Analysis of Employment Opportunity Levels in Bireuen District

Marlina[1], Malahayatie[2], Ramadhan[3], Nur Azizah[4]

[1,2,3,4] Lhokseumawe State Islamic Institute, Indonesia

Article Info	Abstract
	In Indonesia, the Open Unemployment Rate (TPT) often occurs, which describes the condition of employment opportunities. The level of employment opportunities is influenced by several factors such as wage factors, the level of education completed and technological development factors. To overcome this level of open unemployment, the government needs to facilitate access to education and skills training needed by job seekers. This research uses a literature study research method. Data collection in this research was carried out from the Bireuen Regency Central Statistics Agency (BPS) over a period of time from 2017-2021. The aim of this research is to look at the level of open unemployment and the level of employment opportunities in Bireuen Regency from 2017-2021. Based on this research, it can be concluded that based on analysis of Bireuen Regency BPS data, when compared to 2017, 2018, 2019, 2020 and 2021, in 2021 there will be a higher level of open unemployment, namely around 10,084. If we compare the level of employment opportunities in 2017, 2018, 2019, 2020 and 2021, then in 2018 there was a higher level of employment opportunities, namely 96.48 percent compared to 2017 (95.5 percent), and 2019 (96.12 percent) and in 2020 (95.88%) and 2021 (95.68%).

INTRODUCTION

It was found that income distribution was influenced for a long time by persistent fluctuations in unemployment. The unemployment rate is often used to describe the condition of labor demand and its influence on wage dynamics in contemporary literature. However, there are reasons to believe that unemployment is a useful but incomplete indicator of the state of labor opportunity levels. For example, a persistent lack of employment opportunities could result in supply-side adjustments, which could limit the variability of the unemployment rate. On the other hand, sustainable labor demand can encourage participation and reduce underemployment (Antonella Stirati, 2021).

The empirical relationship between the proportion of wages and the unemployment rate (or other labor market index) over the medium to long term, or averaged across cycles. There are two reasons why this qualification is necessary. The first is that rather than focusing on their short-term fluctuations, we want to investigate the underlying persistent factors that influence the "normal" income distribution. Due to the hoarding of labor and short-term changes in the intensity of its use, productivity varies greatly in a pro-cyclical manner. As a result, wage shares change in opposite directions during the initial phases of expansion and contraction, clearly unrelated to long-term changes in income distribution (Okun, 1962). Then workers' mental health is also important in terms of work demands, workers' mental health is influenced by their work. This model states that job demands such as a lot of work, fast work pace, role ambiguity, and the psychological burden of customers, or clients are the main obstacles to worker well-being (Ari Min, 2023).

The sectoral structure of the economy influences the level of labor productivity and its dynamics, as well as its relationship with wages (Z. Tamasauskiene, 2013). Wage factors also influence the level of job demand. There are many factors that can influence wages. The productivity of wage earners is generally considered to be the primary determinant of wages. This efficiency obviously depends to some extent on experience and subsequent preparation of the energy used (Carlos Oya, 2023). Meanwhile, (Buroway, 1985)the factors determining wages are best seen through the scientific class of labor systems. The labor system combines the work process in the work environment with work relations with government issues of capital-work relations all the more broadly considering the level and character of the State in the work environment.

The work efficiency wage relationship is two-way. On the one hand, efficiency wage theory states that wages have a positive effect on labor productivity. This is because increasing wage levels encourage workers to increase productivity in response to the high incentives provided by their companies (Herman, 2019). To ensure macroeconomic stability, wage increases must take into account labor market conditions and developments in competing countries, as well as growth in labor productivity at the company level. National economies face significant challenges in separating productivity gains from real wages, as

wage growth lags productivity growth. Wage growth at a slow rate can lead to inequality and falling living standards (A. M Stansbury, 2017). If there is a reduction in wages, it will produce a negative income effect. This happens because when wages are more flexible than jobs, businesses reduce wages, and vice versa (Tafuro, 2023).

