

DISCUSS THE RELATIONSHIP BETWEEN UNEMPLOYMENT AND LEVEL OF EDUCATION IN PALESTINE

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Abstract: *This paper discusses the relationship between unemployment and level of education in Palestine between 2005 and 2015. The aim of this paper is to understand the relationship between unemployment and education level in Palestine. Education outputs in Palestine day by day increase in all levels, however, Palestine facing an increase in unemployment over time, which became one of the challengeable cases in the country. The question is, what is the relationship between unemployment and education level?. To answer this question, we examined four education levels (1 to 6 years of schooling, 7 to 9 years of schooling, 10 to 12 years of schooling and 13 and more years of schooling) regarding unemployment rate between 2005 and 2015 according to the Palestinian Central Bureau of Statistics (PCBS, 2006-2016) labour force surveys and annual reports from 2005 to 2015. The results indicate that, there is a negative relationship between unemployment rate and education levels (1 to 6 years of schooling, 7 to 9 years of schooling, 10 to 12 years of schooling and 13 and more years of schooling from 2005 to 2010, while this relationship has changed since 2010. Since 2011, individuals who have (13 and more years of schooling) become the highest unemployment among the other levels. The results also showed that there is gender difference of unemployment rate among all four education levels (1 to 6 years of schooling, 7 to 9 years of schooling, 10 to 12 years of schooling, and 13 and more years of schooling). The difference between the two genders of the unemployment rate was 17.4 % difference in case of (1 to 6 years of schooling), 29.4% difference for (13 and more years of schooling), 7.1% difference in (7 to 9 years of schooling) and 1.9% difference among (10 to 12 years of schooling) in 2015. There is a difference between West Bank and Gaza Strip regarding unemployment rate among all four levels of education. These findings can help to identify the roots of unemployment in connection with education outputs.*

Keywords: unemployment; Palestine; education; schooling; West Bank; Gaza Strip.

JEL classification: E24; F66.

1. Introduction

Unemployment is one of the serious challenges in some countries around the world. People invest in education to get better opportunities in their future life. The biggest challenge when an educated person becomes unemployed. Palestine as a developing country facing the challenge of unemployment among its citizens, while the education level in Palestine has a good level and among people (15 years and more) with 96.7 % literacy rate in 2015 (Literacy Rate,(PCBS), 2015). Nowadays Palestine population around 4.8 million, 2.9 million in West Bank and around 1.9 million in Gaza strip (Palestinian Central Bureau of Statistics, (PCBS), 2016a). In the 4th quarter 2016, the participation rate in labour force in Palestine among persons

15 years and more is 45.5% (Labour Force Survey, PCBS, 2017). According to Labour Force Survey, PCBS (2017) unemployment rate in the 4th quarter 2016 in Palestine is 25.7%, 202,900 unemployed who covered by Gaza Strip and more than half of this number in West Bank (143,100 unemployed). The rate of unemployment in Gaza Strip is 40.6%, while its only 16.9% in West Bank and among unemployed persons, 21.0 % are males and 43.9% are covered by females (Labour Force Survey, PCBS, 2017). More unemployment exists among youth especially between 20-24 years by 41.6 % (Labour Force Survey, PCBS, 2017). The education inputs (students) and outputs (graduates) also increasing, where in the academic year 2000/2001 the number of students who attending Universities, University Colleges and Community Colleges was 80,543 students, while 15 years later, the students number has been increased around three times more to reach 221,395 students in the academic year 2014/2015. The number of graduates in the academic year 2000/2001 was 13,151 graduates and after 15 years this number increased more than three times and became 43,544 graduates in the academic year 2014/2015 (Palestinian Central Bureau of Statistics, (PCBS), 2016b). Both students and graduates numbers are increasing continuously, which put more pressure on the government of Palestine for future employment. Level of education in Palestine getting increased, but unfortunately, the unemployment rate among people getting increase as well, especially in graduates (university degree holders) who need to wait for months to get jobs, but the waiting also not guarantee to get job at the end in particular, if the skills of graduates persons do not match with labour market needs. The question is "what is the relationship between unemployment and level of education?"The answer can be found by testing unemployment among education system in Palestine, which consists of 12 years in schools before you head up to university, 6 years elementary schools, 3 years middle schools and 3 years secondary schools. In this paper, we will discuss the relationship between unemployment and level of education in Palestine and try to understand the relationship between unemployment and education.

