APPLICATION OF THE INTERPOLATION METHODS IN LIFE EXPECTANCY AT BIRTH BY GENDER AND ETHNIC GROUP IN MALAYSIA

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ABSTRACT

Nowadays, many technologies and knowledge advance every year. In the past, there was no technology or medical care that can help them to stay healthy. All the research in the past has the bad effects that will lead them to death make most of the people in the rural era died in the middle of century. But not all the country has their people died in early age, take for example of Chinese people in the past, they had kept tips from there ancestor how to take care of their life and stay healthy and alive even though they reach 100 years old or more. More of knowledge have been research and conduct to make a better product in the future. There has arisen a speculation on in citizen in Malaysia on which ethnic have been live longer and healthier. From Jabatan Perangkaan Malaysia, they have conducted a statistic and calculation on life expectancy at birth of all ethic in Malaysia and this statistic have shown that Chinese people live more than other ethnic. To find the truth on the statistic, this study has using four methods, Newton Forward, Newton-Gregory Forward, Gauss, and Lagrange Interpolation method with aim to compare which method is better to use on different kind of data set. By calculating the relative error and CPU times, the results will show the best method to use, and which ethnic have better life expectancy from 2000 to 2019.

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