Universitas Negeri Yogyakarta
Sustainably Excellent, Creative, and Innovative

2022

TRACER STUDY REPORT

FACULTY OF ENGINEERING

**Quality Assurance Unit, Faculty of Engineering
Yogyakarta State University**

TRACER STUDY REPORT
2022

STUDY PROGRAMS:

1) BMEE (BACHELOR OF MECHANICAL ENGINEERING EDUCATION)

2) BAEE (BACHELOR OF AUTOMOTIVE ENGINEERING EDUCATION)

3) BCEPE (BACHELOR OF CIVIL ENGINEERING AND PLANNING EDUCATION)

4) BEEE (BACHELOR OF ELECTRONICS ENGINEERING EDUCATION)

5) BIT (BACHELOR OF INFORMATION TECHNOLOGY)

ENGINEERING FACULTY

UNIVERSITAS NEGERI YOGYAKARTA

2022

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CHAPTER I
Universitas Negeri Yogyakarta Tracer Study Concept

1.1 Tracer Study: Fundamental Concepts

A tracer study is a study that can provide helpful information on the importance of evaluating the results of higher education and can then be used for improving and guaranteeing the quality of higher education institutions. Tracer studies also provide information on the relationship between higher education and the world of professional work, assess the relevance of higher education, provide information for stakeholders, and complete the requirements for higher education accreditation. When linked to the curriculum, tracer study has an essential role in the early stages of new curriculum development. (http://tracerstudy.dikti.go.id/upload/1489940569_panduan-bantuanpusat-karir-lanjutan.pdf)1.
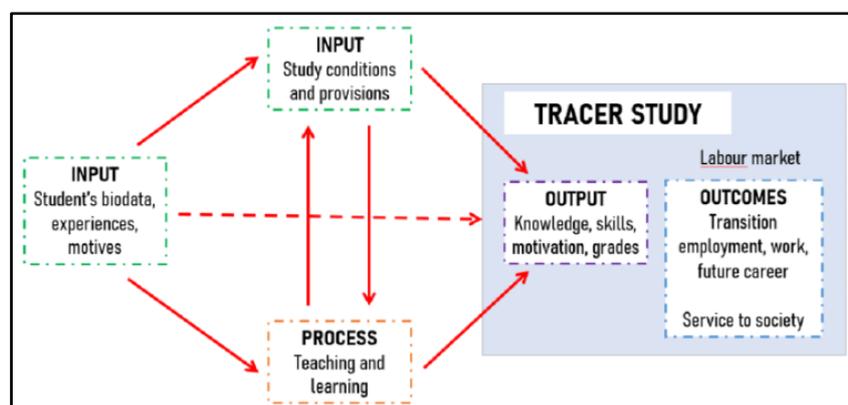
Figure 1.1. The Basic Concept Tracer Study (Schomburg, 2016)

To identify how much college graduates can take part in the world of work following the relevance of education can be traced to information graduates (tracer studies). Tracer studies can be used to find out the relationship between higher education inputs (study conditions and conditions, student biodata, experience, and motivation), teaching and learning processes, higher education outputs (knowledge, skills, motivation and values), and higher education outcomes (transition into the world of work and contribution to society) (Schomburg, 2016). The implementation of tracer studies has been well-known among higher education institutions in developed and developing countries. Tracer studies track the transition process of students after graduation to the start of their work careers 1-3 years after graduation (Budi & Dinan, 2017). Universities must conduct tracer studies because they need graduates' feedback to improve education systems and management. Tracer Study helps provide necessary information regarding the relationship between higher

education and the professional world of work, assessing the relevance of higher education, providing information for stakeholders, and the completeness of requirements for higher education accreditation (Budi & Dinan, 2015).

Tracer studies can provide information about student biodata, experiences, motives, learning conditions, and provisions to the teaching and learning process while studying at tertiary institutions for evaluation purposes which can then be used to improve and guarantee the quality of the education system at tertiary institutions. In addition, the tracer study also provides information regarding knowledge, skills, motivation, final grades and transition to the world of work and contributions of graduates to society so that the relationship between higher education and the professional world of work can be measured to assess the relevance of higher education, as well as provide information for stakeholders. And the completeness of requirements for higher education accreditation.

According to the ITB tracer study report (2014), ideally, a tracer study is implemented 2 (two) times, as shown in Figure 1.2. The tracer study is conducted on college graduates 1-2 years after graduation. This condition is considered ideal because 1-2 years after graduation, graduates are considered to have experience and competence in work and knowledge of the world of work. This experience and competence in the world of work will then become graduate feedback for tertiary institutions regarding the relationship between higher education and work.

Thus, a tertiary institution needs to carry out tracer studies continuously because graduates are essential for tertiary institutions to view the educational process and outcomes objectively. The results of a tracer study carried out in a structured manner are expected to contribute to tertiary institutions in making policies that can ultimately improve the quality of these tertiary institutions.

1.2 Tracer Study's Objective

Tracer's study seeks to review work situations, especially in the early days when a graduate enters the world of work. Information regarding transitions and work history is essential because it provides information and indicators of the efficiency of educational institutions. Tracer's study examines the relationship between the transition (transition). Furthermore, higher education and work dynamics are increasingly crucial to higher education providers, the government, and the world industry (Syafiq & Fikawati, 2014). INCHER (International Center for Higher Education Research) initiated an international training called UNITRACE (University Tracer Study International Training) which aims to disseminate a methodology that seeks to strengthen cooperation between universities

worldwide in implementing tracer studies. According to INCHER, the main goal of a tracer study is explained in Figure 1.2.

According to Schomburg (2003), tracer studies are required to obtain valuable information for developing colleges and universities, which will then be used in the accreditation process, evaluate the relevance of higher education to the necessities of the labour market and provide information to students, parents, and administrators about challenges that graduates have encountered since graduating from university and getting the occupation.
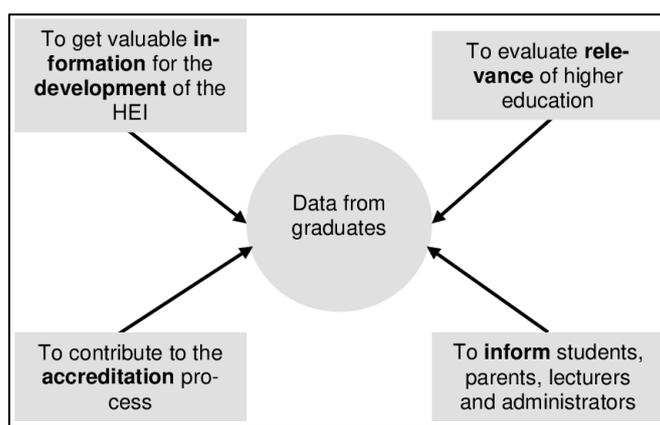
Figure 1.2. Tracer Study's Objective (Schomburg, 2003)

In line with the objectives of the tracer study put forward by INCHER, Tracer Study's UNY also has the following objectives:

a) The tracer study's result is feedback on the learning process during the lecture period.

b) The tracer study's report is an evaluation material to determine the relevance of higher education to employment.

c) The tracer study's report is feedback for higher education quality assurance in determining education policy nationally.

d) Assist universities in the accreditation process at the national or international level.

e) Provide input and information for the company's HRD regarding the characteristics of graduates and the characteristics of the university itself.

f) Provide empirical evidence regarding graduates related to work, early career, and the relevance of graduates' work to higher education.

g) The tracer study's report is information for students, parents, lecturers, education administration, and educational actors regarding graduates/graduates of higher education.

h) It is strengthening national data to harmonize the world of work.

1.3 Benefits of Tracer Study UNY

Tracer studies are functional internally for Universitas Negeri Yogyakarta and become a bridge between the University and stakeholders. Tracer studies can provide in-depth and detailed information about work compatibility between various fields of knowledge and various levels of education. With specific data regarding the condition of graduates, it is hoped that companies can establish cooperation with universities to prepare prospective graduates to work according to company expectations and help overcome the problem of inequality of employment opportunities and efforts to improve it. In addition, for the University itself, the results of the Tracer Study can be used as material for study programs to revise and improve the curriculum according to the current situation. In detail, the benefits obtained by UNY with a tracer study carried out professionally are:

a) The tracer study report is the latest alum database.

b) Become an entry point for study programs to establish cooperation with related companies through their graduates.

c) Become an entry point for study programs to conduct stakeholder satisfaction surveys of their graduates.

d) The tracer study report is input material for universities and study programs in making curriculum improvements.

e) The tracer study report is the material for building alum networks.

f) As primary data, look for the employer contact list.

g) According to the Ministry of Education and Culture, the data could be used for the clusterization of higher education.

h) The role of tracer study is becoming increasingly important because it is a prerequisite for the "Independent Campus/Kampus Merdeka."

CHAPTER II
Tracer Study Implementation at Engineering Faculty
Universitas Negeri Yogyakarta 2022

2.1 Tracer Study Implementation at Engineering Faculty UNY 2022

The concept of carrying out the 2020 UNY Faculty of Engineering Tracer study is as follows:

a) Target respondents are students who graduate throughout 2020 or TS-2 (Reported Year-2), following the Ministry of Education and Culture policies.

b) Question items refer to the minimum questions on the pkts website. belmawa.kemdikbud.go.id as the basis for ranking higher education institutions, as well as the UNY web tracer study, which can be accessed at the link http://tracer.uny.ac.id/

c) Universities, faculties, and study programs play an essential role in inviting graduates to fill out tracer studies via links http://tracer.uny.ac.id/

d) The type of data collected is primary data obtained directly from graduates and graduate users through a structured questionnaire which is analyzed using a percentage descriptive analysis technique.

e) In this report, tracer study data for graduates in 2020 are obtained from graduates from study programs:

6) BMEE (BACHELOR OF MECHANICAL ENGINEERING EDUCATION)

7) BAEE (BACHELOR OF AUTOMOTIVE ENGINEERING EDUCATION)

8) BCEPE (BACHELOR OF CIVIL ENGINEERING AND PLANNING EDUCATION)

9) BEEE (BACHELOR OF ELECTRONICS ENGINEERING EDUCATION)

10) BIT (BACHELOR OF INFORMATION TECHNOLOGY)
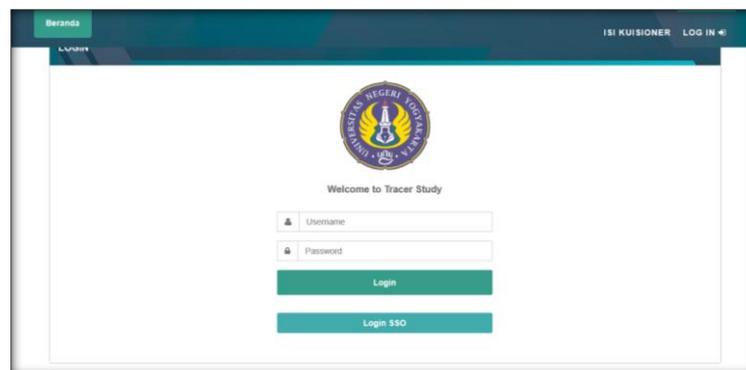
Figure 2.1 The interface of UNY's Tracer Study Web
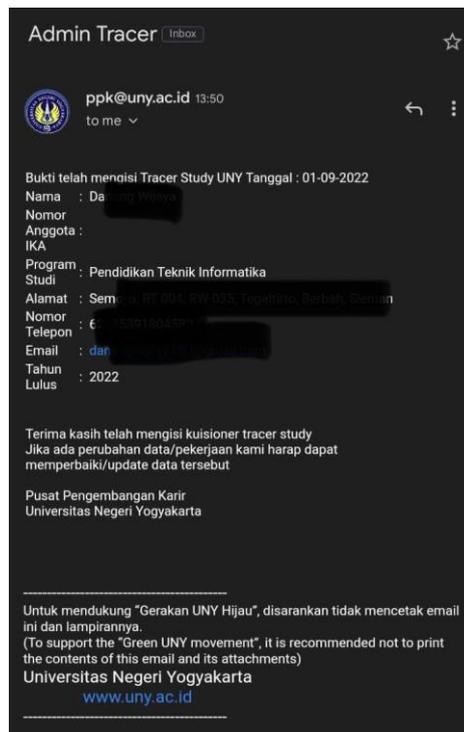
Figure 2.2 The email received by graduates who filled out the UNY's Tracer Study Web with the email blasting feature

UNY's web tracer study was first introduced in 2015 with the address http://tracer2.uny.ac.id. After three years, in 2018, a renewal process was carried out according to Dikti's web tracer. In 2020 another update was made in the form of additional workplaces and workplace locations with the address http://tracer.uny.ac.id.

2.2 Questionnaire

The questions posed to graduates on the web tracer study.

a) Tuition Funding

b) Current employment status of the graduates.

c) Distribution of graduates continuing their studies

d) The graduates period begins to look for occupations. Waiting time for graduates to get their first occupation.

e) Number of companies/institutions applied for before getting the first job.

f) Number of companies that responded to graduates' applications.

g) Number of companies inviting graduates for interview.

h) How do graduates get occupation information?

i) Organization/institution-wise distribution of the graduates.

j) The level of the company/institution where the graduate works. What is the average graduate income per month?

k) The education level required for the current occupation.

l) Why are graduates' current occupations not following the field of study?

m) Satisfaction based on academic experiences and academic environment.

n) Satisfaction based on their competence.

o) Satisfaction for UNY's contribution to graduate competency at work.

2.3 Time frame

In February 2022, Yogyakarta State University involved a team of surveyors (lecturers, academic staff, and students) in helping contact graduates who still needed to fill out the UNY Web Tracer Study. The surveyor's team sent a link to fill in the UNY Web Tracer Study via the respondent's email and WhatsApp personnel to graduates who still need to complete the tracer study web.

2.4 Population

The graduates targeted for the tracer study report in 2022 are graduates in 2020. The number of graduates in 2020 for each study program is shown in Table 1.

Table 1. Number of Graduates For Each Study Program

Level	Abbreviation	Study Program	Number of Graduates
Bachelor	BMEE	Bachelor Of Mechanical Engineering Education	58
Bachelor	BAEE	Bachelor Of Automotive Engineering Education	72
Bachelor	BCEPE	Bachelor Of Civil Engineering and Planning Education	65
Bachelor	BEEE	Bachelor Of Electronics Engineering Education	27
Bachelor	BIT	Bachelor Of Information Technology	0

Note: BIT in the 2022 study tracer report, this program has yet to have graduates graduating in 2020.

CHAPTER III
Tracer Study Result

3.1 BACHELOR OF MECHANICAL ENGINEERING EDUCATION (BMEE)

a) Number of Respondents

BMEE (Bachelor of Mechanical Engineering Education)

5%

95%

■ Number of Graduates Who Complete TS Web 2022.

■ Number of Graduates Who Do Not Complete TS Web 2022.
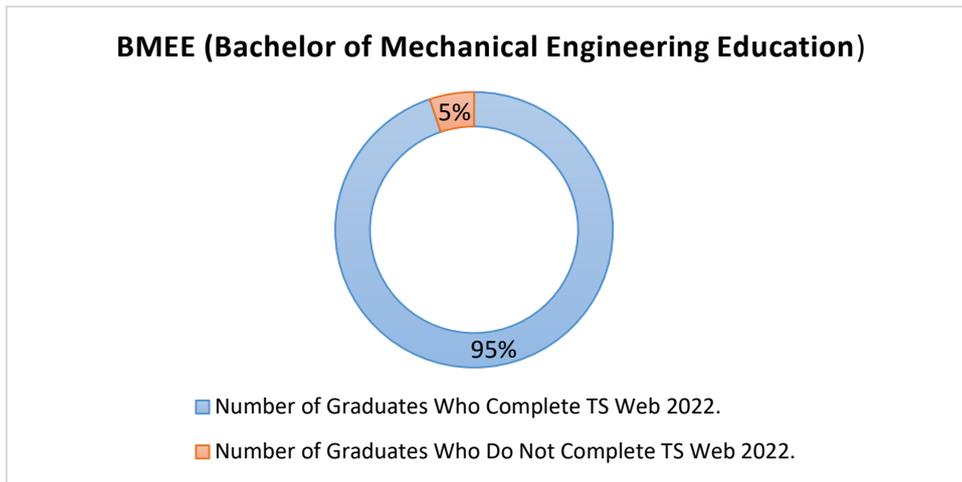
Figure 3.1. Gross Response Rate of BMEE Graduates

BMEE graduates who filled out the UNY Tracer Study questionnaire were 92%, and graduates who did not fill out the questionnaire were 8%. Figure 3.1 shows the Gross Response Rate achieved in the 2022 UNY Faculty of Engineering tracer study, which is very good for measuring the response rate of a tracer study.

b) Sources of Tuition's Funding
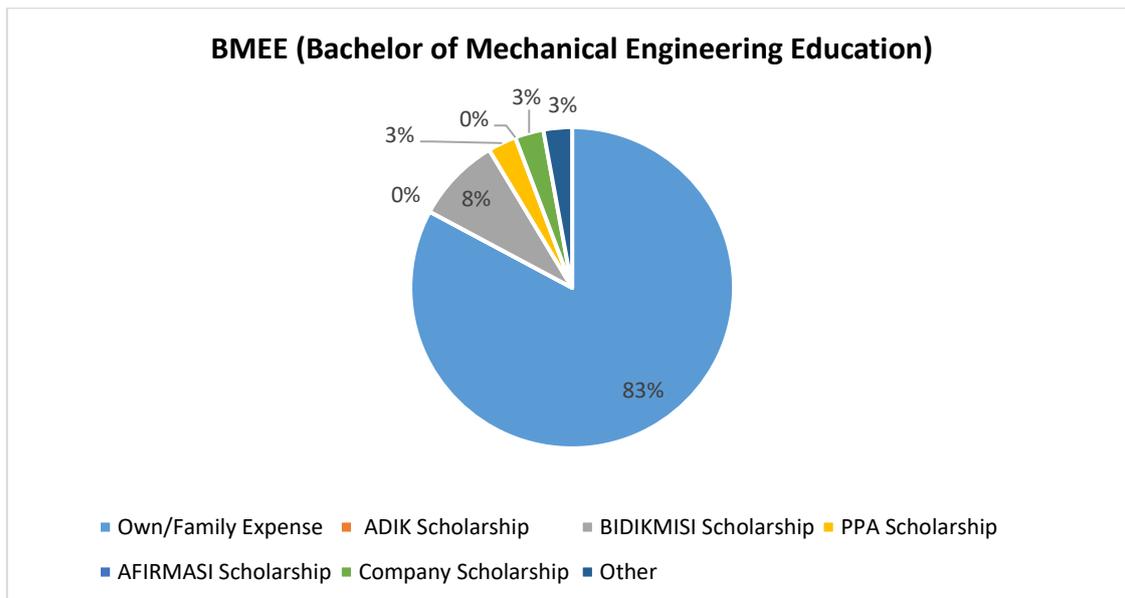
Figure 3.2. College's Funding Source of BMEE Graduates

The source of tuition funding for BMEE graduates who graduate in 2020 is mainly their own/family's expenses (83%). Funding from the Bidikmisi scholarship ranks second (8%), while the remaining funding from companies/private ranks third (3%), followed by PPA scholarship financing (3%), others (3%), ADIK scholarships (0%), and affirmation scholarships (0%).

c) Current employment status of the graduates
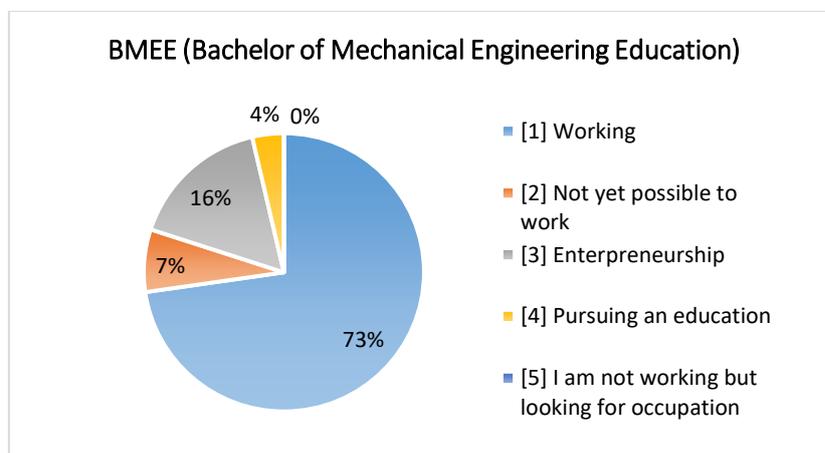
Figure 3.3. Graduates Activities After Graduation