2. Literature Review

Many studies have been conducted to understand the relationship between the level of education and unemployment and the effect of education on unemployment. In his study, Bairagya (2015) stated that, as the level of education increase, the unemployment probability decrease, but this can be in developed countries, while in developing countries, as the level of education grows up, the unemployment grows up as well (Bairagya, 2015). Afolabi (2013) indicated that the more growth of education compared to economy growth is one of the primary causes for unemployment due to the job supply cannot fulfill graduates demand. Biagi and Lucifora (2008) found that there is a negative relationship between the unemployment rate and people who have more than obligatory education. Diawara and Mughal (2011) indicated that the likelihood to be self-employed is less than the likelihood to be employed in public sector for both secondary and university education holders. In his study about Romania, Diaconu (2014) found that the likelihood of employment increases with the increase of education level. The findings of Ionescu (2012) highlight that, the probability of employment increases with the increase of education level. Moreover, the increase of education level sustain individual job during labour market crisis (Ionescu ,2012). In his study about

Netherlands Wolbers (2000) pointed out that more unemployment among people with low education level than higher education level. In addition to that, he mentioned that vocational graduate's people have less unemployment danger than people who graduates from university (Wolbers, 2000).

Most of the studies that we mentioned claimed that as the level of education increase, the unemployment decrease and according to that, we formed our hypotheses as:

H1: As level of education increase, unemployment rate decrease between 2005 and 2015.

H2: As level of education increase, unemployment rate increase between 2005 and 2015.

3. Method

According to the Palestinian Central Bureau of Statistics (PCBS, 2006-2016) labour force surveys and annual reports from 2005 to 2015, eleven years will be analyzed regarding unemployment rate and years of schooling (level of education) in Palestine from 2005 to 2015 to examine the relationship between the unemployment rate and level of education during this period. The division of education level (years of schooling) of individuals will be as it been used by (PCBS) labour force surveys and annual reports from 2005 to 2015, which are 1 to 6 years of schooling, 7 to 9 years of schooling, 10 to 12 years of schooling, and 13 and more years of schooling. After looking at the relations between the unemployment rate and education level (years of schooling), the gender difference will be tested and at the end, a comparison will be made between the West Bank and Gaza strip regarding unemployment rate and years of schooling (level of education) relationship.

4. Results

4.1. The Relationship between Unemployment and Years of Schooling

There is a difference of the unemployment rate among all education levels (Figure 1). The unemployment rate of persons who have 13 and more years of schooling increasing and reached it maximum percentage in 2014 with 31.6%, while in 2005 this percentage was only 21.8%. During 11 years, the unemployment has been increased by 8.1%. In contrast, the unemployment rate of persons who have between 1 and 6 years of schooling not changing much with time and reached it minimum percentage in 2011 with 19.7 %, while the percentage was 26.2% in 2005, and unemployment decreased by 1.2 % between 2005 and 2015.