Then in this era, many job searches are carried out via internet websites. Theoretically, job seekers have more access to information about open positions, and businesses can benefit more from an efficient recruiting process (Niken Kusumawardhani, 2023). Because the accumulation of ICT skills is highly valued at the level of job demand, positive labor demand effects of the Internet may be experienced by high-skilled workers. In a similar vein, the introduction of broadband internet benefits the employment of workers with higher levels of education over workers with lower levels of education (Hjort, 2019). Utilizing job advertisements as a data asset to capture job opportunity positions has many advantages. This information structure is referred to as the "framework" that all job advertisements have. Job identification, requirements for meeting those requirements, and contact information are all included in every job advertisement. Due to their similarity in structure, job advertisements can be categorized and compared. Working on advertising also reflects local business requirements(Rafeli A., 1998)

The term employment opportunities refer to the population of working age aged between 15 and 64 years, or the entire population of a country who are capable of producing goods and services if there is a demand for their labor and if they wish to participate in such activities (Agustina Arida, 2015). Meanwhile, according to (Arbi, 2010) the demand for labor employment is a function that shows the relationship between the number of workers a job requires and the wage level.

Apart from wage factors, the level of employment opportunities is also influenced by the level of education. It turns out that a high level of education also influences job opportunities. In addition to hiring more workers, businesses are also hiring more highly educated and trained employees (Tobias Schultheiss, 2023). The higher the level of education, the higher the wages earned.

METHOD

This research uses a literature study research method. Data collection in this research was carried out from the Bireuen Regency Central Statistics Agency (BPS) over a period of time from 2017-1021. Then the type of data used in this research is secondary data. The data collection technique used is by downloading secondary data from the official BPS website then analyzing secondary data from BPS such as the Open Unemployment Rate (TPT), latest education level and so on. Then data analysis is carried out by presenting, interpreting and drawing conclusions based on the findings of secondary data analysis from BPS.

RESULTS AND DISCUSSION

a. Job Opportunity Level

Job opportunities are positions that arise both inside and outside the company as a result of investment and growth in the population and workforce, on the one hand, which will influence the problem of unemployment and the expansion of employment opportunities . Apart from that, employment opportunities can also be interpreted as the number of working people or people who have found work. The more people who work, the wider the job opportunities (Fahara, 2018). The elasticity of the shift from manufacturing to services, increasing computerization, increasing educational attainment of women have all changed the demand for labor. As a result, jobs and employer requirements have changed. More young women are now replacing high school-educated men than lower-educated men (Guisinger, 2020). The elasticity of labor demand has shifted towards women as a result of job creators requiring more office workers than manual workers (Olivetti, 2006).

Job vacancies can be easily accessed via internet websites. More job postings are published due to expected increases in employment rates, resulting in more jobs (Irandoust, 2023). According to the nonclassical theory of the firm, a common indicator of labor oversupply is the local unemployment rate. The unemployment rate is also negatively correlated with tight labor demand which is defined as the ratio of the number of open jobs to the number of unemployed (Luz Azlor, 2020). In open unemployment, public authorities may be more interested in producing the effect of a reduction in the money rate. Here, we can use a one-period framework for non-traded goods, which shows that evaluation increases job demand (Yoonho Choi, 2017).

b. Unemployment Due to Job Opportunity Levels

A person is considered unemployed if he is a member of the workforce and is actively looking for work at a certain wage level but does not obtain the desired position (Muslim, 2014). Naturally, the reduction in welfare benefits people receive as a result of unemployment increases the likelihood that they will remain in poverty due to lack of income (Putra, 2018). In particular, unemployed people may not effectively search for work or be unprepared to accept a job whenever it is advertised. This is an expansionary effect on unemployment if young people tend not to work. The relationship between employment opportunities and unemployment is that when the number of employment opportunities increases, it will reduce the unemployment rate. Meanwhile, if the number of job opportunities decreases, it will increase the unemployment rate (Chunbing Xing, 2017).

All countries have high labor productivity. Unemployed or inactive they are vulnerable to existing shocks. They move between these three labor conditions partly through their own decisions (accepting a job, quitting and trying to find a new job) and partly through external factors (suddenly being at work). These job opportunities are limited because the growth of the population or workforce is faster than the growth of job opportunities, which has an impact on fewer job opportunities and increases the potential for unemployment. (Arpad Abraham, 2023).

Unemployment benefits have two direct effects on employment. On the one hand, a more generous unemployment benefits system makes unemployment less painful (either through higher replacement rates or longer eligibility periods) and reduces unemployed job searching as a result. However, participation in employment opportunities usually depends on an active search for new employment. This effect reduces employment because it lowers the rate at which people leave unemployment. On the other hand, it increases employment because it expands the workforce and, as a result, workers are looking for it (Wolfgang Lechthaler, 2021).

c. Wages Factor Against Levels Employment Opportunity

Wage changes play an important role in dampening shocks to employment opportunities. The domestic labor market will experience a negative labor demand shock as a result of an increase in the number of job vacancies, which will have a direct impact on the wages offered by domestic businesses (Elsner, 2013). The efficiency wage theory states that wages have a positive effect on labor productivity. Wages are important because they measure the value of a representative's labor (Maria Esther OSwald-Egg, 2021).

