ABSTRACT

Population growth is the increasing population changes at any time which is calculated in the number of individuals. This study aimed to determine the effect of demographic factors on the growth of population in the district of Jember in East Java Sumbersari. Selection of research areas using purposive sampling technique which is in District SumbersariJember. The number of samples is equal to the number of population is the whole population in Jember in 2012 - 2016. The results of this study show the influence of demographic factors include fertility, mortality, and migration on population growth is the $F > M$ and positive migration rises ($N$) in the District SumbersariJember, East Java.

Keywords: population growth, demographics, migration

INTRODUCTION

Population growth or population dynamics is a phenomenon of population change in either increasing or decreasing the number of people in a region from time to time. A change in the number of people affected by demographic factors such as births (fertility or birthrate), death (mortality), and migration (migration); as well as nondemographic factors such as level of education and health. It is said to increase when there is birth and residents who come to the region, the opposite can be said to be reduced if there is death and there are people who leave the region. The population growth rate is the rate of population in a region / country in a certain period (%).

Required the calculation of population growth aims to predict the population of a region in the future. The population of the knowable through surveys, registration and population census at a certain period and the schedule has been adjusted in the region. Population growth is a factor related to social conditions - the economy of a region.
Table 1. Population in Jember Year 2012-2016.

| No | District     | Total Population | 2012 | 2013 | 2014 | 2015 | 2016 | average Population Added 2012-2016 Year |
|----|--------------|------------------|------|------|------|------|------|----------------------------------------|
| 1  | Kencong      | 66129            | 66471| 66838| 67251| 67583| 364  |                                        |
| 2  | Gumuk Mas    | 80628            | 80970| 81337| 81750| 82154| 382  |                                        |
| 3  | Puger        | 117035           | 117377| 117744| 118157| 118740| 426  |                                        |
| 4  | Wuluhu       | 117229           | 117571| 117938| 118351| 118936| 427  |                                        |
| 5  | Ambulu       | 107331           | 107673| 108040| 108453| 108990| 415  |                                        |
| 6  | Tempurejo    | 71793            | 72135| 72502| 72915| 73276| 371  |                                        |
| 7  | Silo         | 106040           | 106382| 106749| 107162| 107690| 413  |                                        |
| 8  | Mayang       | 48783            | 49125| 49492| 49905| 50151| 342  |                                        |
| 9  | Mumbulsari   | 63205            | 63547| 63914| 64327| 64645| 360  |                                        |
| 10 | Jenggawah    | 82789            | 83131| 83498| 83911| 84325| 384  |                                        |
| 11 | Ajung        | 75666            | 76008| 76375| 76788| 77168| 376  |                                        |
| 12 | Rambipuji    | 80329            | 80671| 81038| 81451| 81853| 381  |                                        |
| 13 | Balung       | 78339            | 78681| 79048| 79461| 79853| 379  |                                        |
| 14 | Umbulsari    | 70634            | 70976| 71343| 71756| 72111| 369  |                                        |
| 15 | Semboro      | 43739            | 44081| 44448| 44861| 45083| 336  |                                        |
| 16 | Jombang      | 50476            | 50818| 51185| 51598| 51852| 344  |                                        |
| 17 | Sumberbaru   | 101465           | 101807| 102174| 102587| 103093| 407  |                                        |
| 18 | Embankment   | 84277            | 84619| 84986| 85399| 85821| 386  |                                        |
| 19 | Bangsalsari  | 116416           | 116758| 117125| 117538| 118118| 426  |                                        |
| 20 | Panti        | 60172            | 60514| 60881| 61294| 61596| 356  |                                        |
| 21 | Sukorambi    | 38038            | 38380| 38747| 39160| 39354| 329  |                                        |
| 22 | Arjasa       | 38147            | 38489| 38856| 39269| 39463| 329  |                                        |
| 23 | Pakusari     | 41922            | 42264| 42631| 43044| 43256| 334  |                                        |
| 24 | Kalisat      | 76231            | 76573| 76940| 77353| 77735| 376  |                                        |
| 25 | Ledokombo    | 63400            | 63742| 64109| 64522| 64841| 360  |                                        |
| 26 | Sumberjambe  | 60922            | 61264| 61631| 62044| 62350| 357  |                                        |
| 27 | Sukowono     | 59486            | 59828| 60195| 60608| 60906| 355  |                                        |
| 28 | Jelbuk       | 31859            | 32201| 32568| 32981| 33144| 321  |                                        |
| 29 | Kaliwates    | 114307           | 114649| 115016| 115429| 115999| 423  |                                        |
| 30 | Sumberersari | **129184**       | **129526**| **129893**| **130306**| **130949**| **441**|                                        |
| 31 | Patrang      | 96362            | 96704| 97071| 97484| 97965| 401  |                                        |

Total: 2372333 | 2382935 | 2394312 | 2407115 | 2419000

Source: BPS Jember, 2017.