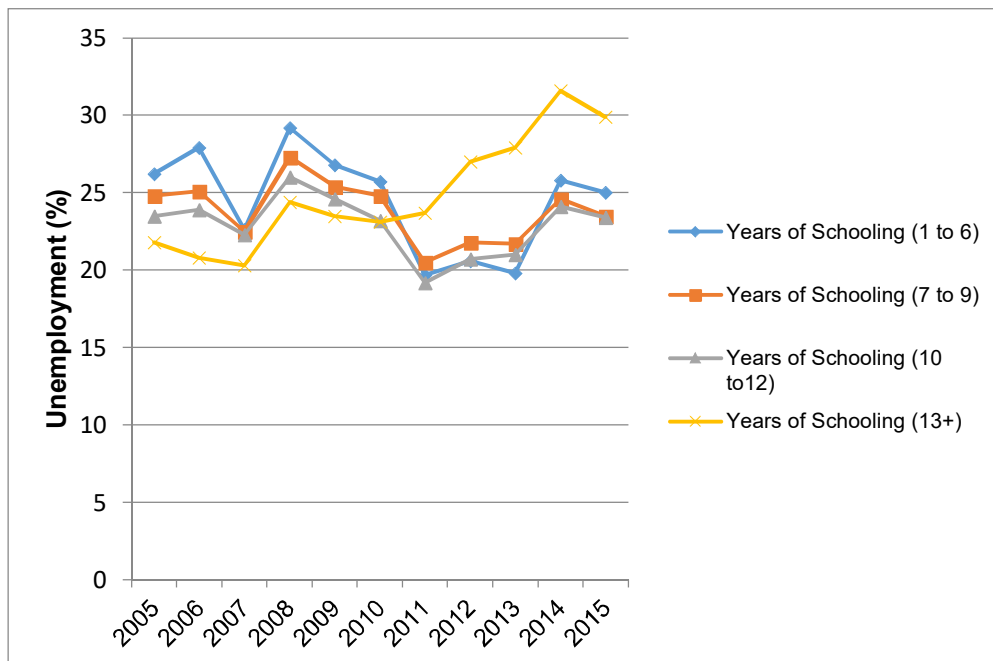


Figure 1: Unemployment rate (%) by years of schooling in Palestine.
 Source: author development based on Data from (Palestinian Central Bureau of Statistics, (PCBS). Labour Force Surveys: Annual Reports: 2005-2015).

The maximum percentage of the unemployment rate of persons who have 7 to 9 years of schooling was 27.3 % in 2008 and the minimum percentage was 20.5% in 2011. Persons who have 10 to 12 years of schooling faced almost no change if we compare 2005 and 2015, which began with 23.5% in 2005 and ended up with 23.4% in 2015 and the maximum percentage, was in 2008 with 26% and the minimum was in 2011 with 19.2%.

4.2. Gender Difference Among all Four Levels of Education (1 to 6 Years of Schooling, 7 to 9 Years of Schooling, 10 to 12 Years of Schooling, and 13 and More Years of Schooling).

Figure 2 shows that the gender difference of unemployment rate among all four levels of education (1 to 6 years of schooling, 7 to 9 years of schooling, 10 to 12 years of schooling, and 13 and more years of schooling). There is a big gap between unemployment of males and females of (1 to 6 years of schooling) between 2005 and 2015. The maximum unemployment rate in males was in 2008 with 33% and it starts with 28.8% in 2005 and decreased to 27.1% in 2015, which mean 1.7% decrease in unemployment rate. On other side, females started with 7.8% of the unemployment rate in 2005 and reached its maximum in 2015 with 9.7% and its minimum in 2013 with 2.8%. This indicates 1.9 % increase in the unemployment rate between 2005 and 2015. The difference between the two genders of unemployment rate started with 21% difference in 2005 and closed in 17.4% difference in 2015(Figure 3). There is a big gap as well between unemployment of males and females of (13 and more years of schooling). Females reached it maximum

