Factors Affecting Gross Enrollment Rates in Higher Education in Indonesia

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ABSTRACT
A statistical indicator that expresses educational achievement in a nation as a percentage is the gross enrollment rate. The number of people enrolled in postsecondary education, regardless of age, is compared to the number of individuals between the ages of 19 and 23 in GER HE. Finding the impact of the units under analysis—the Economic Gini Ratio, the Ratio of Lecturers, and the Ratio of the Number of Universities—on the GER of HEs in Indonesia between 2020 and 2022 is the main goal of the research. A quantitative approach using secondary data is the research methodology employed. A saturated sample from the total population of 102 samples was used. Regression analysis of data panels is the method of data analysis. The cumulative time series data from three years, specifically 2020–2022, make up the data panel that is used. Next, data from several objects (cross section) is utilized, namely data from 34 Indonesian provinces. The study's findings, which were derived using the Fixed Effect Model (FEM), indicate that, for higher education institutions, the economic Gini ratio has a substantial negative impact on GER by -2.038873 between 2020 and 2022. Meanwhile, the ratio of universities to teachers and the ratio of lecturers to universities has no discernible impact on the GER of HEIs in Indonesia between 2020 and 2022.
INTRODUCTION

One aspect influencing a society’s Human Resources (HR) quality is its degree of education. Understanding GER HE (Gross Enrollment Rate Higher Education) is important because high education is an important factor in improving a country's human resources (HR). If the GER HE is inadequate, it will be difficult to increase competition in other countries and compete in the world. According to Safira & Wibowo (2021), an increase in GER HE means that more children in higher education are getting higher education. In actuality, however, the value of GER HE is currently at 31 percent nationwide, according to Prof. Nizam (Plt.), Director General at the Direktorat Jendral Pendidikan Tinggi (Ditjen Dikti). Actually, a 37 percent GER is the goal for 2024. Additionally, data from the Badan Pusat Statistik (BPS) support the statistical data. According to the GER data, GER HE had the lowest scores compared to other education levels. The GER of universities has actually dropped between 2021 and 2022, going from 31.19 to 31.16 percent. In comparison to other nations like Singapore, whose value climbed dramatically to reach 97 percent in 2022, the value of GER HE reached 91 percent in 2020, which is still comparatively low. Malaysia (43%), Thailand (49%), and other countries followed (Saefuddin, 2022).

Furthermore, according to Habibah et al. (2019), the enrollment rate might also reveal the caliber and scope of government support for the community's right to an education. When defined, the Gross Enrollment Ratio (GER) is a metric that is widely or frequently used globally to determine the percentage of a nation's population that pursues higher education. One of the assessment metrics in high-quality education is GER. According to Naharin et al. (2023), high-quality education can ensure inclusive and equitable learning, leading to greater community involvement across all educational levels. GER HE is the proportion of the total population, aged 19 to 23, that is presently enrolled in postsecondary education institutions.

![GER HE and Number of HE](Source: Researchers' processing of BPS 2022)

According to the graph above, Yogyakarta Special Region province will have the highest GER HE in 2022 – 138.81 percent – with 3.5 percent of universities. Bangka Belitung Islands, with a percentage value of just 14.69 percent and 0.5 percent of universities, is the province with the lowest GER HE.
Likewise, the province of North Kalimantan has a mere 0.31 percent university population, with an GER score of 0.28 percent. This may indicate that the quantity of universities may make it more difficult for some individuals to pursue higher education, which may have an impact on the low GER. However, this reasoning does not support the ultimate conclusion that the quantity of HEIs is the only factor affecting the GER level. Since there are 12.5 percent HEIs in the province of West Java, the GER number, at 22.98 percent, can be considered low.

Fatah et al. (2021) discovered that the average GER declines with age and educational attainment, in line with numerous other research that have addressed related subjects. Accordingly, higher education levels have the biggest declines in GER. Moreover, only the elementary school GER level has a high GER value, per Naharin et al.'s research from 2023. Furthermore, the results of this study indicate that GER growth is positively impacted by the variables of per capita expenditure and student-teacher ratio. Data on HEIs' involvement in GER, which covers the whole population enrolling in higher education, is used in this study. Furthermore, 34 Indonesian areas provided the data used in the study to bridge the data gap in earlier studies by include data for the regions of North Kalimantan and West Sulawesi. Only GER levels below college, such as those in elementary, junior high, high school, and vocational schools, were the subject of earlier research. Ratios and percentages are two types of numbers that are used as variables in this study.

