



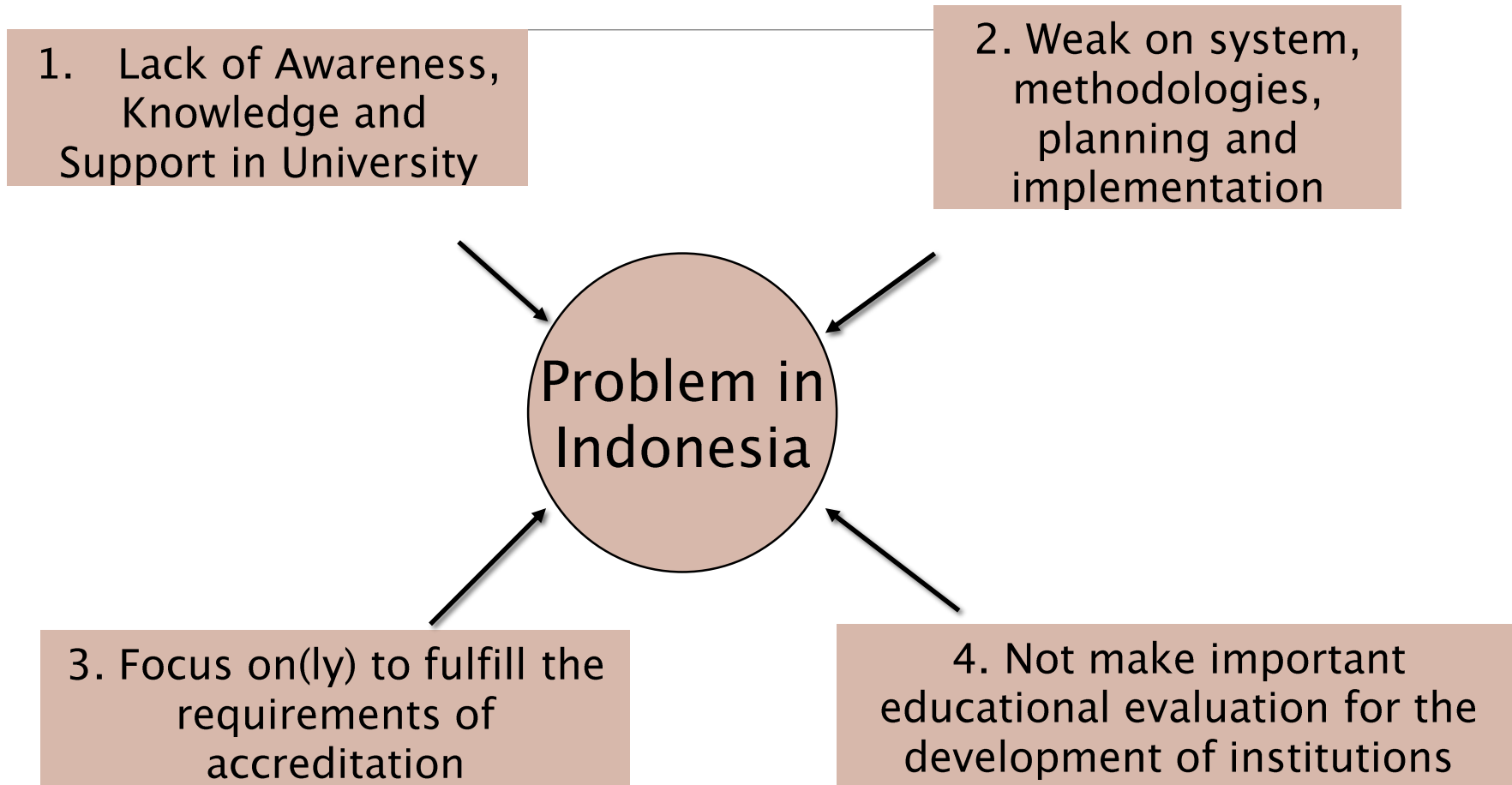
INNOVATION & IMPLEMENTATION

TRACER STUDY ITB (2012-2015)

BACKGROUND

- Organizing and implementing of Tracer Study to be successful must have two requirements: institutional and sustainable.
- Even several universities in Indonesia has an institutional n regular system on Tracer Study implementation, it is not enough if there is no attempt to continuous improvements in every step/stage in the implementation: infrastructure, facilities, system, methodology, communication, publication, etc.
- Unfortunately, so many university/higher education in Indonesia has no an institution/unit to conduct a tracer study at university level regularly. (e.g. based on project, base on requirement of accreditation etc).
- Indonesia has more than 4000 higher education institution (universities, Polytechnic, Institute, Academy, etc). Generally Tracer study is (only) to fulfill the administration/accreditation process, so that way Tracer Study is conducted at Study Program level. (ITB is also like this until 2010).

Tracer Study in Indonesia (Problem in General)



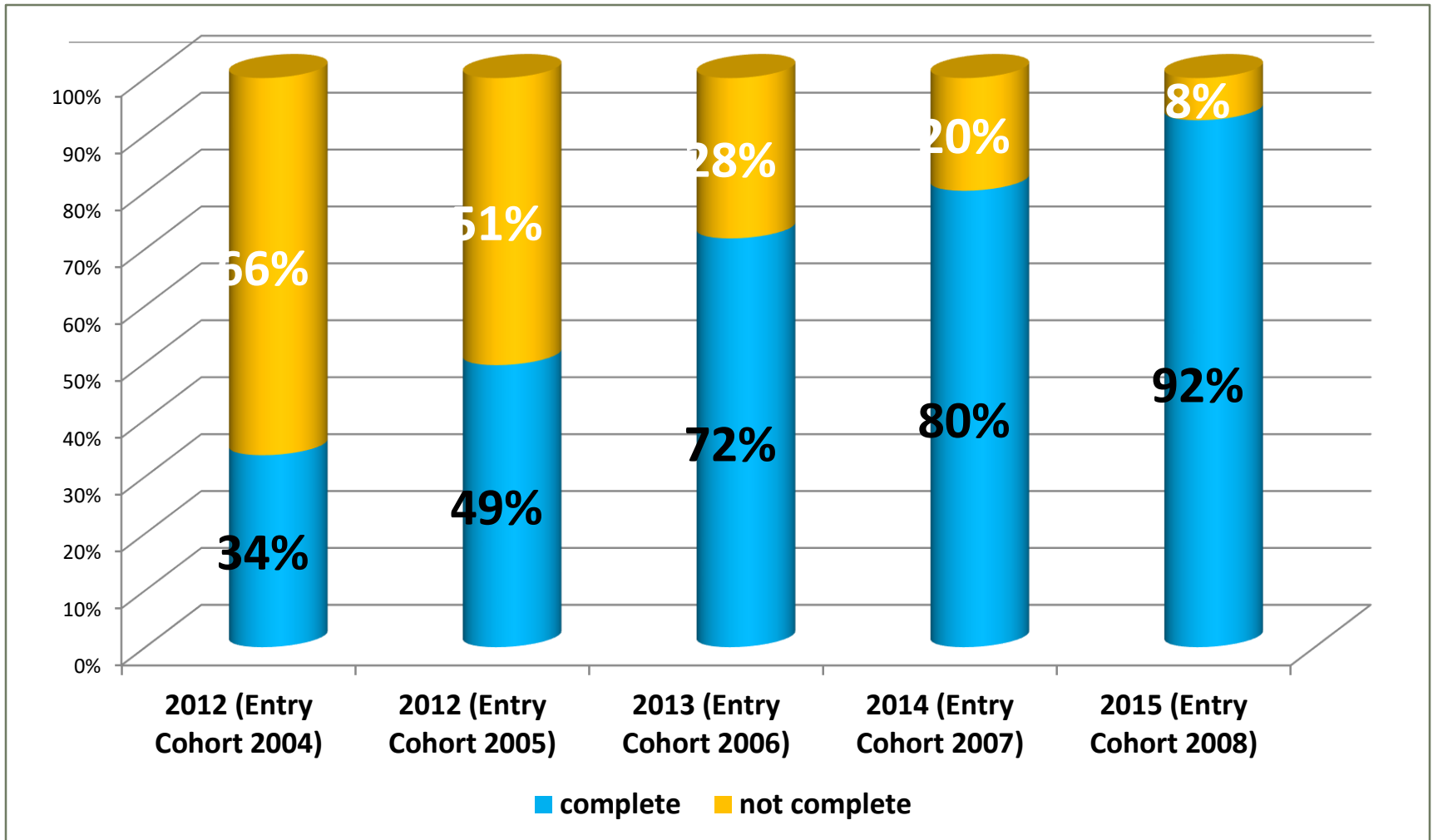
- If the tracer study is conducted in University at Study Program level:

- 1). There is no human resource dedicated to operate TS, untrained human resource
- 2) not regularly held,
- 3) unsystematic,
- 4) lack/weak in methodology, sampling
- 5) using different core questioner (sometime completely different), not comparable to other study program in university,
- 6) low in budget
- 7) important and urgent need to fulfill the administration (Accreditation Process).

The main problem will be: bad quality in data/analysis, very low in the response rate, does not represent the profile of Alumni, etc.

-
- ITB has this experience until 2010, TS is conducted at Study program level, to fulfill the requirement of accreditation process both national (BAN) and international (ABET Accreditation Board for Engineering and Technology, KAAB, etc).
 - From 2010-2011, ITB conducted TS at university level (by ITB Career Center) but only for 3-4 study programs: weak in methodology, self develop questionnaire, questionnaire deliver in email attachment, less then 50% response rate.
 - Starting from 2012 until now, Tracer Study is conducted by ITB Career Center, under Office of Student Affairs: systematically, regularly and cover all of study program in ITB.
 - ITB Tracer Study adopted the core questionnaire from UNITRACE and INDOTRACE, improving the methodology, online questionnaire, and always have an increase response rate each year, 2012 (49%), 2013 (72%), 2014 (80%) and 2015 (92%). How? Why? What?

Tracer Study ITB Response Rate



Aims

- This paper aims at exploring and discussing on methodology, focus on innovation and implementation of ITB Tracer Study
- This paper also discusses: why we do these innovations, and how improvement in every stage of implementation with the main objective to increase the response rate.

(the paper/presentation exclude discussing on result of analysis, and report- please visit the website <http://karir.itb.ac.id/tracerstudy>)

(the full paper also can be downloaded in the website).

ITB Tracer Study

Concept of Innovation

Structural & Cultural Approach

Formal & Informal Approach

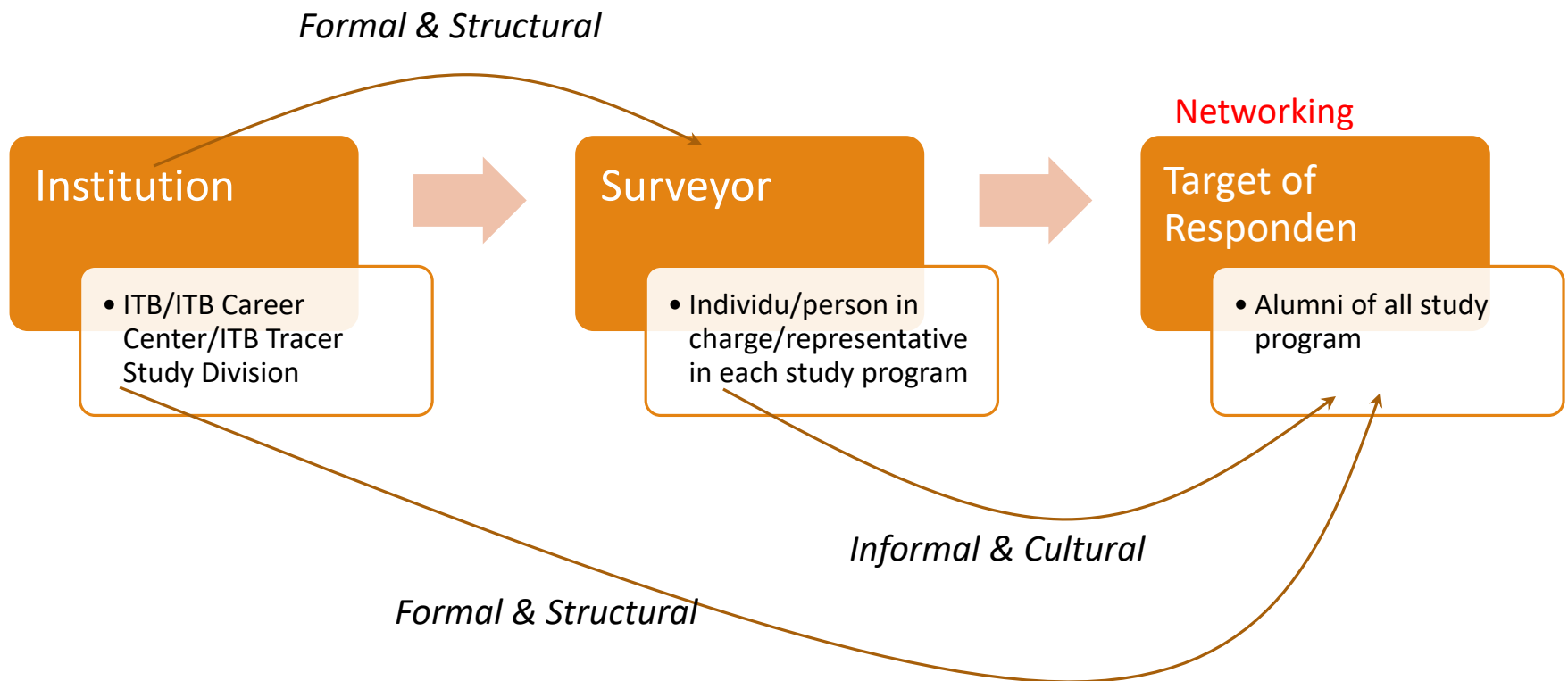
Basic Idea

Structural and Cultural Approach

- Tracer Study is not conducted referred to International/National Tracer Study's Guideline only, but also strongly pay attention and take advantage of the prevailing culture and tradition (Indonesia, and ITB/ITB alumni especially).

Formal and Informal Approach

- Tracer Study is conducted not only in conformance with generally accepted standard of Tracer Study but also using relationship: kinship, brotherhood, friendship, and intimacy.