Figure 3.3 shows the percentage of graduates already working in companies/institutions, agencies, self-employed, continuing education, looking for work, and still needing to work. For graduates of the BMEE graduating in 2020, 73% of the respondents' main occupation is working for other companies/agencies/institutions, as shown in Figure 3.4. The number of respondents who choose to be self-employed is 16%. The percentage of graduates who have yet to work is

7%. Respondents who are continuing their education are 4%. In comparison, the number of respondents in the process of looking for work is 0%.

d) Distribution of graduates continuing their studies
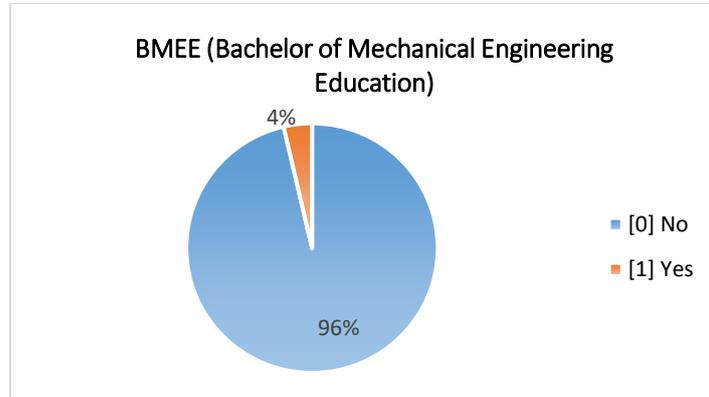
Figure 3.4. Distribution of respondents pursuing their studies

Based on the survey results, 96% of the UNY BMEE graduates who graduated in 2020 chose not to continue their studies. Meanwhile, 4% continued their studies.

e) The graduates period begins to look for occupations and waiting time for graduates to get their first occupation.
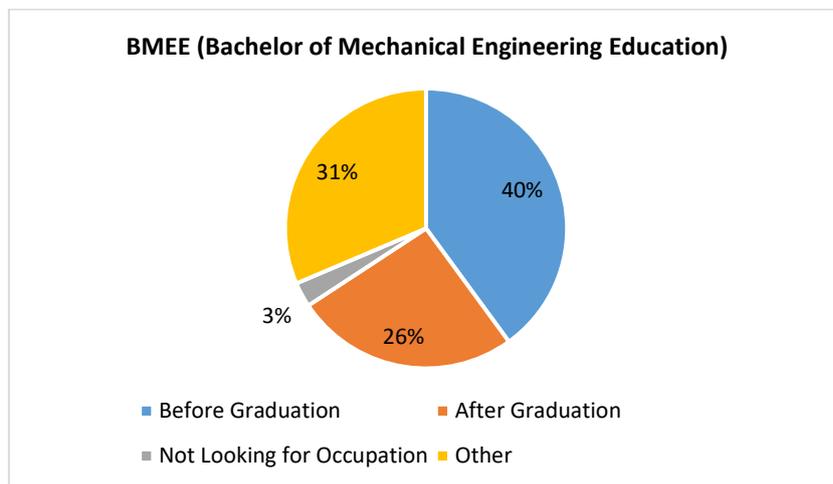
Figure 3.5 The graduates period begins to look for occupations

The waiting period for graduates looking for work to get their first job was divided into four groups: before graduation, after graduation, not looking for work, and others.

From Figure 3.5, the dominance of graduates looking for work before graduating is 40%. In comparison, graduates looking for occupation after graduation is 26%. Others are 31%, and

those not looking for an occupation are 3%. From the survey results, BMEE graduates in 2020 found an occupation on average 2.02 months after graduation.

f) Number of company/instution apply for before getting the first occupation
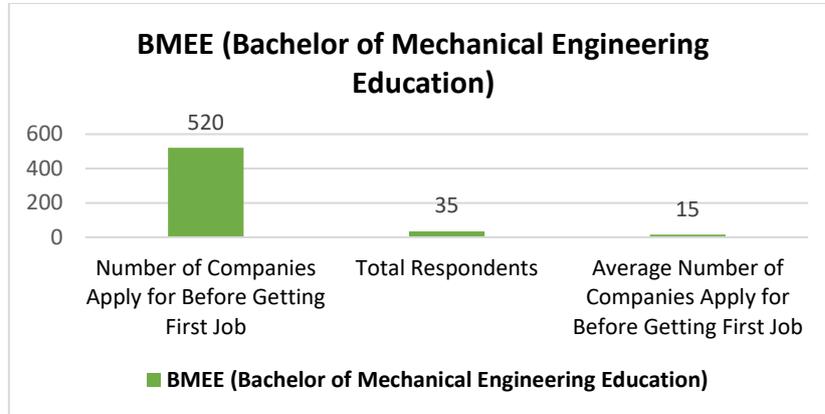
Figure 3.6. Total number and average number of applied companies

It is noted that the average number of companies applied to by one BMEE alumnus who graduated in 2020 is 15 companies.

g) Number of company/instution that responded to graduates' applications
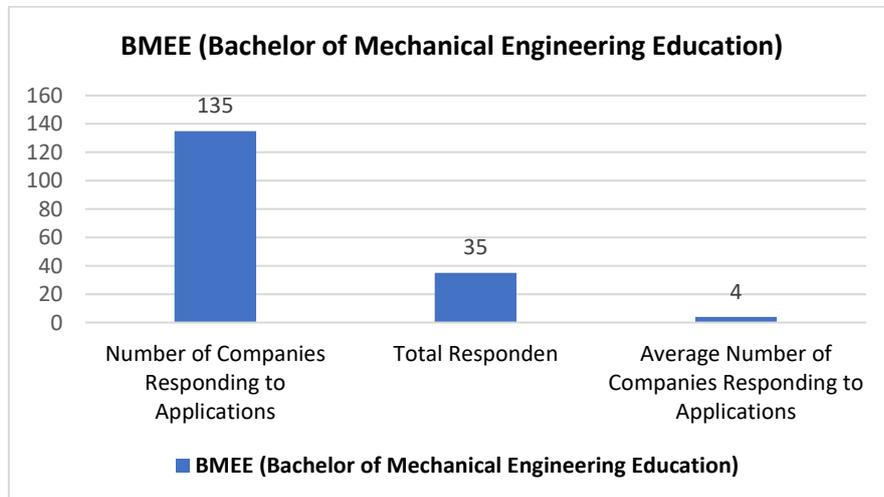
Figure 3.7. The total number of responding companies responding to applications

The total number of responding companies responding to applications from BMEE graduates who graduated in 2020 was 135 companies.

h) Number of company/institutions inviting applicants for interviews

The total number of companies inviting interviews from BMEE graduates who graduated in 2020 was 87 companies.
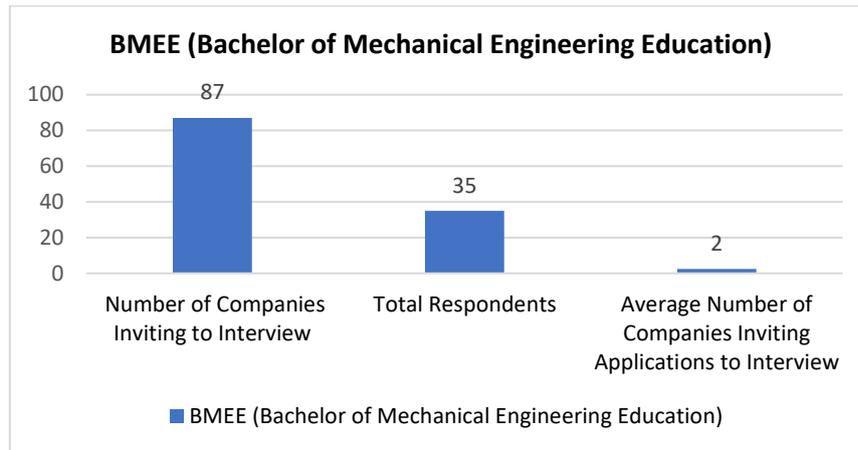
Figure 3.8. The total number of company/institutions inviting applicants for interviews

i)   How do graduates get occupation information?

In looking for work, graduates use various methods. In this tracer study survey, 15 categories of job search methods are asked and answered by respondents. In figure 3.9, the three most significant percentages are using the internet/online advertising/mailing lists at 25%, 17% BMEE graduates get information from Manpower Ministry, get an occupation vacancy information through relations (e.g., lecturers, parents, relatives, friends) at 11%, and participating in job fairs at 10%. Using internet media and online advertising is an option for companies because the costs are cheaper and can reach graduates relatively quickly. This is reinforced by the Covid-19 pandemic condition, which requires physical distancing to be enforced in almost all fields. Futhermore, graduates prefer to look for job vacancies through internet media (social media) and online advertising. For job search through relations, for example, lecturers, parents, relatives, or friends, it is also still widely used today, this is because usually the company also wants to obtain human resources in an easy, fast way, and especially can get an overview of the candidates such as through existing relationships. On the other hand, graduates want to obtain more detailed information about the company and its work culture if the job is obtained through a relationship. The third is participating in job fairs attended by many companies looking for workers.

BMEE (Bachelor of Mechanical Engineering Education)

Legend:
- [1] Advertisements in newspapers/magazines, flyers
- [2] Applying to companies without knowing the vacancies
- [3] Go to exhibitions/job fairs/job fairs
- [4] Search via the internet/online advertising/mailing lists
- [5] Contacted by company / Booked by company before graduation
- [6] Contact the Ministry of Manpower
- [7] Contact commercial/private employment agencies
- [8] Obtain information from the University's Career Development Center
- [9] Obtain information from the University's Career Development Center
- [10] Obtain information from the University's Career Development Center
- [11] I built a network (network) since I was in college

Figure 3.9 Occupation information for BMEE graduates

j) Organization/institution-wise distribution of the graduates

From tracer study data for 2022, the majority of BMEE graduates in 2020 worked at government-owned schools/universities, namely 31%. In the second place, engineering faculty graduates in 2020 are employed as self-employed, namely 16%. While in third place, the current job is to become BUMN/BUMD employees by 13%. As many as 11% of graduates work in private companies at global (multinasional) and international levels.

BMEE (Bachelor of Mechanical Engineering Education)

Legend:
- [1] Government Institution
- [2] Non-profit Organozation/Non Government Organization (NGO)
- [3] National School/University
- [4] Private School/University
- [5] Private Company
- [6] National Private Company
- [7] Multinational/Internasional Private Company
- [8] Unlicensed Entrepreneur
- [9] Licensed Entrepreneur
- [10] State-Owned Enterprise / Regional-Owned Enterprise
- [11] Multilateral Institution/Organization

Figure 3.10 Current types of schools/companies/institutions

k) Current level companies/instution and average salary

BMEE (Bachelor of Mechanical Engineering Education)
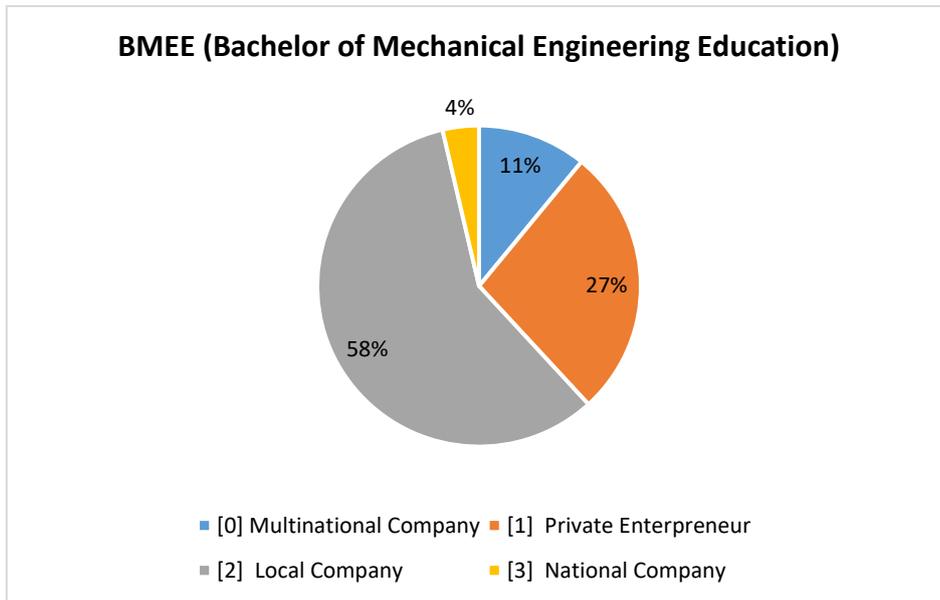
Figure 3.11 Current level companies/instution

Company reputation is one factor that influences college graduates to apply to the company. In general, companies with good reputations and big names have an excellent attraction for graduates from every tertiary institution. Most BMEE graduates in 2020 worked for local companies, namely 58%. The local company referred to here is based only in that region/region. The second order of domination chooses to become self-employed/private enterpreneur by 27%. Followed by graduates who work in multinational companies by 11%. And those who work in national companies by 4%. Meanwhile, the average salary received by graduates of the BMEE in 2020 is IDR 3.700.000.

l) Compatibility between the alum's skills and the current occupation

BMEE (Bachelor of Mechanical Engineering Education)

- [1] Strongly Agree
- [2] Agree
- [3] Neither agree or disagree
- [4] Disagree
- [5] Strongly Disangree
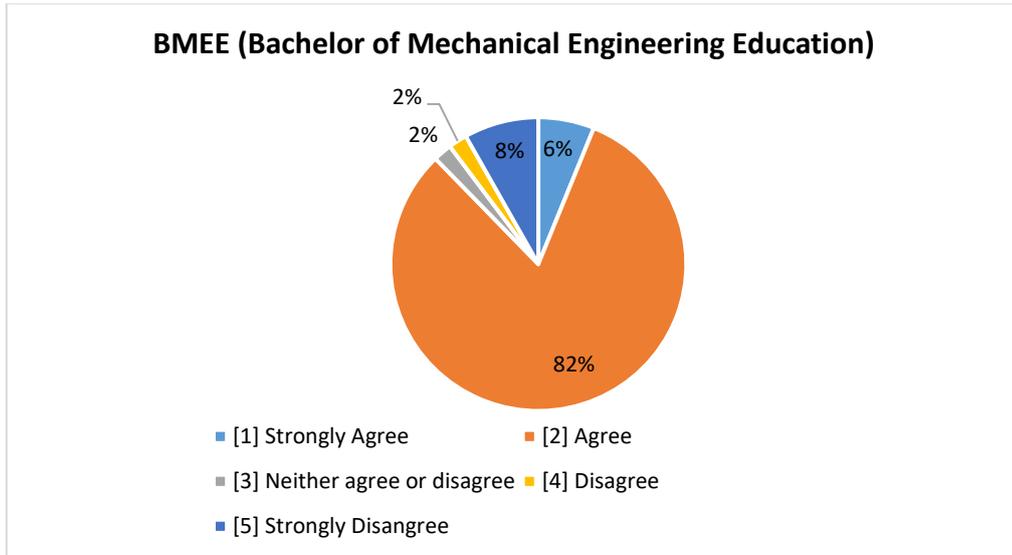
Figure 3.12 Compatibility between the alum's skills and the occupation

From tracer study data, from the aspect of suitability of work with competence in the field of alum education, up to 82% stated that the area of work was considered suitable (closely), 6% of graduates noted that the field of work was very closely related to the current job. While 2% said, it was close, the remaining 12% stated it disagreed, as shown in Figure 3.12 below.

m) The education level required for the current occupation

Tracer study data for graduates in 2020 shows that the dominance of the level of knowledge possessed by graduates is following the current field of work, namely 93%. At the second level, 5% of graduates stated that the current job does not require higher education. An alumnus of 2% said the current job requires a lower level of education. None of the graduates stated that their current job required a higher level of education.

BMEE (Bachelor of Mechanical Engineering Education)
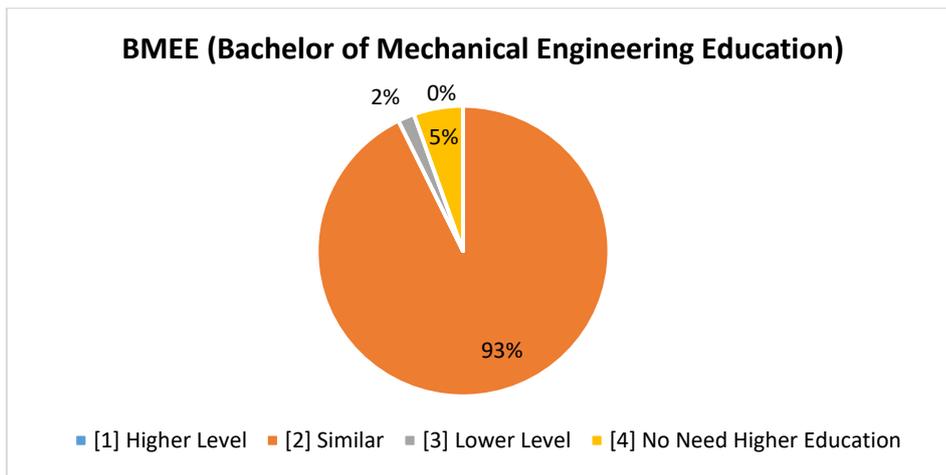
Figure 3.13. The required level of education for the alumni's present occupation

n) Why are graduates' current occupations not following the field of their study?

BMEE (Bachelor of Mechanical Engineering Education)
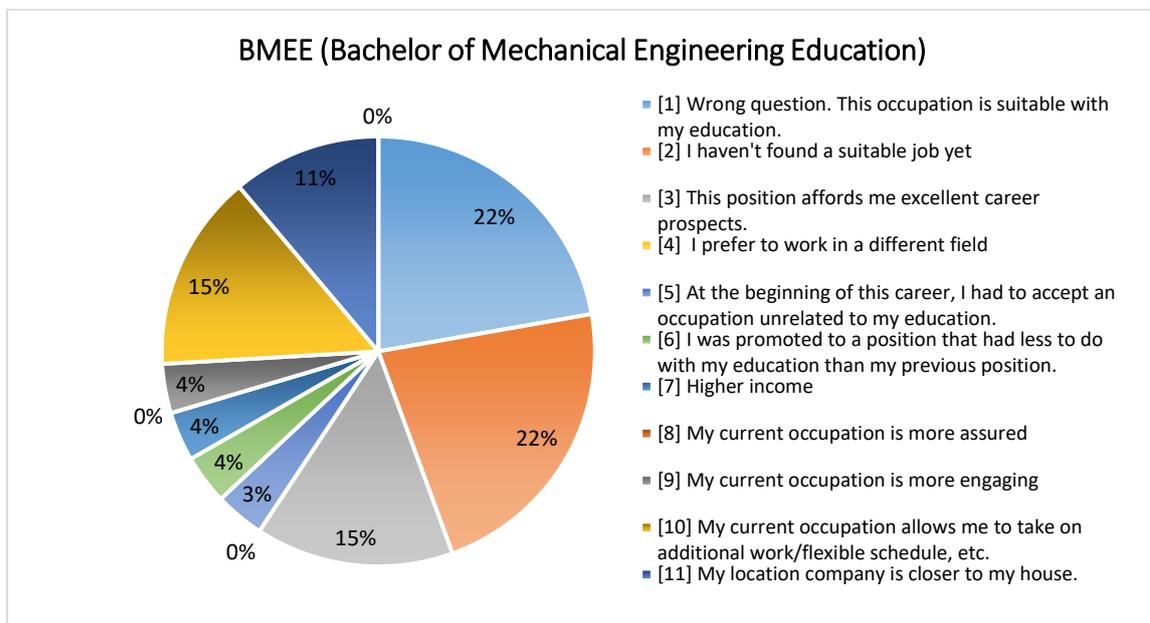
Figure 3.14. The reason for selecting an occupation is unrelated to the field of study

22% of the 2020 BMEE graduates said they had jobs that currently owned is following education. 22% of graduates also said they had not found a suitable position. As many as 15% of graduates said their career in their current field is promising. And with the exact number, 15% of graduates stated that their current job has a flexible schedule. 11% of graduates said their current position is close to their home.

o) Satisfaction based on academic experiences and academic environment

Education and learning experiences here consist of several aspects, namely: lectures, demonstrations, participation in projects, internships/apprenticeships, practicums, fieldwork, and discussions.

