.8 percentage points vs. 0.2 and 0.9 percentage points poverty reduction for men and women respectively, under different threshold scenarios). The maximum positive impact on poverty reduction is observed under a higher minimum wage threshold.



Figure 2. Estimated impact on poverty rates, based on the national subsistence minimum.

		Poverty before a minimum wage increase	Poverty after a minimum wage increase
250 GEL minimum wage scenario:			
National		22,1%	21,9%
	Males	22,6%	22,5%
	Females	21,5%	21,3%
	Working Males	21,9%	21,7%
	Working females	22,2%	21,9%
350 GEL minimum wage scenario:			
National		22,0%	21,4%
	Males	22,6%	22,0%
	Females	21,5%	20,8%
	Working Males	21,9%	21,3%
	Working females	22,2%	21,4%

Source: Authors' calculations based on the Household Integrated Expenditure Survey (Geostat, 2021).

The impact of an increased minimum wage on the expected median consumption of households doesn't exceed a few percentage points either, as illustrated in Figure 3.

Figure 3. Median monthly consumption per "equivalent adult" in the household under the status quo and minimum wage scenarios, 2021.

	Status quo	250 GEL scenario	350 GEL scenario	Status quo
	Median consump. in GEL	Median consump. in GEL	Median consump. in GEL	Subsistence min. at national level, in GEL
National	331,5	337,6	340,3	212,0
Tbilisi	350,4	354,4	356,2	212,0
Other Cities	339,8	348,3	354,0	212,0
Rural	306,4	313,8	318,4	212,0
Urban	346,1	352,2	354,8	212,0

Source: Authors' calculations based on the Household Integrated Expenditure Survey (Geostat, 2021).

The impact is greatest in urban areas other than Tbilisi (between a 2.5 percent and a 4.2 percent increase in median consumption relative to the status quo). The lower impact in Tbilisi is most likely driven by relatively higher wages, while the low impact in rural areas is likely driven by lower participation in wage employment.

Conclusions

In the hypothetical case of Georgia, an impact of a minimum wage increase on poverty rates is expected to be limited, in line with the literature. In our study this finding is mostly driven by the fact that only a relatively small share of poor individuals live in "working poor" households (about 40 percent, nationally). The remaining 60 percent of poor individuals will be unaffected by the reform.

The quantitative impact on female and male poverty is estimated to be low, although the female poverty rate reduction is somewhat larger than among males.

It is important to note that the analysis doesn't consider possible differential impacts on different groups of vulnerable families, such as families with small children and single mothers with small children. Some reasons to why groups of households may or may not be affected by the hypothetical minimum wage increase, based on their employment status and other factors, have been discussed above.

Another important point is that our exercise should not be seen as an argument against an increase of the minimum wage in Georgia. Instead, it suggests that such a reform would not have much of an impact if done in isolation. Indeed, the existing literature on minimum wage seems to be in consensus on the fact that minimum wage policies would be more impactful if supplemented by the following measures:

- Maintain and expand targeted social assistance to groups that do not benefit or



that are losing jobs/incomes as a result of the minimum wage changes

- Have job re-training programs in place to help laid-off workers
- Have human capital investment programs in place to increase workers' productivity, in particular for low-productivity sectors
- Consider other support instruments targeted toward the most affected groups of the population such as single working mothers etc.

These recommendations should be incorporated in the policy making regarding minimum wages in Georgia.

Acknowledgement

We are grateful to Expertise France for financially supporting the original report (Babych et al., 2022), which features some of the results and points raised in this policy brief.