Tracer Study ITB Implementation

Entry of
Cohort

Roles of
Surveyor

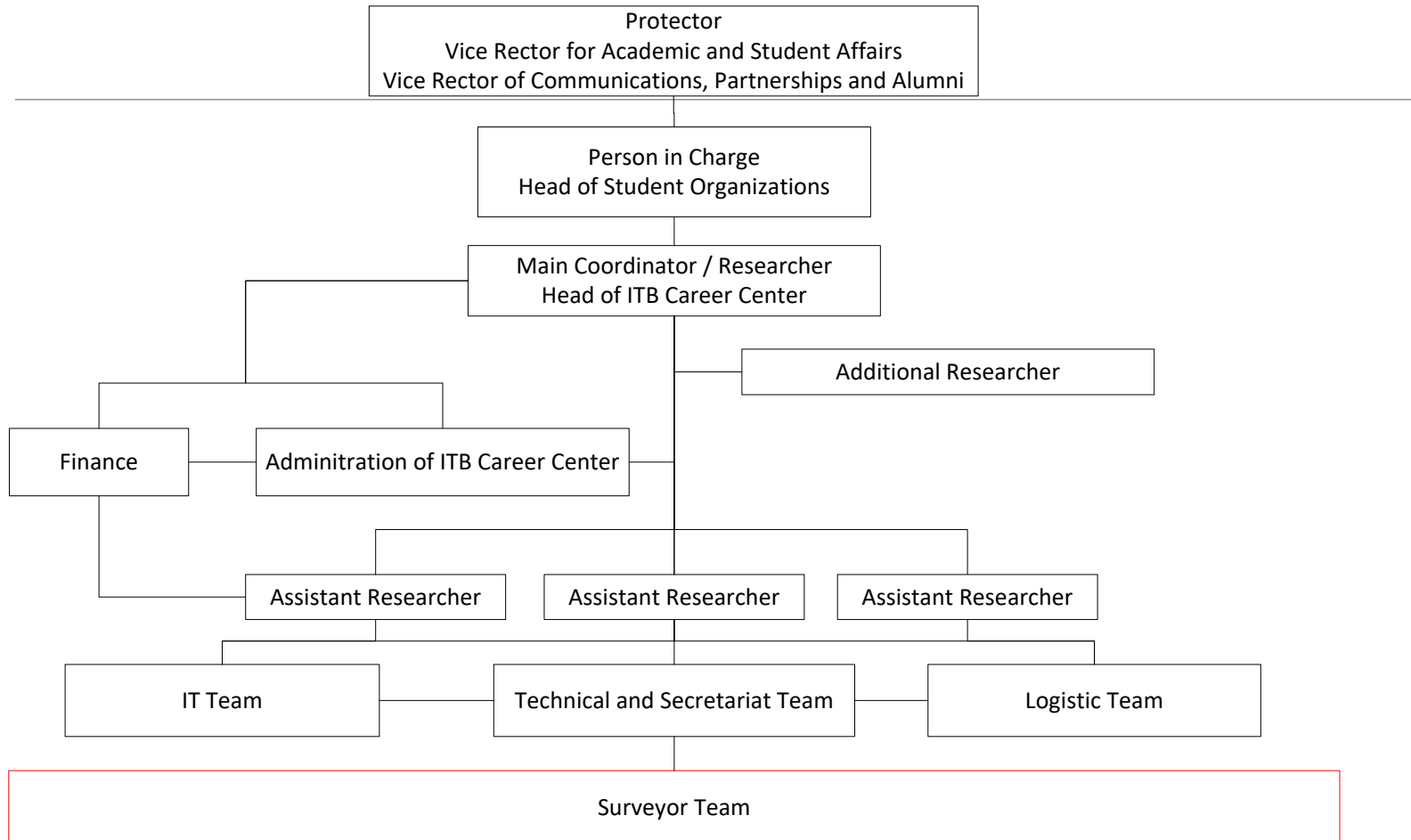
Self-
developed IT

Reward
System

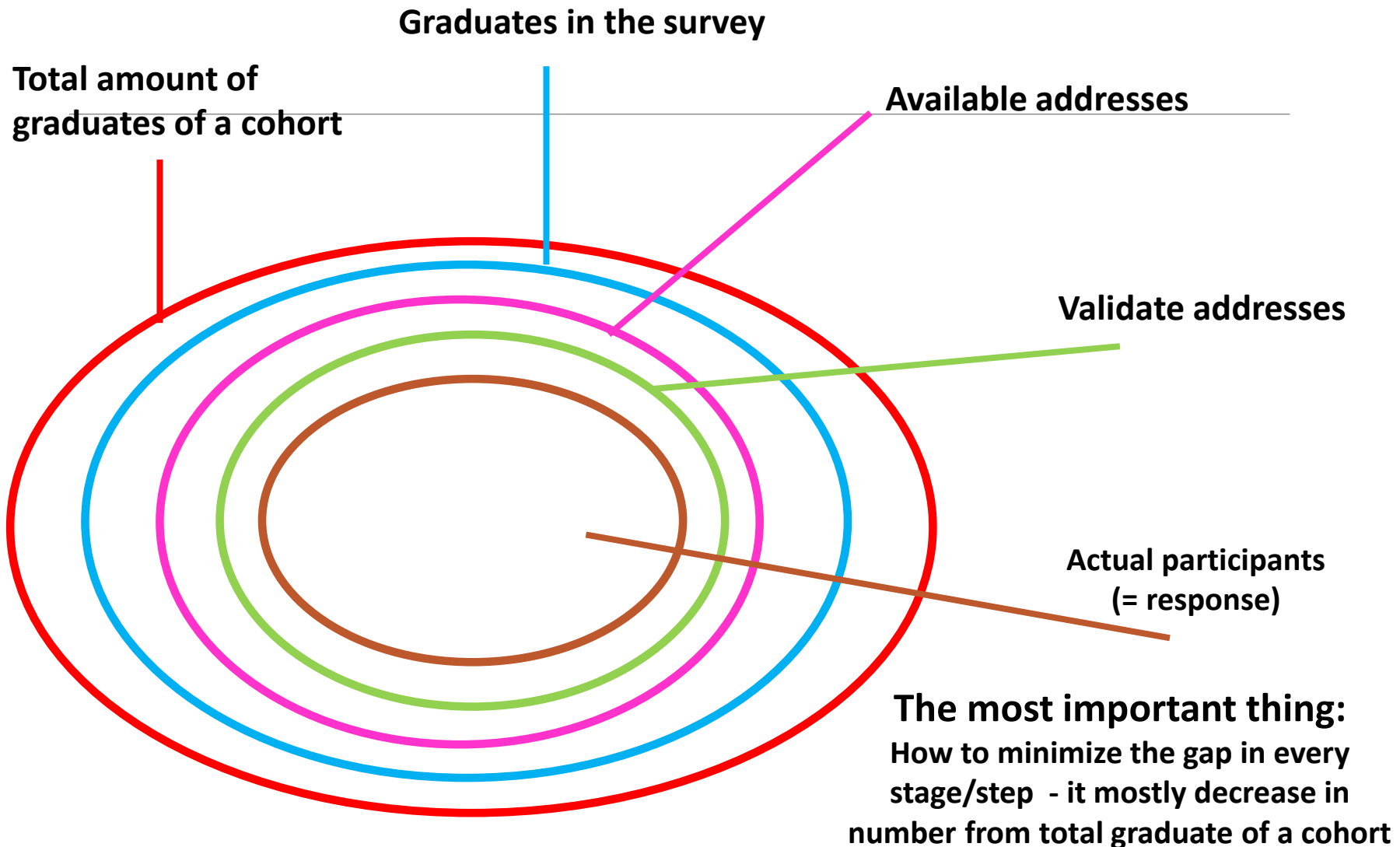
Publications

Human
Resources

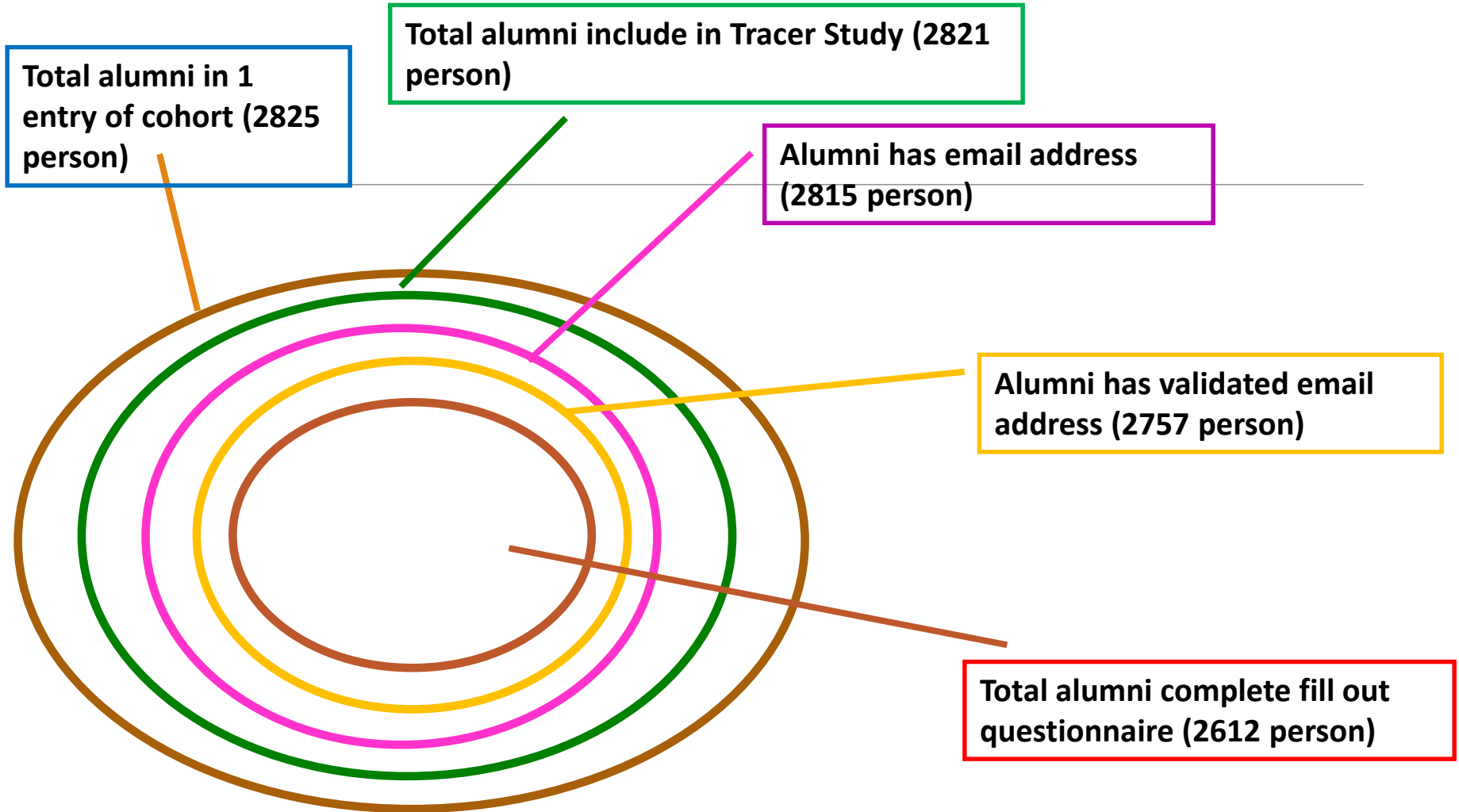
Organization Structure



Minimizing the Data Leak in Every Stage/Step



Data Responden Tracer Study ITB 2015



on going	no email address	email bouncing	Pass away	No information
36	6	58	4	109

Entry of Cohort

Implementing Cultural and Informal approach

- Based on **Study Program**
- Entry of Cohort has strong **networking**
- Connect to **internet**
- Using **Media Social** (WA Groups, BBM Group, Facebook Group)
- Mostly using **Gatget** and/or **Mobile Coonection/Device** to connect to each other
- **Relationship**: kinship, brotherhood, friendship, and intimacy.

Including Surveyor (chosen from one of study program the alumni from the entry of cohort).