There is a negative relationship between wages and unemployment, further investigation reveals that the wage cycle is a regionally and skill-heterogeneous job-specific parameter (Oleksandr Faryna, 2020). Workers and companies bargain over wages, let alone working hours. Workers remain unemployed and incur fixed costs, which can be defined as costs associated with continuing their job search, if this does not reach an agreement. These costs can make free time more valuable because searching takes up a lot of time (Elena Del Rey, 2022).

Considering the established cut-off point for labor output and the rate of profit, the original wage will be made between the largest level, compared to the basic level of benefits and the lowest level according to the premise of the benefit being the definition of wages according to (Stirati, 1992).

d. Educational Level Factors on Job Opportunities

Individuals with higher levels of education may have more opportunities than those who are looking for work. These results can result in the positive relationship that exists between education and wage levels (I. Theodossiou, 2009). Advanced education increases employability but can push unemployed young people into inactive rather than dynamic job seekers. Sometimes there are many structural mismatches between labor demand and worker vacancies (Hamed Rahmani, 2023).

will generally be higher for people with higher education. Additionally, workers with the highest levels of education may be more likely to accept job offers with better training. Mobility costs are influenced by educational attainment (Royalti, 1998). A community's poverty level will be lower if the community's education level is higher (Purnami, 2016). Even in Indonesia after the crisis and in countries affected by higher education mismatches, increasing access to higher education can still reduce youth unemployment (Selezneva, 2019).

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e. Technological Development Factors Due to Job Opportunities

Technology positively improves a company's ability to mechanically bring products to market as well as the productivity of its workforce. Unemployment rises in response to technological shocks because firing rates increase (Pawel Borys, 2021). Online job search practices that allow businesses to effectively advertise jobs will connect with job seekers. As a result, the internet can speed up job searches and reduce unemployment (Yann Balgobin, 2022).

Job searches via the internet are sometimes ineffective. positive labor demand effects of the internet may be experienced by high-skilled workers. This cannot reduce unemployment (Kuhn, 2014). However, the internet can increase wages and the likelihood of job requests (Melanie Arntz, 2022). As a result, technological progress results in increased profits and decreased employment (Gali, 2004).

The level of employment opportunities is always related to the level of open unemployment. The open unemployment rate is three to four people out of every 100 working people who are unemployed, looking for work, or willing to work. Meanwhile, the employment opportunity level, namely the opportunity for Bireuen residents to work in Bireuen Regency, is 96.48 percent. The following is a graphic image of Bireuen employment 2019.

Figure 1. Bireuen Employment 2019
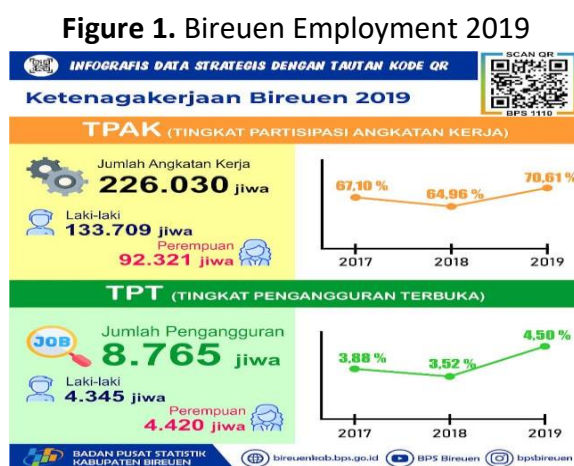
Source: Bireuen Regency BPS 2019

The following is the number of open unemployment rates in Bireuen district according to education completed from 2017-2019.

**Figure 2.** Ratio of Male Unemployment to Female Unemployment

Source: Bireuen Regency BPS 2017.

Based on the data presented in the image above, the TPT rate in Bireuen Regency was recorded at 4.50% in August 2017, which shows that out of every 100 employees, approximately 4 people were unemployed or unemployed, compared to conditions in August 2015, when the TPT was 11 .02 percent, this figure decreased by 6.52 percent. This is due to limits on assimilation of the workforce, especially in the fields of development, agriculture and social administration.

This figure exemplifies the pattern of the ratio of male unemployment to female unemployment between August 2015 and August 2017 by showing that the ratio of male unemployment to female unemployment varies from year to year. In August 2017, male unemployment was 2.56 percent, while female unemployment was 1.94 percent. This is because the majority of trade and industrial jobs are filled by women. Meanwhile, the majority of the male workforce is concentrated only in the construction industry.

