

# Method of Calculation

## Population and Housing

### 1. Growth rate

$$\text{Growth rate (r)} = \left[ \frac{\ln\left(\frac{P_n}{P_0}\right)}{t} \right] \times 100$$

$P_n$  = Number of Population in Year n

$P_0$  = Number of Population in Base Year

$t$  = Interval between Base Year and Year n

$\ln$  =  $\log_e$

### 2. Total Fertility Rate (TFR)

$$\text{Total Fertility Rate} = 5 \times \left[ \sum_{x=15-19}^{45-49} \frac{B_x}{P_x} \times 1,000 \right]$$

$B_x$  = Number of live births to mother age  $x$

$P_x$  = Number of resident women age  $x$

### 3. *Infant Mortality Rate (IMR)*

$$\text{Infant Mortality Rate} = \frac{D_o}{B} \times 1,000$$

$D_o$  = Number of Infant Deaths Occurring within a Year

$B$  = Number of Live Births for a Given Year

### 4. *Population Indicators*

$$\text{Dependency Ratio} = \frac{[(P_c) + (P_e)] \times 100}{P_w}$$

$$\text{Potential Support Ratio} = \frac{P_w}{P_e}$$

$$\text{Aging index} = \frac{P_e}{P_c} \times 100$$

$P_c$  = Number of Population 0 to 14 Years

$P_w$  = Number of Population 15 to 59 Years

$P_e$  = Number of Population 60 Years & Over

## ***Labor***

### ***5. Labor force participation rate***

$$\frac{\text{Total Labor Force Aged 15 Years Old and Over}}{\text{Persons Aged 15 Years Old and Over}} \times 100$$

### ***6. Unemployment rate***

$$\frac{\text{Unemployed Persons Aged 15 Years Old and Over}}{\text{Total Labor Force Aged 15 Years Old and Over}} \times 100$$

## ***Education***

### ***7. Ratio of Pupils and Student-age Population***

(Calculated from Ratio of Pupils and Student-age Population)

$$\frac{\text{Number of Pupils and Students in-each level of education}}{\text{Number of population by age group of their level of education in the same year}} \times 100$$

### ***8. Rate of Pupils and students each level of education***

$$\frac{\text{Number of pupils and student each level education}}{\text{Total of pupils and student}} \times 100$$