**JAN
2015**

DIGITAL IN INDONESIA

A SNAPSHOT OF THE COUNTRY'S KEY DIGITAL STATISTICAL INDICATORS



TOTAL
POPULATION



**255.5
MILLION**

URBANISATION: 51%

FIGURE REPRESENTS TOTAL NATIONAL POPULATION, INCLUDING CHILDREN

ACTIVE
INTERNET USERS



**72.7
MILLION**

PENETRATION: 28%

FIGURE INCLUDES ACCESS VIA FIXED AND MOBILE CONNECTIONS

ACTIVE SOCIAL
MEDIA ACCOUNTS



**72.0
MILLION**

PENETRATION: 28%

FIGURE REPRESENTS ACTIVE USER ACCOUNTS, NOT UNIQUE USERS

MOBILE
CONNECTIONS



**308.2
MILLION**

vs. POPULATION: 121%

FIGURE REPRESENTS MOBILE SUBSCRIPTIONS, NOT UNIQUE USERS

ACTIVE MOBILE
SOCIAL ACCOUNTS



**62.0
MILLION**

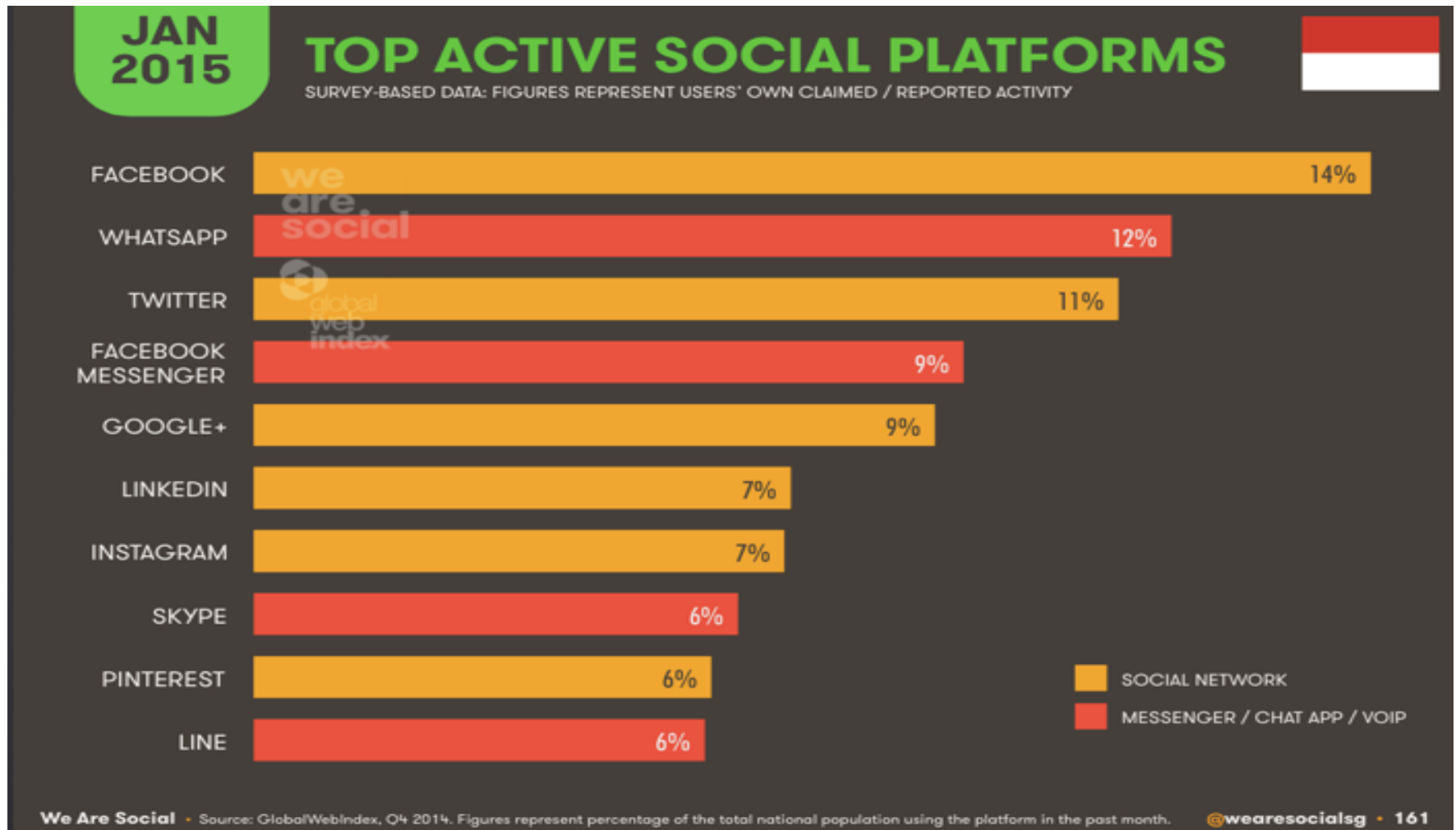
PENETRATION: 24%

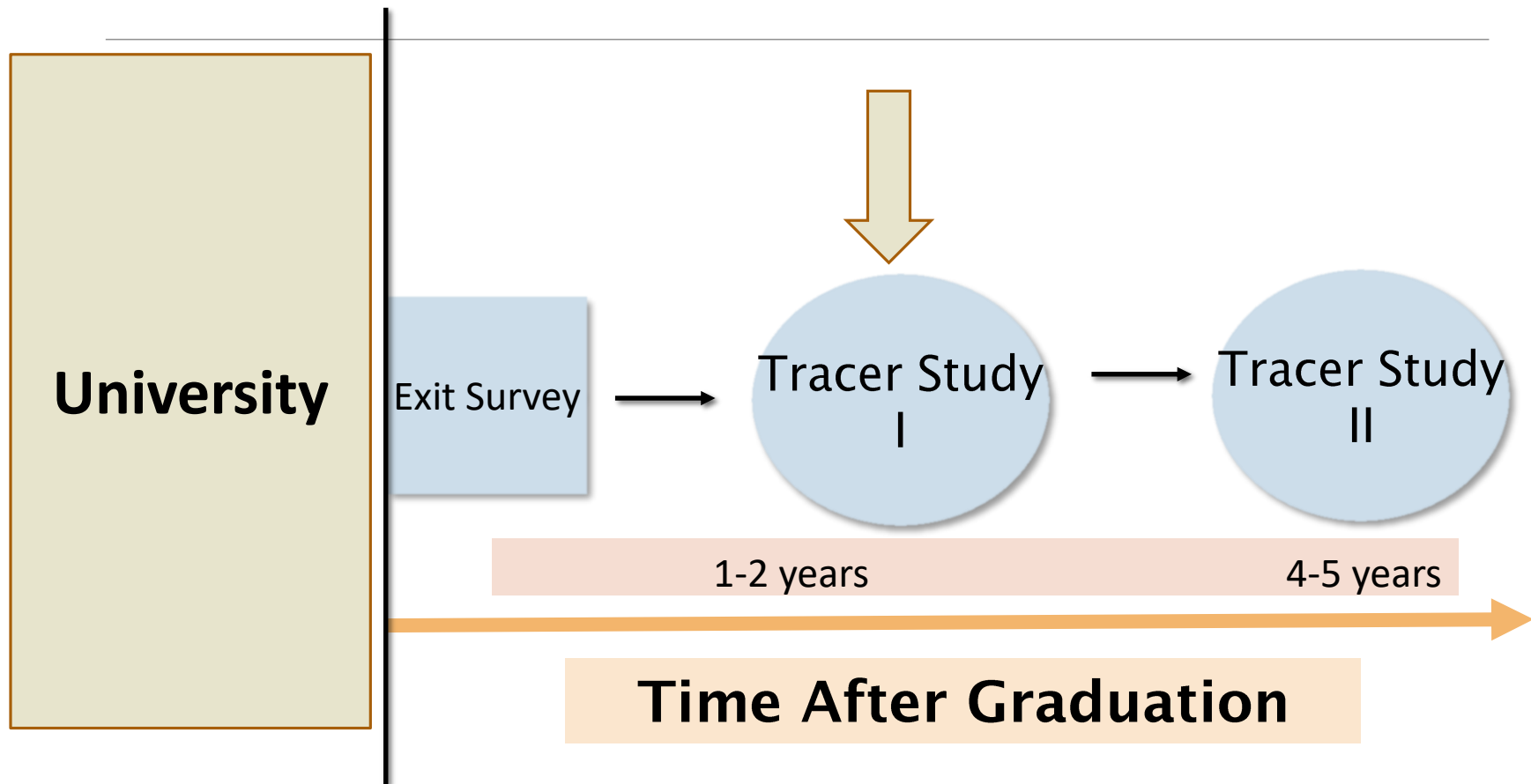
FIGURE REPRESENTS ACTIVE USER ACCOUNTS, NOT UNIQUE USERS

We Are Social - Sources: Wikipedia; InternetLiveStats, InternetWorldStats; Facebook, Tencent, VKontakte, LiveInternet; GSMA Intelligence

@wearesocialsg • 155

Top Media Social Used by Indonesian

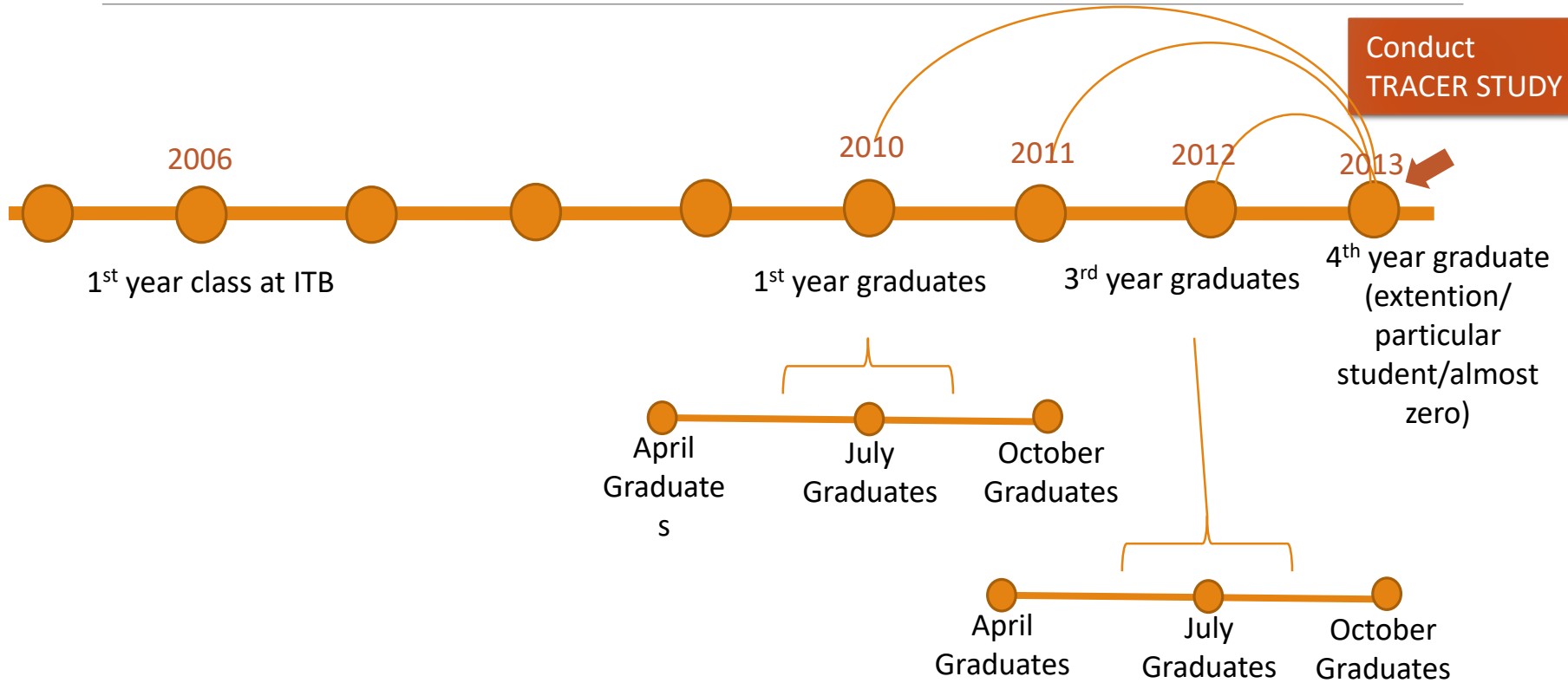




National Tracer Study Guideline: 1-3 years after graduation
(Book from Belmawa, DIKTI, Minister of Education)

source: schomburg

ITB Case



Conduct
TRACER STUDY

1st year class at ITB

2006

2010

2011

2012

2013

1st year graduates

3rd year graduates

4th year graduate
(extention/
particular
student/almost
zero)

