

**To cite this paper:**

Tukhtarova E. (2022) Natural experiments in economics. *Human Progress*. 8. (3): 10. URL: [http://progress-human.com/images/2022/Tom8\\_3/Tukhtarova.pdf](http://progress-human.com/images/2022/Tom8_3/Tukhtarova.pdf). DOI 10.34709/IM.183.10. EDN DZBCBP.

## NATURAL EXPERIMENTS IN ECONOMICS

**Evgeniya Tukhtarova**

Candidate of Economic Sciences, Researcher at the Center for Economic Theory  
Institute of Economics, Ural Branch of the Russian Academy of Sciences  
Yekaterinburg, Russia

**Abstract.** In the field of economic research, the most significant changes over the past few decades have occurred in the methodological tools' development. The need for its expansion and the new methods and techniques' development is associated with the emergence of new phenomena caused by more frequent crisis situations in the global economy, which are difficult to explain, to identify cause-and-effect relationships in them, as well as to assess their impact on the labor market and economic development. The labor market, which has undergone major changes due to the pandemic in 2020-2021, is the subject of close attention and study in scientific circles today. For this reason, the Nobel Memorial Prize in Economics awarding in October 2021 looks logical, since all three researchers are studying the labor market on the basis of natural experiments in economics. The article presents the Nobel laureates works' analysis, examines various points of view on this works. Methods of analysis and synthesis and comparative analysis are applied in the work. The methodological basis of the research was made up of scientific articles presented in international and Russian databases. Based on the analysis results, it can be concluded that the award took place, since it is of a scientific and debatable nature in the general scientific economic field. The proposed methodological tools by the Nobel laureates allow expanding the scope of testing theoretical hypotheses, identifying and describing new relationships in the economy. In turn, this contributes to a more balanced state policy in the labor market regulation, education, investment, etc. In addition, the Nobel laureates' results can also be useful for private business in terms of forming strategies for their enterprises development, taking into account new knowledge about the relationships in the economy.

**Keywords:** natural experiment; labor market; method of difference of differences; instrumental variables; Nobel laureates; prize in economics.

**JEL codes:** C93; F63.

## Acknowledgment

The article was prepared in accordance with the state assignment for the Institute of Economics of the Ural Branch of the Russian Academy of Sciences for 2022.

## References

1. Stigler, G.; Stigler, S.; Friedland, C. (1995) The Journals of Economics // Journal of Political Economy. Vol. 103. No 2. P.: 331-359.
2. Angrist, J.; Azoulay, P.; Ellison, G.; Hill, R.; Lu, S.F. (2020) Inside Job or Deep Impact? Extramural Citations and the Influence of Economic Scholarship // Journal of Economic Literature. 58 (1). P.: 3-52. URL: <https://doi.org/10.1257/jel.20181508>.
3. Smith, V. (2008) Experimental economics. Per. from English, under scientific ed. R.M., Nureeva. M.: IRISEN. Thought. 808 p.
4. Bernoulli, D. (2000) Experience of a new theory of lot measurement / In the book: Milestones of economic thought. Theory of consumer behavior and demand. Volume 1. Ed. V.M., Galperin. St. Petersburg: School of Economics. P.: 11-28.
5. Nureev, R.M. (2010) Essays on the history of institutionalism. Rostov n / a: Publishing house "Assistance - XXI century"; Humanitarian Perspectives, 415 p.
6. Blaug, M.; Proudhon, P.-J. (2008) 100 great economists before Keynes = Great Economists before Keynes: An introduction to the lives & works of one hundred great economists of the past. St. Petersburg: Economics. P.: 244-245.
7. Vorobyov, V.A.; Kravchenko, A.A.; Mayboroda, T.L. (2021) What and how is interconnected in the economy? Search for answers through natural experiments // Belarusian Economic Journal. 4. P.: 4-26.
8. Smith, V. (1962) An Experimental Study of Competitive Market Behavior. Journal of Political Economy.
9. Smith, V. (1998) Markets and Economizers of Information: Experimental Examination of the 'Hayek Hypothesis. Economic Inquiry.
10. Smith, V.; Williams, A. (1981) On nonbinding Price Controls in a Competitive Market" // American Economic Review.
11. Smith, V. (1998) Markets and Economizers of Information: Experimental Examination of the 'Hayek Hypothesis' / Economic Inquiry.