unemployment rate with 50.6 % in 2014 and ended with 48% in 2015, while in 2005 the rate was 32.5%, which mean 15.5 % increase in unemployment between 2005 and 2015. In contrast, males started with 16.6% of the unemployment rate in 2005 and reached the maximum in 2014 with 19.1%. The difference between the two genders of unemployment was 15.9% in 2005 and ended by 29.4% difference in 2015(Figure 3). Unemployment of males and females of (7 to 9 years of schooling) has a gap as well. The unemployment rate of males starts with 26% in 2005 and close at 24.1% in 2015, which mean 1.9% decrease in unemployment rate. The maximum unemployment rate for males was in 2008 with 29% and reached its minimum in 2011 with 21.5 %. On other side, females started with 11.3% of the unemployment rate in 2005 and reached its minimum in 2007 with 6.3% and ended up with 17 % in 2015, which indicates 5.7 % increase in the unemployment rate between 2005 and 2015. The difference between the two genders of unemployment rate started with 14.7% difference in 2005 and closed in 7.1 % difference in 2015(Figure 3). A gap between unemployment of males and females can be found in (10 to 12 years of schooling). Males reached it maximum unemployment rate with 27.4 % in 2008 and ended with 23.2% in 2015, while in 2005 the unemployment rate was 24.1%, which mean 0.9% decrease in unemployment between 2005 and 2015. In contrast, females started with 17.2% of the unemployment rate in 2005 and ended up with 25.1 % in 2015. The difference between the two genders of unemployment rate was 6.9% in 2005 and ended with 1.9% difference in 2015 (Figure 3).

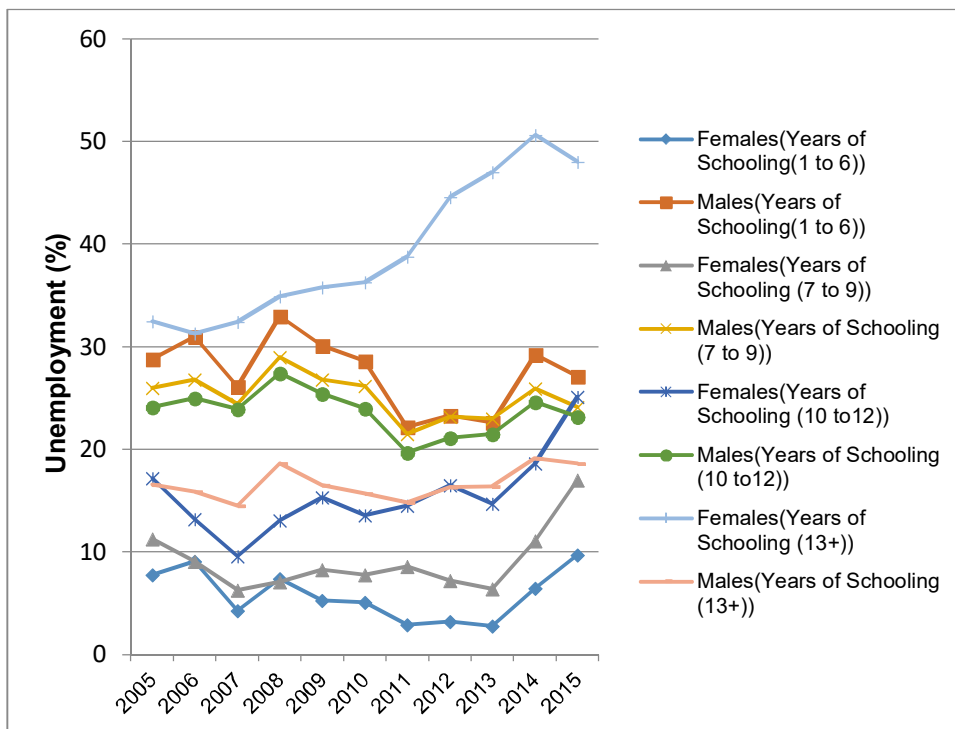


Figure 2: Unemployment rate (%) by years of schooling in Palestine among Gender. Source: author development based on Data from (Palestinian Central Bureau of Statistics, (PCBS). Labour Force Surveys: Annual Reports: 2005-2015).