April
Graduate
s

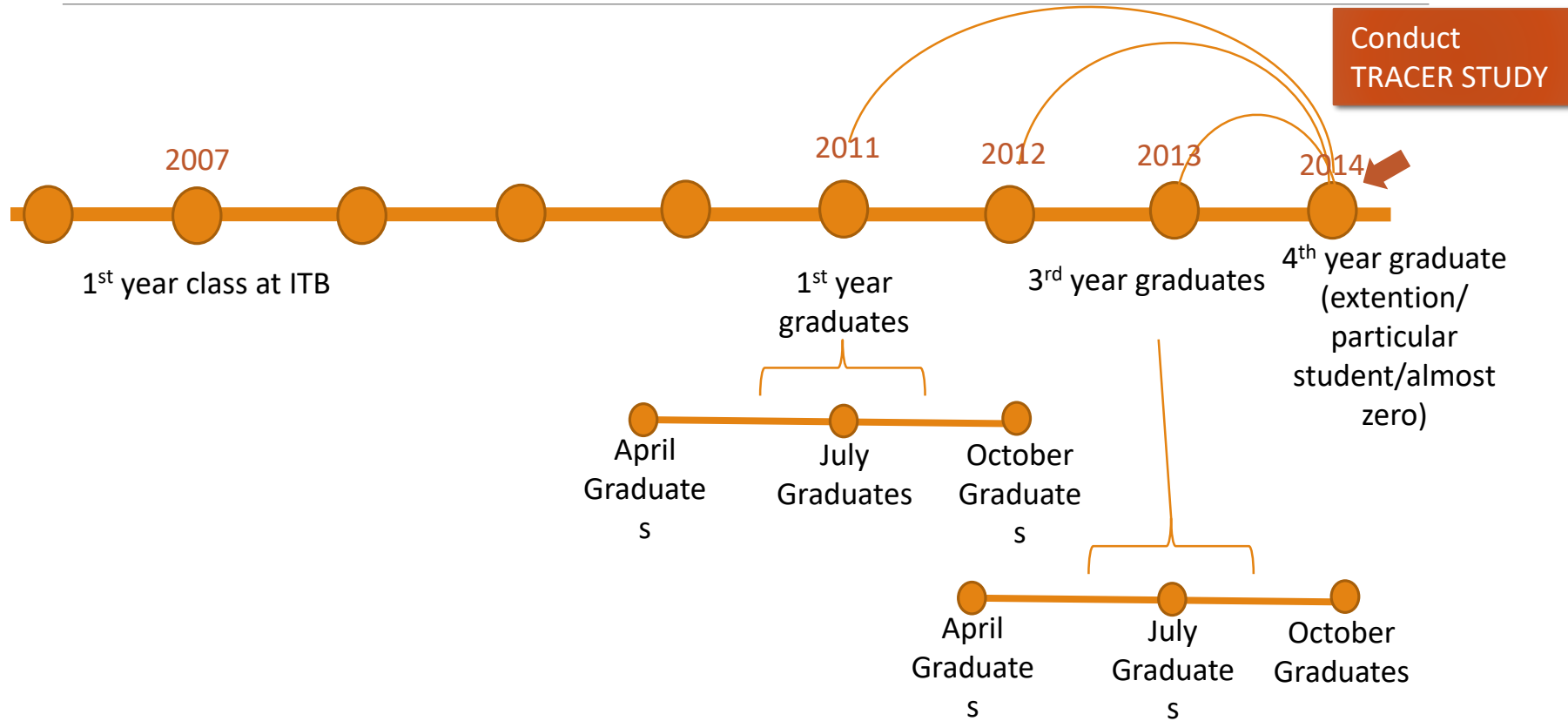
July
Graduates

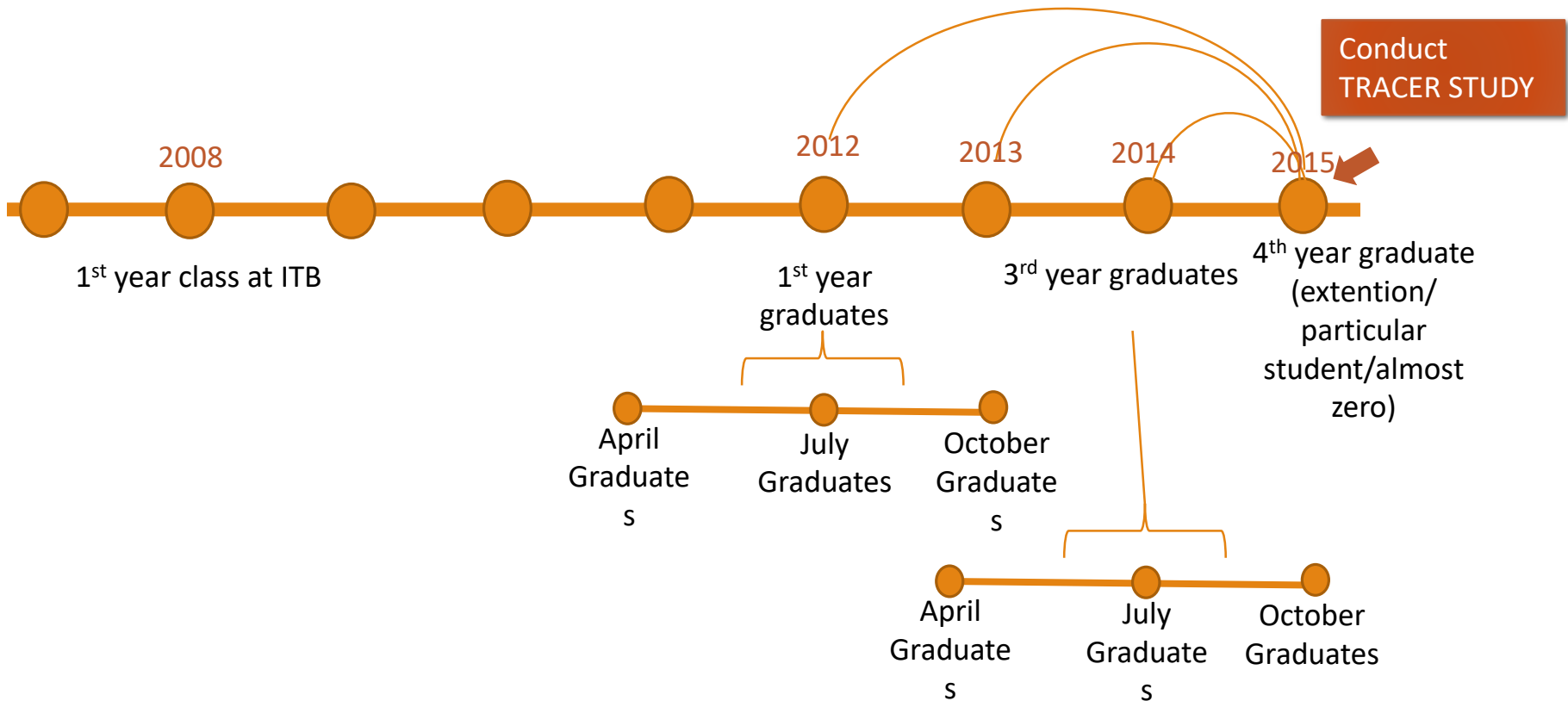
October
Graduates

April
Graduates

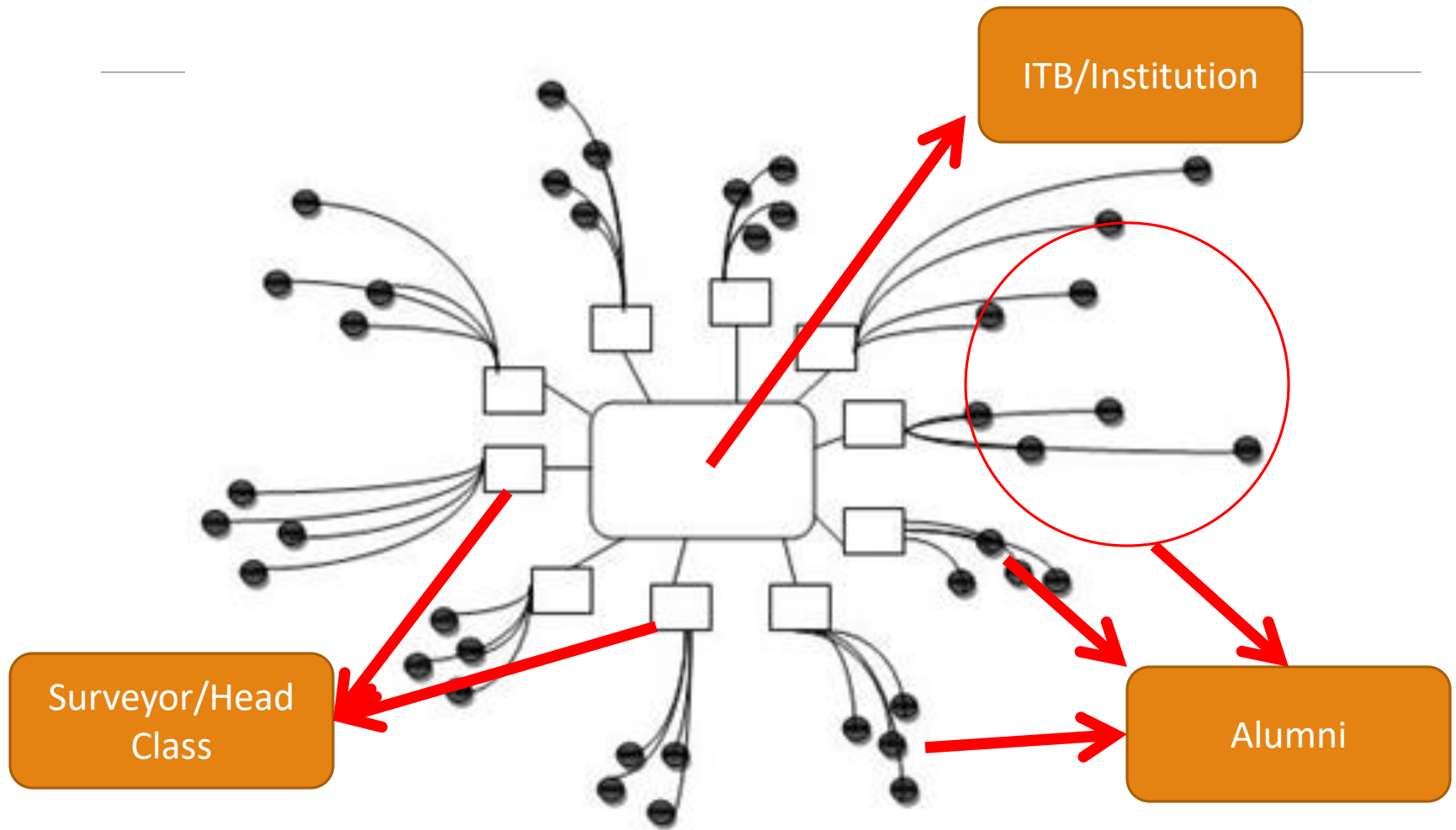
July
Graduates

October
Graduates

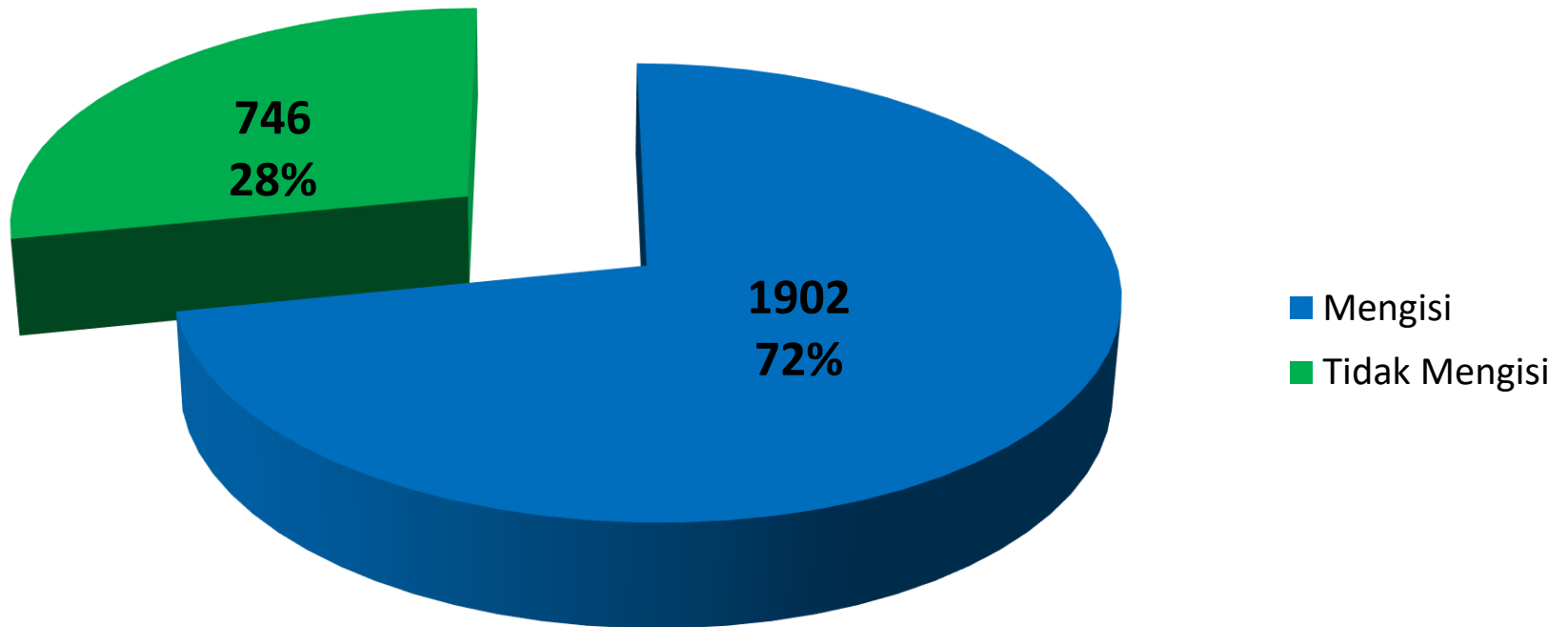




Entry of Cohort Initial Idea

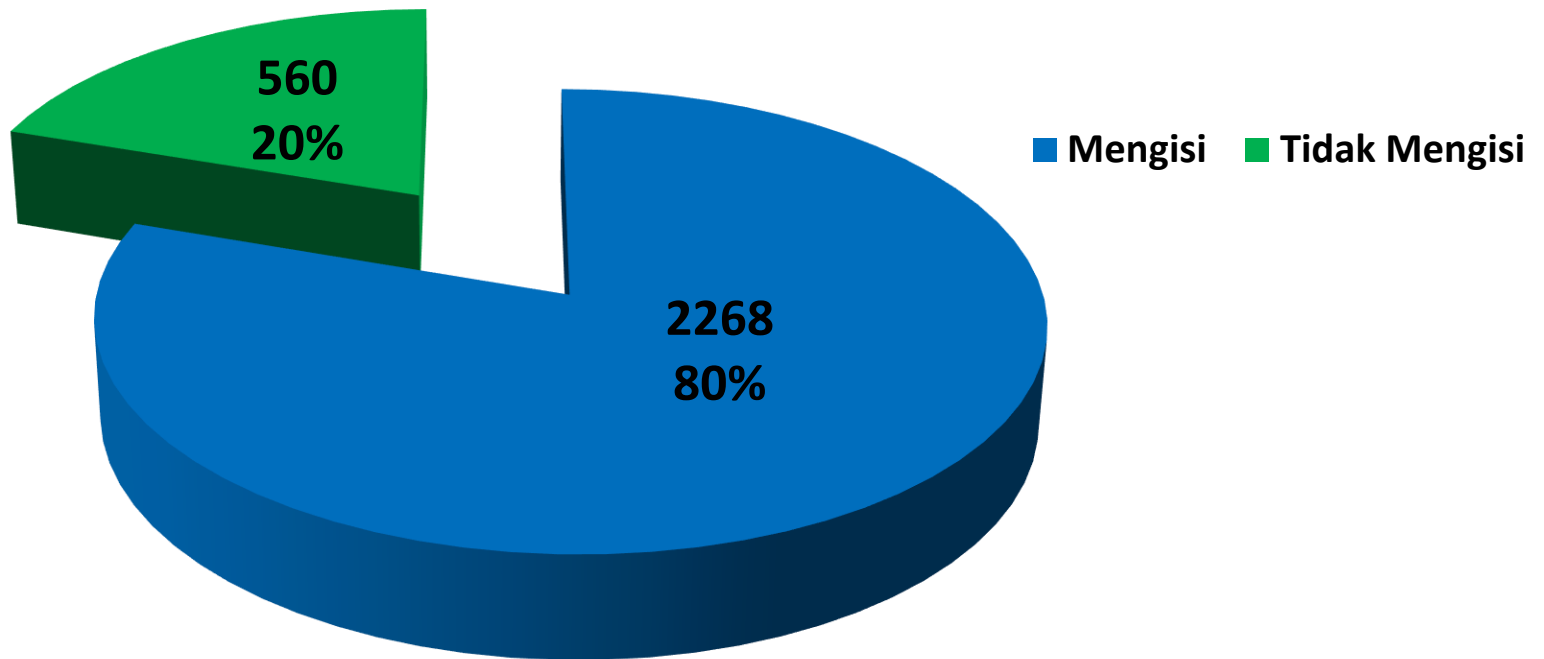


Total Responden Alumni Entry of Cohort 2006



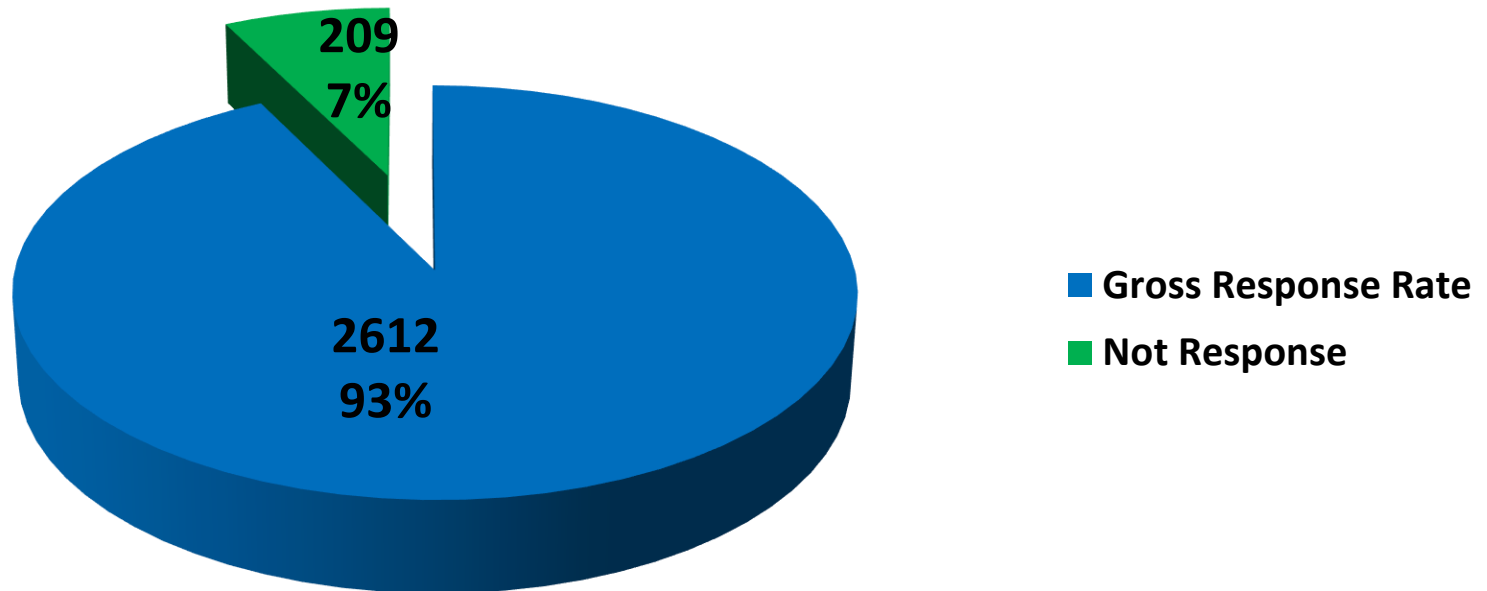
Total Alumni 2006 : 2648

Total Responden Alumni Entry of Cohort 2007



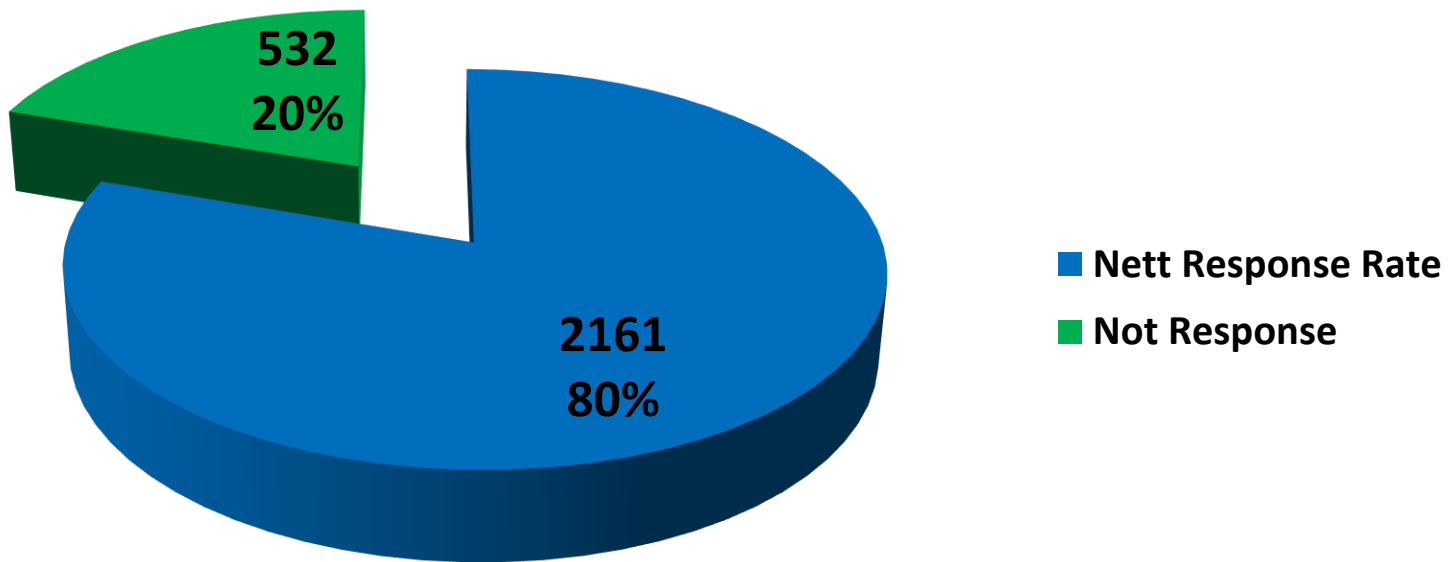
Total Alumni 2007 : 2828

Total Responden Alumni ITB Entry of Cohort 2008



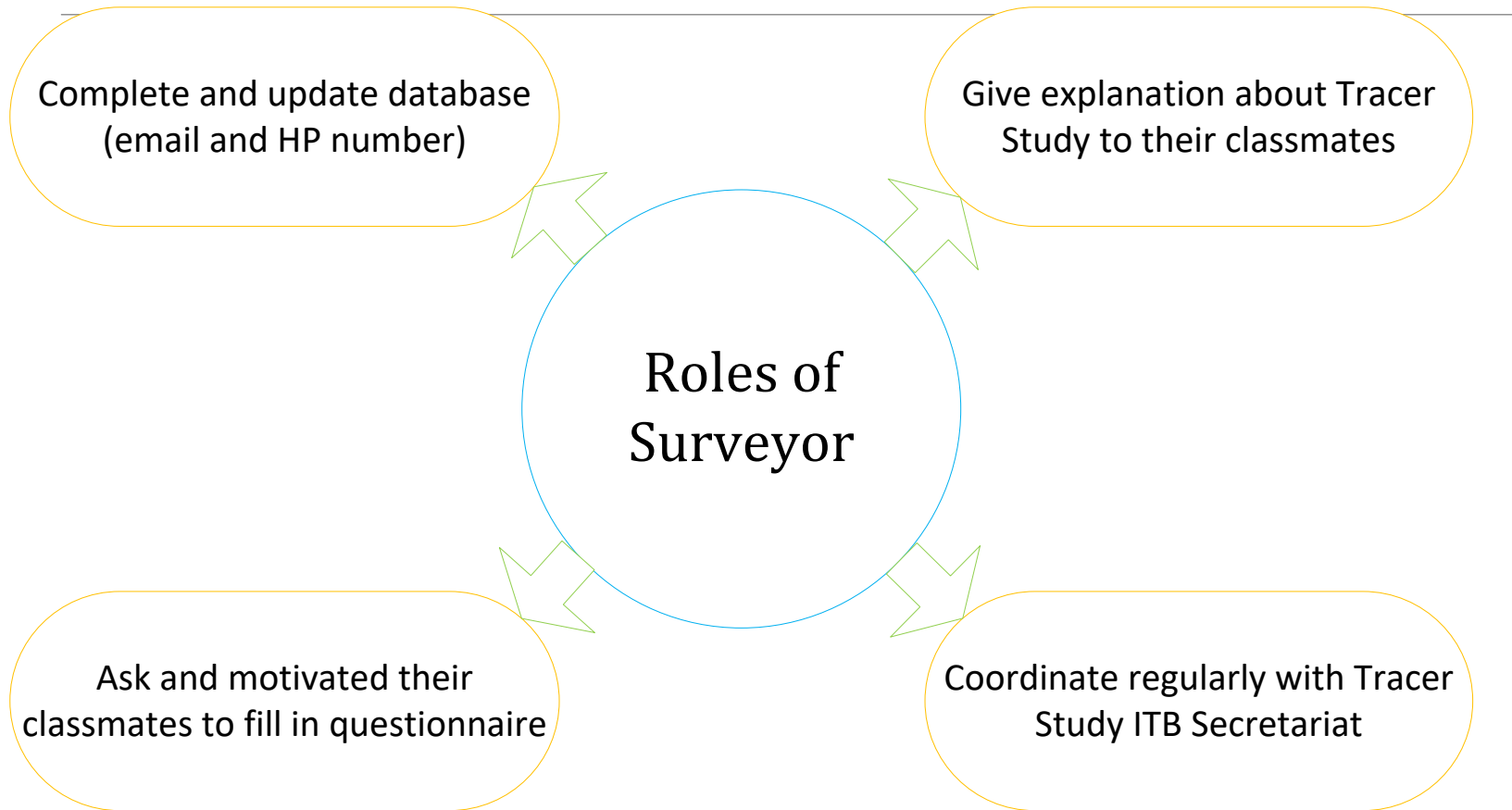
Total Alumni 2008 : 2821

Total Responden Alumni ITB Cohort 2012

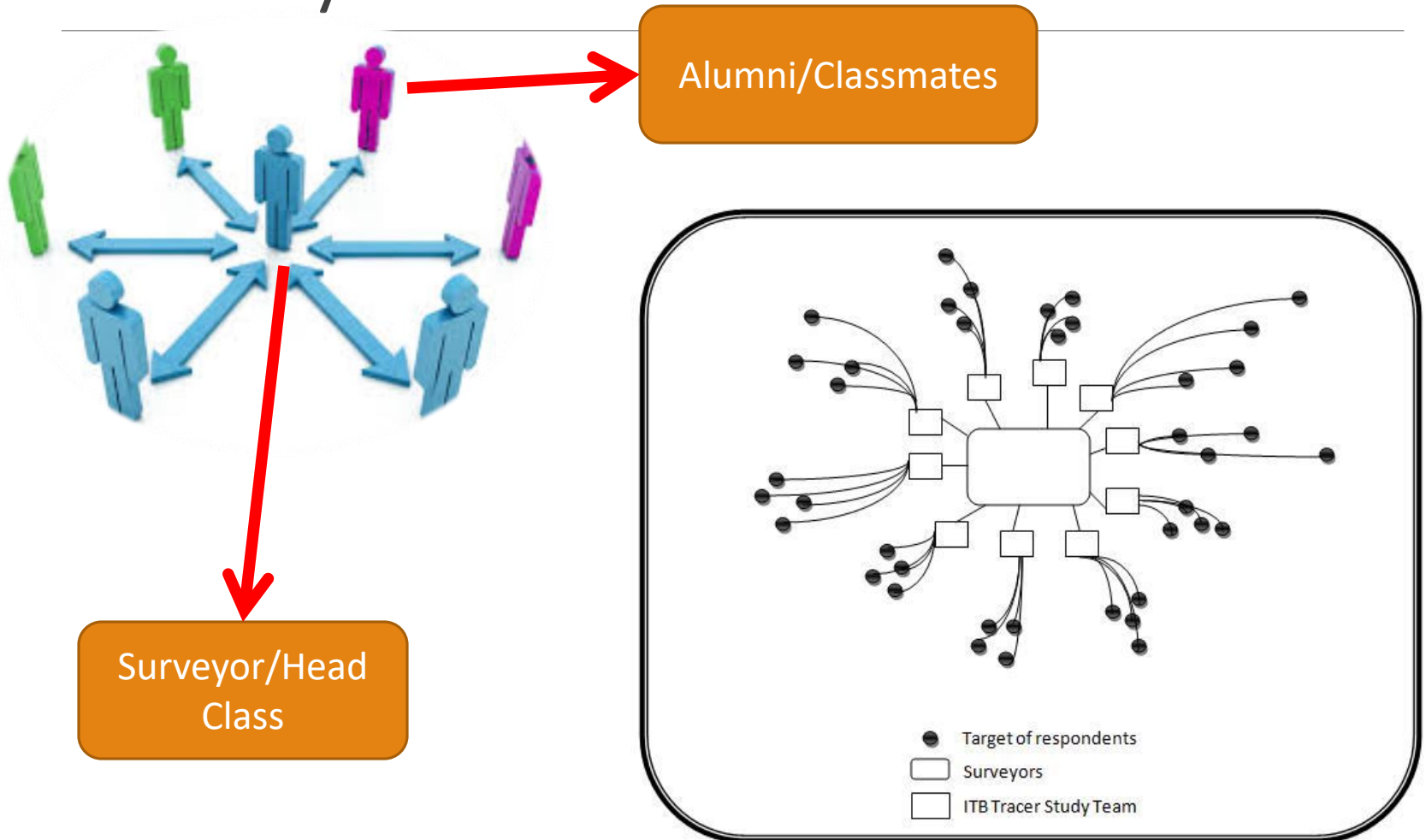


Total Cohort 2012: 2693

Roles of Surveyor



Surveyor Illustration



Surveyor Meeting (2 times)



Self-developed IT System

- Have many human resources (especially students or fresh graduates)
- Much easier in developing, improving, updating, and handling the problems during implementation
- Without to rely to 3rd parties
- Using self-developed server and database
- More flexible to change every things in user friendly
- Compatible with every browser, including mobile browser (mostly android and iOS)
- Every year updating the system

Tracer Study

Kuesioner

Kontak

Laporan

Peneliti

Tentang

Halaman 1

Halaman ini berisi pertanyaan tentang data diri dan pekerjaan Anda. Mohon untuk mengisi semua data yang diminta. Terima kasih.

Data Pribadi

Bagian ini berisi pertanyaan tentang data pribadi responden.

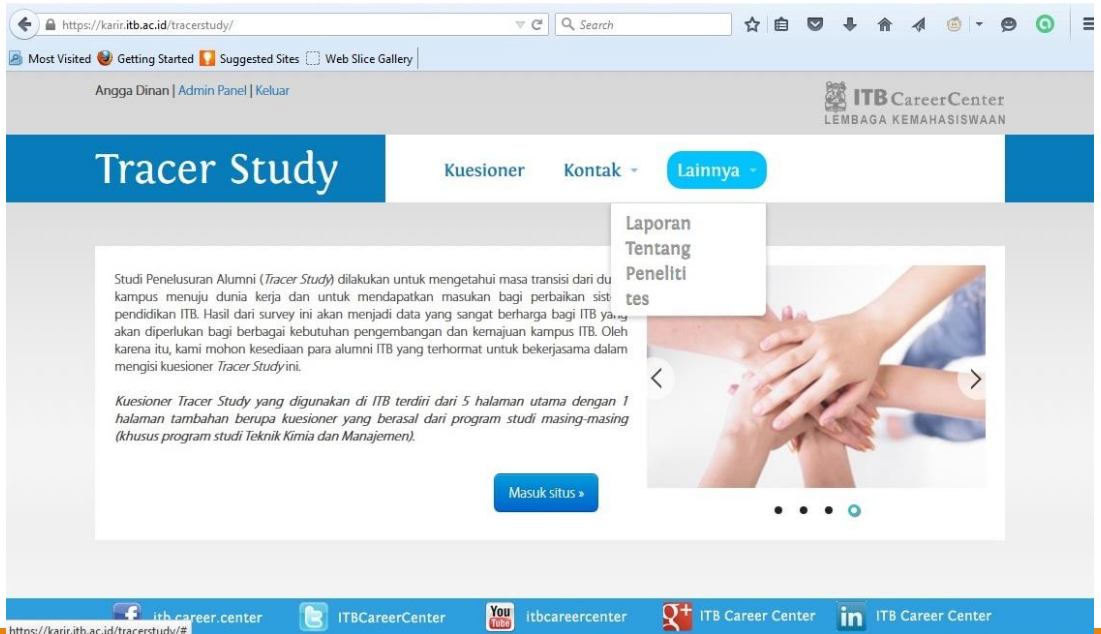
1. Nama

Aa cek

2. Jenis Kelamin *

- Pria
 Wanita

3. Angkatan *



The screenshot shows the homepage of the ITB Career Center Tracer Study website. The browser address bar displays <https://kariir.itb.ac.id/tracerstudy/>. The page header includes the ITB Career Center logo and navigation links: Kuesioner, Kontak, Lainnya, Laporan, Tentang, and Peneliti. The main content area features a large blue banner with the text "Studi Penelusuran Alumni (Tracer Study) dilakukan untuk mengetahui masa transisi dari dunia kampus menuju dunia kerja dan untuk mendapatkan masukan bagi perbaikan sistem pendidikan ITB. Hasil dari survey ini akan menjadi data yang sangat berharga bagi ITB yang akan diperlukan bagi berbagai kebutuhan