The impact of access, economic growth, and the poverty rate have all been studied in the past. The impact of the gini ratio on the GER HE will also be investigated in order to improve the earlier studies. The gini ratio, in the opinion of BPS Tasikmalaya, is a more thorough measure of the degree of income and spending disparity in an area. The gini ratio is influenced by a wide range of variables, including economic ones like income disparity, poverty rate, and economic growth. In addition, the gini ratio considers geographic variables like participation rates as well as social variables like health and work prospects (Shobrun, 2023). In light of these issues and the gap in the literature, this study aims to explore “Factors Affecting Gross Enrollment Rates in Higher Education in Indonesia”.

LITERATURE REVIEW

Education Participation

Demand and supply considerations can both have an impact on school enrollment decisions in the education sector, according to Dreher et al. (2006). Demand elements that are taken into account are per capita income (per home), adult literacy rate (per parent), school population (per school), and pace of urbanization (per region). In the meantime, supply variables include government measures like the number of instructors and students, education spending, and spending on the education sector. Enrollment rates can be impacted by the following factors, in summary:

1. Aspects of government, such as laws promoting greater access to education.
2. School-related factors, such as the accessibility of learning resources.
3. Aspects of the household, or financial circumstances influencing educational opportunities.
4. Regional considerations: a variety of factors influence each location. Regarding the populace and other aspects.

This study will look at four different areas: the government, regional factors that will look at the number of professors per institution, and the government-supported lecturer needs that are unique to each location. In the meantime, the educational component will look at how Indonesia's universities are distributed across the country. The economy's Gini ratio—which illustrates income inequality—will next be examined in relation to households.

**METHODOLOGY**

Utilizing quantitative techniques, the research employs strategies to verify the established hypothesis. The Higher Education Gross Enrollment Rate (GER HE) for 2020–2022 as well as the gini ratio, lecturer ratio, and number of universities ratio were employed as the analysis units in this study. GER HE was the dependent variable (Y) that was influenced. In the meantime, the gini ratio (X1), lecturer ratio (X2), and number of universities ratio (X3) are the independent variables (X). The X and Y variable data from 34 Indonesian provinces make up the study's population. It is a saturated sample that is being used. Saturated samples, as defined by Sugino in Fitria & Ariva (2018), are samples drawn from the entire population. The number (n) of sets each year for the data for the years 2020–2022 based on this sampling technique is 102 samples.

Secondary data selection was the method of data selection employed in this study. The sources of the data are the Higher Education Statistics publication by Pangkalan Data Pendidikan Tinggi (PDDikti) and the Badan Pusat Statistik (BPS) website. The data set that was employed is called panel data, and it comprises one sample of data from an area, city, state, nation, and other places for a specific time period (Haya, 2022). Furthermore, panel data refers to a collection of data from 34 Indonesian provinces that include a cross-section and time series spanning three years, from 2020 to 2022. According to Naharin et al. (2023), panel data was selected due to its ability to yield more reliable data.

**RESEARCH RESULT**

<table>
<thead>
<tr>
<th>No</th>
<th>GER Ratio</th>
<th>Gini Ratio</th>
<th>Lecturer Ratio</th>
<th>Number Of Universities Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Mean</td>
<td>34.31324</td>
<td>0.345490</td>
<td>76.64706</td>
</tr>
<tr>
<td>2.</td>
<td>Median</td>
<td>32.59000</td>
<td>0.338500</td>
<td>75.00000</td>
</tr>
<tr>
<td>3.</td>
<td>Maximum</td>
<td>75.59000</td>
<td>0.459000</td>
<td>156.0000</td>
</tr>
<tr>
<td>4.</td>
<td>Minimum</td>
<td>14.73000</td>
<td>0.247000</td>
<td>42.00000</td>
</tr>
<tr>
<td>5.</td>
<td>Standar Deviasi</td>
<td>10.73154</td>
<td>0.041896</td>
<td>20.49663</td>
</tr>
</tbody>
</table>

Source: eviews 12 data processing outcomes
**Economic Gini Ratio**

The Gini coefficient is employed to quantify the degree of income distribution disparity (Dewi, 2019). The Gini ratio is a metric that quantifies the degree of income distribution and assesses its deviation from a perfectly equal distribution. A Gini coefficient number approaching zero (0) signifies a state of complete equity. On the other hand, a ratio value of one (1) signifies a significant level of inequality. The data was acquired from the official website of the Badan Pusat Statistik (BPS) for the years 2020 to 2022.