From the 2022 tracer study data, BMEE graduates who graduated in 2020 assess the education and learning experience provided by BMEE during college as very suitable—practicums, fieldwork, participation in projects, and fieldwork evidence this. Factors of theoretical lectures, demonstrations, and discussions were considered appropriate.
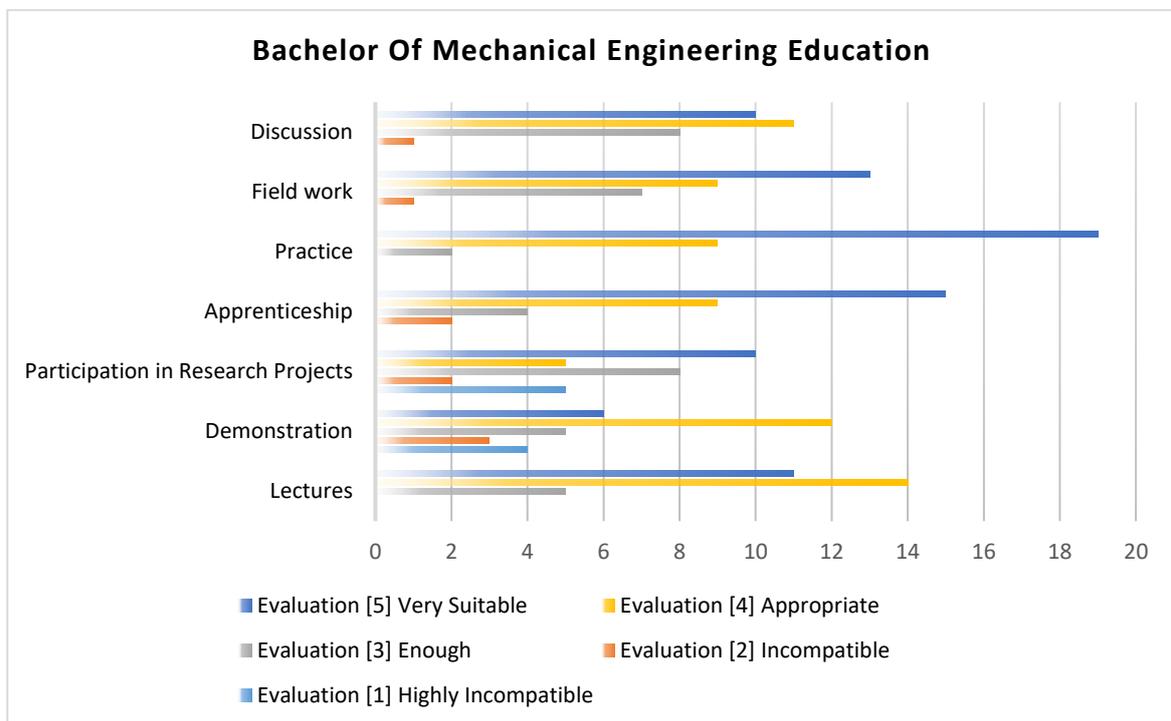
Figure 3.15. Alumni assessment of education and learning experience at BMEE study program

p) Alumni Assessment of Competencies Upon Graduation and Alumni Assessment for UNY Contribution to Graduate Competencies While Working

There are many components for alum assessment of competency at graduation and graduates assessment for UNY's contribution to BMEE's graduate competence while working, namely: knowledge in the graduate field or discipline, knowledge outside your area or discipline, general knowledge, English/languages other foreigners, internet skills, computer skills, critical thinking, research skills, study skills, communication skills, work in under pressure, time management, working independently, working within the team/cooperating with others, working in a team/cooperating with other people, ability to solve problems, negotiation, ability analysis,

tolerance, adaptability, loyalty, integrity, working with people different cultures and backgrounds, leadership, abilities in holding responsibility, initiative, project/program management, capability to present ideas/products/reports, knowledge in writing reports, memos, letters and documents, and the ability to continue learning all life.

From tracer study data for 2022, it is known that the value of competency at the time of graduation and the contribution of UNY to the competence of graduates at work is directly proportional. The average competency score has met the appropriate value.

Figure 3.16 Comparison of alum competencies at the time of graduation and UNY's contribution to graduate competencies at work

q) Conclusion

This tracer study has presented several points of information regarding the conditions of graduates of the 2020 Bachelor of Mechanical Engineering Education (BMEE) graduates, which can be used as input for the development/improvement of BMEE UNY in the future.

1) The survey's completion rate is 95%, and the Gross Response Rate is 8%. This response rate is, of course, outstanding and can be increased in the following years.

2) Sources of tuition funding for UNY BMEE graduates who graduate in 2020, mostly from their own/parents' expenses (83%). The remaining 17% of funding sources come from scholarships.

3) It is generally easy for BMEE graduates to get a job. For 2020 BMEE graduates, 73% of respondents are working. 16% created their careers, 4% continued their education, and only 7% did not have a job for reasons of personal interest.

4) 96% of BMEE graduates who graduated in 2020 chose not to continue their studies. Meanwhile, 4% continued their studies.

5) The percentage of BMEE graduates looking for work after graduation is 40%. At the same time, graduates looking for work before graduating is 26%. BMEE graduates who chose other options by 3%. The average BMEE graduate in 2020 found a job with a waiting time of 2.02 months.

6) It is noted that the average number of companies applied for by one BMEE graduate who graduated in 2020 is 15 companies. The total number of companies involved for graduates in 2020 is 520 companies/agencies. The average number of companies willing to respond to applications from UNY BMEE graduates who graduated in 2020 is four companies for one graduate. At the same time, the average number of companies inviting applicants to the interview stage is two companies for 1 BMEE graduate. This condition is, of course, a concern of the BMEE management in compiling cooperation programs with companies and agencies to increase the number of graduates invited for interviews.

7) The three most significant percentages of graduates seeking information on job vacancies are using the internet/online advertisements/mailing lists of 25%, 17% obtain information on job vacancies from the Ministry of Manpower. In the third position, 11% of graduates get job vacancy information through relations (e.g., lecturers, parents, relatives, and friends) and choose to participate in the 10% job fair. It is necessary to review the functions and duties of the university career development center because the number of respondents who choose information from it is minimal.

8) From tracer study data in 2022, BMEE graduates in 2020, the majority work inngovernment-owned schools/universities, namely 31%. In the second place, BMEE graduates in 2020 are employed as entrepreneurs, namely 16%. While in third place, 13% of the current graduate jobs are BUMN/BUMD employees.

9) Most BMEE graduates work for local companies, namely 58%. The second order chooses to be self-employed by 27%. They were followed by graduates who work in multinational

companies at 11%. And those who work in national companies are 4%. The average amount of salary received by BMEE graduates in 2020 is IDR 3,700,000.00

10) From the aspect of suitability of work with the competence of the field of graduates science education, up to 82% stated that the area of work was considered appropriate (very closely), as much as 6% of graduates said that the field of work was near related to the current job.

11) Study tracer data for graduates in 2020 shows the dominance of the level of the field of study owned by graduates are following the current area of work, namely 93%.

12) 22% of graduates graduating in 2020 stated that their current jobs are in accordance with the education pursued at BMEE UNY. 22% also stated choosing a career that is not suitable because they have not found a more appropriate position, while 15% of graduates choose their current job because of the flexible work schedule, 15% also choose this job because it is promising, and 11% prefer it because of the higher salary.

13) From tracer study data for 2022, BMEE graduates assess that the education and learning experience provided by UNY during college is following what is expected, evidenced by most assessments in almost all aspects of learning considered very satisfying and satisfying.

14) From tracer study data for 2022, it is known that the value of competence at graduation and the university's contribution to the competence of graduates at work are directly proportional. The average competency score has met the appropriate value. UNY's contribution to UNY's competence that needs to be improved is knowledge outside your field or discipline, research skills, general knowledge, and negotiation skills. Several competencies considered lacking attention need to be improved in the future.

3.2 BACHELOR OF AUTOMOTIVE ENGINEERING EDUCATION (BAEE)

a) Number of Respondents
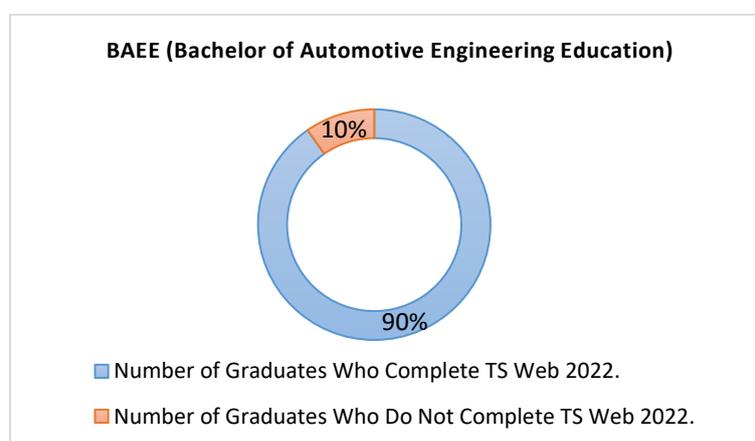
Figure 3.17. Gross Response Rate of BAEE Graduates

BAEE graduates who filled out the UNY Tracer Study questionnaire were 90%, and graduates who did not fill out the questionnaire were 10%. Figure 3.17 shows the Gross Response Rate achieved in the 2022 UNY Faculty of Engineering tracer study, which is very good for measuring the response rate of a tracer study.

b) Tuition Funding

The source of tuition funding for BAEE graduates who graduate in 2020 is mainly their own/family's expenses (67%). Funding from the Bidikmisi scholarship ranks second (22%), while the remaining funding from companies/private ranks third (9%), followed by PPA scholarship financing (2%), others (0%), ADIK scholarships (0%), and affirmation scholarships (0%).
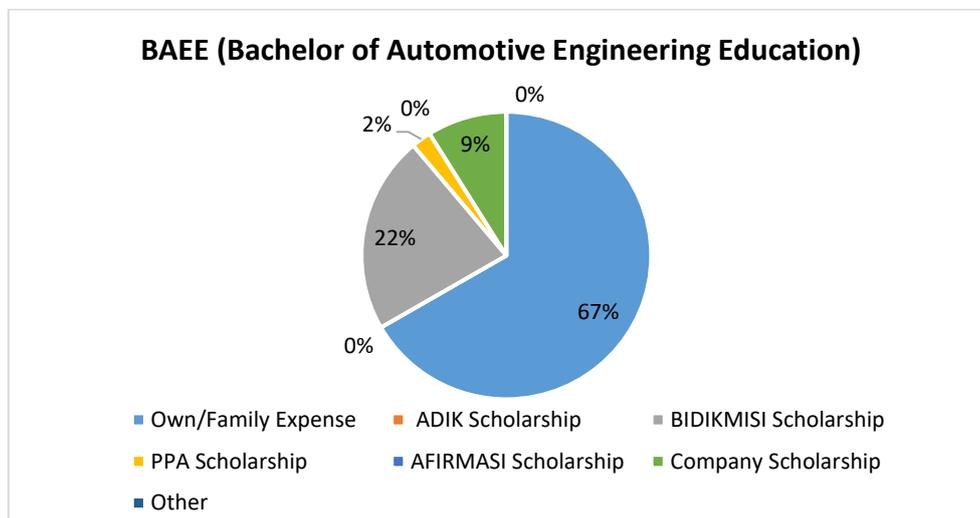
Figure 3.18. College's Funding Source of BAEE Graduates

c) Current employment status of the graduates
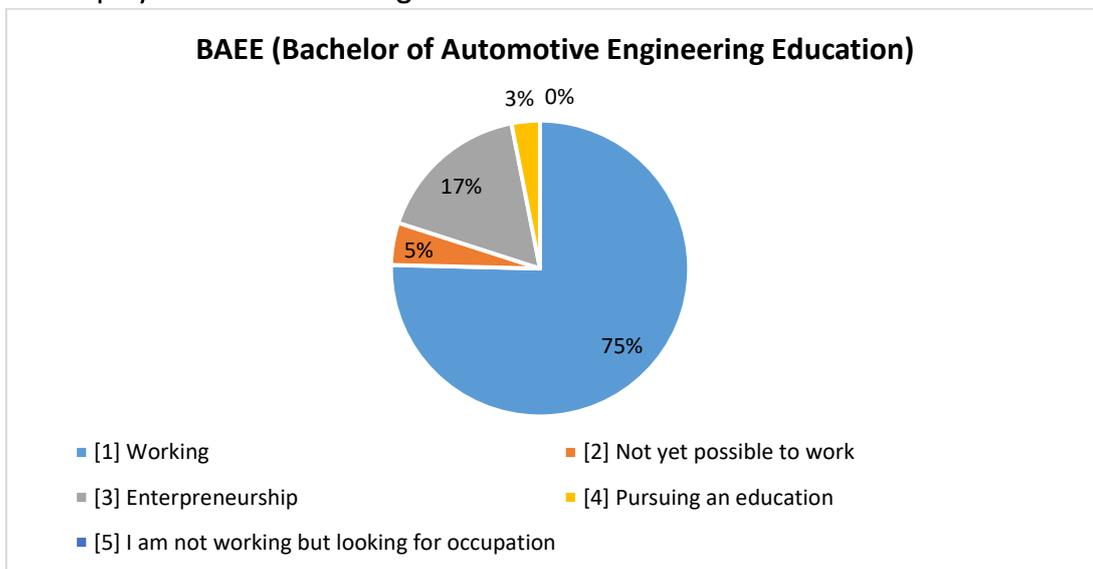
Figure 3.19. Graduates BAEE Activities After Graduation

Figure 3.3 shows the percentage of graduates who already working in companies/institutions, agencies, self-employed, continuing education, looking for work, and still need to work. For graduates of the BMEE graduating in 2020, 75% of the respondents' main occupation is working for other companies/agencies/institutions, as shown in Figure 3.19. The number of respondents who choose to be self-employed is 17%. The percentage of graduates who have not worked is 5%. Respondents who are continuing their education are 3%. In comparison, the number of respondents in the process of looking for work is 0%.

d) Distribution of respondents pursuing their studies
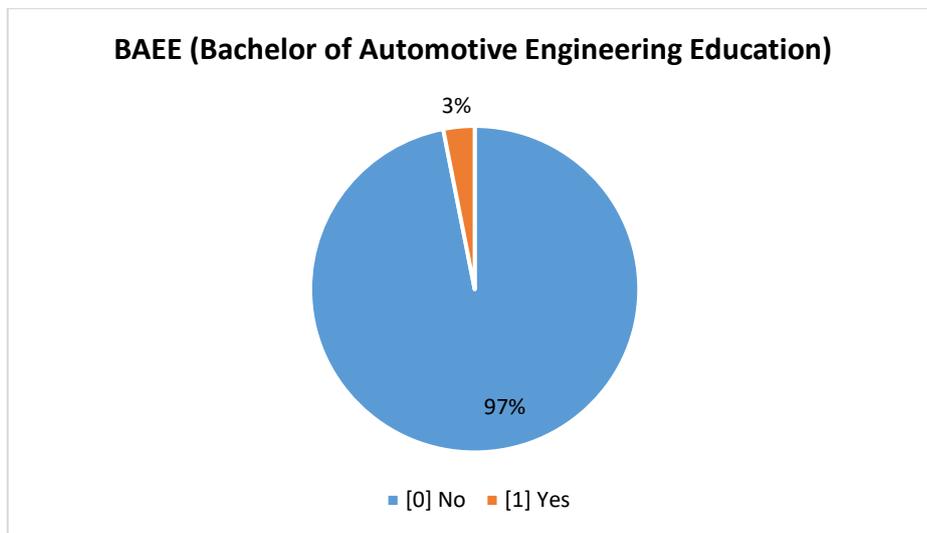
Figure 3.20. Distribution of respondents pursuing their studies

Based on the survey results, 97% of the UNY BAEE graduates who graduated in 2020 chose not to continue their studies. Meanwhile, 3% continued their studies.

e) The alum period begins to look for occupations.
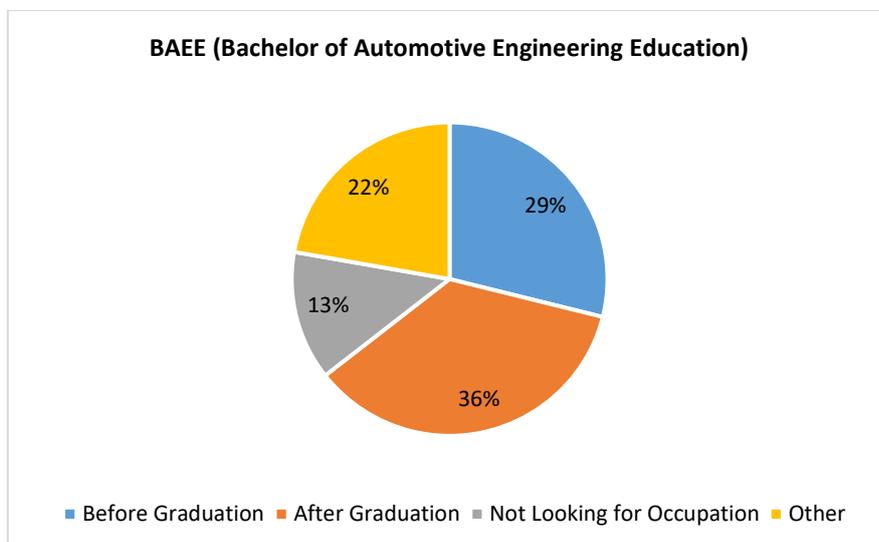
Figure 3.21 The alum period begins to look for occupations

The waiting period for graduates looking for work getting their first job was divided into four groups: before graduation, after graduation, not looking for work, and others.

From Figure 3.5, the dominance of graduates looking for work after graduating is 36%. In comparison, graduates looking for occupation before graduation is 29%. Others are 22%, and those not looking for an occupation are 13%. From the survey results, BAEE graduates in 2020 found an occupation on average 1.98 months after graduation.

f) Number of company/instution apply for before getting first occupation
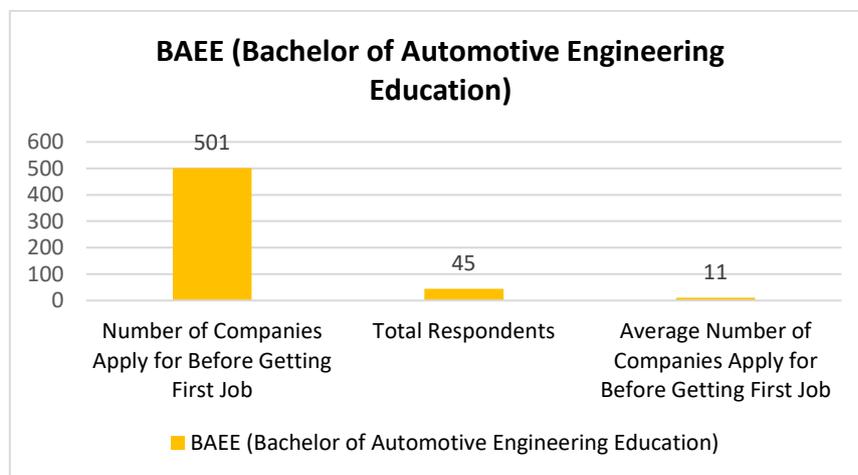
Figure 3.22. Total number and average number of Applied Companies

The average number of companies applied to by one BAEE alumnus who graduated in 2020 is 11 companies.

g) Number of company/instution that responded to applications

BAEE (Bachelor of Automotive Engineering Education)
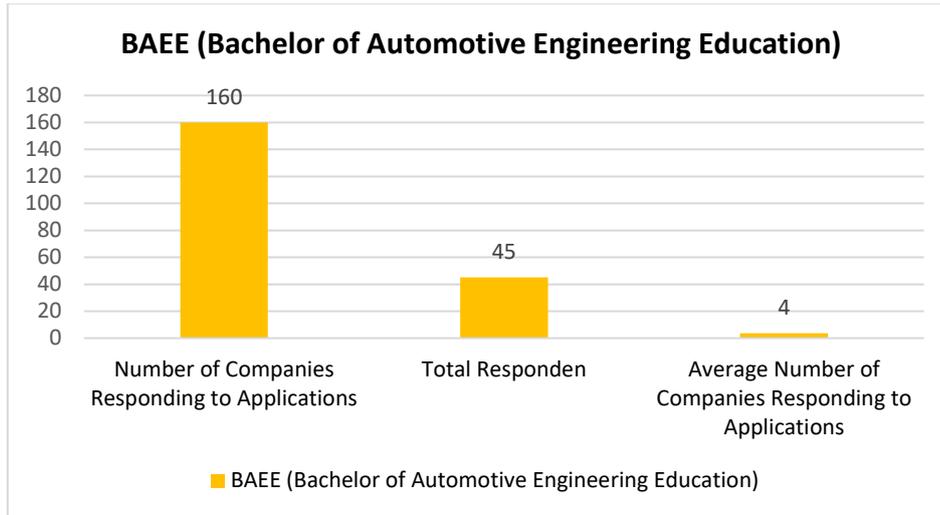
Figure 3.23. The total number of responding companies responding to applications

The total number of responding companies responding to applications from BAEE graduates who graduated in 2020 was 160 companies.

h) Number of companies/institution inviting applicants for interviews

The total number of companies inviting interviews from BAEE graduates who graduated in 2020 was 77 companies.