pengembangan dan kemajuan kampus ITB. Oleh karena itu, kami mohon kesediaan para alumni ITB yang terhormat untuk bekerjasama dalam mengisi kuesioner Tracer Study ini." Below this text is a blue button labeled "Masuk situs >". To the right of the text is a carousel image showing several hands stacked together, with a dropdown menu titled "Laporan Tentang Peneliti tes" overlaid on it. The footer contains social media icons for Facebook, Twitter, YouTube, and LinkedIn, along with the text "itb.career.center", "ITBCareerCenter", "itbcareercenter", and "ITB Career Center".

Reward System

- Token of appreciation in form of gadget/mobile phone (reward was drawn)
- Reward was drawn because it was limited in quantity (only five items)
- It is much better than giving reward (e.g souvenirs/small item) for every respondents
- Transparency in drawn system
- Delivered to chosen respondents directly by delivery service with documentation

Reward Documentation



Publications

- To spread out information and result about Tracer Study in ITB to target of respondent, academic community, surveyor, etc.
- Form of publications: book of report, video, photos of activity, info on website. Rapid publication is very important to inform the result of every year (before starting the next Tracer Study).
- Public especially academic community and the respondents also can read the result as fast as possible (in the same year). It is about building the trust for the public. We send information to the respondents by email.
- Website is very important to spread out information for surveyor to communicate with especially target respondent.
- Book are also printed and spread out for lecturer (1500 lecturers in ITB).

Tracer Study

- Kuesioner
- Artikel
- Laporan
- Kontak
- Lainnya ▾



2014

Resume Tracer Study per Program Studi ITB Angkatan 2007

Summary

Report ini merupakan resume *Tracer Study* ITB 2014 yang disusun berdasarkan Program Studi (Prodi) ITB. Resume ini memberikan gambaran mengenai alumni ITB 2007 dari masing-masing Prodi. Pada resume ini dapat diperoleh hal-hal terkait kondisi pekerjaan alumni yang dijalani saat ini, hubungan pendidikan tinggi dengan pekerjaan, gambaran pekerjaan ideal menurut alumni ITB 2007, kondisi alumni ITB 2007 semasa menjalani perkuliahan dan hal-hal terkait hubungan alumni dengan kampus ITB, khususnya Prodi ITB.