The provided data suggests that the average Gini ratio of the 34 provinces in Indonesia is 0.34590 points. The gini ratio variable has a standard deviation of 0.041896, indicating the extent of variation or dispersion among the values. In 2022, the Yogyakarta Special Region Province had the highest Gini ratio rating of 0.459. Conversely, the Bangka Belitung Province achieved the lowest value of 0.247 in 2021. The value at the midpoint of the data set is 0.3385 points.

**Lecturer Ratio**

The average number of lecturers at higher education institutions, such as universities, institutes, colleges, academies, community colleges, and polytechnics, divided by the total number of higher education institutions is known as the lecturer ratio. The PDDikti higher education statistics from 2020–2022 are the source of the data.

Based on the analyzed data, the average ratio of professors per institution across 34 Indonesian provinces in 2020–2022 is 76.64706. With a value distribution, the variable ratio of lecturers per institution has a standard deviation of 20.49663. In 2022, Gorontalo Province recorded the highest ratio of lecturers per institution, with 156. Bangka Belitung Province, meanwhile, achieved a minimum value of 42 in 2020.

**Ratio Number of Universities**

The whole count of a nation's higher education establishments is shown by the number of university ratios (HEs). Include a moderate number of community colleges, polytechnics, universities, institutions, colleges, and academies. Information taken from PDDikti's 2020–2022 higher education statistics.

A mean of 2.936647 percent of Indonesia's 34 provinces have Higher Education Institutes (HEIs) in 2020–2022. The distribution dispersion or variation value of 3.084684 percent is also displayed by the standard deviation of the variable number of HEIs, possessing a 1.701 percent center value. West Java Province received 12.6 percent of the total percentage value of HEIs in 2021, the highest amount. On the other hand, North Kalimantan Province recorded the lowest percentage in 2020, 0.25 percent.
**Gross Enrollment Rates Higher Education (GER HE)**

According to Afifah and Faradis (2020), the GER is a statistical indicator that expresses a nation's education level in percentage terms. The GER compares the number of individuals who, regardless of age, should be educated at a given level with the number of individuals who are still studying at that level. In the GER HE, the total population between the ages of 19 and 23 is compared with the number of people enrolled in higher education. The Badan Pusat Statistik (BPS) website provided the data for 2020–2022.

From 2020 to 2022, 34 provinces' average GER HE is 34.31324 percent. The GER HE index's standard deviation also reveals a 10.73154 percent difference or spread in readings. The Province of Yogyakarta Special Region received the GER HE value of 75.59 percent in 2022. In 2020, Bangka Belitung Province received the lowest value, 14.73 percent.

**Regression Model Selection**

There are three methods used to determine whether regression model, namely the Random Effect Model (REM), Fixed Effect Model (FEM), or Common Effect Model (CEM), is optimal for a cross-section or time-series. Utilizing the Chow, Hausman, and Lagrange multiplier tests is the most effective method for selecting models. These are the outcomes of the panel data regression selection test:

1. **The Chow Test**

   The best models for panel data regression were determined by using a Chow test between the Fixed Effect Model (FEM) and Common Effect Model (CEM). The CEM model will be selected if the probability value of the cross section F is greater than 0.05. On the other hand, a FEM approach should be selected as the model when the probability value of the cross section F < 0.05.