BAEE (Bachelor of Automotive Engineering Education)
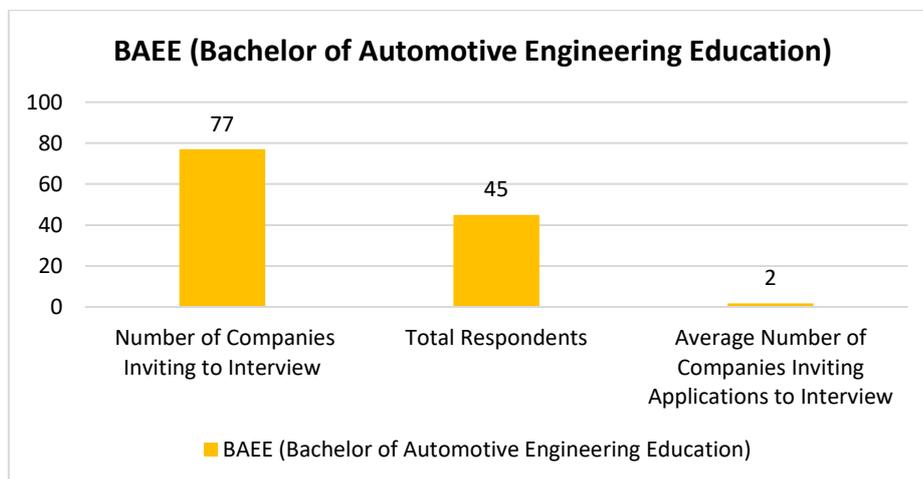
Figure 3.24 The total number of company/institutions inviting applicants for interviews

i) How do graduates get occupation information?
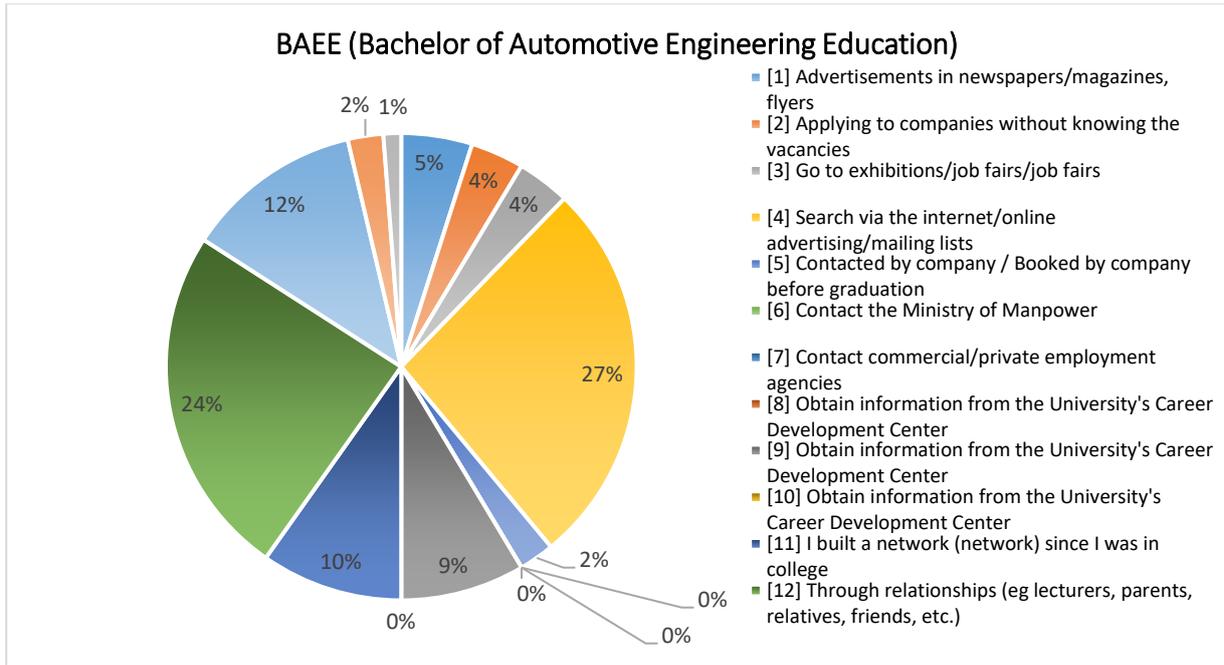
Figure 3.25 Occupation information for BAEE graduates

In looking for work, graduates use various methods. In this tracer study survey, 15 categories of job search methods are asked and answered by respondents. In figure 3.9, the three most significant percentages are using the internet/online advertising/mailing lists at 27%, job vacancy information through relations (e.g., lecturers, parents, relatives, friends) at 24%, and build their own occupation (enterpreeurship) at 10%. Using internet media and online advertising is an option for companies because the costs are cheaper and can reach graduates relatively quickly. This is reinforced by the Covid-19 pandemic condition, which requires physical distancing to be enforced in almost all fields. Futhermore, graduates prefer to look for job vacancies through internet media (social media) and online advertising. For job search through relations, for example, lecturers, parents, relatives, or friends, it is also still widely used today, this is because usually the company also wants to obtain human resources in an easy, fast way, and especially can get an overview of the candidates such as through existing relationships. On the other hand, graduates want to obtain more detailed information about the company and its work culture if the job is obtained through a relationship.

j) Current Types of Schools/Companies/Institutions

From tracer study data for 2022, the majority of BAEE graduates in 2020 worked at government-owned schools/universities by 45%. In the second place, BAEE graduates in 2020 are employed

as self-employed (enterpreneurship) by 17%. While in third place, the current job is to become multilateral institution/organization employees by 11%. As many as 9% of graduates work in private companies at privat school/university.
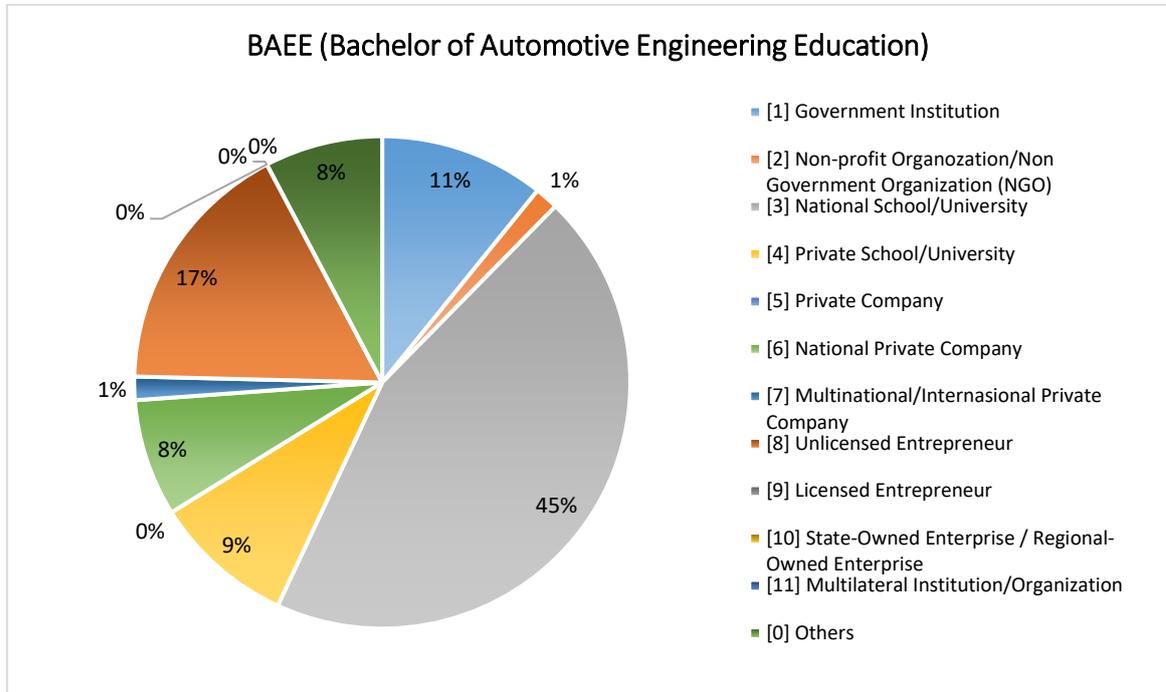
Figure 3.26 Current types of schools/companies/institutions

k) Current Level Companies/Instution and Average Salary
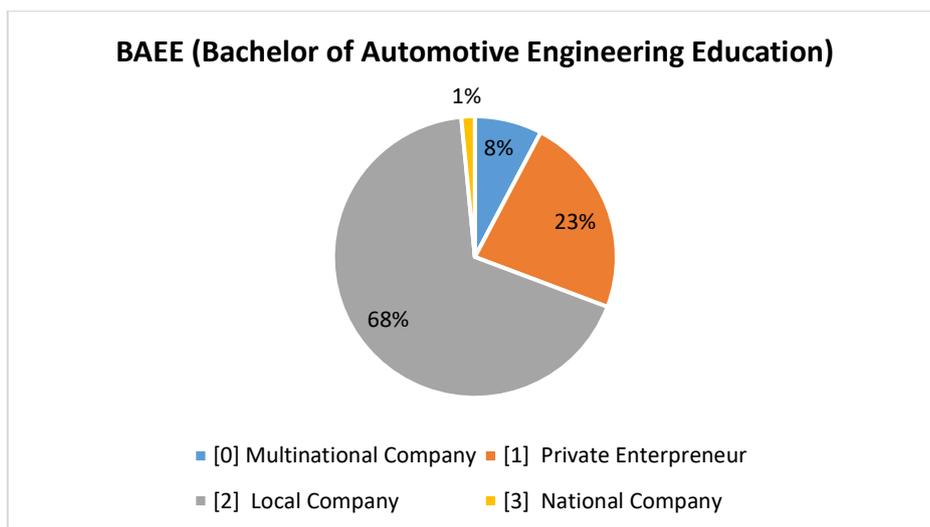
Figure 3.27 Current Level Companies/Instution

Company reputation is one factor that influences college graduates to apply to the company. In general, companies with good reputations and big names have an excellent attraction for

graduates from every tertiary institution. Most BAEE graduates in 2020 worked for local companies, namely 68%. The local company referred to here is based only in that region/region. The second order of domination chooses to become self-employed/private enterpreneur by 23%. Followed by graduates who work in multinational companies by 8%. And those who work in national companies by 1%. Meanwhile, the average salary received by graduates of the BAEE in 2020 is IDR 2.900.000.

l) Compatibility between the alum's skills and the current occupation

BAEE (Bachelor of Automotive Engineering Education)

- [1] Strongly Agree
- [2] Agree
- [3] Neither agree or disagree
- [4] Disagree
- [5] Strongly Disangree
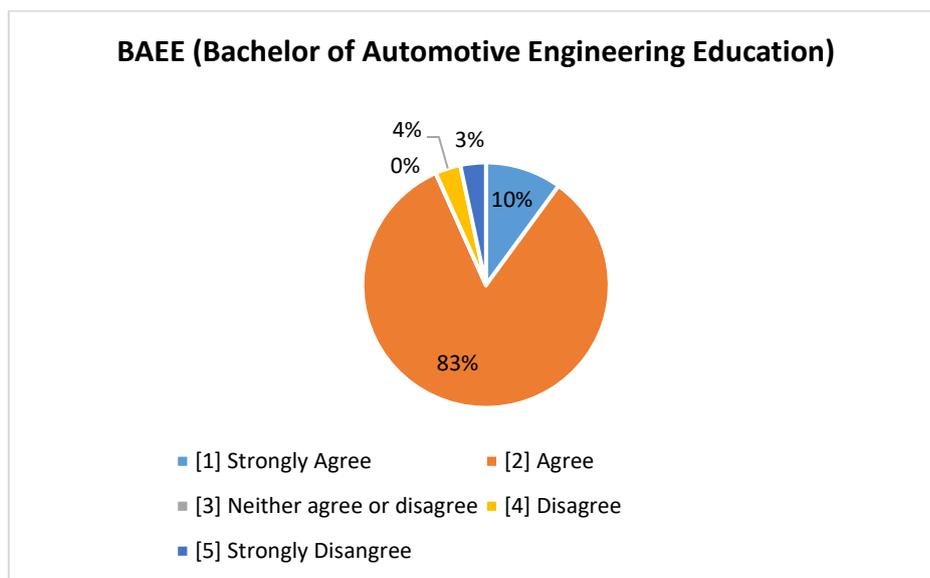
Figure 3.28 Compatibility between the graduate's skills and the occupation

From tracer study data, from the aspect of suitability of work with competence in the field of alum education, up to 83% stated that the area of work was considered suitable (closely), 10% of graduates noted that the field of work was very closely related to the current job. While 3% said, it was close, the remaining 4% stated it disagreed, as shown in Figure 3.28.

m) The required level of education for the graduate's present occupation

Tracer study data for graduates in 2020 shows that the dominance of the level of knowledge possessed by graduates is following the current field of work, namely 94%. At the second level, 5% of graduates stated that the current job does not require higher education. An alumnus of 1% said the current job requires a lower level of education. None of the graduates stated that their current job required a higher level of education.

BAEE (Bachelor of Automotive Engineering Education)

5%
1%
0%
94%

■ [1] Higher Level ■ [2] Similar ■ [3] Lower Level ■ [4] No Need Higher Education
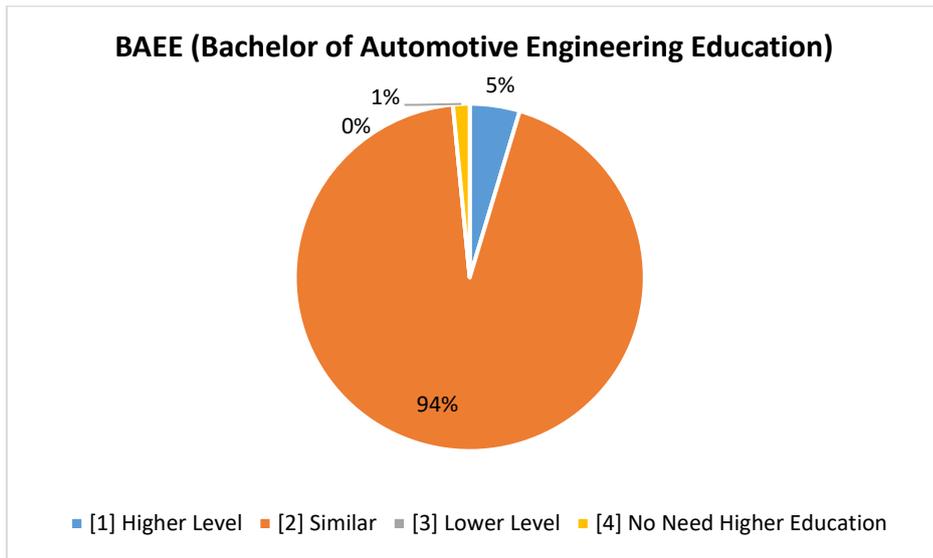
Figure 3.29 The required level of education for the alumni's present occupation

n) Why are graduates' current occupations not following the field of their study?

BAEE (Bachelor of Automotive Engineering Education)

2%
17%
17%
10%
4%
15%
8%
10%
4%
11%
2%
0%

■ [1] Wrong question. This occupation is suitable with my education.
■ [2] I haven't found a suitable job yet

■ [3] This position affords me excellent career prospects.
■ [4] I prefer to work in a different field

■ [5] At the beginning of this career, I had to accept an occupation unrelated to my education.
■ [6] I was promoted to a position that had less to do with my education than my previous position.
■ [7] Higher income

■ [8] My current occupation is more assured

■ [9] My current occupation is more engaging

■ [10] My current occupation allows me to take on additional work/flexible schedule, etc.
■ [11] My location company is closer to my house.

Figure 3.30 The reason for selecting an occupation is unrelated to the field of study.

17% of the 2020 BAEE graduates said they had jobs that currently owned is following education. As many as 15% of graduates said their career in their current field is promising. And with the exact number, 11% of graduates stated that their current job has a flexible schedule. 17% of graduates said their current position is close to their home.

o) Satisfaction based on academic experiences and academic environment

Education and learning experiences here consist of several aspects, namely: lectures, demonstrations, participation in projects, internships/apprenticeships, practicums, fieldwork, and discussions.

From the 2022 tracer study data, BAEE graduates who graduated in 2020 assess the education and learning experience provided by BAEE during college as very suitable—practicums, fieldwork, and lectures evidence this. Factors of apprenticeship, demonstrations, and discussions were considered appropriate.
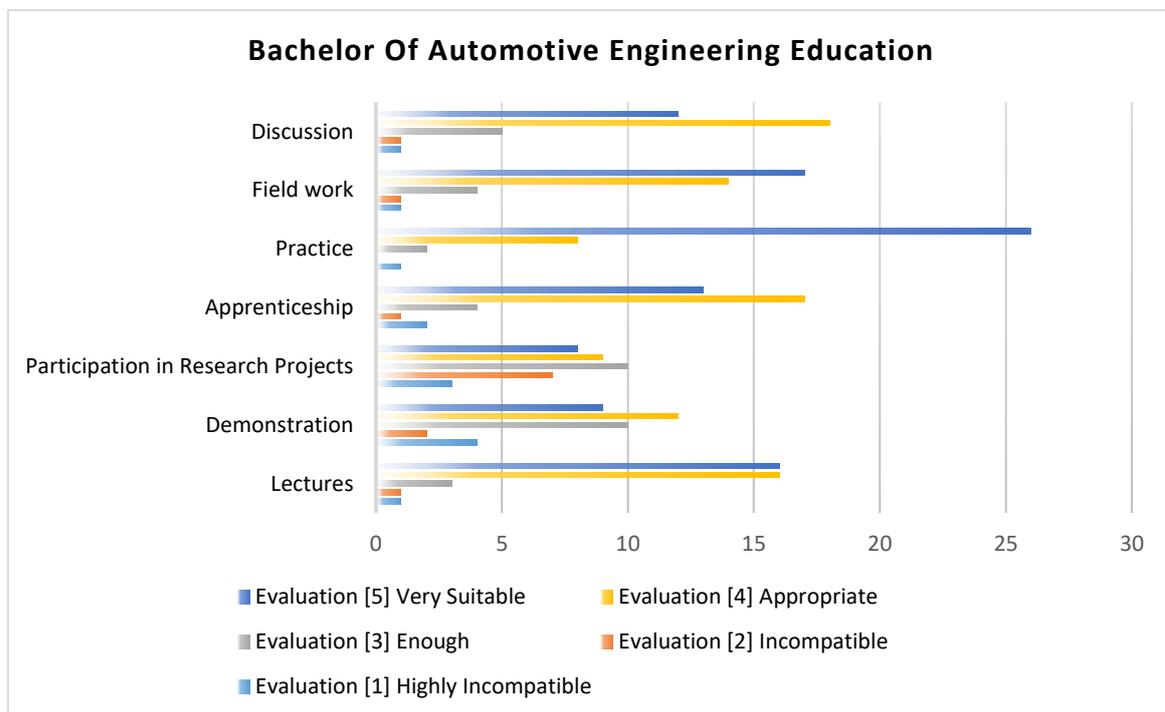
Figure 3.31 Satisfaction based on academic experiences and academic environment

p) Alumni Assessment of Competencies Upon Graduation and Alumni Assessment for UNY Contribution to Graduate Competencies While Working

There are many components for alum assessment of competency at graduation and graduates assessment for UNY's contribution to BMEE's graduate competence while working, namely: knowledge in the graduate field or discipline, knowledge outside your area or discipline, general knowledge, English/languages other foreigners, internet skills, computer skills, critical thinking, research skills, study skills, communication skills, work in under pressure, time management, working independently, working within the team/cooperating with others, working in a team/cooperating with other people, ability to solve problems, negotiation, ability analysis,

tolerance, adaptability, loyalty, integrity, working with people different cultures and backgrounds, leadership, abilities in holding responsibility, initiative, project/program management, capability to present ideas/products/reports, knowledge in writing reports, memos, letters and documents, and the ability to continue learning all life.