Figure 3. Open Unemployment According to Completed Education and Gender Bireuen District, 2017
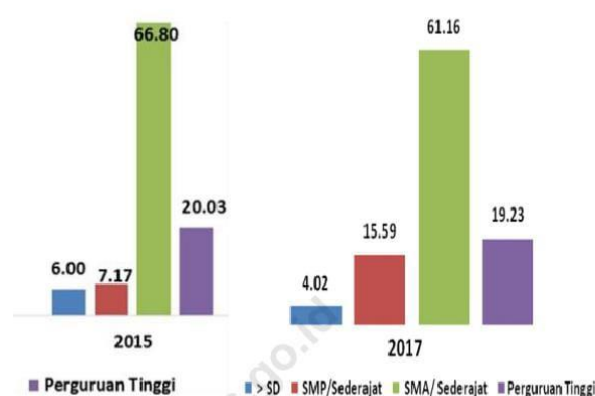
Source: Bireuen Regency BPS 2017

The Open Unemployment Rate (TPT) for high school graduates was 61.16 percent in August 2017. This number decreased compared to conditions in August 2015 which increased to 66.80 percent. In other words, businesses absorb many high school graduates into their

workforce. On the other hand, the percentage of TPT graduates with junior high school degrees has actually increased, rising from 7.17 percent in August 2015 to 15.59 percent in August 2017 (Statistik, 2017). The following is the 2018 open unemployment rate in Bireuen Regency.

Table 1. Open Unemployment According to Completed Education and Gender Bireuen District, 2018

Pendidikan tertinggi yang ditamatkan	Laki-laki	Perempuan	Jumlah
(1)	(2)	(3)	(4)
Tidak/Belum Pernah Sekolah	0	0	0
Tidak/Belum Tamat SD	0	255	255
SD/MI/Sederajat	609	763	1.372
SMP/MTs/Sederajat	427	431	858
SMA/MA/Sederajat	1.474	1.476	2.950
SMK	483	0	483
DI/DII/DIII	300	0	300
DIV/S1/S2/S3	0	1.307	1.307
Jumlah	**3.293**	**4.232**	**7.525**

Source: Bireuen district BPS 2018.

This table shows unemployment by educational attainment and gender. It is proven that the largest number of unemployed are high school graduates or equivalent, namely 2,950 people, and the number of unemployed men and women is almost the same, namely 1,474 men and 1,476 women. For unemployed people with tertiary education (DIV/S1/S2/S3), there are around 1,307 people, all of them women (Statistik, 2018). Then the following is the 2019 open unemployment rate in Bireuen Regency.

Table 2. Open Unemployment According to Completed Education and Gender, Bireuen District, 2019

Pendidikan tertinggi yang ditamatkan	Laki-laki	Perempuan	Jumlah
(1)	(2)	(3)	(4)
Tidak/Belum Pernah Sekolah	0	0	0
Tidak/Belum Tamat SD	0	126	126
SD/MI/Sederajat	254	643	897
SMP/MTs/Sederajat	1.102	603	1.705
SMA/MA/Sederajat	1.725	1.291	3.016
SMK	779	0	779
DI/DII/DIII	213	421	634
DIV/S1/S2/S3	272	1.336	1.608
Jumlah	**4.345**	**4.420**	**8.765**

Source: Bireuen Regency BPS 2019.

The table above shows unemployment by gender and degree level. It was proven that 3,016 people with a high school/MA education, or equivalent were the most unemployed, with 1,725 men and 1,291 women among the unemployed. Regarding unemployment, there are around 1,608 people with a bachelor's degree (DIV/S1/S2/S3) (Statistik, 2019).

Table 3. Open Unemployment According to Completed Education and Gender, Bireuen District, 2020

Pendidikan tertinggi yang ditamatkan	Laki-laki	Perempuan	Jumlah
(1)	(2)	(3)	(4)
Tidak/Belum Pernah Sekolah	0	0	0
Tidak/Belum Tamat SD	147	0	147
SD/MI/Sederajat	1.026	243	1.269
SMP/MTs/Sederajat	1.407	0	1.407
SMA/MA/Sederajat	3.228	1.552	4.780
SMK	271	0	271
DI/DII/DIII	0	787	787
DIV/S1/S2/S3	215	714	929
Jumlah	**6.294**	**3.296**	**9.590**

Source: Bireuen Regency BPS 2020

Unemployment according to education completed and gender. It can be seen that the largest number of unemployed people had a SMA/MA/equivalent education of 4,780 people, with the number of unemployed men and women being 3,228 men and 1,552 women. Meanwhile, unemployment with university level education (DIV/S1/S2/S3) is quite low at around 929 people (Statistik, 2020).