   **Table 2. The Chow Test Results**

<table>
<thead>
<tr>
<th>Source: eviews 12 data processing outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Redundant Fixed Effects Tests</td>
</tr>
<tr>
<td>Equation : Untitled</td>
</tr>
<tr>
<td>Test cross-section fixed effect</td>
</tr>
<tr>
<td>Effects Test</td>
</tr>
<tr>
<td>-----------------------------------------</td>
</tr>
<tr>
<td>Cross-section F</td>
</tr>
<tr>
<td>Cross-section Chi-square</td>
</tr>
</tbody>
</table>

   According to the test results obtained above, one can conclude a cross-section F probability value of 0.0000 is below 0.05 as a significance value. Therefore, with the probability of value 0.00 <0.05, the estimation model of the Fixed Effect Model (FEM) model will be the model that is best than the Common Effect Model (CEM).
2. The Hausman Test

To select the best model between the REM and FEM models, Test Hausman is employed. The REM technique will be selected as a model if the probability value of the random cross section is greater than 0.05. But if the random cross section probability is less than 0.05, the FEM model will be selected.

Table 3. The Hausman Test Results

<table>
<thead>
<tr>
<th>Effects Test</th>
<th>Chi-Sq. Statistic</th>
<th>Chi-Sq. d.f.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section random</td>
<td>35.249898</td>
<td>3</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

Findings from the Hausman test at the top indicate that a random cross-section probability value with a significance level of 0.05 is less than 0.0000. Hence, the Fixed Effect Model (FEM) estimate model is preferable than a Random Effect Model (REM) for the probability values at 0.00 < 0.05. The FEM model is the most effective regression estimation model, as determined by the Chow and Hausman tests. Because of this, when the results of both the Chow and Hausman tests suggest that the Fixed Effect Model (FEM) method is the optimal model, the Lagrange Multiplier (LM) test is not used.

Test of Classical Assumptions

Once the optimal regression estimation model has been identified, more testing—the classical assumption test—must be carried out. Finding the viability of the regression model that is employed to create interpretations is the goal. Normality, multicolinearity, and heteroscedasticity tests are the traditional assumption tests carried out on panel data. The panel data does not currently have an autocorrelation test.

1) Test of Normality

The normal distribution of the independent and dependent variables is examined using the regression model's normality test. The necessary residual value with $\alpha = 0.05$. Consequently, data are considered regularly distributed if the probability value on the Jerque-Bera scale is greater than 0.05. Conversely, if the Jerque-Bera probability value is less than 0.05, the data are not normally distributed.
Based on data processing results, Figure 2 shows a probability value of 0.076675, which is higher than the Jarque-Bera probability coefficient of 0.05. The data in this study have a normal distribution, as indicated by the probability value of $0.076675 > 0.05$.

### 2) Test of Multicollinearity

Finding a correlation between each independent variable in a regression model is the goal of this test. A possibility of multicollinearity exists if the coefficient value between the independent variables is greater than 0.85. It can be considered that there is no multicollinearity when the coefficient value of the independent variables is less than 0.85.

<table>
<thead>
<tr>
<th></th>
<th>X1</th>
<th>X2</th>
<th>X3</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1</td>
<td>1.000000</td>
<td>0.330913</td>
<td>0.377575</td>
</tr>
<tr>
<td>X2</td>
<td>0.330913</td>
<td>1.000000</td>
<td>0.317032</td>
</tr>
<tr>
<td>X3</td>
<td>0.377575</td>
<td>0.317032</td>
<td>1.000000</td>
</tr>
</tbody>
</table>

The correlation coefficients between X1 and X2, X1 and X3, and X2 and X3 are $0.317032 < 0.85$, $0.377575 < 0.85$, and $0.330913 < 0.85$, respectively, according to Table 4's processing findings. It is determined that there is no multicollinearity if all of the coefficient values are less than 0.85.

### 3) Test of Heteroscedasticity

The heteroscedasticity test was employed to ascertain the presence of deviations from the classical assumptions. Heteroscedasticity can be declared with an alpha value of 5% if the significance coefficient is less than 0.05. Heteroscedasticity, however, does not exist if the significance coefficient is greater than 0.05.
Table 5 The Heteroscedasticity Test Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.108534</td>
<td>1.600358</td>
<td>0.067818</td>
<td>0.9461</td>
</tr>
<tr>
<td>X1</td>
<td>1.758099</td>
<td>3.507499</td>
<td>0.501240</td>
<td>0.6179</td>
</tr>
<tr>
<td>X2</td>
<td>0.001889</td>
<td>0.001987</td>
<td>0.950704</td>
<td>0.3453</td>
</tr>
<tr>
<td>X3</td>
<td>-0.148744</td>
<td>0.335296</td>
<td>-0.443619</td>
<td>0.6588</td>
</tr>
</tbody>
</table>

Source: eviews 12 data processing outcomes

Following data processing, it was evident that each of the three independent variables (X1, X2, and X3) had a probability value larger than 0.05. It is possible to determine that there are no signs of heteroscedasticity when the coefficient value is greater than 0.05.