From tracer study data for 2022, it is known that the value of competency at the time of graduation and the contribution of UNY to the competence of graduates at work is directly proportional. The average competency score has met the appropriate value.

Figure 3.32 Comparison of alum competencies at the time of graduation and UNY's contribution to graduate competencies at work

q) Conclusion

This tracer study has presented several points of information regarding the conditions of graduates of the 2020 Bachelor of Automatic Engineering Education (BAEE), which can be used as input for the development/improvement of BAEE in the future.

1) The survey's completion rate is 90%, and the Gross Response Rate of the survey is 10%. This response rate is excellent and can be increased in the following years.

2) Sources of tuition funding for BAEE graduates who graduate in 2020, mostly from their own/parents' expenses (67%). The remaining 37% of funding sources come from scholarships.

3) BAEE generally graduates easily to get a job. For BAEE graduates graduating in 2020, 75% of respondents are working. 17% created their jobs, 3% continued their education, and 5% did not have a job for reasons of personal interest.

4) 97% of BAEE graduates who graduated in 2020 chose not to continue their studies. Meanwhile, 3% continued their studies.

5) The percentage of BAEE UNY graduates looking for work after graduation is 36%. At the same time, graduates looking for work before graduating are equal to 29%. Of respondents who chose other options, 22%. The average BAEE graduate in 2020 found a job with a waiting time of 1.98 months.

6) It is noted that the average number of companies applied for by one BAEE graduate who graduated in 2020 is 11 companies. The total number of companies involved for graduates in 2020 is 501 companies/agencies. The average number of companies willing to respond to applications from BAEE graduates who graduated in 2020 is four companies for one graduate. Meanwhile, the average number of companies inviting applicants to the interview stage is 2 for 1 BAEE graduate. This condition, of course, is a concern of the BAEE management in compiling cooperation programs with companies and agencies to increase the number of graduates invited for interviews.

7) The three most significant proportions of how graduates look for job vacancies are using the internet/online advertisements/mailing lists at 27%. 24% of graduates get information about job vacancies through relations (e.g., lecturers, parents, relatives). In the third position, 10% of BAEE graduates choose to own businesses.

8) From tracer study data in 2022, BAEE graduates in 2020, the majority work in government-owned schools/universities, namely 45%. In the second place, the employment of BAEE graduates in 2020 working as entrepreneurs by 17%. As workers who are not on the tracer study list, that is equal to 16%. Meanwhile, in third place, 11% of current graduate jobs are multilateral institutions/organizations employees.

9) BAEE graduate shooters work for local companies, namely 68%. The second order chooses to be self-employed by 23%. They were followed by graduates who work in multinational companies 8%. And those who work in national companies by 1%. The average salary received by BAEE graduates in 2020 is IDR 2,900,000.00

10) From fulfilling work with competence in graduate education, up to 93% stated that the work area was considered suitable (very close).

11) Study tracer data for graduates in 2020 shows the dominance of the level of the field of study owned by graduates are following the current area of work, namely 94%.

12) Alumnus graduating in 2020, 17% stated that the job they currently have is following the education pursued at BAEE UNY, 15% also chose this job because it is promising, 15% chose this job because of a good career, while 11% are graduates choose a current job because of flexible work schedule.

13) From the tracer study data for 2022, BAEE graduates assess that the education and learning experience provided by UNY during college is following what is expected. Hopefully, evidenced by the majority assessment of almost all aspects of learning are considered very satisfying and satisfying.

14) From tracer study data for 2022, it is known that the value of competence at graduation and the university's contribution to the competence of graduates at work are directly proportional. The average competency score has met the appropriate value. UNY's contributions to UNY's competencies that need to be improved are knowledge outside your field or discipline, research skills, analytical skills, leadership, general knowledge, and negotiation skills. This competency needs to get more attention from BAEE management to increase the competitiveness of BAEE graduates.

3.3 Bachelor of Civil Engineering and Planning Education (BCEPE)

a) Number of Respondents

BCEPE (Bachelor of Civil Engineering and Planning Education)

12%

88%

■ Number of Graduates Who Complete TS Web 2022.
■ Number of Graduates Who Do Not Complete TS Web 2022.
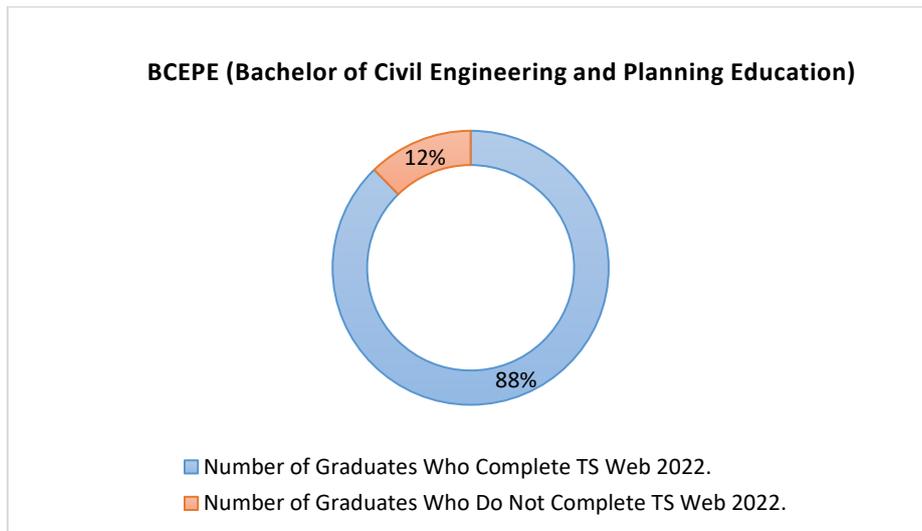
Figure 3.33 Gross response rate of BCEPE graduates

BCEPE graduates who filled out the UNY Tracer Study questionnaire were 88%, and graduates who did not fill out the questionnaire were 12%. Figure 3.1 shows the Gross Response Rate achieved in the 2022 UNY Faculty of BCEPE study, which is very good for measuring the response rate of a tracer study.

b) Tuition Funding

BCEPE (Bachelor of Civil Engineering and Planning Education)

0% 0% 4% 0%

0%

19%

0%

77%

■ Own/Family Expense   ■ ADIK Scholarship   ■ BIDIKMISI Scholarship
■ PPA Scholarship   ■ AFIRMASI Scholarship   ■ Company Scholarship
■ Other
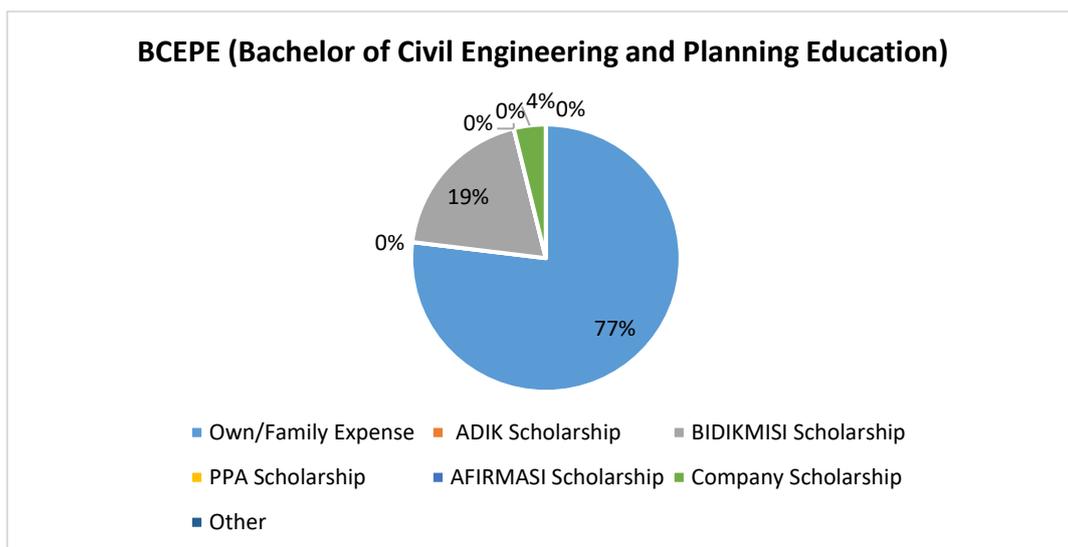
Figure 3.34 College's Funding Source of BCEPE Graduates

The source of tuition funding for BCEPE graduates who graduate in 2020 is mainly their own/family's expenses (77%). Funding from the Bidikmisi scholarship ranks second (19%), while

the remaining funding from companies/private ranks third (4%), followed by PPA scholarship financing 0%), others (0%), ADIK scholarships (0%), and affirmation scholarships (0%).

c) Current employment status of the graduates

BCEPE (Bachelor of Civil Engineering and Planning Education)

- [1] Working
- [2] Not yet possible to work
- [3] Enterpreneurship
- [4] Pursuing an education
- [5] I am not working but looking for occupation
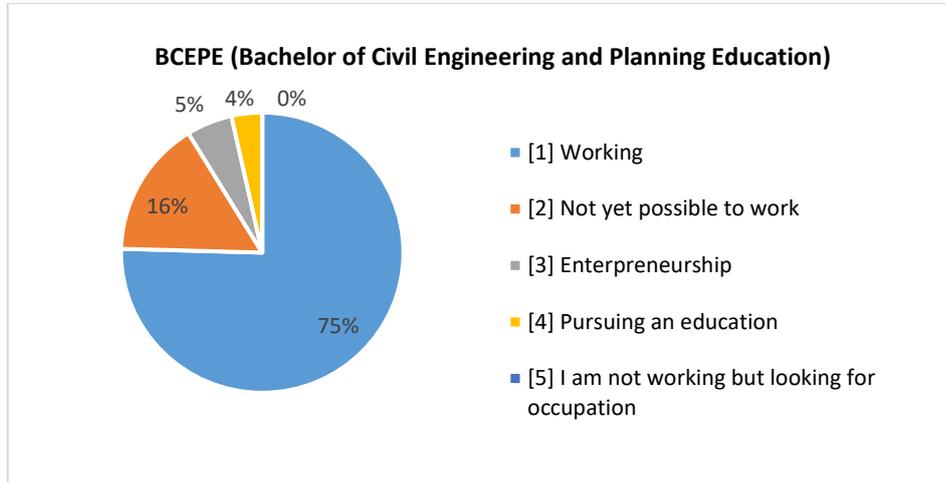
Figure 3.35 Graduate's activities after graduation

Figure 3.3 shows the percentage of graduates who already working in companies/institutions, agencies, self-employed, continuing education, looking for work, and still need to work. For graduates of the BCEPE graduating in 2020, 7%% of the respondents' main occupation is working for other companies/agencies/institutions, as shown in Figure 3.35. The number of respondents who choose to be self-employed is 5%. The percentage of graduates who have not worked is 16%. Respondents who are continuing their education are 4%. In comparison, the number of respondents in the process of looking for work is 0%.

d) Distribution of graduates continuing their studies

Bachelor of Civil Engineering and Planning Education

- [0] No
- [1] Yes
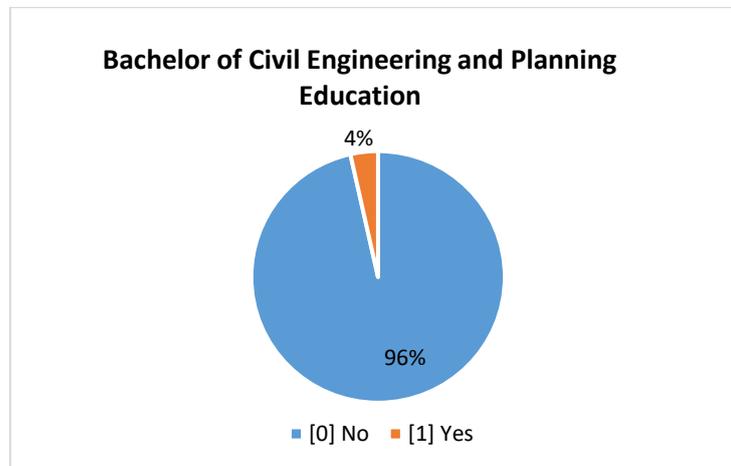
Figure 3.36 Distribution of graduates continuing their studies

Based on the survey results, 96% of the UNY BCEPE graduates who graduated in 2020 chose not to continue their studies. Meanwhile, 4% continued their studies.

e) The graduates period begins to look for occupations and waiting time for graduates to get their first occupation

Bachelor of Civil Engineering and Planning Education

23%

33%

0%

44%

■ Before Graduation   ■ After Graduation

■ Not Looking for Occupation ■ Other
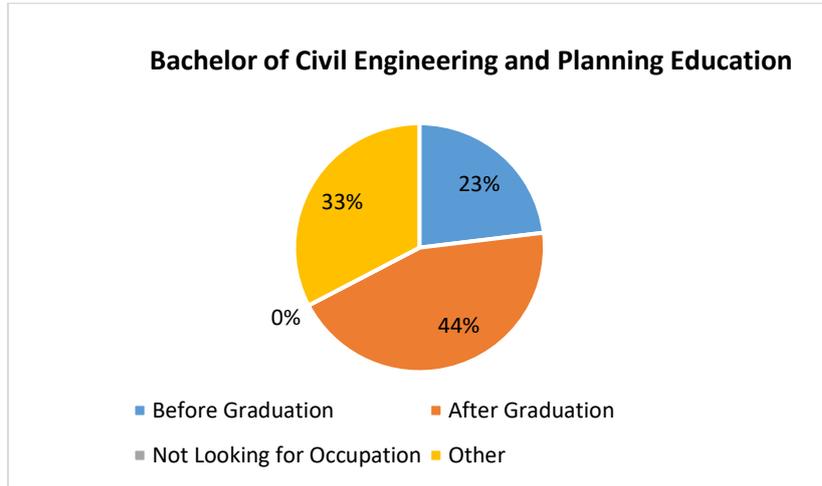
Figure 3.37 The alum period begins to look for occupations

The waiting period for graduates looking for work getting their first job was divided into four groups: before graduation, after graduation, not looking for work, and others.

From Figure 3.37, the dominance of graduates looking for occupation after graduation is 44%, graduates looking for work before graduating is 23%. In comparison, others are 33%. From the survey results, BCEPE graduates in 2020 found an occupation on average 1.44 months after graduation.

f) Number of companie/instution apply for before getting first occupation

Bachelor of Civil Engineering and Planning Education

	639		
800			
600			
400			
200		52	12
0			
	Number of Companies Apply for Before Getting First Job	Total Respondents	Average Number of Companies Apply for Before Getting First Job

■ BCEPE (Bachelor of Civil Engineering and Planning Education)
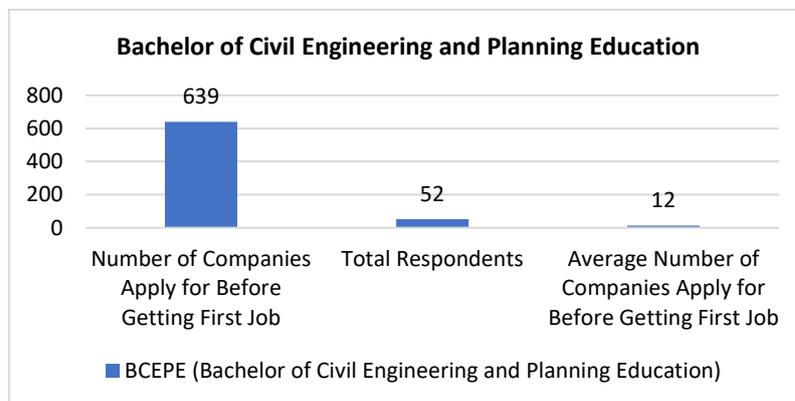
Figure 3.38 Total number and average number of Applied Companies

It is noted that the average number of companies applied to by one BCEPE alumnus who graduated in 2020 is 12 companies.

g) Number of company/instution that responded to applications

BCEPE (Bachelor of Civil Engineering and Planning Education)
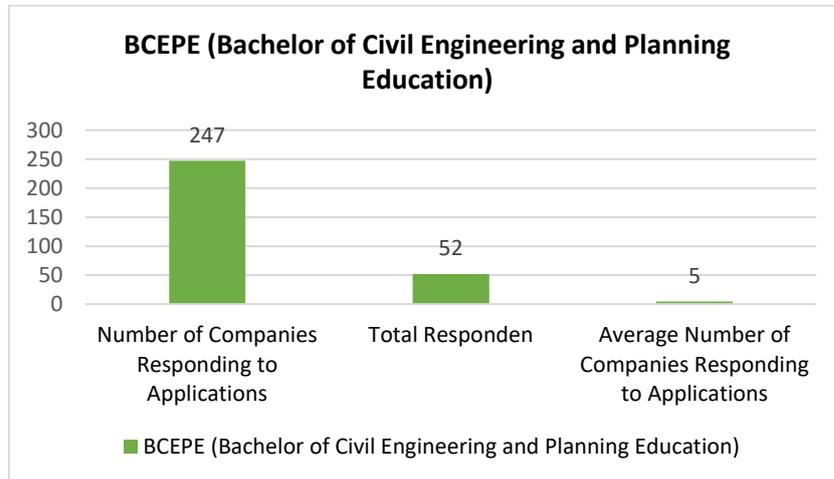
Figure 3.39 The total number of responding companies responding to applications

The total number of responding companies responding to applications from BCEPE graduates who graduated in 2020 was 247 companies.

h) Number of Company/Institution inviting applicants for interviews
The total number of companies inviting interviews from BCEPE graduates who graduated in 2020 was 168 companies.

BCEPE (Bachelor of Civil Engineering and Planning Education)
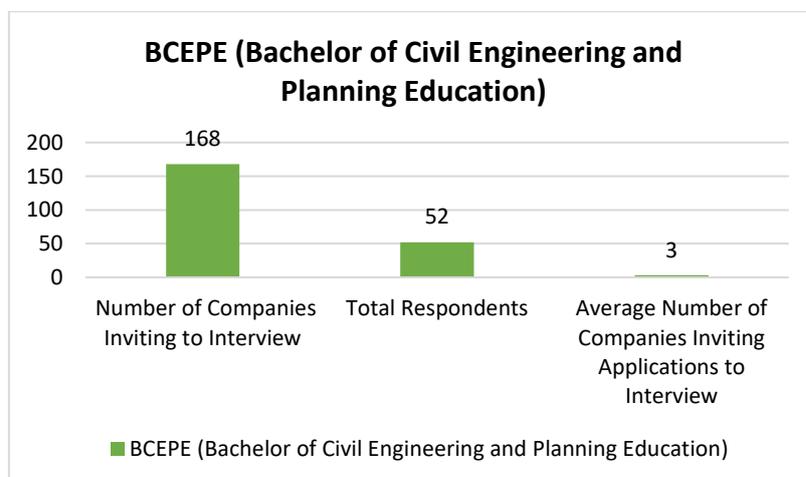
Figure 3.40 The total number of company/institutions inviting applicants for interviews

i) How do graduates get occupation information?