Table 4. Open Unemployment According to Completed Education and Gender, Bireuen District, 2021

Pendidikan tertinggi yang ditamatkan	Laki-laki	Perempuan	Jumlah
(1)	(2)	(3)	(4)
Tidak/Belum Pernah Sekolah	0	0	0
Tidak/Belum Tamat SD	212	0	212
SD/MI/Sederajat	1.257	317	1.574
SMP/MTs/Sederajat	176	920	1.096
SMA/MA/Sederajat	2.540	1.559	4.099
SMK	174	170	344
DI/DII/DIII	187	340	527
DIV/S1/S2/S3	838	1.394	2.232
Jumlah	**5.384**	**4.700**	**10.084**

Source: Bireuen Regency BPS 2021

The table above displays unemployment according to education completed and gender. It can be seen that the largest number of unemployed people had a SMA/MA/equivalent education of 4,099 people, with the number of unemployed men and women being 2,540 men and 1,559 women. Meanwhile, unemployment at university level (DIV/S1/S2/S3) was the second largest, namely 2,232 people. (Statistik, 2021)

When compared to 2017, 2018, 2019, 2020 and 2021, in 2021 there will be a higher open unemployment rate, namely around 10,084. In dealing with unemployment problems, the government must be responsive in solving unemployment problems . The problem of

unemployment is not easy, the government must include the role of education in reducing the unemployment rate. A country that wants to change must increase its level of education. Education plays an important role in creating competent human resources. The more competent human resources there are, the more unemployment rates will be reduced. (Franita, 2019)

Unemployment is closely related to job opportunities. Job opportunities are the total number of workers that can be accepted in the economy. Job opportunities are the same as the demand for labor, equal to the number of job vacancies in the world of work. Job opportunities are linked to economic life which is always dynamic (Surindra, 2021).

Figure 4. Employment Opportunity Levels by Gender In Bireuen Regency, 2017

Uraian	Jenis Kelamin		Jumlah
	Laki-Laki	Perempuan	
(1)	(2)	(3)	(4)
Tahun 2017			
Angkatan Kerja	133 971	93 512	227 483
Bekerja	128 147	89 091	217 238
Tingkat Kesempatan Kerja			
TKK 2014	92,25	89,03	90,98
TKK 2015	89,48	88,24	88,98
TKK 2017	95,65	95,27	95,5

Source: Bireuen Regency BPS 2017

If we look at gender, male TKK is more or less the same as female TKK, namely 95.65 percent of male TKK and 95.27 percent of female TKK. This shows that men and women have equal employment opportunities. Job opportunities no longer differentiate between men and women.

Table 5. Employment Opportunity Levels by Gender in Bireuen Regency, 2018

Jenis Kelamin	Angkatan Kerja		Total	TKK	TPAK	TPT
	Bekerja	Pengangguran				
(1)	(2)	(3)	(4)	(5)	(6)	
Laki-Laki	126.927	3.293	130.220	97,47	82,58	2,53
Perempuan	79.209	4.232	83.441	94,92	48,73	5,08
Total	206.136	7.525	213.661	96,48	64,96	3,52

Source: Bireuen Regency BPS 2018

TKK talks about opportunities to be absorbed in the job market. In August 2018, the TKK population in Bireuen was 96.48 percent. This implies that for every 100 people in the labor force there are 96 to 97 people working. The higher the TKK in a certain area, the higher the opportunity for individuals in the working age population to enter the workforce to work in that area.

Table 6. Levels of Employment Opportunities According to Gender in Bireuen Regency, 2019

Jenis Kelamin	Angkatan Kerja		Total	TKK	TPAK	TPT
	Bekerja	Pengangguran				
(1)	(2)	(3)	(4)	(5)	(6)	
Laki-Laki	129.364	4.345	133.709	96,75	82,72	3,25
Perempuan	87.901	4.420	92.321	95,21	52,70	4,79
Total	217.265	8.765	226.030	96,12	67,10	3,88

Source: Bireuen Regency BPS 2019

In August 2019, there were 96.12 percent of TKK residents living in Bireuen Regency. This means that for every 100 people of working age there are 96 to 97 working people. The higher the TKK of a place, the higher the chances of people of working age considering the workforce to work in that locale. When comparing the level of employment opportunities in 2017, 2018 and 2019, in 2018 there was a higher level of employment opportunities, namely 96.48 percent compared to 2017 (95.5 percent) and 2019 (96.12 percent).