Data Panel Linear Regression Analysis

The fixed effect model is employed in this study’s examination of the data panel linear regression. Previous testing with the Chow and Hausman tests served as the foundation for the adoption of a fixed effect model as a technique of analysis for currently available data panels. As a result, the fixed effect model is determined to be the most effective model for testing the study’s data panel. Using the following regression equation:

\[ Y = \alpha - \beta_1 X_1 + \beta_2 X_2 - \beta_3 X_3 \]

The regression test indicates that the following is the regression model generated from the GER HE (Y) to the Economic Gini Ratio (X1), Lecturer Ratio (X2), and Ratio of the Number of HEs (X3):

Table 6 Regression Equation Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>40.81519</td>
<td>4.095842</td>
<td>9.965032</td>
<td>0.0000</td>
</tr>
<tr>
<td>X1</td>
<td>-18.30263</td>
<td>8.976840</td>
<td>-2.038873</td>
<td>0.0455</td>
</tr>
<tr>
<td>X2</td>
<td>0.004871</td>
<td>0.005086</td>
<td>0.957633</td>
<td>0.3418</td>
</tr>
<tr>
<td>X3</td>
<td>-0.187933</td>
<td>0.858132</td>
<td>-0.219003</td>
<td>0.8273</td>
</tr>
</tbody>
</table>

Source: eviews 12 data processing outcomes

\[ Y = 40.81519 - 18.30263 (X1) + 0.004871 (X2) - 0.187933 (X3) \]

With reference to the regression equation findings displayed at the top, the following conclusions can be made:

a. As a result, the GER HE variable (Y) will increase by 40.81519 if the values of the Gini Ratio (X1), Lecturer Ratio (X2), and Ratio of the Number of Universities (X3) increase by one unit on average.

b. The Gini Ratio variable (X1)'s regression coefficient has a negative value (-) of 18.30263, which means that if the variable Gini Ratio (X1) increases by one (1) percent while other factors...
stay the same, the GER HE (Y) variable will fall by 18.30263. GER HE (Y) will increase by 18.30263 if the Gini Ratio (X1) variable drops by one percent.

c. A positive value (+) of 0.004871 was found in the regression coefficient for the Lecturer Ratio variable (X2). This means that if the Lecturer Ratio variable (X2) increases to one (1) percent while the other factors stay constant, the GER HE variable (Y) will likewise increase by 0.004871. Likewise, a one percent fall in the Lecturer Ratio variable (X2) will result in a 0.004871 decrease in the GER HE variable (Y).

d. The regression coefficient for the Ratio of the Number of Universities (X3) variable is negative (-), equal to 0.187933. This indicates that the variable GER HE (Y) will decrease by 0.187933 if the Ratio of the Number of Universities (X3) variable increases by one (1) percent while other variables stay constant. A one percent decrease in the variable Ratio of the number of universities (X3) will result in a 0.187933 increase in the variable GER HE (Y).

Tests of Hypothesis

A hypothesis test was carried out as the final phase of the data panel analysis regression approach. The determination coefficient test and the t test were run.

1) The T-test

With the partial test, the independent factors that have an impact on the dependent variable can have their level of significance partially or separately calculated. The sample size (n) is the total sample, and the variable total (k) is the significant value (0.05). Thus, with a t table of 1.984467455, a df value of 98 is obtained.

a. Gini Ratio to GER HE

Table 7 X1 T-test Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>40.81519</td>
<td>4.095842</td>
<td>9.965032</td>
<td>0.0000</td>
</tr>
<tr>
<td>X1</td>
<td>-18.30263</td>
<td>8.976840</td>
<td>-2.038873</td>
<td>0.0455</td>
</tr>
</tbody>
</table>