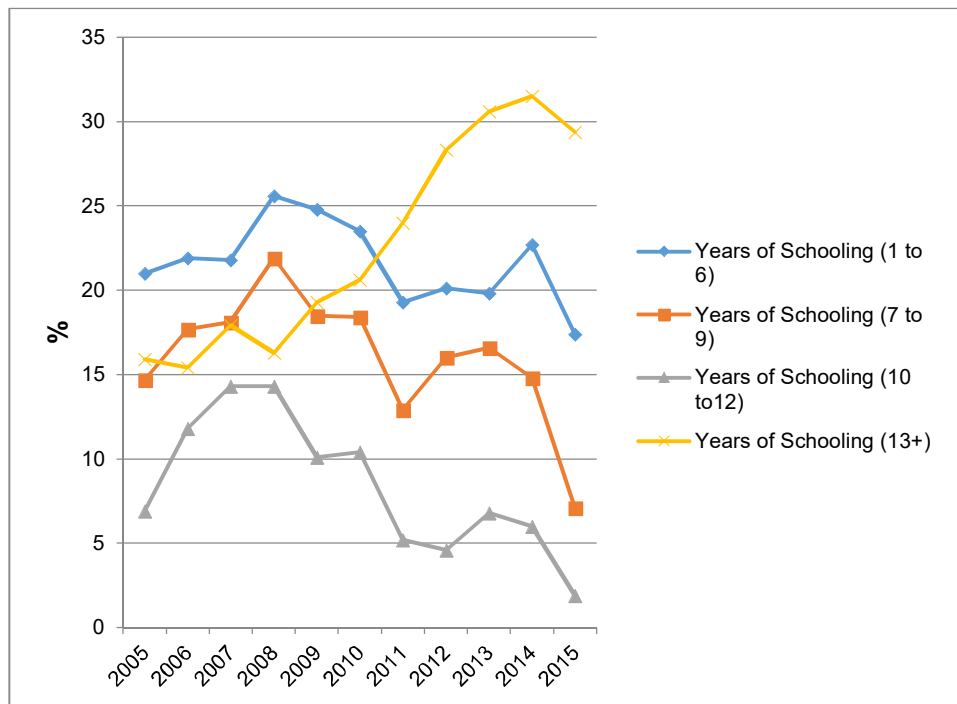


Figure 3: Gender difference of Unemployment rate (%) by years of schooling in Palestine.

Source: author development based on Data from (Palestinian Central Bureau of Statistics, (PCBS). Labour Force Surveys: Annual Reports: 2005-2015).

4.3. Comparison of Unemployment Rate (%) Among Education Levels by Location (West Bank and Gaza Strip)

Figure 4 shows that, unemployment rate and education level (years of schooling) in West Bank between 2011 and 2015. Individuals who have (1 to 6) years of schooling have the minimum unemployment rate during this period and the maximum unemployment rate among individuals who have (13+) years of schooling. During this period, the unemployment rate of Individuals who have (1 to 6) years of schooling fluctuating with time, where it begins with 15% in 2011 and ended with 15.1% in 2015, while who have (7 to 9) years of schooling also fluctuating as well ,where starts with 17.6% in 2011 and decline to 15.5% in 2015. In contrast, the unemployment rate of Individuals who have (10 to 12) years of schooling increases from 2011 till 2012 and in 2013 decrease by 0.3% comparing to 2012 and reached 15.8% in 2015. The unemployment rate of Individuals who have (13+) years of schooling increases between 2011 and 2014 and decrease in 2015 by 2.1% comparing to 2014 (Figure 4).