Table 7. Employment Opportunity Levels by Gender in Bireuen Regency, 2020

Jenis Kelamin	Angkatan Kerja		Total	TKK	TPAK	TPT
	Bekerja	Pengangguran				
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Laki-Laki	131.189	6.294	137.483	95,42	82,12	4,58
Perempuan	92.254	3.296	95.550	96,55	53,06	3,45
Total	223.443	9.590	233.033	95,88	67,06	4,12

Source: Bireuen Regency BPS 2020

The employment opportunity level (TKK) is the opportunity for a working age population included in the labor force to work. TKK describes a person's opportunity to be absorbed into the job market. In August 2020, the TKK population of Bireuen Regency was 95.88 percent. This means that for every 100 people in the workforce there are 95 to 96 people who work. The higher the TKK in a region, the higher the opportunity for a working age resident who is part of the labor force to work in that region. When comparing the level of employment opportunities in 2017, 2018, 2019 and 2020, in 2018 there was a higher level of employment opportunities, namely 96.48 percent compared to 2017 (95.5 percent), as well as 2019 (96.12 percent) and 2020 (95.88 %).

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Table 8. Employment Opportunity Levels by Gender in Bireuen Regency, 2021

Jenis Kelamin	Angkatan Kerja			TKK	TPAK	TPT
	Bekerja	Pengangguran	Total			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Laki-Laki	134.180	5.384	139.564	96,14	81,82	3,86
Perempuan	89.057	4.700	93.757	94,99	51,11	5,01
Total	223.237	10.084	233.321	95,68	65,91	4,32

Source: Bireuen Regency BPS 2021

In August 2021, the TKK population of Bireuen Regency was 95.68 percent . This means that for every 100 people in the workforce there are 95 to 96 people who work. The higher the TKK in a region, the higher the opportunity for a working age resident who is part of the labor force to work in that region. If we compare the level of employment opportunities in 2017, 2018, 2019, 2020 and 2021, then in 2018 there was a higher level of employment opportunities, namely 96.48 percent compared to 2017 (95.5 percent), and 2019 (96.12 percent) and in 2020 (95.88%) and 2021 (95.68%). Therefore, the Government can implement economic stimulus to encourage economic growth and create new jobs. This can be done through tax incentives, direct financial assistance to individuals and businesses, and investment in infrastructure projects to create jobs. Then the Government can provide special support to small and medium entrepreneurs to maintain and create jobs. These include tax incentives, easy access to financing, and training programs to increase business competitiveness. The government can also work with the private sector, educational institutions and non-governmental organizations to identify job opportunities, develop appropriate training programs and create an ecosystem that supports economic growth and job creation.

CONCLUSION

The unemployment rate is often used to describe the level of job demand and its influence on wage dynamics in contemporary literature. The level of job demand is influenced by several factors, namely wage factors, the level of education completed and technological developments. The work efficiency wage relationship is two-way. The efficiency wage theory states that wages have a positive effect on labor productivity. Apart from wage factors, the level of job demand is also influenced by the highest level of education completed. It turns out that a high level of education also influences job opportunities. In addition to hiring more workers, businesses are also hiring more highly educated and trained employees. The higher the level of education, the higher the wages earned. Then the third factor is the technological development factor. Technological developments also influence job demand because in the current era, many job searches are done via internet websites. Job seekers have a lot of access to information about open positions and businesses can benefit greatly from an efficient

recruitment process. However, job searches via internet websites benefit prospective workers with a higher level of education more than prospective workers with a lower level of education. The level of job demand is always related to the level of open unemployment. The open unemployment rate is three to four people out of every 100 working people who are unemployed, looking for work or willing to work. Meanwhile, the employment opportunity level, namely the opportunity for Bireuen residents to work in Bireuen Regency, is 96.48 percent. Based on analysis of Bireuen Regency BPS data, when compared to 2017, 2018, 2019, 2020 and 2021, in 2021 there will be a higher open unemployment rate, namely around 10,084. If we compare the level of employment opportunities in 2017, 2018, 2019, 2020 and 2021, then in 2018 there was a higher level of employment opportunities, namely 96.48 percent compared to 2017 (95.5 percent), and 2019 (96.12 percent) and in 2020 (95.88%) and 2021 (95.68%).

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