In looking for work, graduates use various methods. In this tracer study survey, 15 categories of job search methods are asked and answered by respondents. In figure 3.42, the three most significant percentages are using the internet/online advertising/mailing lists at 28%, job vacancy information through relations (e.g., lecturers, parents, relatives, friends) at 28%, and looking at advertisements in newspaper/magazines, flyers 10%. Using internet media and online advertising is an option for companies because the costs are cheaper and can reach graduates relatively quickly. This is reinforced by the Covid-19 pandemic condition, which requires physical distancing to be enforced in almost all fields. Futhermore, graduates prefer to look for job vacancies through internet media (social media) and online advertising. For job search through relations, for example, lecturers, parents, relatives or friends, it is also still widely used today, this is because usually the company also wants to obtain human resources in an easy, fast way, and especially can get an overview of the candidates such as through existing relationships. On the other hand, graduates want to obtain more detailed information about the company and its work culture if the job is obtained through a relationship. The third is looking at job advertisements in newspapers, magazines, brochures, and leaflets.
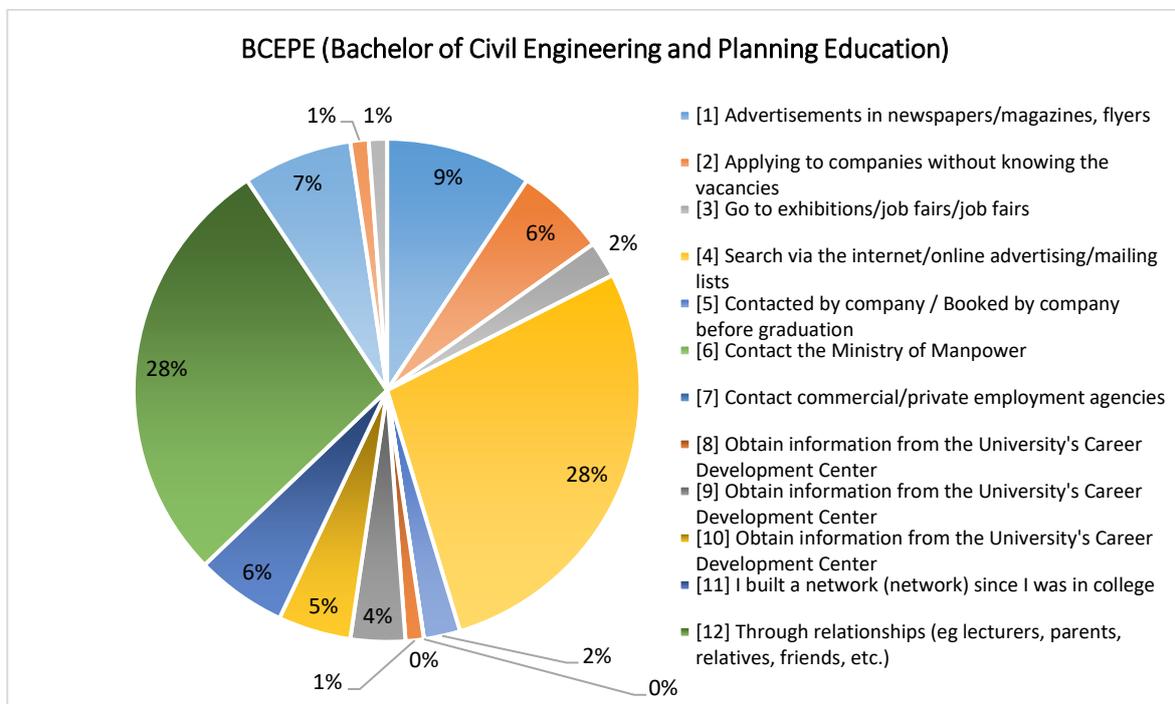
Figure 3.41 Occupation information for BCEPE graduates

j)   Current types of schools/companies/institutions
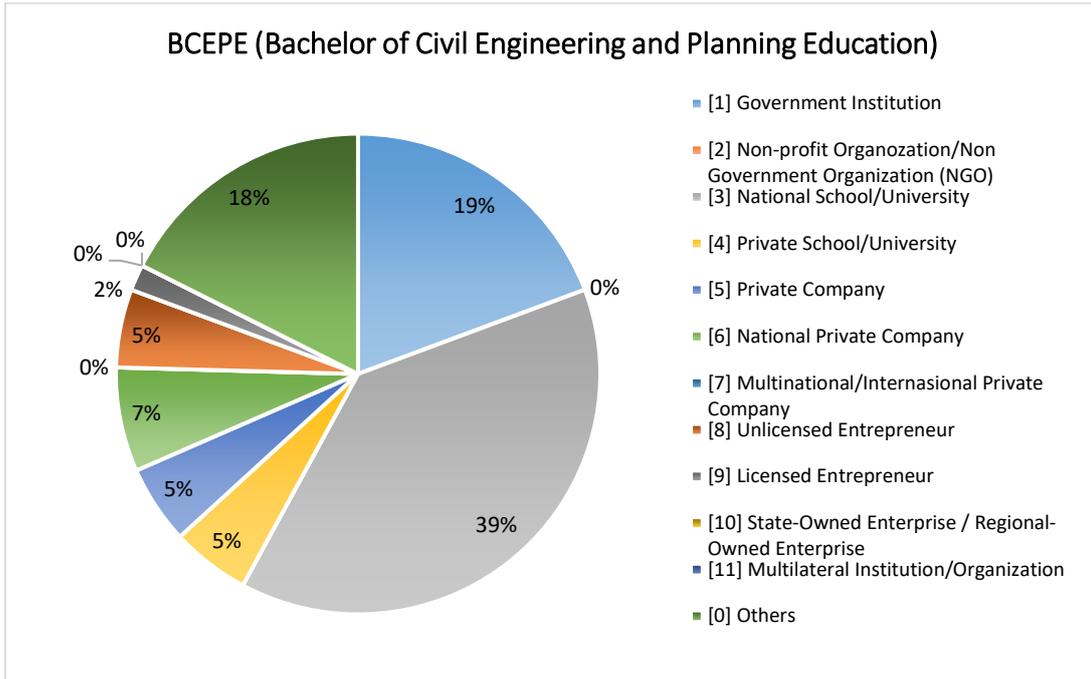
Figure 3.42 Current types of schools/companies/institutions

From tracer study data for 2022, the majority of BCEPEE graduates in 2020 worked at government-owned schools/universities, namely 39%. In the second place, 19% of BCEPE graduates in 2020 are working at government institution. While in third place, jobs not included in the tracer study list are the choice of 18% of BCEPE graduates. In fourth place at 7%, BCEPE graduates choose to work in national private companies.

k)   Current level companies/instution and average salary
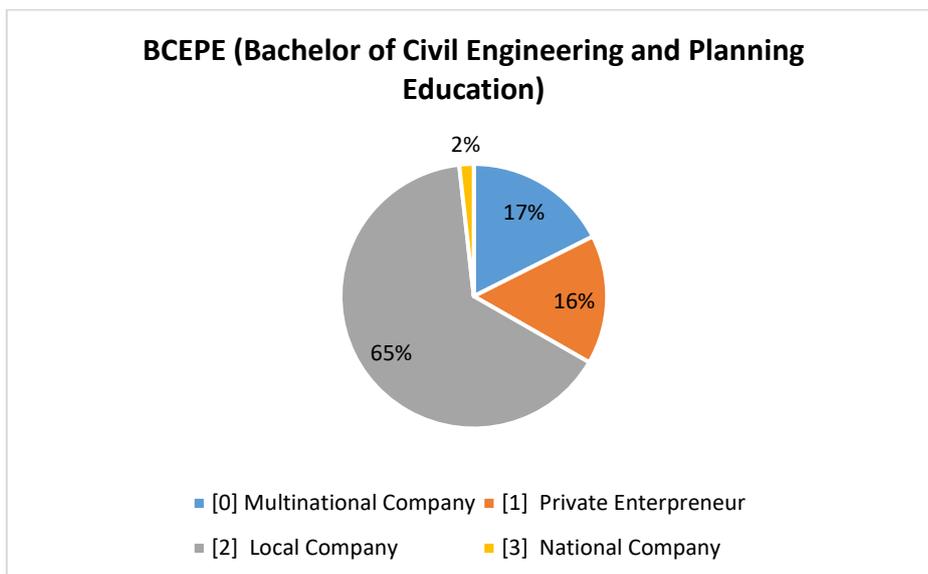
Figure 3.43 Current level companies/instution

Company reputation is one factor that influences college graduates to apply to the company. In general, companies with good reputations and big names have an excellent attraction for graduates from every tertiary institution. Most BCEPE graduates in 2020 worked for local companies, namely 65%. The local company referred to here is based only in that region/region. The second order of domination chooses to work in multinational companies by 17%. Followed by graduates who become self-employed/private enterpreneur by 16%. And those who work in national companies by 2%. Meanwhile, the average salary received by graduates of the BCEPE in 2020 is IDR 3.100.000.

l) Compatibility between the alum's skills and the current occupation

From tracer study data, from the aspect of suitability of work with competence in the field of alum education, up to 94% stated that the area of work was considered suitable (closely), 4% of graduates noted that the field of work was very closely related to the current job. While 0% said, it was close, the remaining 2% stated it disagreed, as shown in Figure 3.45 below.
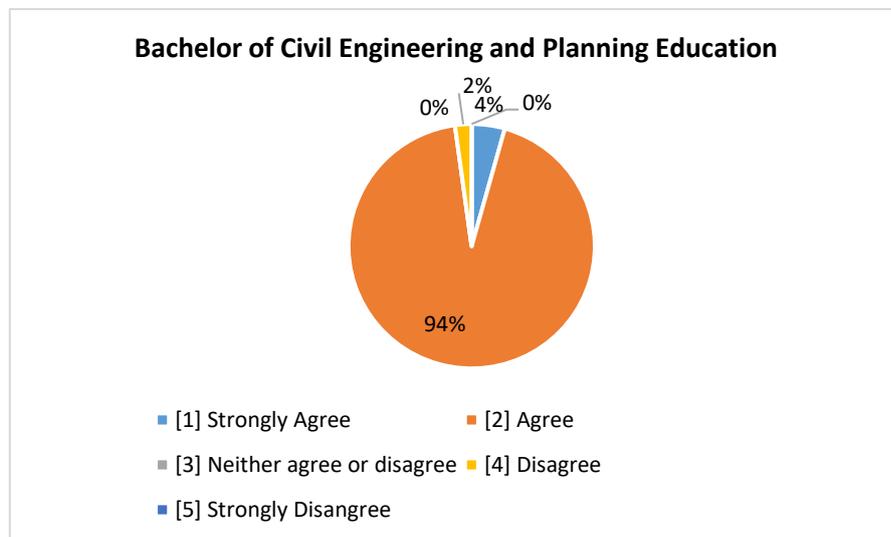
Figure 3.44 Compatibility between the alum's skills and the occupation

m) The education level required for the current occupation

Tracer study data for graduates in 2020 shows that the dominance of the level of knowledge possessed by graduates is following the current field of work, namely 96%. At the second level, 2% of graduates stated that the current job has similar level of education. An alumnus of 2% said the current job requires a lower level of education. None of the graduates stated that their current job required a higher level of education.

Bachelor of Civil Engineering and Planning Education

2% 0% 2%

96%

- [1] Higher Level
- [2] Similar
- [3] Lower Level
- [4] No Need Higher Education
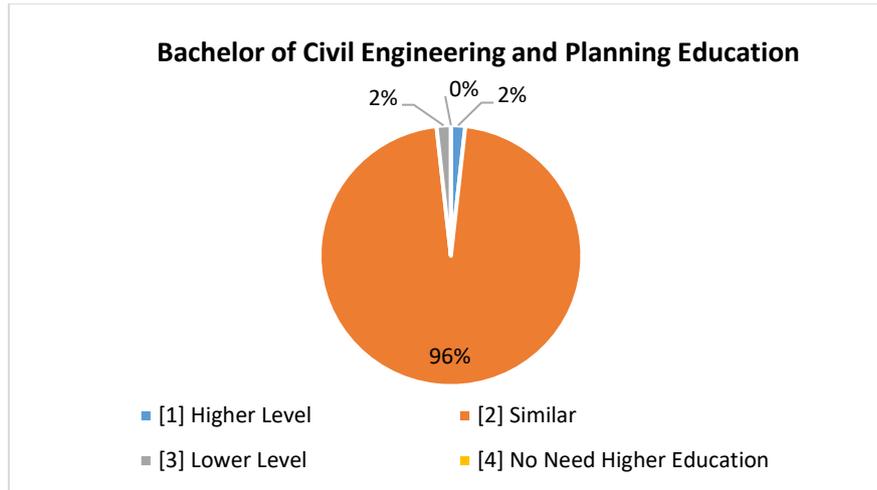
Figure 3.45 The required level of education for the alumni's present occupation

n) **Why are graduates' current occupations not following the field of their study?**

34% of the 2020 BCEPE graduates said they had jobs that currently owned is following education. 17% of graduates also said they had not found a suitable position. As many as 15% of graduates said their career in their current field has higher income. 12% of BCEPE graduates stated that because this was their first occupation, they accepted an occupation aligned with their education.

BCEPE (Bachelor of Civil Engineering and Planning Education)

34%
17%
0%
7%
0%
12%
0%
2%
3%
5%
15%
5%

- [1] Wrong question. This occupation is suitable with my education.
- [2] I haven't found a suitable job yet
- [3] This position affords me excellent career prospects.
- [4] I prefer to work in a different field
- [5] At the beginning of this career, I had to accept an occupation unrelated to my education.
- [6] I was promoted to a position that had less to do with my education than my previous position.
- [7] Higher income
- [8] My current occupation is more assured
- [9] My current occupation is more engaging
- [10] My current occupation allows me to take on additional work/flexible schedule, etc.
- [11] My location company is closer to my house.

Figure 3.46 The reason for selecting an occupation is unrelated to the field of study.

o) Satisfaction basen od academic experinces and academic environment

Bachelor Of Civil Engineering And Planning Education
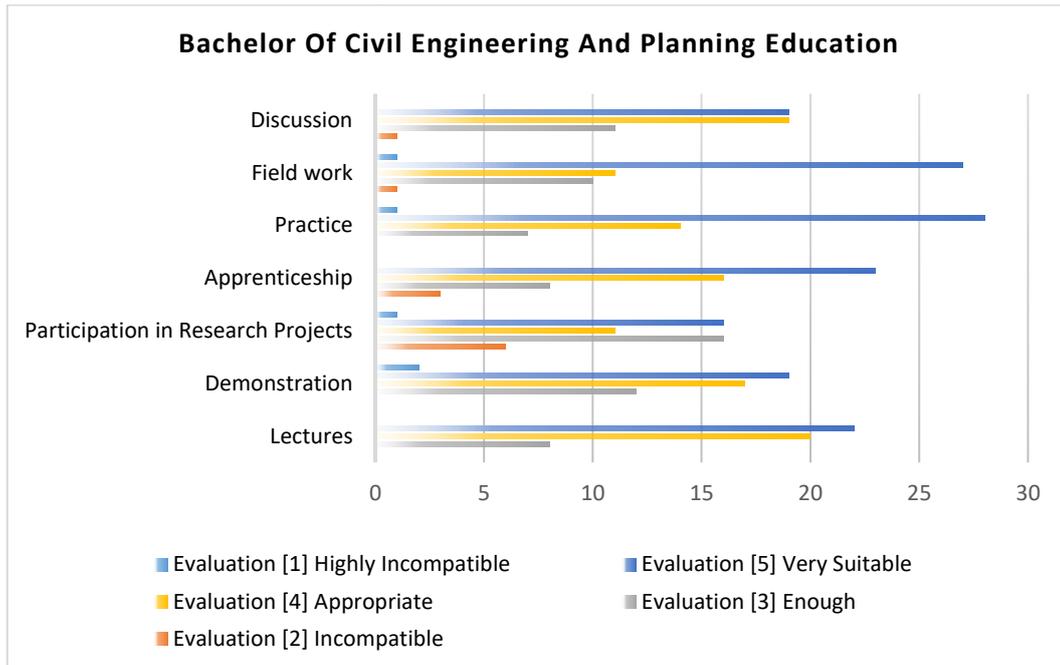
Figure 3.47 Alumni Assessment of Education and Learning Experience at BCEPE Study Program

Education and learning experiences here consist of several aspects, namely: lectures, demonstrations, participation in projects, internships/apprenticeships, practicums, fieldwork, and discussions.

From the 2022 tracer study data, BCEPE graduates who graduated in 2020 assess the education and learning experience provided by BMEE during college as very suitable.

p) Alumni Assessment of Competencies Upon Graduation and Alumni Assessment for UNY Contribution to Graduate Competencies While Working

There are many components for alum assessment of competency at graduation and graduates assessment for UNY's contribution to BCEPE's graduate competence while working, namely: knowledge in the graduate field or discipline, knowledge outside your area or discipline, general knowledge, English/languages other foreigners, internet skills, computer skills, critical thinking, research skills, study skills, communication skills, work in under pressure, time management, working independently, working within the team/cooperating with others, working in a team/cooperating with other people, ability to solve problems, negotiation, ability analysis, tolerance, adaptability, loyalty, integrity, working with people different cultures and backgrounds, leadership, abilities in holding responsibility, initiative, project/program

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management, capability to present ideas/products/reports, knowledge in writing reports, memos, letters and documents, and the ability to continue learning all life.

From tracer study data for 2022, it is known that the value of competency at the time of graduation and the contribution of UNY to the competence of graduates at work is directly proportional. The average competency score has met the appropriate value.

Figure 3.48 Comparison of alum competencies at the time of graduation and UNY's contribution to graduate competencies at work

q) Conclusion

1) This tracer study has presented several points of information regarding the conditions of graduates of the 2020 Bachelor of Civil Engineering and Planning Education (BCEPE), which can be used as input for the development/improvement of BCEPE in the future.

2) The survey's completion rate is 88%, and the Gross Response Rate of the survey is 12%. This response rate is excellent and can be increased in the following years.

3) Sources of tuition funding for BCEPE graduates who graduate in 2020, mostly from their own/parents' expenses (77%). The remaining 27% of funding sources come from scholarships.

4) BCEPE generally graduates easily to get a job. For BCEPE graduates graduating in 2020, 75% of respondents are working. 5% created their jobs, 4% continued their education, and 16% did not have a job for reasons of personal interest.

5) 96% of BCEPE graduates who graduated in 2020 chose not to continue their studies. Meanwhile, 4% continued their studies.

6) The percentage of BCEPE UNY graduates looking for work after graduation is 44%. At the same time, graduates looking for work before graduating are equal to 23%. Of respondents who chose other options, 33%. The average BCEPE graduate in 2020 found a job with a waiting time of 1.44 months.

7) It is noted that the average number of companies applied for by one BCEPE graduate who graduated in 2020 is 12 companies. The total number of companies for graduates in 2020 is 639 companies/agencies. The average number of companies willing to respond to applications from BCEPE graduates who graduated in 2020 is five companies for one graduate. Meanwhile, the average number of companies inviting applicants to the interview stage is 3 for 1 BCEPE graduate. This condition, of course, is a concern of the BCEPE management in compiling cooperation programs with companies and agencies to increase the number of graduates invited for interviews.

8) The three most significant proportions of how graduates look for job vacancies are using the internet/online advertisements/mailing lists at 28%. 28% of graduates get information about job vacancies through relations (e.g., lecturers, parents, relatives). In the third position looking at advertisements in newspapers/magazines, flyers 10%.

9) From tracer study data in 2022, BCEPE graduates in 2020, the majority work in government-owned schools/universities, namely 39%. In the second place, 19% of BCEPE graduates in 2020 worked at government institutions. While in third place, jobs not included in the tracer study list are the choice of 18% of BCEPE graduates. In fourth place at 7%, BCEPE graduates choose to work in national private companies.

10) BCEPE graduate shooters work for local companies, namely 65%. The second order of domination chooses to work in multinational companies, 17%. Followed by graduates who become self-employed/private entrepreneurs by 16%. And those who work in national companies by 2%. The average salary received by BCEPE graduates in 2020 is IDR 3,100,000.00

11) From fulfilling work with competence in graduate education, up to 94% stated that the work area was considered suitable (very close).

12) Study tracer data for graduates in 2020 shows the dominance of the level of the field of study owned by graduates are following the current area of work, namely 96%.