Based on these data, the total population of the year 2012 to 2016 is known that the subdistrict Sumbersari experiencing population growth and very m, enarik to be investigated. This study was limited to demographic factors namely, births, deaths, and migration.
Table 2. Number of births, Deaths and Migration in Sub Sumbersari Year 2012-2016

| No | Year | Total population | Number of births | Number of deaths | Number of Migration Income | Number of Migration Outcome |
|----|------|------------------|------------------|-----------------|---------------------------|---------------------------|
| 1  | 2012 | 129184           | 342              | 149             | 178                       | 27                        |
| 2  | 2013 | 129526           | 367              | 495             | 224                       | 89                        |
| 3  | 2014 | 129893           | 413              | 580             | 433                       | 101                       |
| 4  | 2015 | 130306           | 643              | 567             | 339                       | 137                       |
| 5  | 2016 | 130949           | 935              | 437             | 774                       | 519                       |
| **Total** | **649858** | **2700** | **2228** | **1948** | **873** | |

Source: BPS Jember 2017.

Demography is the study of the components of population such as birth, death, marriage, and the migration is calculated and mathematical statistics. This is consistent with the statement Mantra (2008) which states that the demography is the study of the structure and process of residents in an area covering the number, distribution, and composition of the population.

1. Birth (birthrate or fertility)

Birth is a natural factor related to the reproducibility of the population. This is similar to Adietmo and Samosir (2010) that produces a rich offspring. Fertility is the ability associated with female fertility or fecundity also called. Birth is a growing population in a region characterized by the presence of live births. Factors supporting the (pro birthrate), their marriage at a young age as in remote villages that requires a daughter to be married when the teenager is also the notion that married late could get embarrassing.

In addition, there is another assumption that many children a lot of luck, the child will be proud parents, family successor is a boy so that people will have children continue to acquire boys thus increasing birth. The family planning program were not implemented causing the increased birth rate. Inhibiting factor (anti birthrate) the birth of such a delay marriage, child tunjang restrictions, the assumption that the child would be a burden for the family, the family planning program to limit the number of children.

2. Death (Mortality)

Deaths were factors in natural population density. Death is the loss of human life signs permanently or decrease in population in the region. Supporting factors that lead to mortality such as war, natural disaster, disease, traffic accidents and industrial, suicide and murder, are
not living a healthy lifestyle, eating irregularly, does not maintain health, as well as health facilities are still lacking in a region (puskesmas clinics, pharmacies, hospitals).

Inhibiting factor is certainly contrary to the supporting factors such as healthy lifestyle, regular diet and eat nutritious food, health advice adequate number of poor people is low, the level of education of the population is high, and their belief that religious teachings are prohibited from committing suicide and killing people,

3. Population Coming and Going

population comes from outside the region who move to other areas with the aim to settle, looking for security and safety, learning, working. While locals go/moved from one area to another with the intention to live, work, or study, can in large quantities (TKI).

The purpose of this study was to determine the influence of demographic factors on the growth of population in the district of Jember Regency Sumbersari Year 2012-2016.

RESULTS AND DISCUSSION

1. Results
   a. area and the region's population

   Jember Regency has 31 districts is one of them is the District Sumbersari. Sumbersari sub-district has a total area of 35.32 km$^2$ and is a district that is close to the city center. Subdistrict Sumbersari have 7 (seven) and 33 Environmental village, 152 RukunWarga (RW) and 519 Neighborhood (RT).

   The boundaries of the District of Sumbersari namely:
   - North: District of Patrang;
   - East: District of Pakusari;
   - South: District of Ajung;
   - West: District of Kaliwates;

   While the 7 village in the District of Sumbersari are as follows:
   1. Sumbersari;
   2. Kebonsari;
   3. Karangrejo;
   4. Kranjingan;
5. Wirolegi;
6. Tegalgede;
7. Antirogo;

Distance subdistrict Sumbersari with the central government Jember district only approximately 5 km, so the condition of the area is still in the urban area, it allows the Human Resources who has a pretty good potential in order to support the acceleration of the implementation of development programs, particularly in the District of Sumbersari. Moreover, in the District of Sumbersari a center of educational facilities ranging from early childhood, elementary, junior, senior and universities. There are some universities who are located in the district of JemberUniversity Sumbersari among other things, the Muhammadiyah University, University Moch. Sroedji, PGRI Teachers' Training College, STIE Mandala Jember Polytechnic and Academy-College or other academy. With many universities in the District of Sumbersari this will have an impact on the level of civilization and mindset of the people so that it will be a huge potential in order to spur the progress of the District of Sumbersari. Dengan number of universities and the Academy-the Academy else, this will impact on the economic development of society. As the influx of students from outside the region Sumbersari who was educated in Sumbersari, one in UNEJ, it will cause the effect of rapid economic, such as the emergence of shops, food stalls, hangout places, rental-leasing, and other etc., which ultimately spur to the movement of the economy, which it all is the impact of their places of education in the District of Sumbersari.

b. Population growth

The population growth for their four components, namely births, deaths, and migration. The difference between birth and death is called reproductive changes. While the difference between in-migration and out-migration is called net migration. This can be seen in the following table.

| Model | Migration |
|-------|-----------|
|       | Positive  | Negative | Zero |
| 1     | M < F     | N, T, S  | T    |
| 2     | M < F     | N        | N, T, S |
| 3     | M = F     | N        | T    |

Description:
M = mortality (death)
Based on table 3, it can be seen clearly influence the demographics of the population growth (Yasin, 1981, 6). Crude birth rate per year can be seen in the following table.

