



Shahid Chamran
University of Ahvaz

**Quarterly Journal
of Social
Development**

Journal Homepage:
www.qjsd.scu.ac.ir
Print ISSN: 2536-3205
Online ISSN: 2588-6444

**Quarterly Journal of Social
Development**

(Previously Human Development)

Sociological analysis of the relationship between socio-economic indicators and death rate in Iran during 1991-2019

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ARTICLE HISTORY

Received: 2022/12/4

acceptance: 2023/3/2

Online publication: Autumn 2023

KEYWORDS

(Death rate, GDP per capita, Women's participation in workforce, Unemployment, Inflation, Literacy)

FURTHER INFORMATION:

The present article is taken from the doctoral dissertation of Zahra Shakeri with Supervisor of Siroos Ahmadi at the University of Yasouj



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ACKNOWLEDGMENTS: Acknowledgments may be made to individuals or institutions that have made an important contribution.

CONFLICT OF INTEREST: The authors declare no conflict of interest.

FUNDING: The author(s) received no financial support for the research, authorship, and publication of this article.

How to Cite:

Ahmadi, S.; Heydari, A.; Shakri, Z. (2023). Sociological analysis of the relationship between economic-social indicators and death rate in Iran (in the period 1991-2019), *Social Development Quarterly*, Volume 18, Number 1, 1-28.



10.22055/QJSD.2023.39264.2555



20.1001.1.25383205.1401.17.2.1.8

INTRODUCTION

Although death is ultimately a biological event, it is widely impacted by socioeconomic factors. It is obvious that people from higher social classes live longer than those from lower classes, the rich live longer than the poor, and finally, married people live longer than singles and divorcees. In addition, at the macro level, the death rates in developed and developing countries are quite different. According to valid documents, about 57 million people die worldwide every year, which is fundamentally affected by 20 main factors, that mostly are directly and indirectly influenced by socio-economic factors. The studies of mortality in Iran have commonly focused on micro-level factors and consequently, the role of macro-level factors has been less considered. Therefore, the main question of the present research is as follows. Is there a significant relationship between macroeconomic indicators, including GDP per capita, women's participation in the workforce, literacy, unemployment, and inflation, with the death rate in Iran in the period of 1991 to 2019?

METHODOLOGY

This is a quantitative and longitudinal research, which was conducted using the time-series method. The required data have been collected from the Iranian Statistics Center, the Central Bank of the Islamic Republic of Iran, and the World Bank. In the frame of the descriptive statistics, the time charts were employed to describe the variable trends during 1991-2019. On the other hand, the autoregressive distributed lag (ARDL), in Microfit software was used to examine the short-term and long-term relationship between the variables.

FINDINGS

In order to investigate the long-term relationship between the socio-economic indicators and the death rate, the autoregressive distributed lag (ARDL), Schwarz Bayesian criterion, and the logarithmic scores were performed and the results are

presented in Table 1. Based on the results, there is a positive and significant relationship between women's participation in the workforce (Pro=0.000, T-ratio=8.72), literacy (Pro=0.000, T-ratio=4.33), unemployment (Pro=0.023, T-ratio=2.49) and the death rate. In addition, the variables of inflation (Pro=0.098, T-ratio=1.74) and GDP per capita (Pro=0.102, T-ratio=1.73) have no significant impact on the death rate.

Table 1: Long-term relationship between socio-economic indicators and death rate

Variables	Coefficient	Standard error	T	Pro
Unemployment	.060131	.024145	2.4904	.023
Inflation	-.007637	.0043669	-1.7490	.102
GDP per capita	-.047842	.027637	-1.7311	.000
women's participation in the workforce	.014222	.016304	8.7233	.000
Literacy	-.92400	.21313	-4.3354	.000
Constant	5.8951	.67784	.67784	.000

CONCLUSION

Based on the results, social and economic indicators at the macro level significantly impact on the death rate in Iran. As shown, unemployment and women's participation in the labor force have increased death, but literacy has decreased the death rate. However, in regard to the results, it is necessary to pay attention to several points. 1) Iran's economy is a state economy, dependent on oil exporting, and affected by international sanctions. Therefore, some fluctuations in economic indicators during 1991-2019 are probably impacted by the factors mentioned above and not necessarily the internal structure of the country's economy. 2) This research has made use of five economic indicators (GDP per capita, unemployment, inflation, women's participation in the workforce, and literacy), still, there are many other indicators that could be employed to achieve a more obvious perspective. 3) This research has used the period 1991 to 2019, but by choosing longer periods, it could be possible to reveal a more noticeable explanation of the relationship between the socio-economic indicators and the death rate in Iran.

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