13) Alumnus graduating in 2020, 34% of the 2020 BCEPE graduates said they had jobs they currently owned following education. 17% of graduates also said they had not found a suitable position. As many as 15% of graduates said their career in their current field has a higher income. 12% of BCEPE graduates stated that because this was their first occupation, they accepted an occupation aligned with their education.

14) From the tracer study data for 2022, BCEPE graduates assess that the education and learning experience provided by UNY during college is following what is expected. Hopefully, evidenced by the majority assessment of almost all aspects of learning are considered very satisfying and satisfying.

15) From tracer study data for 2022, it is known that the value of competence at graduation and the university's contribution to the competence of graduates at work are directly proportional. The average competency score has met the appropriate value. UNY's contributions to UNY's competencies that need to be improved are knowledge outside your field or discipline, research skills, analytical skills, leadership, general knowledge, and negotiation skills. This competency needs to get more attention from BCEPE management to increase the competitiveness of BCEPE graduates.

3.4 Bachelor of Electronics Engineering Education (BEEE)
a) Number of Respondents

BEEE (Bachelor of Electronics Engineering Education)

11%

89%

■ Number of Graduates Who Complete TS Web 2022.
■ Number of Graduates Who Do Not Complete TS Web 2022.
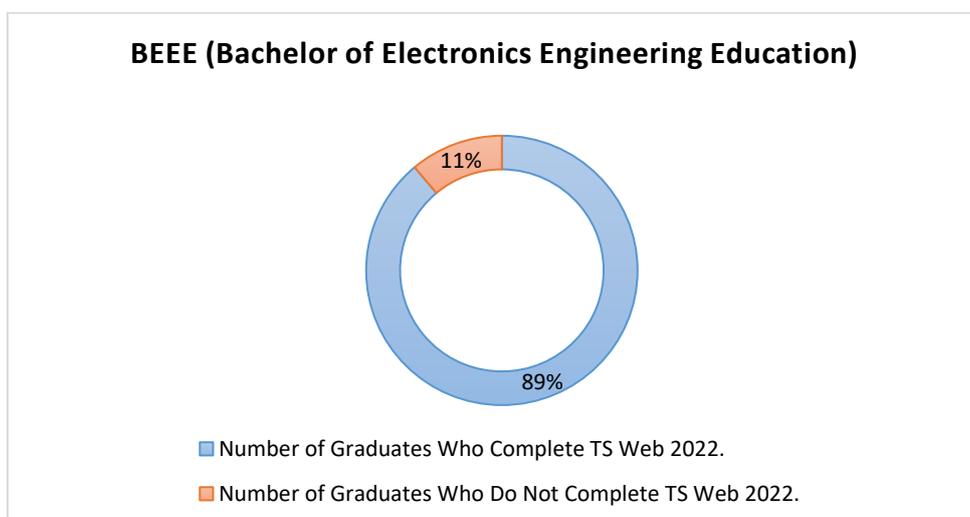
Figure 3.49 Gross response rate of BEEE graduates

BCEPE graduates who filled out the UNY Tracer Study questionnaire were 89%, and graduates who did not fill out the questionnaire were 11%. Figure 3.50 shows the Gross Response Rate achieved in the 2022 UNY BEEE tracer study, which is very good for measuring the response rate of a tracer study.
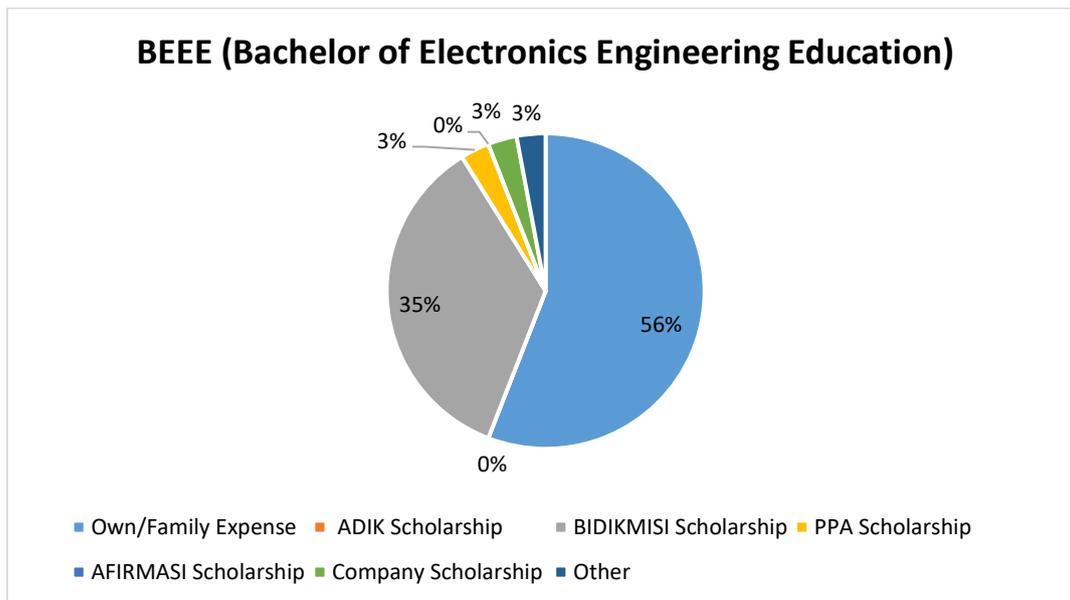
b) Tuition Funding

Figure 3.50 College's Funding Source of BEEE Graduates

The source of tuition funding for BEEE graduates who graduate in 2020 is mainly their own/family's expenses (56%). Funding from the Bidikmisi scholarship ranks second (35%), while the remaining funding from companies/private ranks third (3%), followed by PPA scholarship financing 3%, others (0%), ADIK scholarships (0%), and affirmation scholarships (3%).

c) Current employment status of the graduates

BEEE (Bachelor of Electronics Engineering Education)
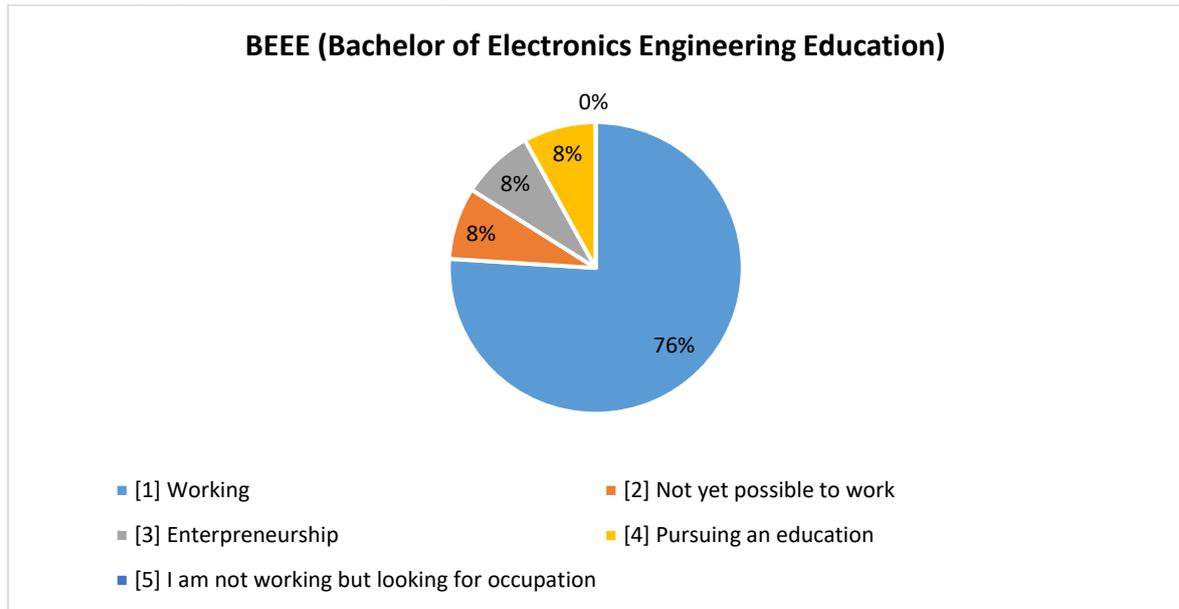
Figure 3.51 Graduate's activities after graduation

Figure 3.3 shows the percentage of graduates who already working in companies/institutions, agencies, self-employed, continuing education, looking for work, and still need to work. For graduates of the BCEPE graduating in 2020, 7%% of the respondents' main occupation is working for other companies/agencies/institutions, as shown in Figure 3.4. The number of respondents who choose to be self-employed is 5%. The percentage of graduates who have not worked is 16%. Respondents who are continuing their education are 4%. In comparison, the number of respondents in the process of looking for work is 0%.

d) Distribution of graduates continuing their studies

Based on the survey results, 92% of the UNY BCEPE graduates who graduated in 2020 chose not to continue their studies. Meanwhile, 8% continued their studies.
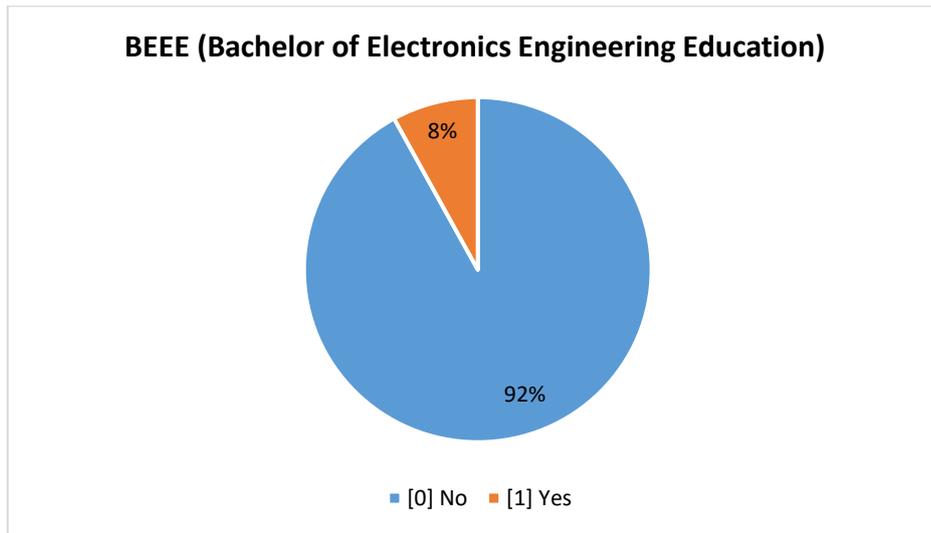
Figure 3.52 Distribution of graduates continuing their studies

e) The graduates period begins to look for occupations and waiting time for graduates to get their first occupation
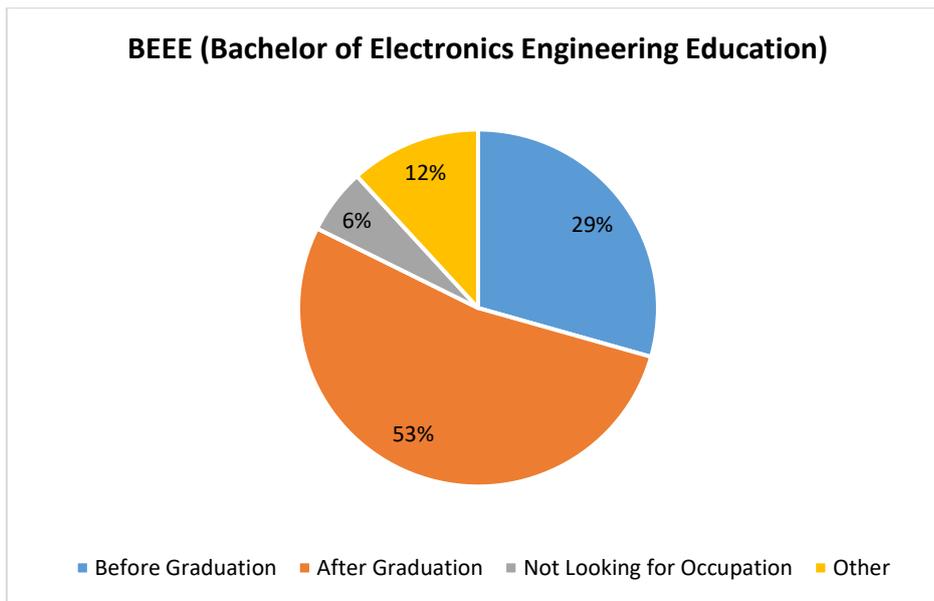
Figure 3.53 The alum period begins to look for occupations

The waiting period for graduates looking for work getting their first job was divided into four groups: before graduation, after graduation, not looking for work, and others.

From Figure 3.54, the dominance of graduates looking for occupation after graduation is 53%, graduates looking for work before graduating is 29%. In comparison, others are 18%. From the survey results, BEEE graduates in 2020 found an occupation on average 1.16 months after graduation.

Number of companie/instution apply for before getting first occupation

BEEE (Bachelor of Electronics Engineering Education)
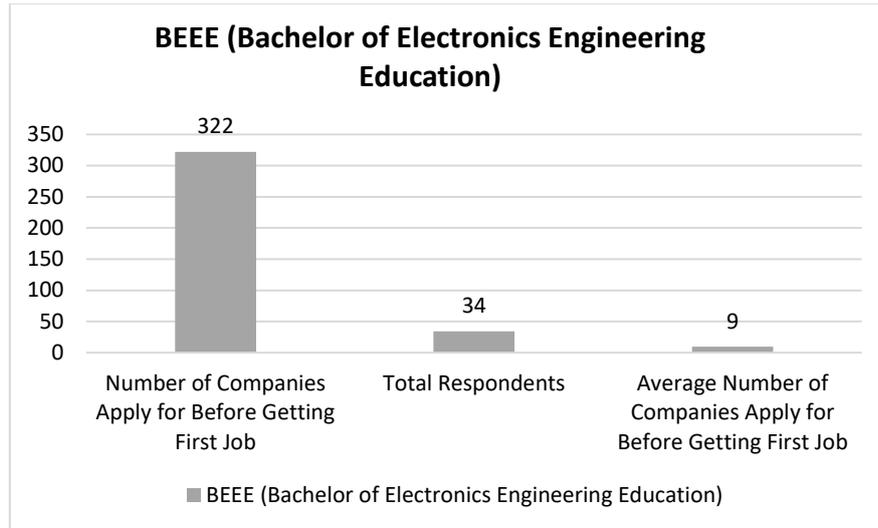
Figure 3.54 Total number and average number of applied companies

It is noted that the average number of companies applied to by one BEEE alumnus who graduated in 2020 is 9 companies.

g) Number of company/instution that responded to applications

BEEE (Bachelor of Electronics Engineering Education)
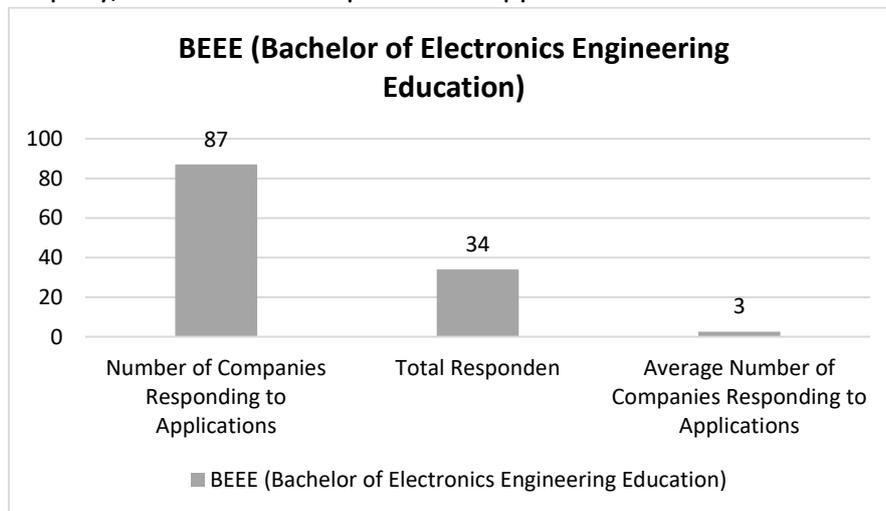
Figure 3.55 The total number of responding companies responding to applications

The total number of responding companies responding to applications from BEEE graduates who graduated in 2020 was 87 companies.

h) Number of Company/Institution inviting applicants for interviews
The total number of companies inviting interviews from BEEE graduates who graduated in 2020 was 58 companies.
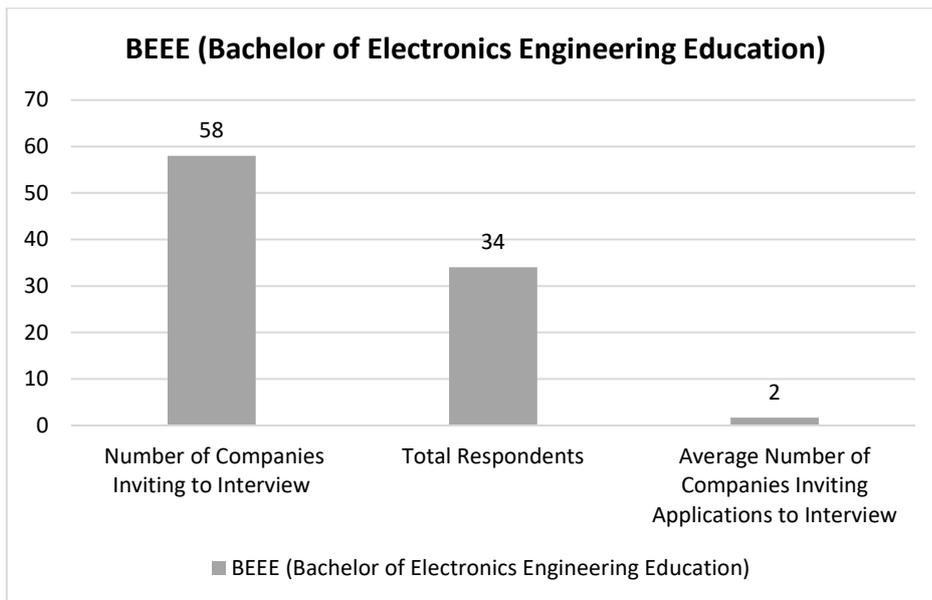
Figure 3.56 The total number of company/institutions inviting applicants for interviews

i) How do graduates get occupation information?

In looking for work, graduates use various methods. In this tracer study survey, 15 categories of job search methods are asked and answered by respondents. In figure 3.58, the three most significant percentages are using the internet/online advertising/mailing lists at 34%, job vacancy information through relations (e.g., lecturers, parents, relatives, friends) at 17%, and go to exhibition/job fairs around 10%. Using internet media and online advertising is an option for companies because the costs are cheaper and can reach graduates relatively quickly. This is reinforced by the Covid-19 pandemic condition, which requires physical distancing to be enforced in almost all fields. Futhermore, graduates prefer to look for job vacancies through internet media (social media) and online advertising. For job search through relations, for example, lecturers, parents, relatives, or friends, it is also still widely used today, this is because usually the company also wants to obtain human resources in an easy, fast way, and especially can get an overview of the candidates such as through existing relationships. On the other hand, graduates want to obtain more detailed information about the company and its work culture if the job is obtained through a relationship. The third is participating in job fairs attended by many companies looking for workers.

BEEE (Bachelor of Electronics Engineering Education)

- [1] Advertisements in newspapers/magazines, flyers
- [2] Applying to companies without knowing the vacancies
- [3] Go to exhibitions/job fairs/job fairs
- [4] Search via the internet/online advertising/mailing lists
- [5] Contacted by company / Booked by company before graduation
- [6] Contact the Ministry of Manpower
- [7] Contact commercial/private employment agencies
- [8] Obtain information from the University's Career Development Center
- [9] Obtain information from the University's Career Development Center
- [10] Obtain information from the University's Career Development Center
- [11] I built a network (network) since I was in college
- [12] Through relationships (eg lecturers, parents, relatives, friends, etc.)