- Fakultas Ilmu dan Teknologi Kebumihan
- Fakultas Matematika dan Ilmu Pengetahuan Alam
- Fakultas Seni Rupa dan Desain
- Fakultas Teknologi Industri
- Fakultas Teknik Mesin dan Dirgantara
- Fakultas Teknik Sipil dan Lingkungan



Human Resources

- Fulltime staff
- Dedicated human resources
- Trained researcher and assistant researcher

Tracer Study ITB Secretariat



Conclusion

- To conducting Tracer Study in good quality data and high response rate needs improvement and innovation for every step implementation
- For methodology we should consider the cultural and tradition aspects of the environment place where Tracer Study held
- Using entry of cohort approach definitely can increase the response rate in Indonesia (especially in ITB)
- Entry of cohort was able to provide two analysis, based on cohort and based on entry of cohort
- Structural & cultural and formal & informal approach can become alternative in implementation of Tracer Study in Indonesia to increase response rate

Appendix

Table of Data Analysis between Cohort and Entry of Cohort

No	Data	Information	Result			
			2012	2006	2007	2008
1	Total responden	Complete	80%	72%	80%	92%
2	Job status	Work	68%	70%	66%	66%
		Work and self-employed	5%	6%	5%	5%
		Not working/continuing study	21%	19%	22%	22%
		Entrepreneur	6%	5%	7%	7%
3	Suitability of lecture with work	Suitable	72%	75%	70%	74%
4	Time looking for work	Before graduate	3,99	4,38	4,3	4,22
		After graduate	2,65	2,27	2,4	2,78
5	Time needed for getting a job	Before graduate	3,65	2,93	3,27	3,62
		After graduate	4,38	3,85	4,21	4,37
6	Category of company	Local	17%	17%	17%	18%
		National	41%	47%	39%	43%
		Multinational	42%	36%	44%	39%
7	Category of business	B = Mining	B (23%)	B (22%)	B (21%)	B (20%)
		M = Profesional services	M (12%)	M (13%)	M (12%)	M (12%)
		C = Processing industry	C (10%)	C (10%)	C (12%)	C (11%)
		J = Information	J (9%)	K (10%)	F (9%)	F (10%)
		F = Construction	F (9%)	F (9%)	J (8%)	J (10%)
8	Company work type	Government (NGO)	22%	25%	20%	23%
		Non-profit organizations	2%	1%	2%	2%
		Private company	66%	65%	67%	65%
		Own company	9%	9%	11%	10%
9	Position	Director	1%	2%	2%	2%
		Owner	6%	5%	7%	7%
		Manager	5%	6%	6%	6%
		Staff	86%	86%	83%	84%
		Apprentice	2%	1%	2%	2%
10	Average income	Work	9,2 millions	12,4 millions	8,8 millions	9,1 millions
		Work and self-employed	8,7 millions	7,4 millions	6,6 millions	8,6 millions
		Entrepreneur	6,9 millions	8,3 millions	8,3 millions	7,7 millions

Data Analysis Chart between Cohort and Entry of Cohort

Total responden

Current job

Suitability of lecture with work

Foreign language ability and contribution

Time waiting getting a job

Category of company

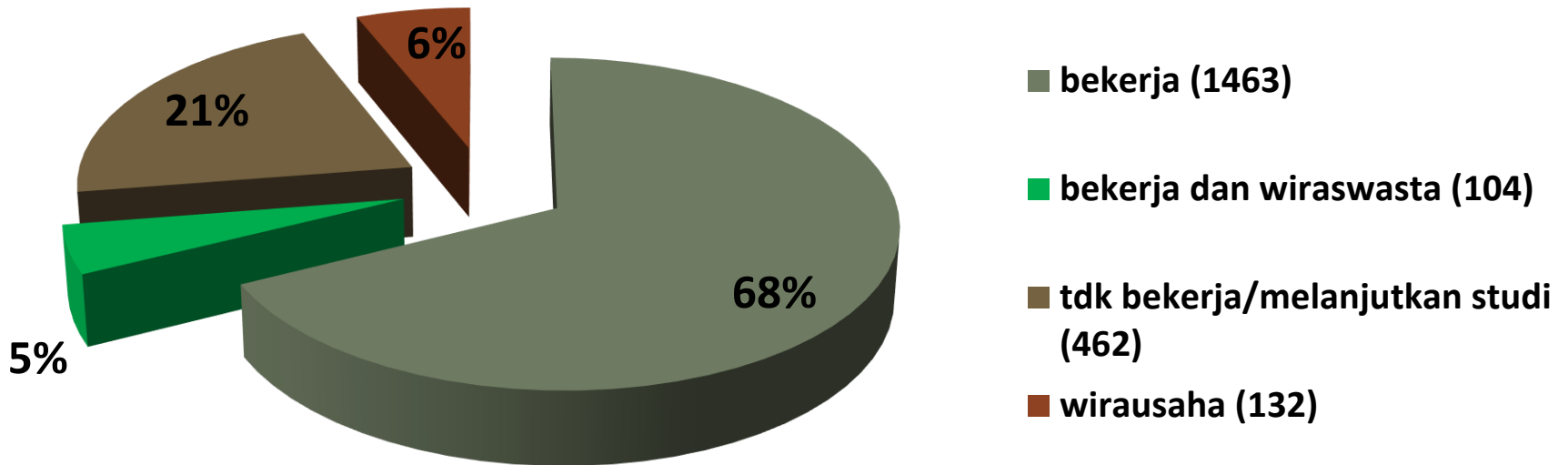
Category of business

Company work type

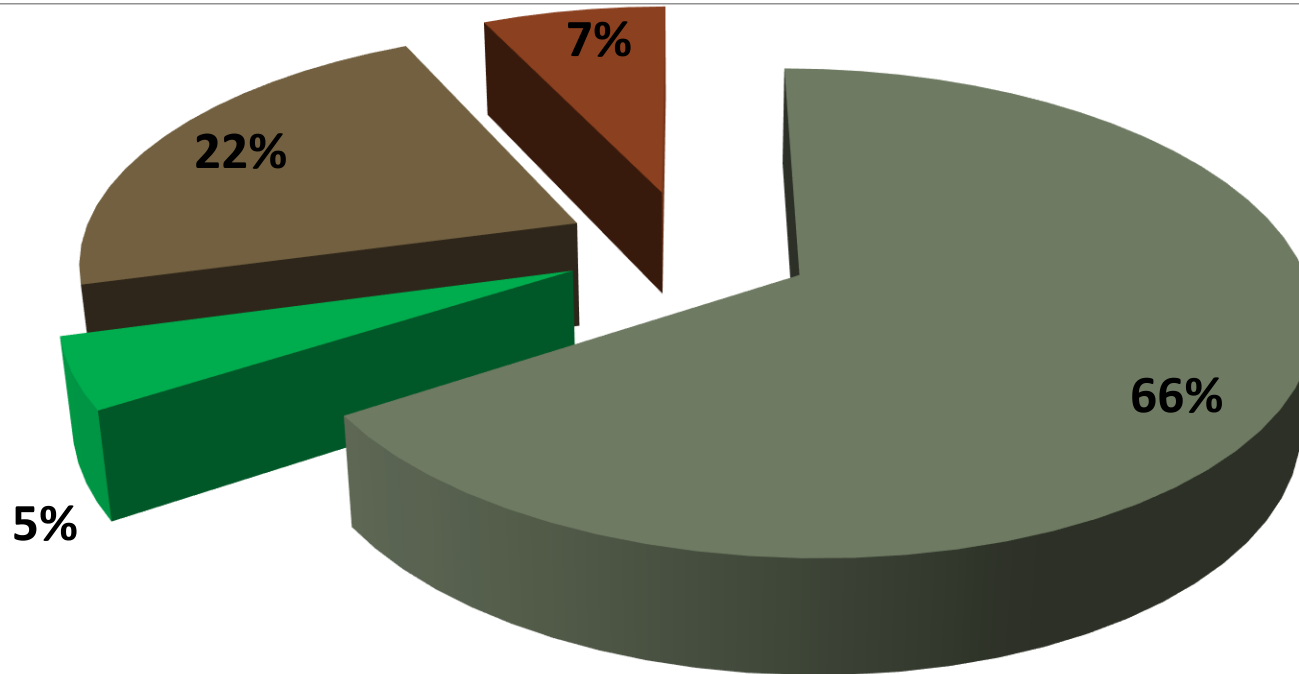
Position

Average income

Current Job (Cohort 2012)

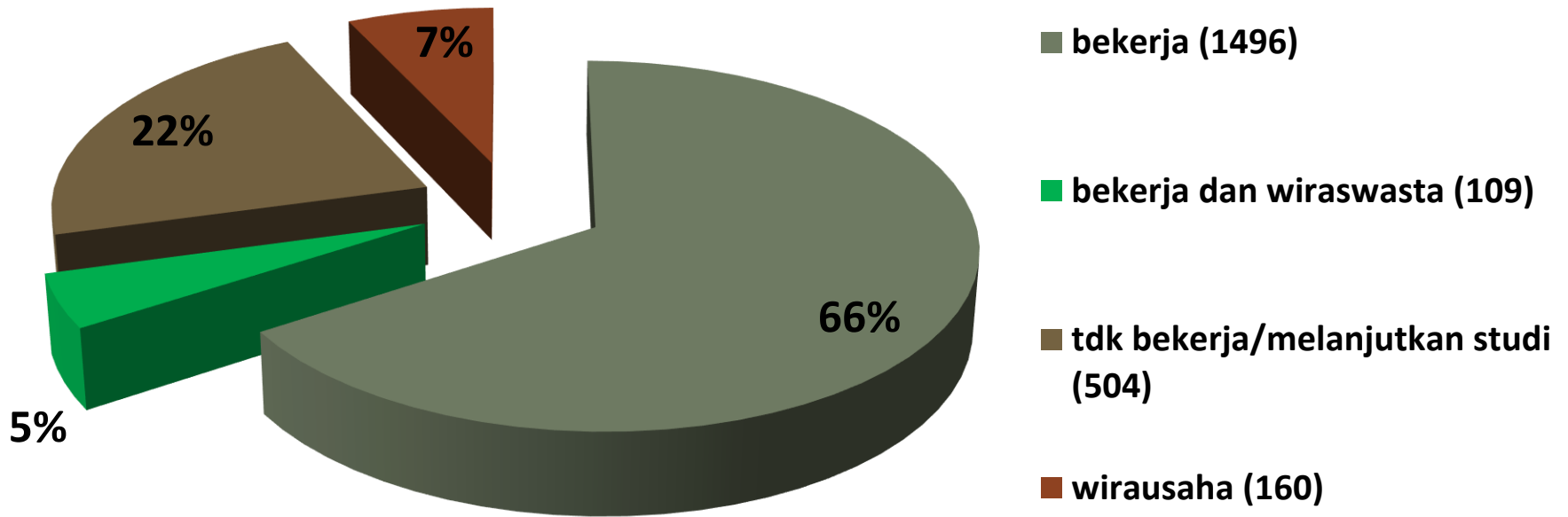


Current Job (Entry of Cohort 2008)

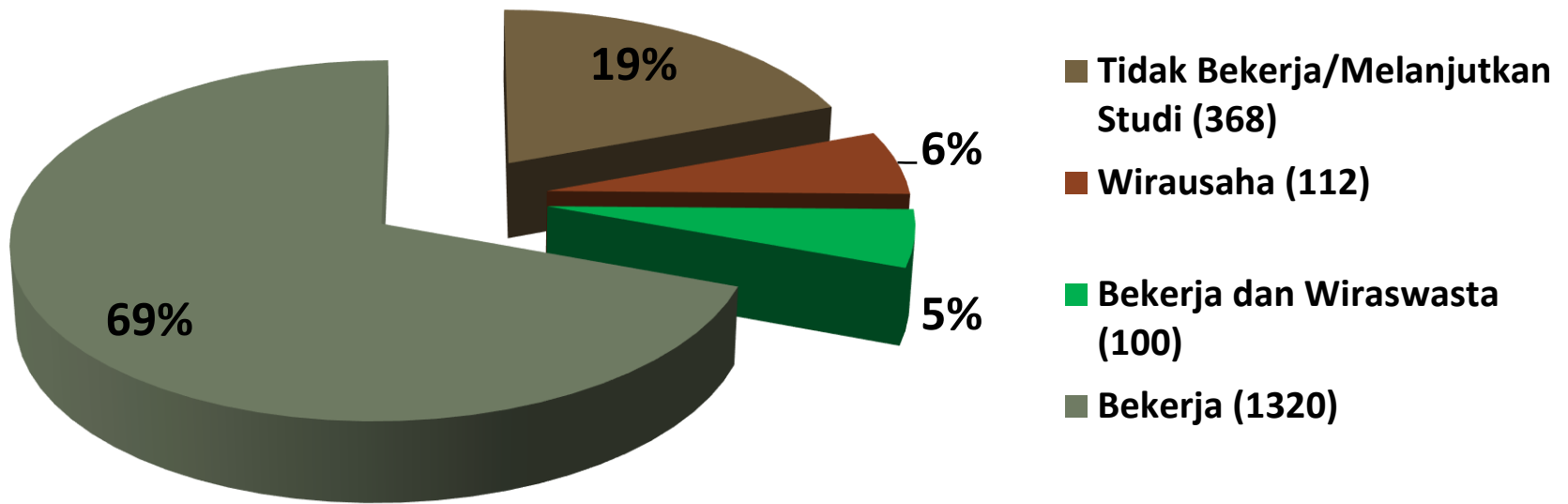


- bekerja (1714)
- bekerja dan wiraswasta (126)
- tdk bekerja/melanjutkan studi (593)
- wirausaha (179)

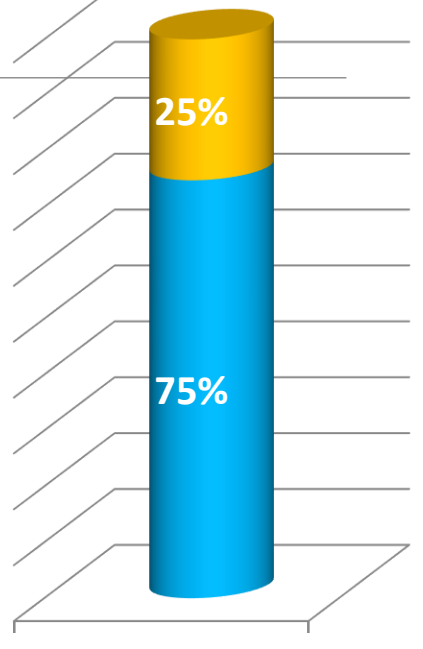
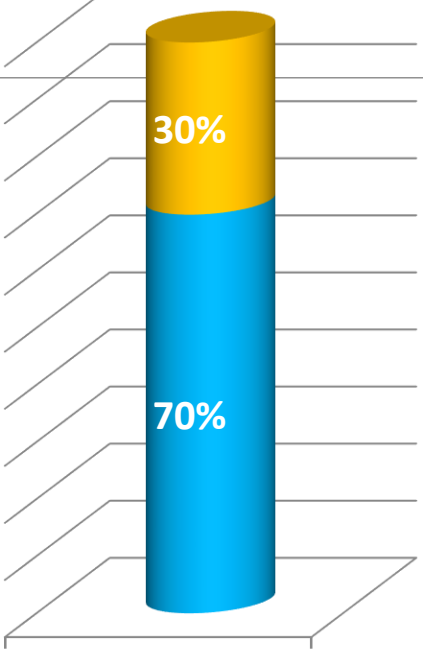
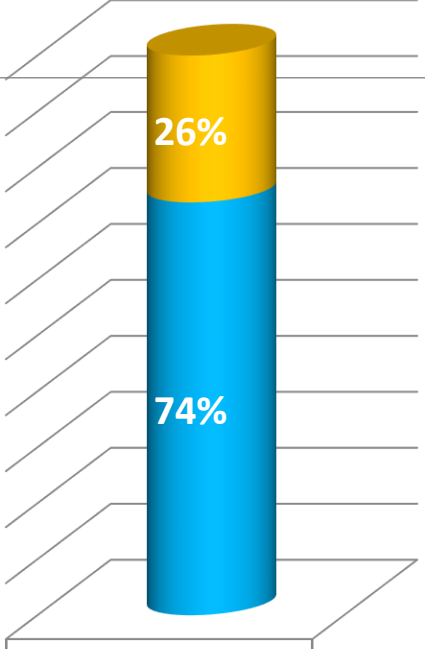
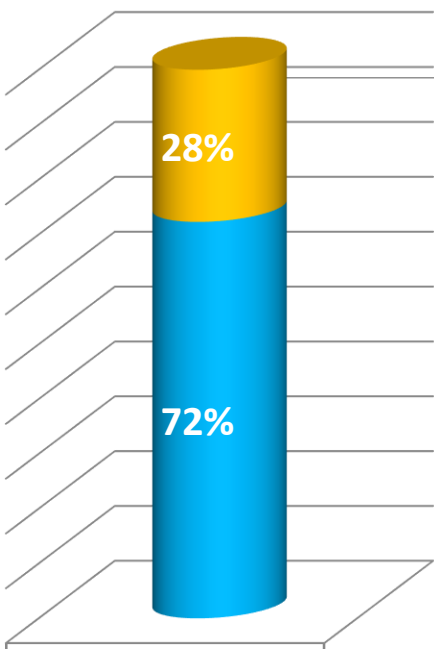
Current Job (Entry of Cohort 2007)



Current Job (Entry of Cohort 2006)



Suitability of lecture with work



Kesesuaian Kuliah (1415)

Kesesuaian Kuliah (1635)