12. Wiksell, K. A. (1896) *New Principle of Just Taxation*. Finanztheoretische Untersuchungen. Jena. Reprinted in: *Classics in the Theory of Public Finance*. Ed. by R. Musgrave and A. Peacock, NY: St. Martin's Press. 1967. P.: 72-118.
13. Angrist, J.D. (1990) Lifetime Earnings and the Vietnam Era Draft Lottery: Evidence from Social Security Administrative Records // *The American Economic Review*. Vol. 80. No. 3. P.: 313-336.
14. Galiani, S.; Rossi, M.A.; Schargrodsky, E. (2011) Conscription and Crime: Evidence from the Argentine Draft Lottery // *American Economic Journal: Applied Economics*. Vol. 3. Issue 2. P.: 119-36.
15. Card, D. (2001) The Effect of Unions on Wage Inequality in the U.S. Labor Market // *Industrial and Labor Relations Review*. Vol. 54. No 2. P.: 296-315.
16. Imbens, G. (2010) Better LATE than Nothing: Some Comments on Deaton (2009) and Heckman and Urzua (2009) // *Journal of Economic Literature*. Vol. 48. No 2. P.: 399-423.
17. Imbens, G. (2018) Comments on Understanding and Misunderstanding Randomized Controlled Trials: A commentary on Cartwright and Deaton // *Social Science & Medicine*. Vol. 210. P.: 50-52.
18. Imbens, G. (2004) Nonparametric estimation of average treatment effects under exogeneity // *Review of Economics and statistics*. Vol. 86. Issue 1. P.: 4-29.
19. Imbens, G. (2008) Regression discontinuity designs: A guide to practice // *Journal of econometrics*. Vol. 142. Issue 2. P.: 615-635.
20. Angrist, J.; Imbens, G. (1995) Identification and estimation of local average treatment effects // *National Bureau of Economic Research. Working papers Series*. 28 p. DOI 10.3386/t0118.
21. Dougherty, C.; David, J.A. (1982) The determinants of birth weight // *American Journal of Obstetrics and Gynecology*. Vol. 144. Issue 2. P.: 190-200.
22. Press release: The Prize in Economic Sciences 2021. URL: <https://www.nobelprize.org/prizes/economic-sciences/2021/press-release/>.
23. Wright, P.C. (1928) *The Tariff on Animal and Vegetable Oils*. New York: Macmillan.
24. Angrist, J.D.; Imbens, G.W.; Rubin, D.B. (1996) Identification of causal effects using instrumental variables // *Journal of the American statistical Association*. Vol. 91. No. 434. P.: 444-455.
25. Angrist, J.D.; Krueger, A.B. (1991) Does compulsory school attendance affect schooling and earning? // *Quarterly Journal of Economics*. Vol. 106. P.: 979-1014.
26. Mincer, J. (1958) Investment in Human Capital and Personal Income Distribution // *Journal of Political Economy*. Vol. 66. No. 4. P.: 281-302.
27. Bound, J.; Jaeger, D.A.; Baker, R.M. (1995) Problems with instrumental variables estimation when the correlation between the instruments and the endogenous explanatory variable is weak // *Journal of the American Statistical Association*. Vol. 90. P.: 443-450.

28. Aliev, I.M. (2021) Nobel Prize 2021 for "empirical contribution to labor economics" // Proceedings of the St. Petersburg State University of Economics. No. 5 (131). P.: 14-18.
29. Card, D.; Krueger, A. (1994) Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania // American Economic Review. Vol. 84. No 4. P.: 772-793.
30. Henderson, D.R. (2021) Natural Experiments' Lead to an Economics Nobel. Oct. 11. URL: <https://www.wsj.com/articles/natural-experiments-lead-economics-nobel-prize-11633986097>.
31. Neumark, D.; Wascher, W. (1994) Employment Effects of Minimum and Subminimum Wages: Reply to Card, Katz, and Krueger // Industrial and Labor Relations Review. Vol. 47. No. 3. P.: 497-512.
32. RT. "They allowed us to take a fresh look at the labor market": the names of the Nobel Prize winners in economics are named. URL: <https://russian.rt.com/business/article/916305-nobelevskaya-premiya-ekonomika-2021>.
33. The Russian Academy of Sciences. Nobel laureates-2021: comments by Russian scientists. URL: <http://www.ras.ru/news/shownews.aspx?id=efe3109c-afa7-408d-be99-1bf22e5f3107>.
34. Outright mockery. Economist on Nobel Laureates 2021. URL: <https://radio1.news/article/otkrovennoe-izdevatelstvo-ekonomist-o-nobelevskikh-laureatakh-2021/>.
35. OSN. The 2021 Nobel Prize winners in economics have been criticized in Russia. URL: <https://www.osnmedia.ru/ekonomika/v-rossii-raskritikovali-laureatov-nobelevskoj-premii-po-ekonomike-2021-goda/>.

## Contact

Evgeniya Tukhtarova

Institute of Economics, Ural Branch of the Russian Academy of Sciences

29, Moskovskaya Str., 620014, Yekaterinburg, Russian Federation

[tyevgeniya@yandex.ru](mailto:tyevgeniya@yandex.ru)