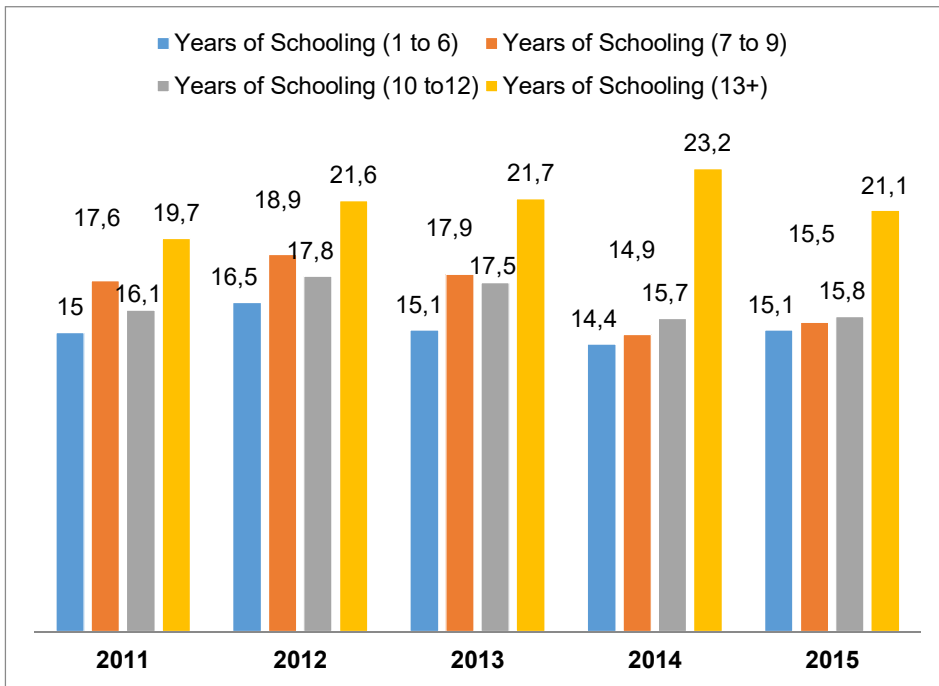


Figure 4: Unemployment rate (%) by years of schooling in West Bank.
 Source: author development based on Data from (Palestinian Central Bureau of Statistics, (PCBS). Labour Force Survey: Annual Reports: 2011-2015).

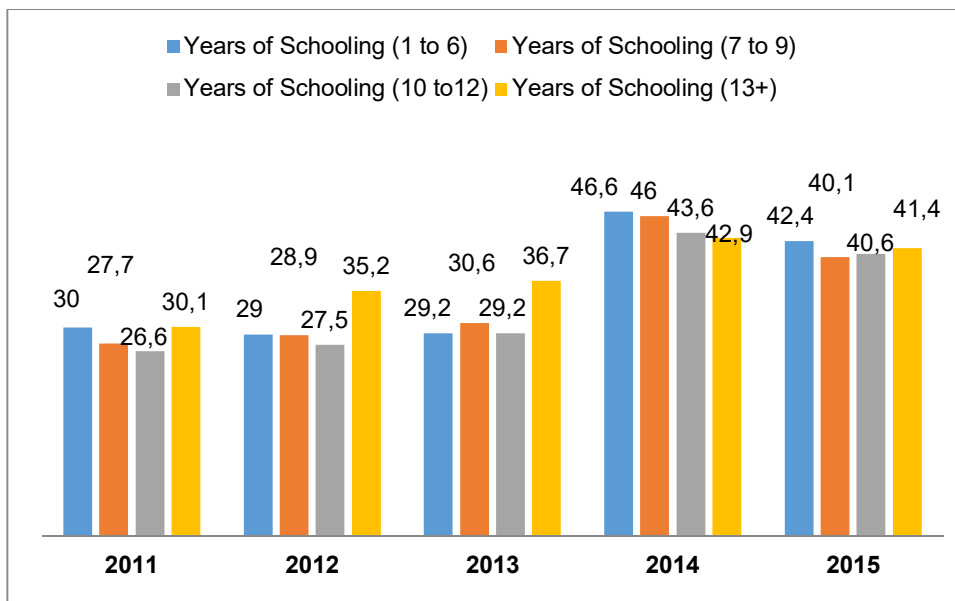


Figure 5: Unemployment rate (%) by years of schooling in Gaza Strip.
 Source: author development based on Data from (Palestinian Central Bureau of Statistics, (PCBS). Labour Force Survey: Annual Reports: 2011-2015).