Kesesuaian Kuliah (1495)

Kesesuaian kuliah (1320)

■ Sesuai ■ Tidak Sesuai

■ Sesuai ■ Tidak Sesuai

■ Sesuai ■ Tidak Sesuai

■ Sesuai ■ Tidak Sesuai

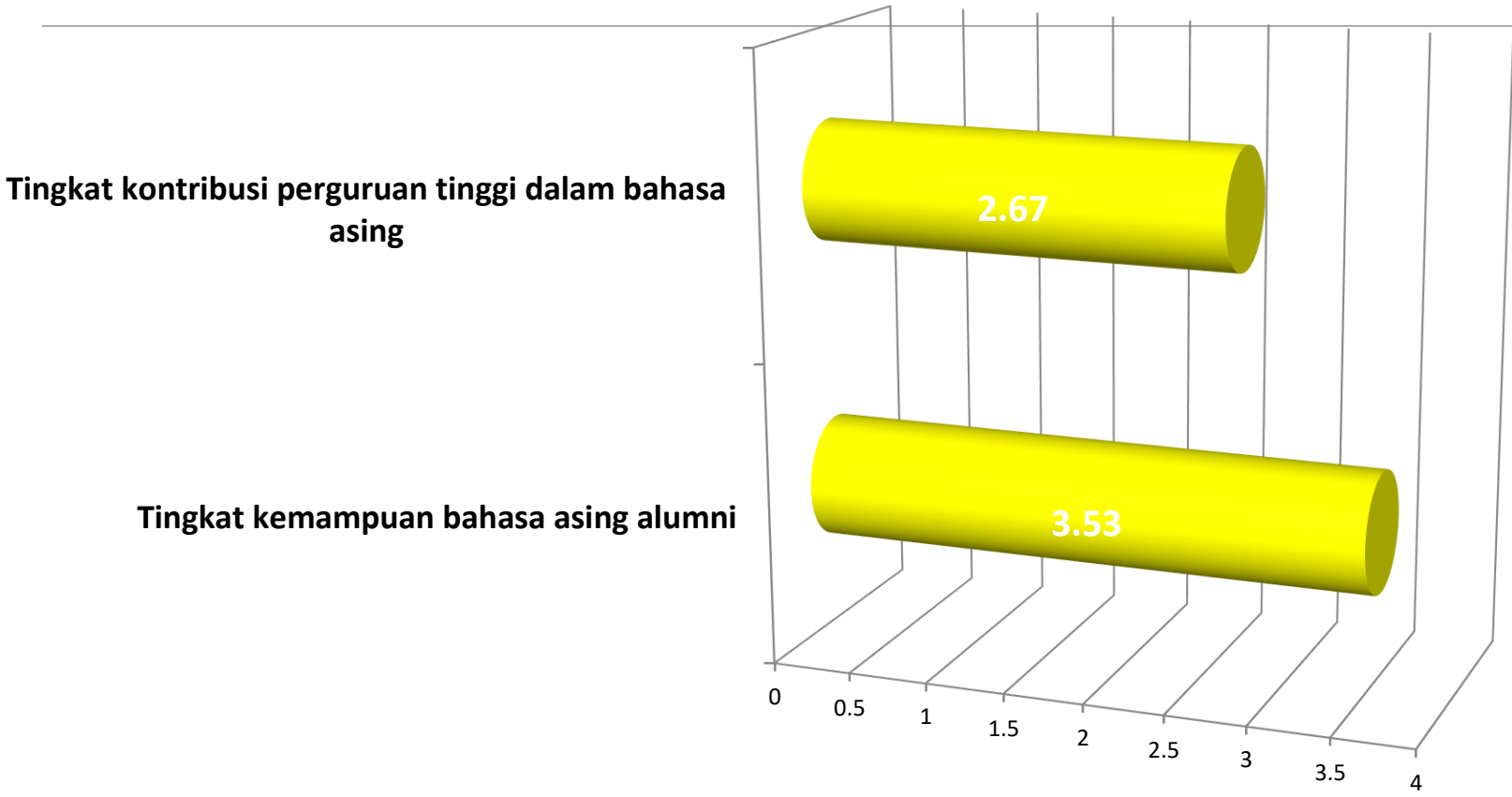
2012

2008

2007

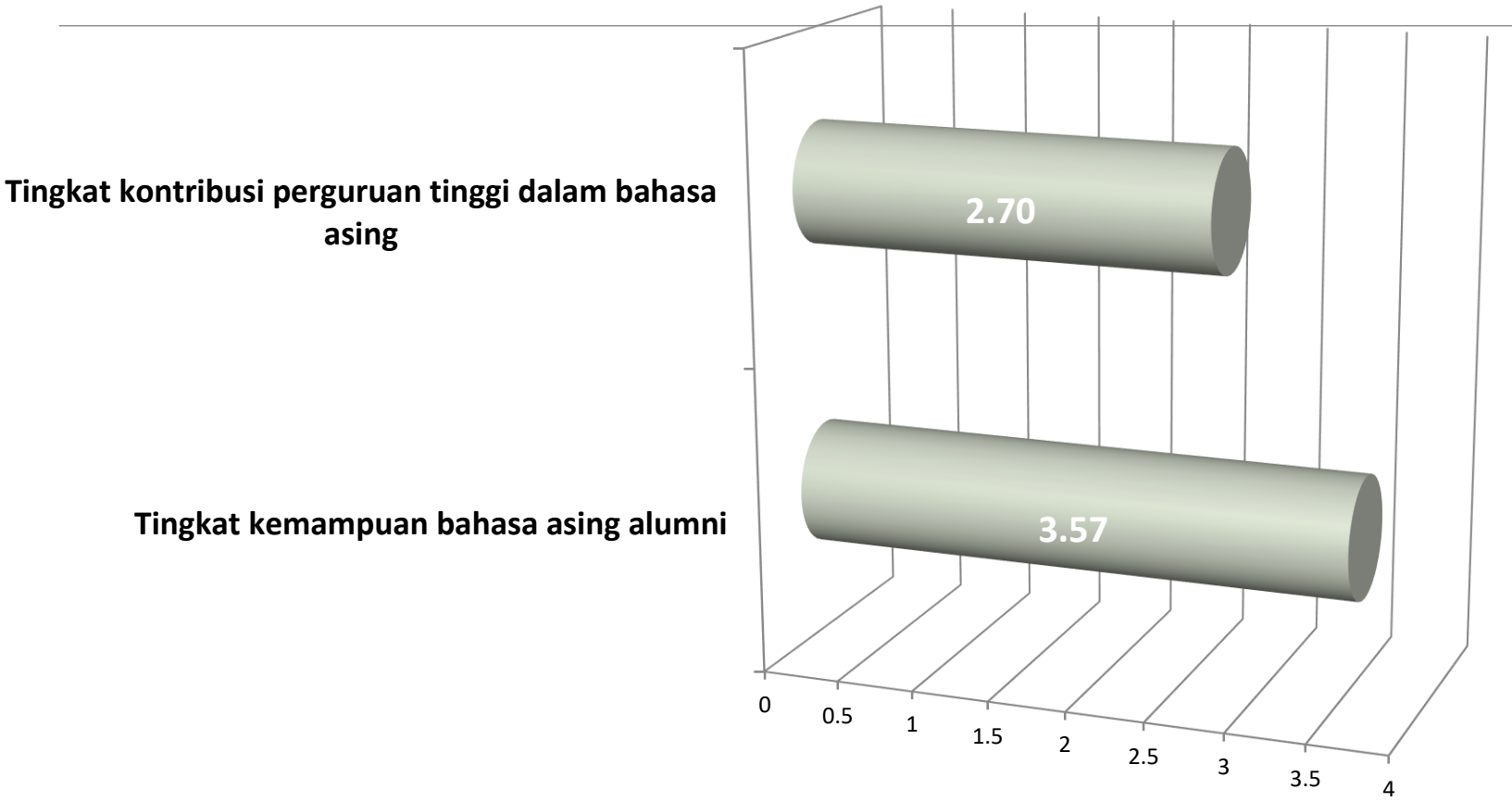
2006

Foreign Language Ability VS University Contribution (2012)



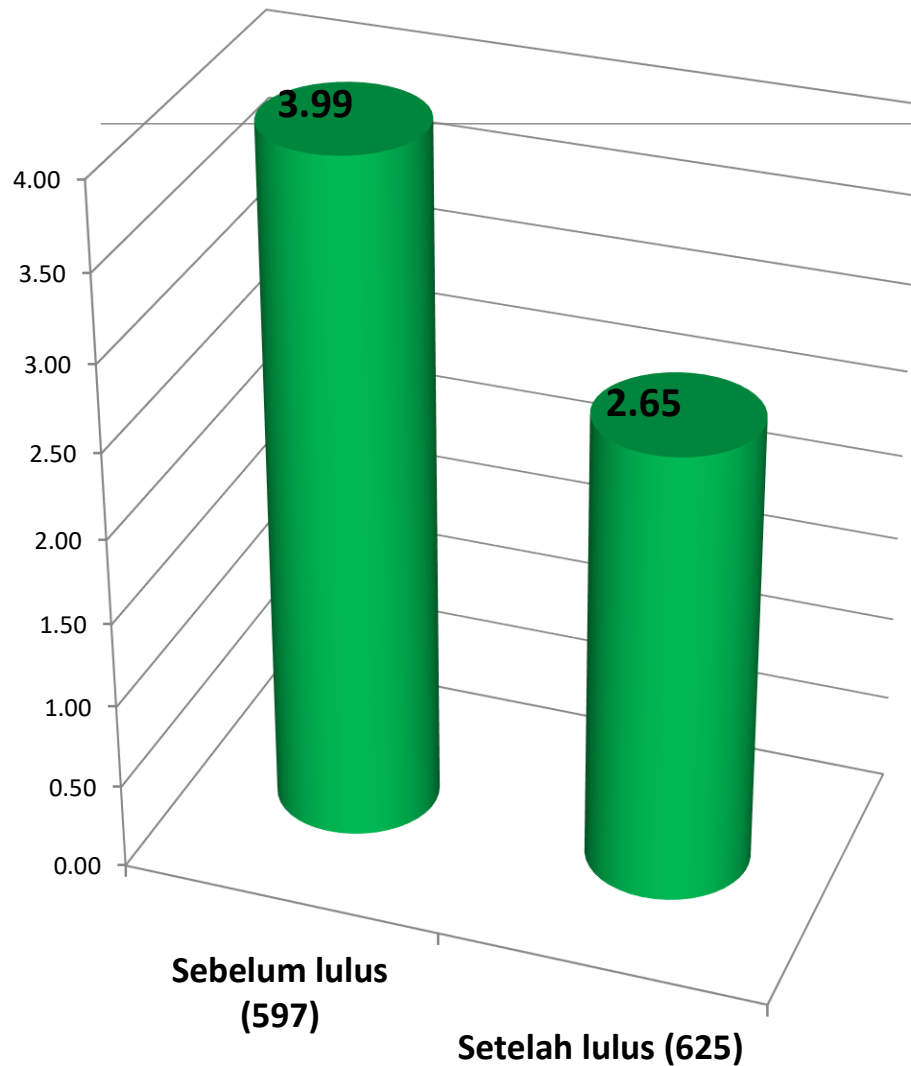
N = 2161

Foreign Language Ability VS University Contribution (2008)



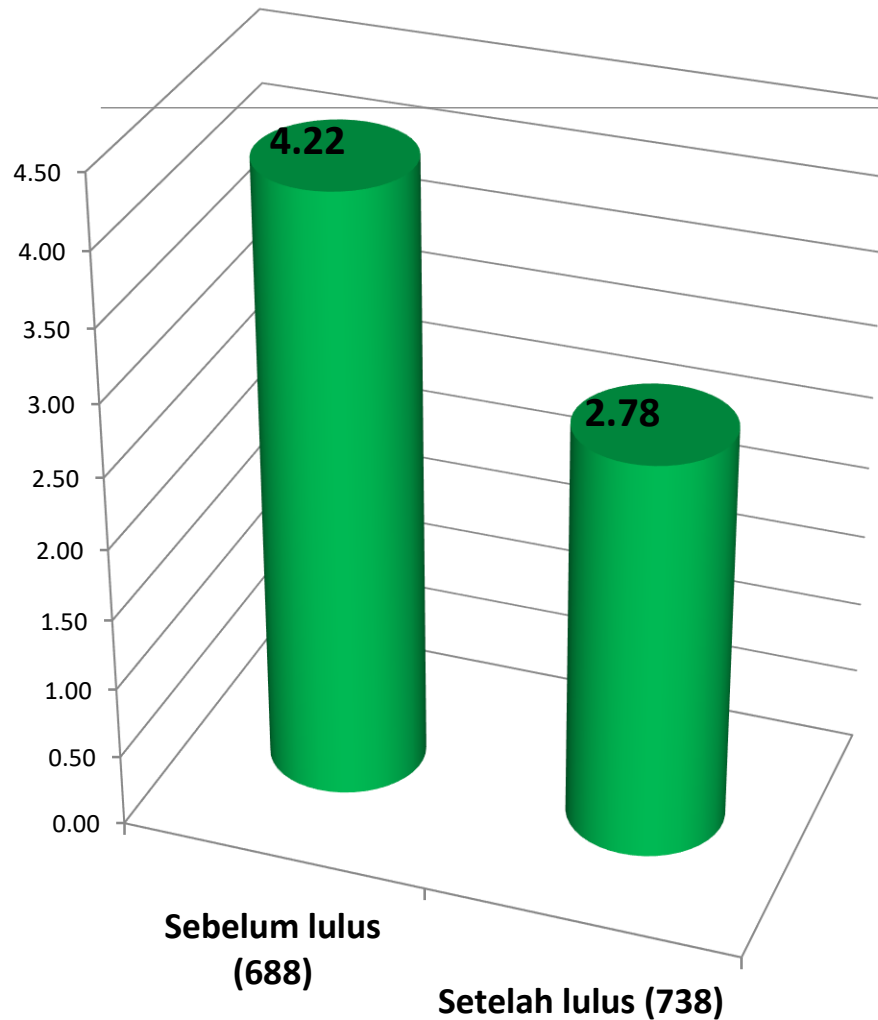
N = 2612

Time Looking for a Job (2012)



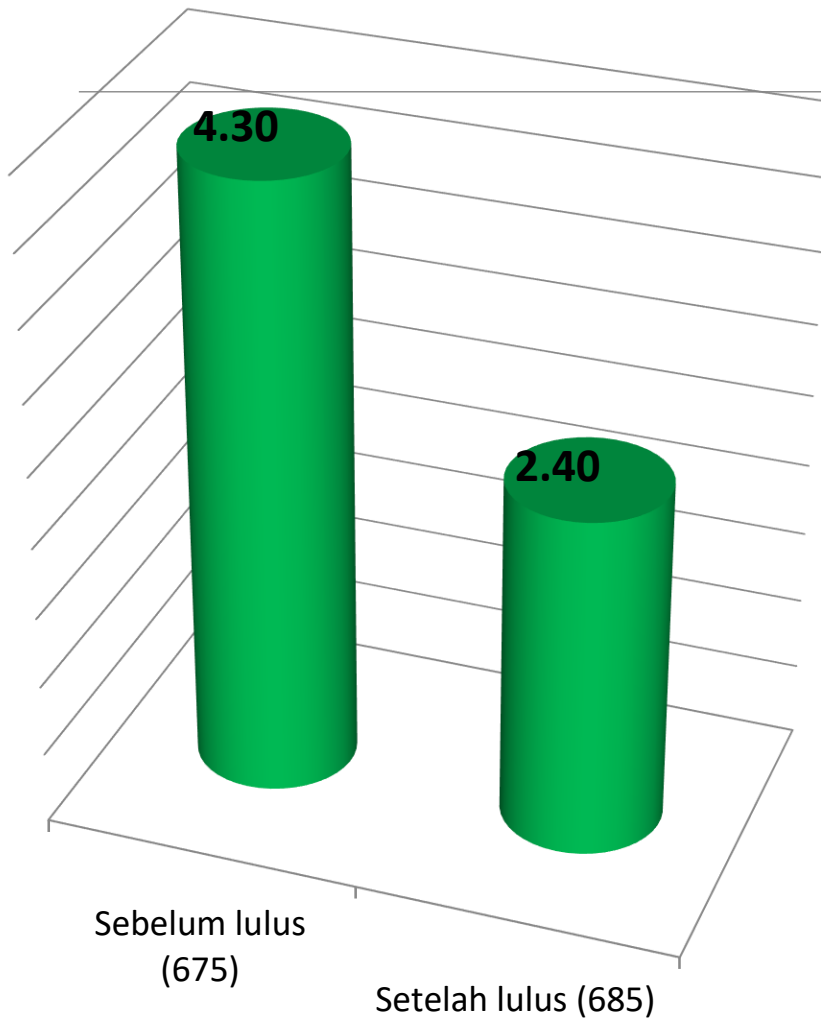
	Total	Mean (month)
Before graduate	597	3,99
After graduate	625	2,65