Figure 3.57 Occupation information for BEEE graduates

j) Current types of schools/companies/institutions

BEEE (Bachelor of Electronics Engineering Education)

- [1] Government Institution
- [2] Non-profit Organozation/Non Government Organization (NGO)
- [3] National School/University
- [4] Private School/University
- [5] Private Company
- [6] National Private Company
- [7] Multinational/Internasional Private Company
- [8] Unlicensed Entrepreneur
- [9] Licensed Entrepreneur
- [10] State-Owned Enterprise / Regional-Owned Enterprise
- [11] Multilateral Institution/Organization
- [0] Others

Figure 3.58 Current types of schools/companies/institutions

From tracer study data for 2022, the majority of BEEE graduates in 2020 worked at government-owned schools/universities, around 38%. In the second place, 20% of BEEE graduates in 2020 are working at privat schools/universities. While in third place, jobs not included in the tracer

study list are the choice of 16% of BEEE graduates. In fourth place at 12%, BEEE graduates choose to work in government institutions.

k) Current level companies/instution and average salary
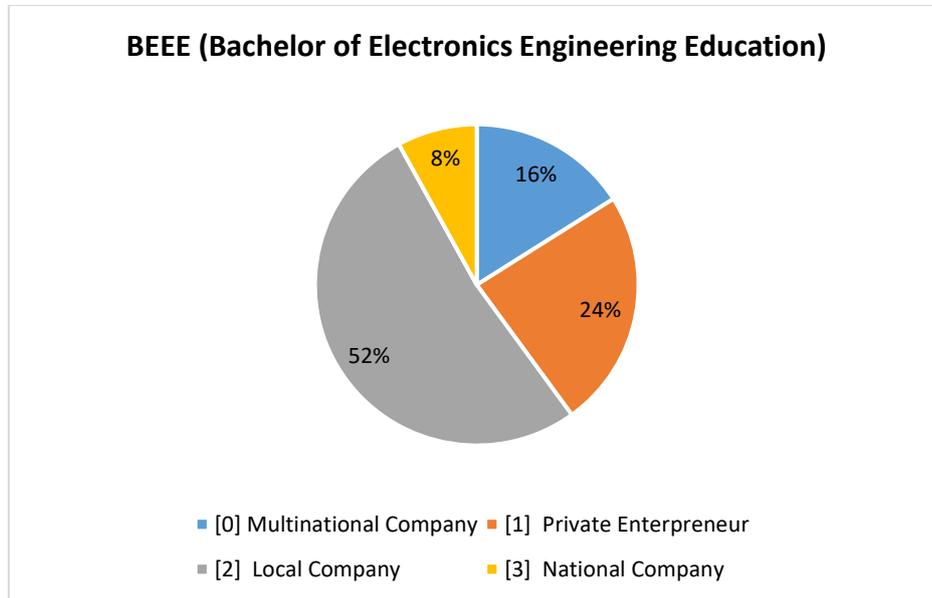
Figure 3.59 Current level companies/instution

Company reputation is one factor that influences college graduates to apply to the company. In general, companies with good reputations and big names have an excellent attraction for graduates from every tertiary institution. Most BEEE graduates in 2020 worked for local companies, namely 52%. The local company referred to here is based only in that region/region. The second order of domination by graduates who become self-employed/private enterpreneur by 24%, following graduates chooses to work in multinational companies by 16%. Followed. And those who work in national companies by 8%. Meanwhile, the average salary received by graduates of the BCEPE in 2020 is IDR 3.160.000.

l) Compatibility between the alum's skills and the current occupation

From tracer study data, from the aspect of suitability of work with competence in the field of alum education, up to 95% stated that the area of work was considered suitable (closely). While the remaining 5% stated it disagreed, as shown in Figure 3.61 below.
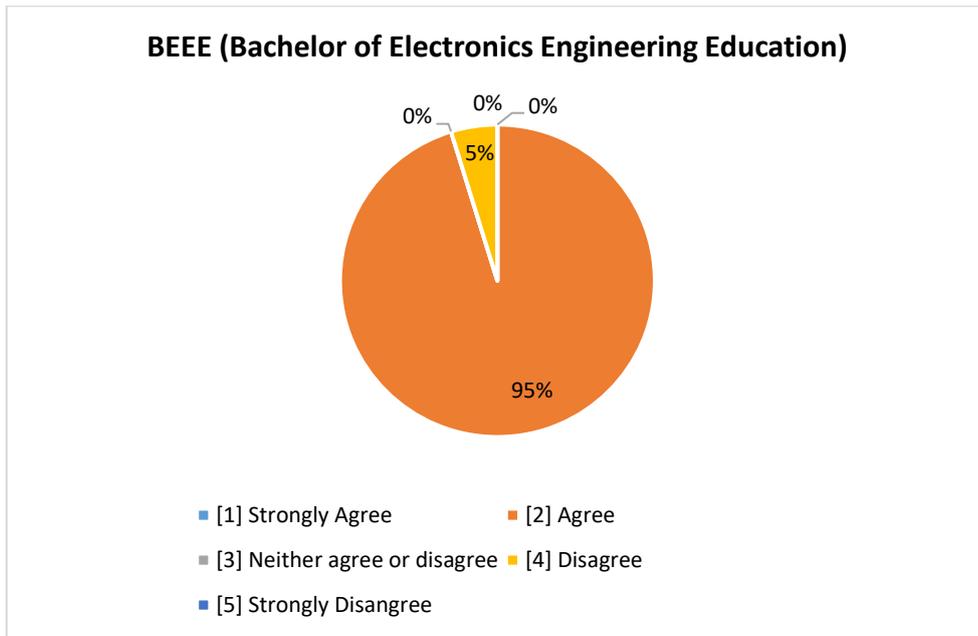
Figure 3.60 Compatibility between the alum's skills and the occupation

m) The education level required for the current occupation
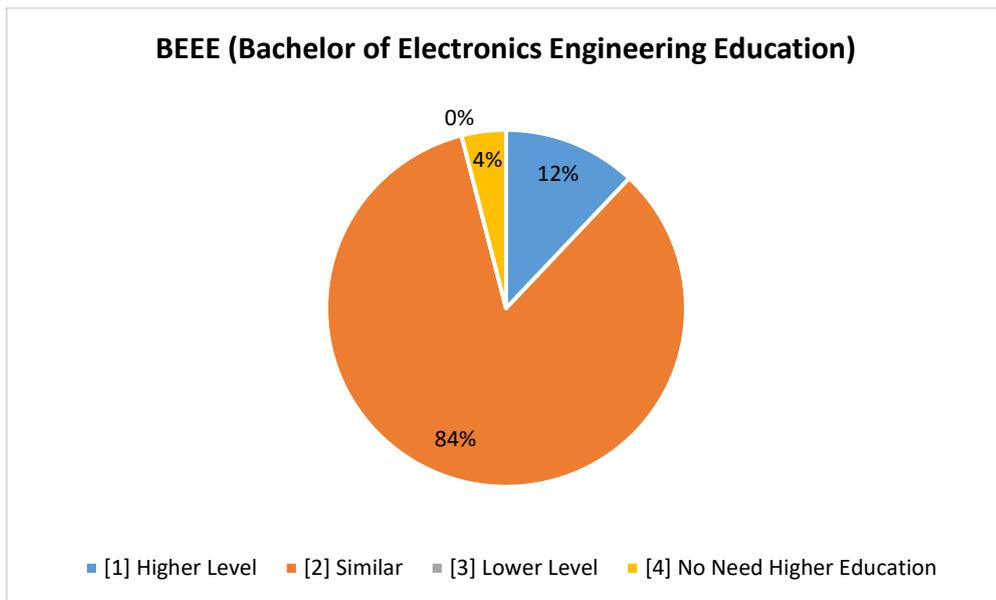
Figure 3.61 The required level of education for the alumni's present occupation

Tracer study data for graduates in 2020 shows that 84% of graduates stated that their current job has a similar level of education. An alumnus of 12% said the current job requires a higher level of education. 4% of the graduates stated that their current job required a higher level of education.

n) Why are graduates' current occupations not following the field of their study?

19% of graduates also said they had not found a suitable position. 17% of the 2020 BCEPE graduates said they had jobs that currently owned is following education. 13% of BEEE graduates stated that because this was their first occupation, they accepted an occupation aligned with their education. As many as 13% of graduates said their career in has flexible schedule. 11% of BEEE graduates stated that their current occupation is more promising and has good career prospects.
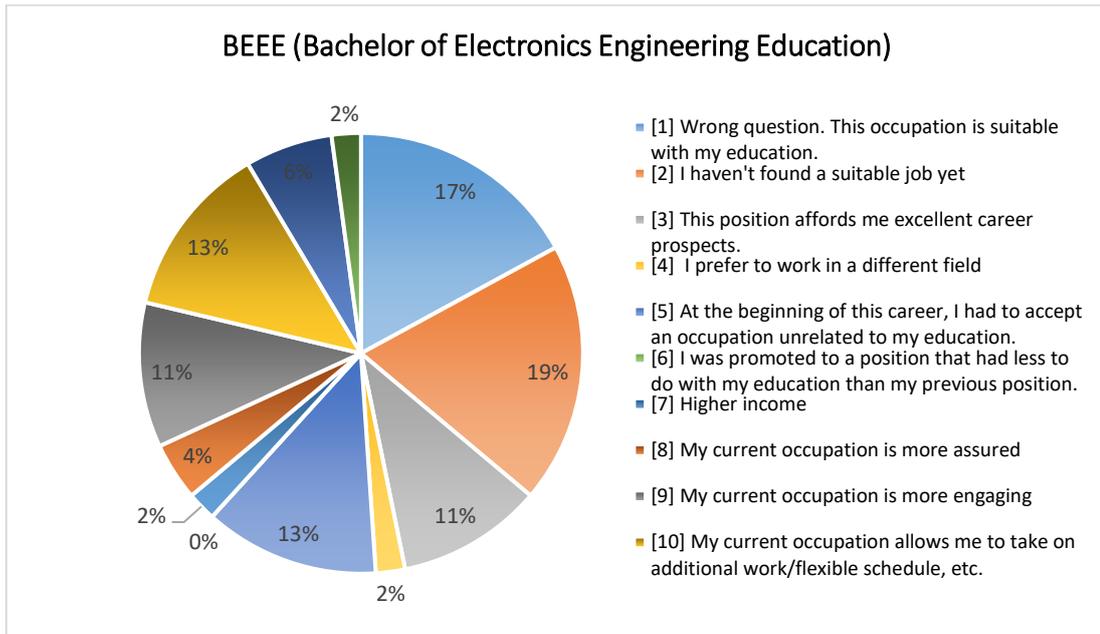

Figure 3.62 The reason for selecting an occupation is unrelated to the field of study.

o) Satisfaction basen od academic experinces and academic environment
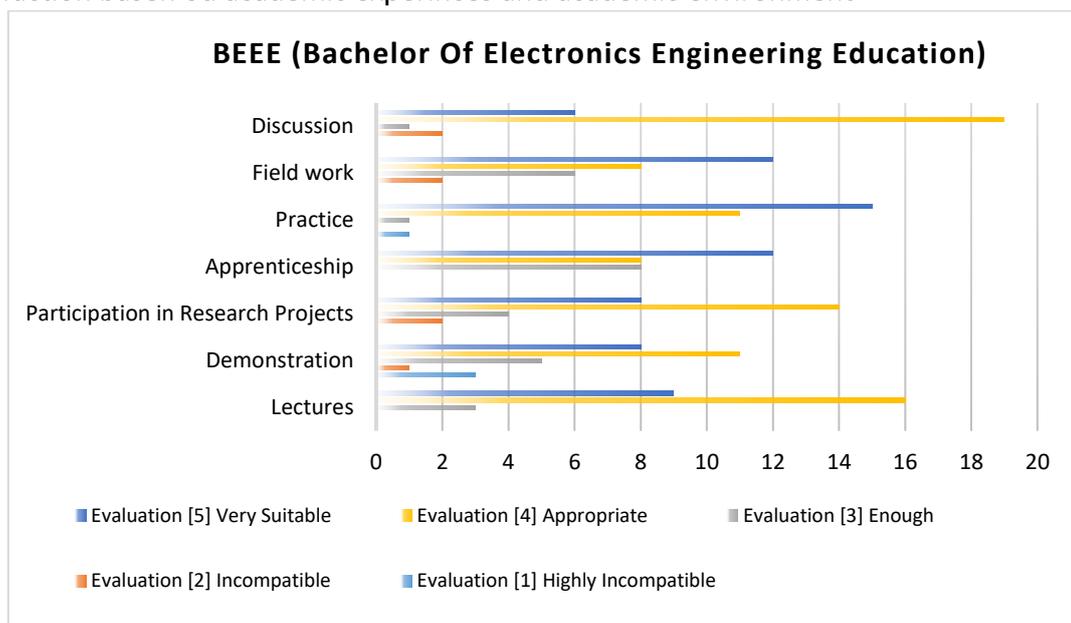

Figure 3.63 Alumni assessment of education and learning experience at BEEE study program

Education and learning experiences here consist of several aspects, namely: lectures, demonstrations, participation in projects, internships/apprenticeships, practicums, fieldwork, and discussions. From the 2022 tracer study data, BEEE graduates who graduated in 2020 assess the education and learning experience provided by BEEE during college as very suitable and appropriate.

p) Alumni Assessment of Competencies Upon Graduation and Alumni Assessment for UNY Contribution to Graduate Competencies While Working
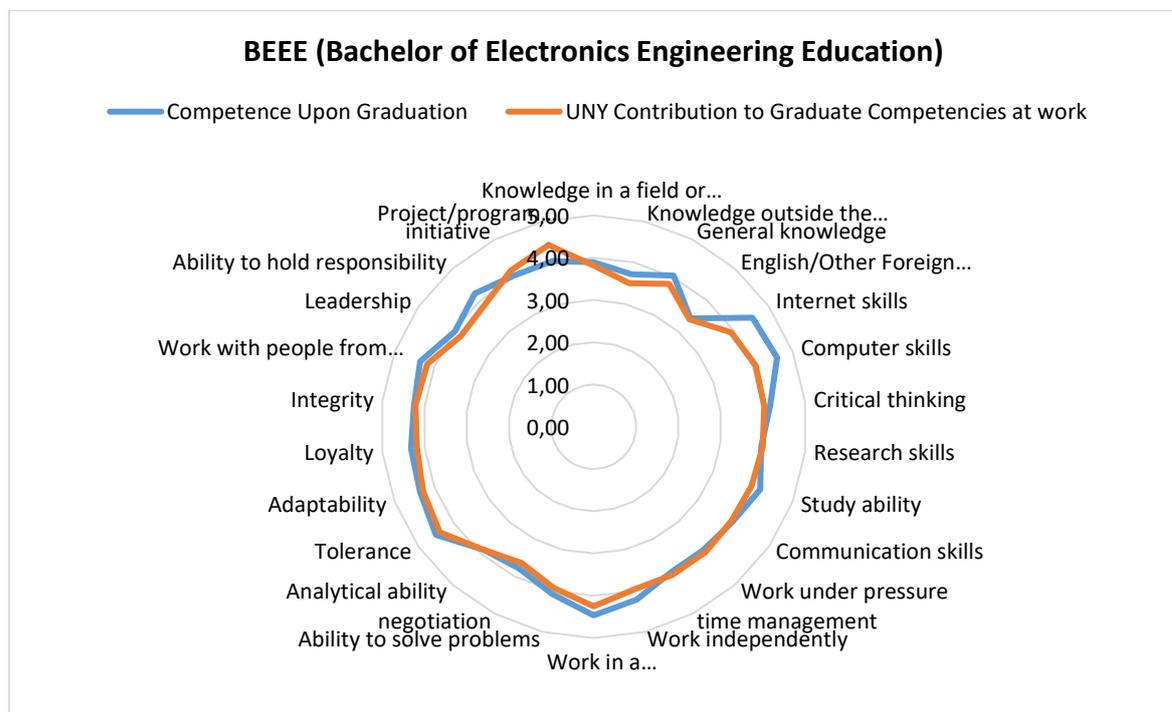

Figure 3.64 Comparison of alum competencies at the time of graduation and UNY's contribution to graduate competencies at work

There are many components for alum assessment of competency at graduation and graduates assessment for UNY's contribution to BEEE's graduate competence while working, namely: knowledge in the graduate field or discipline, knowledge outside your area or discipline, general knowledge, English/languages other foreigners, internet skills, computer skills, critical thinking, research skills, study skills, communication skills, work in under pressure, time management, working independently, working within the team/cooperating with others, working in a team/cooperating with other people, ability to solve problems, negotiation, ability analysis, tolerance, adaptability, loyalty, integrity, working with people different cultures and

backgrounds, leadership, abilities in holding responsibility, initiative, project/program management, capability to present ideas/products/reports, knowledge in writing reports, memos, letters and documents, and the ability to continue learning all life.

From tracer study data for 2022, it is known that the value of competency at the time of graduation and the contribution of UNY to the competence of graduates at work is directly proportional. The average competency score has met the appropriate value.

q) Conclusion

This tracer study has presented several points of information regarding the conditions of graduates of the 2020 Bachelor of Electronics Engineering Education (BEEE) graduates, which can be used as input for future development/improvement of BEEE UNY.

1) The survey's completion rate is 89%, and the Gross Response Rate of the survey is 11%. This response rate is, of course, excellent and can be increased in the following years.

2) Sources of tuition funding for BEEE UNY graduates who graduate in 2020, mostly from their own/parents' expenses (56%). The remaining 44% of funding sources come from scholarships.

3) BEEE generally graduates not challenging to get a job. For BEEE graduates graduating in 2020, 76% of respondents are working. 8% created their jobs, 8% continued their education, and 8% did not have a job for reasons of personal interest.

4) 92% of BEEE graduates who graduated in 2020 chose not to continue their studies. Meanwhile, 8% continued their studies.

5) The percentage of BEEE UNY graduates looking for work after graduation is 53%. At the same time, graduates looking for work before graduating are equal to 29%. Respondents who chose other options by 12%. The average BEEE graduate in 2020 found a job with a waiting time of 1.16 months.

6) It is noted that the average number of companies applied for by one BEEE alumnus who graduated in 2020 is nine companies. The total number of companies involved for graduates in 2020 is 332 companies/agencies. The average number of companies willing to respond to applications from BEEE UNY graduates who graduate in 2020 is three companies for one graduate. At the same time, the average number of companies inviting applicants to the interview stage is two companies for 1 BEEE graduate. This condition is a concern of the BEEE management in compiling cooperation programs with companies and agencies to increase the number of graduates invited for interviews.

7) The three most significant percentages of graduates seeking information on job vacancies are using the internet/online advertisements/mailing lists at 34%. 17% of graduates get information about job vacancies through relations (e.g., lecturers, parents, relatives). In the third position, 12% of graduates chose to participate in the job fair.

8) From tracer study data in 2022, BEEE graduates in 2020, the majority work in government-owned schools/universities, namely 38%. In the second place, the employment of 2020 BEEE graduates working in private schools/universities is 20%. As workers who are not on the tracer study list, that is equal to 16%. Meanwhile, in third place, 12% of graduate jobs are government-run employees.

9) Most BEEE graduates work for local companies, namely 52%. The second order chooses to be self-employed by 24%. They were followed by graduates who work in multinational companies, 16%. And those who work in national companies by 8%. The average amount of salary received by BEEE graduates in 2020 is IDR 3,100,000.00

10) From the aspect of the suitability of the job with the competence in the field of graduates science education, up to 95% stated that the work area was considered appropriate (very close).

11) Study tracer data for graduates in 2020 shows the dominance of the level of the field of study owned by graduates are following the current area of work, namely 84%.

12) Alumnus graduating in 2020, 19% also stated that they chose a job that was not suitable because they had not found a more appropriate position, 17% said the job they currently had was following the education pursued at BEEE UNY, while the alumnus by 13% chose a job currently due to flexible working schedule, 11% also choose this job because it is more promising, 11% choose this job because it is a promising career.

13) From tracer study data for 2022, BEEE graduates assess that the education and learning experience provided by UNY during college is following what is expected expected, evidenced by the majority of assessments in almost all aspects of learning considered very satisfying and satisfying.

14) From tracer study data for 2022, it is known that the value of competence at graduation and the university's contribution to the competence of graduates at work are directly proportional. The average competency score has met the appropriate value. UNY's contributions to UNY's competencies that need to be improved are knowledge outside your field or discipline, research skills, analytical skills, leadership, general knowledge, and

negotiation skills. This competency needs to get more attention from BEEE management to increase the competitiveness of BEEE graduates.

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