Figure 5 shows that, unemployment rate and education level (years of schooling) in Gaza Strip from 2011 to 2015. During this period, the unemployment rate of persons who have (1 to 6) years of schooling begins with 30% in 2011 and ended with 42.4% in 2015, while who have (7 to 9) years of schooling starts with 27.7 % in 2011 and increase to 40.1 % in 2015. In contrast, the unemployment rate of persons who have (10 to 12) years of schooling starts with 26.6% in 2011 and close at 40.6% in 2015. The unemployment rate of persons who have (13+) years of schooling increases between 2011 and 2014 and decrease in 2015 by 1.5 % comparing to 2014 (Figure 5).

5. Discussion

Four education levels (1 to 6 years of schooling, 7 to 9 years of schooling, 10 to 12 years of schooling and 13 and more years of schooling) are tested regarding unemployment rate. According to the results, the first hypothesis is accepted and the second hypothesis is rejected from 2005 to 2010. In another word, as the person become more educated, he become less unemployed. From 2011 to 2015, the results are complicated and high level of schooling (13 and more years of schooling) is increasing and become highest of unemployment rate among all levels of education but why the unemployment rate of low levels of schooling (1 to 6 years of schooling and 7 to 9 years of schooling) is fluctuating and why high level of schooling (13 and more years of schooling) is increasing over time from 2011 to 2015?. In the period from 2005 to 2010 the people with (1 to 6 years of schooling and 7 to 9 years of schooling) have more unemployment than (13 and more years of schooling), but from 2011 to 2015, the unemployment of (13 and more years of schooling) started to become more than the unemployment of (1 to 6 years of schooling and 7 to 9 years of schooling). The reasons maybe because in the first period 2005 to 2010, the labour market can still absorb people with (13 and more years of schooling), but cant absorb more people with (1 to 6 years of schooling and 7 to 9 years of schooling) and unemployment among these levels(1 to 6 years of schooling and 7 to 9 years of schooling) is depended on the availability of jobs which not stable that's why the unemployment among these people is fluctuating. In contrast, the reason for the increasing of unemployment among the high level of education (13 and more years of schooling) is the rapidly increase in graduates. The number of graduates in the academic year 2000/2001 was 13151 graduates and after 15 years this number increased more than three times and became 43544 graduates in the academic year 2014/2015 (Palestinian Central Bureau of Statistics, (PCBS)., 2016b). Not only the graduates increased, but also the market became more competitive, but also can be true that schools do not supply the skills that needed by employers in the labour market. Gender difference appeared among all the levels of education(years of schooling) (Figure 3), which needs further research to discover the reasons for that but, some reasons may lead the two genders to be outside the labour force, like studying for both genders and housework for females. There is a considerable difference between West Bank and Gaza Strip regarding unemployment rate among all four levels of education (Figure 4, Figure 5), which can be because of the different of labour market situation in West Bank and Gaza Strip.

6. Conclusion

In this paper, we discussed the relationship between unemployment rate and level of education in Palestine. We examined four of education levels (1 to 6 years of schooling, 7 to 9 years of schooling, 10 to 12 years of schooling and 13 and more years of schooling) regarding unemployment rate. High unemployment among the low levels of education (1 to 6 years of schooling, 7 to 9 years of schooling), while low unemployment rate among the high levels of education (10 to 12 years of schooling and 13 and more years of schooling) from 2005 to 2010. In addition to that, there is gender difference regarding unemployment rate among all four levels of education. The difference was 17.4 % difference in case of (1 to 6 years of schooling), 29.4% difference for (13 and more years of schooling), 7.1% difference in (7 to 9 years of schooling) and 1.9% difference among (10 to 12 years of schooling) in 2015. The unemployment rate increases among 13 and more years of schooling holders, but not neglect that unemployment rate in the first two levels (1 to 6 years of schooling, 7 to 9 years of schooling) are fluctuating with time (Figure 1) and beside all of that, there are some reasons that may made some individuals outside the employment, which should be considered in future research to understand the employment and unemployment in Palestine plainly.

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