Source: eviews 12 data processing outcomes

A t-test of -2.038873 was obtained from the t-test using eviews, which was less than the t-table at 1.984467. A probability value of 0.0455 in this instance is greater than 0.05. Consequently, on the probability value of 0.0455<0.05, t-test< t-table. Therefore, it can be concluded that the GER of HEIs is significantly influenced by the gini ratio.
b. Ratio of Lecturers per Institution to GER HE

Table 8 X2 T-test Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>40.81519</td>
<td>4.095842</td>
<td>9.965032</td>
<td>0.0000</td>
</tr>
<tr>
<td>X2</td>
<td>0.004871</td>
<td>0.005086</td>
<td>0.957633</td>
<td>0.3418</td>
</tr>
</tbody>
</table>

Source: Eviews 12 data processing outcomes

The t-test from Table 7 is equal to 0.957633, which is less than the t-table of 1.984467. In this instance, the probability value of 0.3418 is more than 0.05. If the probability of 0.3418 is greater than 0.05 and the t-test is less than the t-table. In summary, the GER of HEIs is not considerably impacted by the lecturer to university ratio.

c. Ratio of Number of HE to GER HE

Table 9 X3 T-test Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>40.81519</td>
<td>4.095842</td>
<td>9.965032</td>
<td>0.0000</td>
</tr>
<tr>
<td>X3</td>
<td>-0.187933</td>
<td>0.858132</td>
<td>-0.219003</td>
<td>0.8273</td>
</tr>
</tbody>
</table>

Source: Eviews 12 results of data processing

A t-count of -0.219003 is derived from the data processing findings above, and this value is less than the t-table of 1.984467. The probability value in this instance is 0.8273, which is higher than 0.05. Consequently, with probability value 0.8273 > 0.05 and t-count > t-table. Can conclude that the GER of HEIs is not significantly affected by the percentage of HEIs.

2) The Determination Coefficient (R²)

The capacity of a regression line to explain the data is measured using a coefficient of determination. The regression model may accurately explain the data if the coefficient is near to one (1). Regression models are not good at explaining the data if the coefficient is around null (0).

Table 10 Coefficient of Determination Outcome

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>R-squared</td>
<td>0.997398</td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.995956</td>
</tr>
<tr>
<td>S.E. of regression</td>
<td>0.682430</td>
</tr>
<tr>
<td>Sum squared resid</td>
<td>30.27117</td>
</tr>
<tr>
<td>Log likelihood</td>
<td>-82.77809</td>
</tr>
<tr>
<td>F-statistic</td>
<td>691.9830</td>
</tr>
</tbody>
</table>
According to these data, the adjusted r-squared value was 0.995956, or 99.5956 percent. A regression model with an adjusted r-squared value of almost one is thought to be able to adequately describe the data. The GER HEIs variable can be explained by the economic ratio, the number of universities under the Ministry of Education and Culture, and the ratio of lecturers per institution, as shown by the coefficient value. These independent variables can account for 99.5956% of the variance, with the remaining 0.4044% being explained by variables not examined in this study.

DISCUSSION

Effect of Gini Ratio on GER HE

The testing results using eviews on Table 7 indicate that the t-table of 1.984467 is larger than the t-test result of -2.038873. Additionally, the probability value is 0.0455, higher than 0.05. Consequently, using a t-test < t-table and a probability value of 0.0599 < 0.05. Thus, the GER of HEIs is found to be considerably impacted by the gini ratio.

According to Anggita Trideva Yanti, Sobrotul Imtikhanah, and Khoirul Fatah's (2023) analysis of the relationship between school participation rate, teacher shortage, and education expenditure, the level of poverty had a negative and statistically significant impact on APS, with a value of -1.202471.

Accessing higher education is challenging for many since the cost of education increases with level. A large number of people would rather work than pursue higher education. As a result of working, people will put more importance on earning a living than pursuing further education. Furthermore, those with poor levels of education are also said to not make sufficient investments in their own and their children's educations (Ramadanti, 2021). These individuals are still hesitant to accept the possibility that a college education could boost their earnings in addition to imparting information. This demonstrates how the GER PT might be impacted by an average income inequality value of 0.30, or moderate inequality.