References

- Allegretto, S., Dube, A., Reich, M., & Zipperer, B. (2017). Credible Research Designs for Minimum Wage Studies: A Response to Neumark, Salas, and Wascher. *ILR Review*, 70(3), 559–592. <https://doi.org/10.1177/0019793917692788>
- Babych, Y., Pignatti, N., Chapichadze, A., Lobzhanidze, G. and Shubitidze, E. (2022). Report on Minimum Wage in Georgia. ISET Policy Institute. Unpublished manuscript.
- Belman, D. and Wolfson, Paul J. (2014). What Does the Minimum Wage Do? Kalamazoo, MI: W.E. Upjohn Institute for Employment Research. <https://doi.org/10.17848/9780880994583>
- Burkhauser, R. V. and Sabia, J. J. (2007). The effectiveness of minimum-wage increases in reducing poverty: Past, present, and future. *Contemporary Economic Policy*, 25(2), 262–281. <https://doi.org/10.1111/j.1465-7287.2006.00045.x>
- DeFina, R. H. (2008). The impact of state minimum wages on child poverty in female-headed families. *Journal of Poverty*, 12(2), 155–174. <https://doi.org/10.1080/10875540801973542>
- Dube, A., T.W. Lester, and M. Reich. 2010. Minimum Wage Effects Across State Borders: Estimates Using Contiguous Counties. *The Review of Economics and Statistics*, 92(4), 945–964. https://doi.org/10.1162/REST_a_00039
- European Commission. (2020). Proposal for a directive of the European parliament and of the council on adequate minimum wages in the European Union. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0682GEOSTAT>
- International Labour Organization (ILO). (2023). <https://www.ilo.org/global/topics/wages/minimum-wages/definition/lang--en/index.htm>
- International Labour Organization (ILO). (2019). The working poor or how a job is no guarantee of decent living conditions [chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/publication/wcms_696387.pdf](https://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/publication/wcms_696387.pdf)
- Geostat. (2021). <https://www.geostat.ge/en>
- Laroque, G. & Salanié, B. (2002). Labour market institutions and employment in France. *Journal of Applied Econometrics*, 17(1), 25–48. <https://doi.org/10.1002/jae.656>
- Neumark, D. & Wascher, W. (2011). Does a higher minimum wage enhance the effectiveness of the Earned Income Tax Credit? *ILR Review*, 64(4), 712–746. <https://doi.org/10.1177/001979391106400405>
- Neumark, D. (2018). Employment effects of minimum wages. *IZA World of Labor* 2018: 6. <https://wol.iza.org/articles/employment-effects-of-minimum-wages/long>
- Sabia, J. J., Burkhauser, R. V. & Hansen, B. (2012). Are The Effects Of Minimum Wage Increases Always Small? New Evidence From A Case Study Of New York State. *Sage Publications*, 350–376. <https://doi.org/10.1177/001979391206500207>
- Sabia, J. J. (2008). Minimum wages and the economic well-being of single mothers. *Journal of Policy Analysis and Management*, 27(4), 848–866. <https://doi.org/10.1002/pam.20379>
- Sotomayor, O. J. (2021). Can the minimum wage reduce poverty and inequality in the developing world? Evidence from Brazil. *World Development* 138. <https://doi.org/10.1016/j.worlddev.2020.105182>





Yaroslava Babych

ISSET Policy Institute (ISSET-PI)

y.babych@iset.ge

www.iset-pi.ge

Yaroslava (Yasya) Babych, Ph.D. is an Assistant Professor at ISET and a Lead Economist at ISET Policy Institute, heading the Macroeconomic Research Practice at ISET-PI. She received her doctoral degree in Economics from the George Washington University in Washington, DC in 2011.

At ISET-PI, Dr. Babych has conducted extensive policy research work on long-term growth, sustainable development, and social and gender development issues in transition economies, in particular Georgia and the South Caucasus.



Norberto Pignatti

ISSET Policy Institute (ISSET-PI)

www.iset-pi.ge

Norberto Pignatti is an Energy & Environment and Labor Economist. Norberto holds a Ph.D. in Economics from the University of Bologna (2007). Since 2016, he has been the Head of the Energy and Environmental Policy Research Center at ISET-PI. He is also Associate Professor of Policy at the International School of Economics at Tbilisi State University (ISET), which he joined in 2009.

His research interests include labor market policies, energy and environmental policies, and sustainable development.



Archil Chapichadze

ISSET Policy Institute (ISSET-PI)

www.iset-pi.ge

Archil Chapichadze is a Researcher at ISET-PI, and a valedictorian graduate of ISET's BA program in economics, 2021. His bachelor's thesis was selected by ISET and PMCG as among the best theses of the 2021 class. During his time at ISET, Archil won numerous local and international competitions. Archil is currently completing his MBA in management at the Business and Technology University.

Before joining ISET-PI Archil worked as a Data Analyst at Gamma Research and he has also completed internships at EBRD's regional office (2021) and in the National Bank of Georgia's Financial Stability Department (2019), where he worked on Environmental, Social, and Governmental (ESG) Risk Management Guidelines for Georgia.





Guram Lobzhanidze

ISET Policy Institute (ISET-PI)
www.iset-pi.ge

Guram Lobzhanidze is a Researcher at the ISET Policy Institute's Energy and Environmental Policy Research Center. He holds an MA degree in Economics from the International School of Economics at Tbilisi State University (ISET). Mr. Lobzhanidze is responsible for producing monthly reports on the Georgian electricity market, writing blogs on economic topics, and working on research projects. His research interests include labor economics, energy economics, and microeconomic theory.



Erekle Shubitidze

ISET Policy Institute (ISET-PI)
www.iset-pi.ge

Erekle Shubitidze is a Researcher at the ISET Policy Institute, having joined ISET-PI in October 2020. Erekle holds a BA in Mathematics from the University of Georgia. In 2020, he received an MA in Economics from ISET, with his Master's project focusing on social preferences in a variant of economic games. Prior to starting his job at the ISET Policy Institute, he was a teaching assistant for Master's degree students at ISET, teaching Macroeconomics modules I & II, Game Theory, and Introductory Finance.

freepolicybriefs.com

The Forum for Research on Eastern Europe and Emerging Economies is a network of academic experts on economic issues in Eastern Europe and the former Soviet Union at BEROE (Minsk), BICEPS (Riga), CEFIR (Moscow), CenEA (Szczecin), KEI (Kiev) and SITE (Stockholm). The weekly FREE Network Policy Brief Series provides research-based analyses of economic policy issues relevant to Eastern Europe and emerging markets. Opinions expressed in policy briefs and other publications are those of the authors; they do not necessarily reflect those of the FREE Network and its research institutes.