**Table 4. Crude birth rate Sumbersari District of the Year 2012-2016**

| No | Year | Population (People) | Number of Birth (People) | Crude birth rate (People) |
|----|------|----------------------|--------------------------|--------------------------|
| 1  | 2012 | 129184               | 342                      | 2.65                     |
| 2  | 2013 | 129526               | 367                      | 2.83                     |
| 3  | 2014 | 129893               | 413                      | 3.18                     |
| 4  | 2015 | 130306               | 643                      | 4.93                     |
| 5  | 2016 | 130949               | 935                      | 7.14                     |

Based on table 4 are the crude birth rate highest occurred in 2016 is 7.14, which means that in 2016 there were 1,000 inhabitants from 7.14 childbirth, whereas the amount of the crude birth rate of the lowest occurred in 2012, namely 2.65 means that only the of 2.65 soulbirths in 1000 inhabitants.

**Table 5. Crude Death Rate District of Sumbersari Year 2012-2016**

| No | Year | Population (People) | Number of Death (People) | Crude Death Rate (People) |
|----|------|----------------------|--------------------------|--------------------------|
| 1  | 2012 | 129184               | 149                      | 1.15                     |
| 2  | 2013 | 129526               | 495                      | 3.82                     |
| 3  | 2014 | 129893               | 580                      | 4.47                     |
| 4  | 2015 | 130306               | 567                      | 4.35                     |
| 5  | 2016 | 130949               | 437                      | 3.34                     |

Based on the 5 table then the crude death rate highest occurred in 2014 is 4.47, which means that in 2014 there were 1,000 residents in 4.47 deaths, while the amount of the crude death rate the lowest occurred in 2012 is 1.15, meaning that only 1.15 soul of death in 1,000 of the population.

**Table 6. Total Net Migration District of Sumbersari Year 2012-2016**

| No | Year | Population (People) | Total Migration In (People) | Total Migrating Out (People) | Total Net Migration |
|----|------|----------------------|----------------------------|-----------------------------|--------------------|
| 1  | 2012 | 129184               | 178                        | 27                          | 1.17               |
| 2  | 2013 | 129526               | 224                        | 89                          | 1.04               |
| 3  | 2014 | 129893               | 433                        | 101                         | 2.56               |
| 4  | 2015 | 130306               | 339                        | 137                         | 1.55               |
| 5  | 2016 | 130949               | 774                        | 519                         | 1.95               |

Based on table 6 that the amount of the highest net migration occurred in 2014 is 2.56, which means that by 2014 in 1,000 residents are 2.56 migratory, while the number of the lowest net migration occurred in 2013 is 1.04, meaning that only 1.04 inhabitants who migrated in 1000 inhabitants.

2. Discussion
If you look at the model of population growth (Table 3), it can be seen clearly on the effect of demographics on the growth of population. For the average number of births 540 people, the average amount of the death of 446 people, the average number of 390 souls in-migration, the average number of outmigration 175 inhabitants. Average number of births is greater than the average number of deaths or F> M. And the average amount of inward migration is larger than the out-migration or IM> OM. Models of population in this study is the M<F and positive migration, Naik (N).

CONCLUSION
Given birth rate was 540 inhabitants, the average mortality is 446 people, average in-migration was 390 people, and the average outmigration is 175 people. Based on this it can be seen that the average number of births is more than the average number of deaths or F> M and the average number of in-migration is larger than the out-migration or IM> OM. Thus obtained models of population in this study is the M<F and positive migration, Naik (N).

REFERENCES
Adietmo, Sri, Moetiningsih & Samosir, Omas, Bulan. 2010. *Dasar-dasar Demografi*. Depok: Salemba Empat.
Badan Pusat Statistik. 2013. Kabupaten Jember dalam Angka Tahun 2013. Jember.
Badan Pusat Statistik. 2014. Kabupaten Jember dalam Angka Tahun 2014. Jember.
Badan Pusat Statistik. 2015. Kabupaten Jember dalam Angka Tahun 2015. Jember.
Badan Pusat Statistik. 2016. Kabupaten Jember dalam Angka Tahun 2016. Jember.
Badan Pusat Statistik. 2017. Kabupaten Jember dalam Angka Tahun 2017. Jember.
Mantra, Ida Bagoes. 2008. *Demografi Umum*. Yogyakarta: Pustaka Pelajar.