Effect of Lecturer Ratio on GER PT

From the processing of data panels in table 8 shows that t-count is at 0.957633 which is smaller than the t-table of 1.984467. Then the value of probability with the value at 0.3418 is greater from 0.05. So, with t-count < t-table and the value of probability 0.3418 > 0.05. Therefore, it could be conclude a ratio of lecturers per institution does not significantly affect to GER higher education.

These results also align on Anggita Trideva Yanti, Sobrotul Imtikhanah, Khoirul Fatah (2023) with the title Effect of Education Expenditure, Number of Teachers, and Poverty Level on School Participation Rate, with the result that the number of teachers does not have a significant effect on APS. Then, research by Utriweni Mukhaiyar, Ferdy Rontos, Kurnia Handoko, Salma Kardiyyanti with the
title: Analysis of Factors Affecting the Gross Enrollment Rate of SMA / Equivalent in Indonesia Using Ridge Regression which states of no linear correlation of student and teacher ratios with APS SMA / equivalent in Indonesia.

Based on the observation of YANTI et al. (2023), that the number of teachers has no significant effect on the enrollment rate in education. This is because any increase in the teacher ratio is not followed by a decrease in the school enrollment rate due to the uneven distribution of the teacher ratio. This unevenness can be reflected in provinces that have a high teacher ratio but the APK tends to be small, or vice versa. For example, West Java Province has a lecturer ratio of 117, but its APK is only 25 percent. In addition, usually the ratio of the number of lecturers in a university is not a special consideration for the community to continue their education to a higher level. Then, the quality of lecturers is also not only seen from many but also from other factors that can trigger an increase in educational participation.

Effect of HE Number Ratio on GER HE

From the data processing results in table 9, the results show that the t-count is -0.219003 which is smaller than the small t-table of 1.984467. Then the probability value is 0.8273 which is greater than 0.05. So, with t-count < t-table and probability value 0.8273 > 0.05. So, it can be concluded that the percentage of HE numbers does not have a significant influence on HEGER.

The results of this research are in line with the results of research by Siti Habibah, Yudha Perdana Putra, Yulindo Mandala Putra (2019) which explains that the number of universities does not have a significant effect on HEGER of -0.247363. Then, research by Niken Ajeng Lestari (2014) explains that the number of schools has a significant effect on GER and APS at all levels. Then, research by Hesti Pudyastuti, Euis Mulyaningsh (2021) also explains that the availability of educational facilities for junior high school GER does not have a significant relationship.

According to Lestari (2014), the number of universities in each province is considered to be quite large and has been able to accommodate students who continue their education to the university level. What the government has also done is to merge universities that have a small number of students and study programs. Then, in an area there are universities but people prefer not to continue their education first to a higher level because the existing universities lack quality. So, this can cause people to think about not continuing to higher education.

CONCLUSIONS

The purpose of this study is to generate accurate and valid data on the following test results: the percentage of HEs to the GER HE in Indonesia in 2020-2022, the ratio of lecturers per institution, and the influence of the economic Gini ratio. This study draws various inferences based on the analysis’s findings, including the following:
1. HE’s GER in Indonesia in 2020–2022 is not significantly impacted negatively by the economic Gini ratio. The probability value of 0.0599 and the t-statistic value of -2.038873 both demonstrate this. This indicates that GER HE will drop by 2.03 percent with every 1% increase in the Gini ratio under the supposition that all other variables remain constant.

2. In Indonesia, from 2020 and 2022, the lecturer ratio has no appreciable positive impact on the GER HE. with a probability value of 0.3418 and a t-statistic value of 0.957633 as a consequence. The GER HE in Indonesia will not be impacted by changes in the lecturer ratio.

3. In Indonesia between 2020 and 2022, the ratio of HEs to total HEs has no discernible impact on the GER HE. The probability value is 0.8273 and the t-statistic value is -0.219003. Accordingly, the GER HE in Indonesia will not be impacted by changes in the ratio of HEs.

**ADVANCED RESEARCH**

In writing this article the researcher realizes that there are still many shortcomings in terms of language, writing, and form of presentation considering the limited knowledge and abilities of the researchers themselves. Therefore, for the perfection of the article, the researcher expects constructive criticism and suggestions from various parties.

**REFERENCES**


