UNIVERSITI TEKNOLOGI MARA

TECHNICAL REPORT

COMPUTING UNEMPLOYMENT RATES
UNDER PARALLEL DATA

MUHAMMAD NAQIUDDIN NASARUDDIN
2013954727 D1CS2496A

Report submitted in partial fulfillment of the requirement
for the degree of
Bachelor of Science (Hons.) Mathematics
Center of Mathematics Studies
Faculty of Computer and Mathematical Sciences

JANUARY 2017

ACKNOWLEDGEMENTS

IN THE NAME OF ALLAH, THE MOST GRACIOUS, THE MOST MERCIFUL

Firstly, I am grateful to Allah S.W.T for giving me the strength to complete this project successfully. I would like to thank all the people who have supported me and helped me a lot through the year either physically or mentally.

My deepest appreciation goes to my supervisor Encik Rahimie Bin Md Noor for providing me substantial assistance while giving constant encouragement. You surely give a significant impact to my work. Beside that, I would like to thank other lecturers for their meaningful guidance and advises during the period of the project.

I would also like to thank my parents for always being there for me and for your infinite support. Without both of you, I will never be able to get to this level. Finally, thank to all my friends for being by my side. Getting together certainly teach me how important is friends in our live.

Thank you.

TABLE OF CONTENTS

ABSTRACT

This project is about estimating and suggesting the best unemployment rate. Unemployment in Malaysia has become a major issue as many graduates face difficulties in searching for jobs. Unattended event like this may cause a future problem to our country. This project focus on data of unemployment rate from the year 2009 till 2014. Data is taken from 3 different sources. Department of Statistics Malaysia, The World Bank and Quandl and shows unstable value on rate on unemployment over the year 2009 to 2014. A new data that was improved by computing the 3 data were compared to prediction of each actual data. The project shows that by improving the data, the result obtain will be a value that can be used to represent all data from different source if data were taken from more than one source.

1 INTRODUCTION

1.1 Research Background

Unemployment issue in Malaysia is seem to be increasing seriously. According to Malaysian Statistic Department in 2015, the unemployment rate has increased from 0.1 percent in January to 3.2 percent as at February 2015. Even though development is rapidly increase from time to time. job opportunities among Malaysian citizen are still being concern. Many graduates either from private institution or public institution are facing the same problem. Fresh graduate tends to choose high quality job that look suitable for their qualification although they does not have any working experience. This create a high competition situation where there is plenty of job that are available for them. Other unemployed people whose only have high school certificates also have the same difficulties when they must compete with foreign workers. Most of the employers in our country are more attracted to foreign workers as they are cheaper and easier to handle.

Government especially the Ministry of Human Resources should take this situation seriously as it indirectly cause hardship among citizen and economic instability. "Unemployment is often a humiliating experience, taking a tough mental and financial toll" (Mckay, 2015). Unemployment will affect the life of people where they cannot get along with high living standard. Lack of money supply in market will cause low demand in the market. This will reduce the sales of profit companies and slowly make foreign investor to stop investing in Malaysian market. Flow of money into country will go down and finally cause national budget deficit. Therefore the government and all other involved parties must make a move to counter the situation before it getting worse. Future prediction of unemployment rate may help in solving the problem.

According to Amadeo (2016). one of the best solution to unemployment is to deal with monetary policy as it has significant effect on market structure. Central Bank should have in-