Time Looking for a Job (2008)



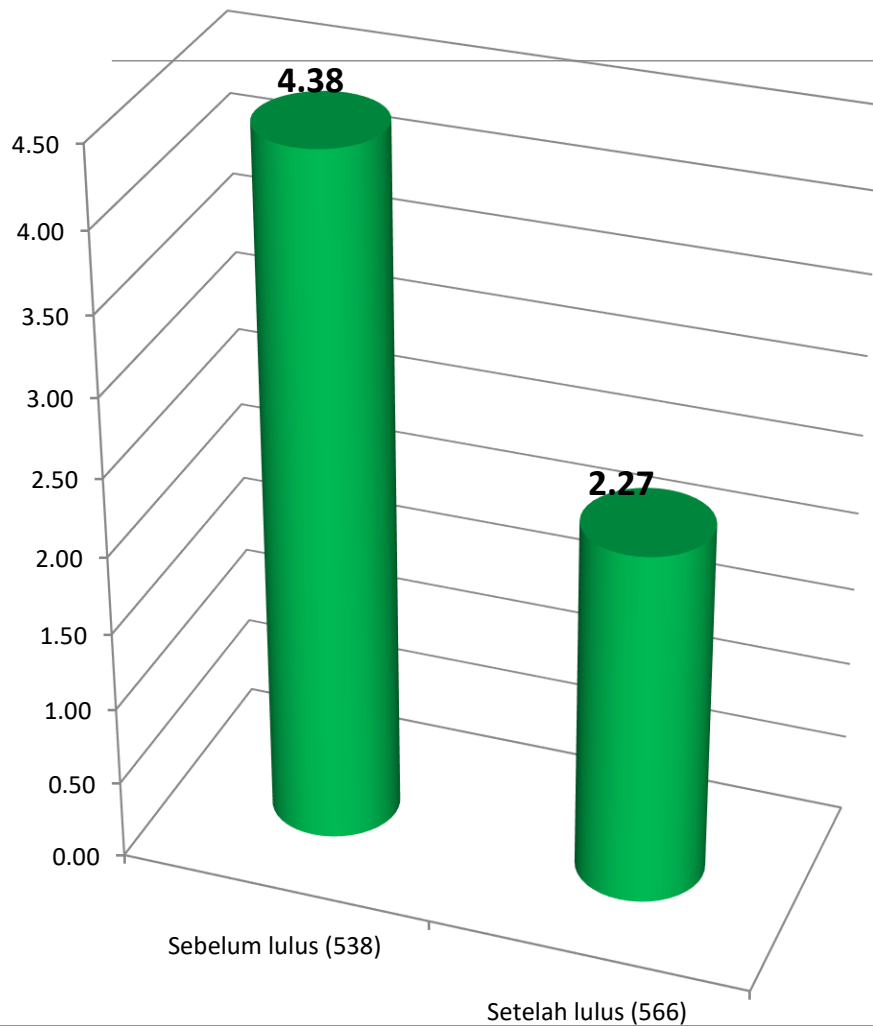
	Total	Mean (month)
Before graduate	688	4.22
After graduate	738	2.78

Time Looking for a Job (2007)



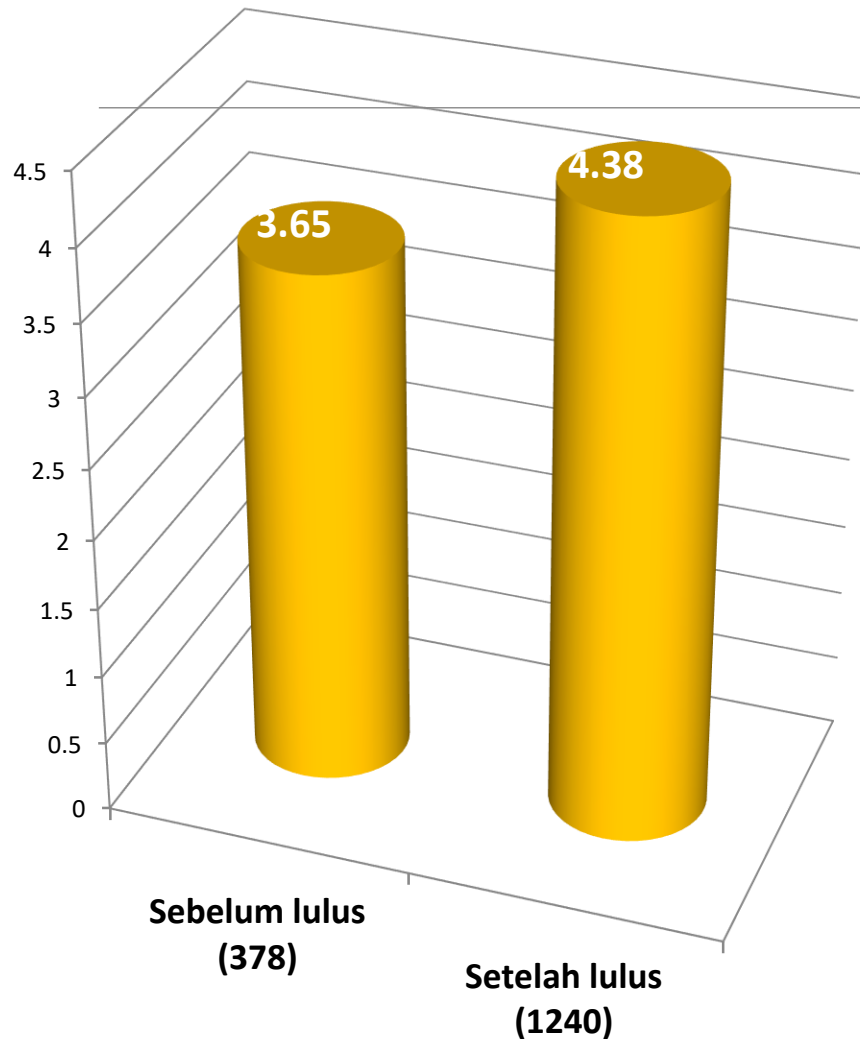
	Total	Mean (month)
Before graduate	675	4.30
After graduate	685	2.40

Time Looking for a Job (2006)



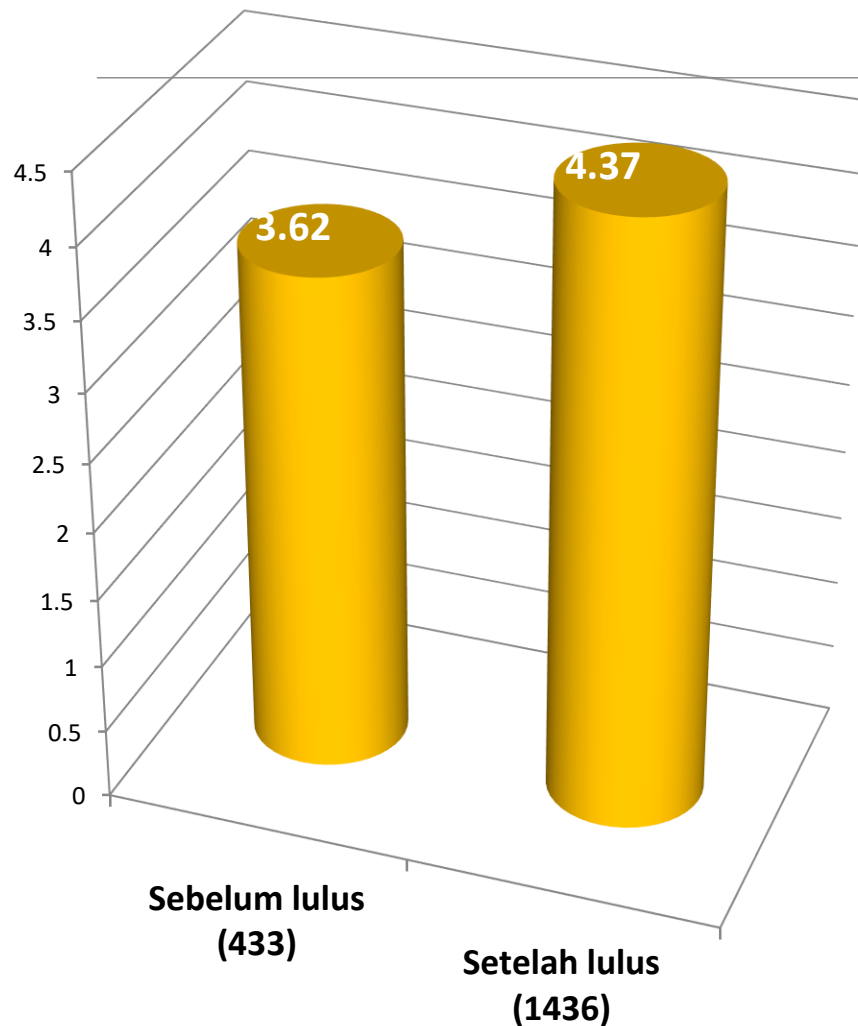
	Total	Mean (month)
Before graduate	538	4.38
After graduate	566	2.27

Time Needed Getting a Job (2012)



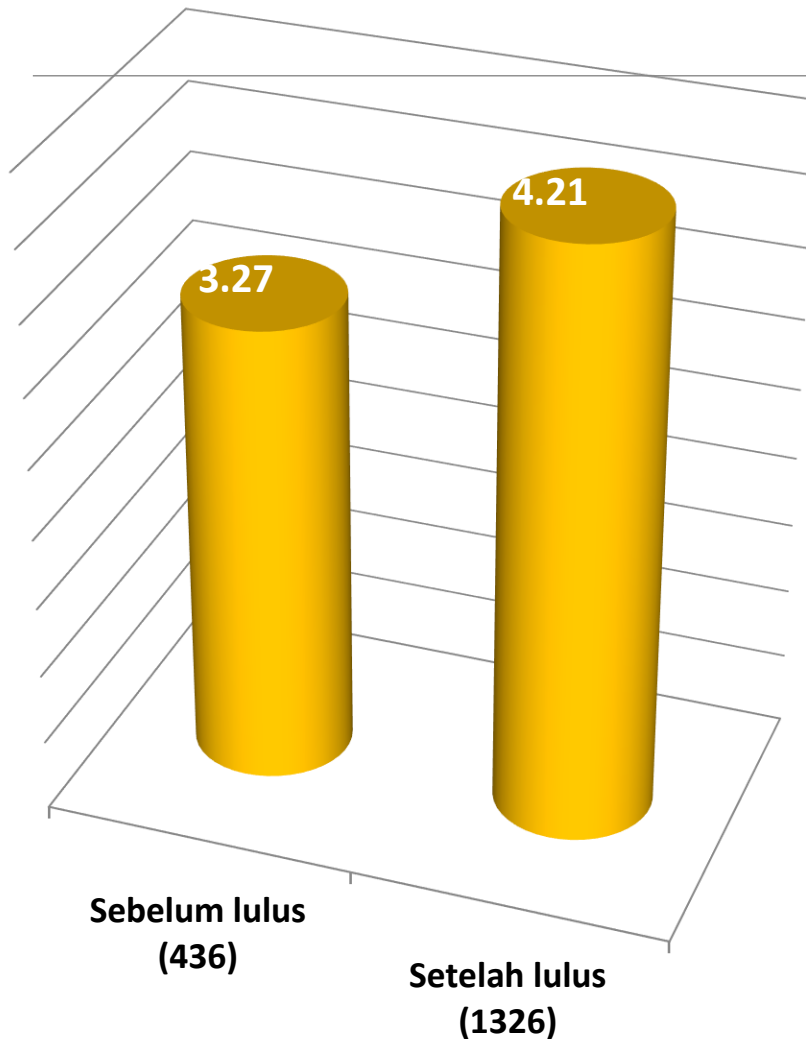
	Total	Mean (month)
Before graduate	378	3.65
After graduate	1240	4.38

Time Needed Getting a Job (2008)



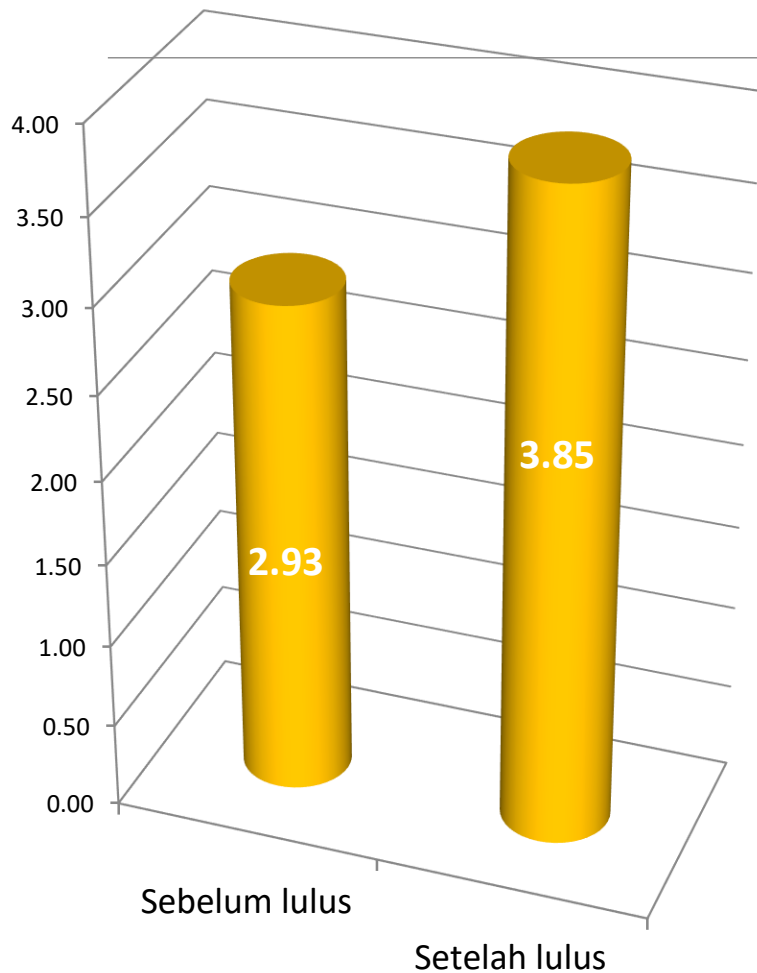
	Total	Mean (month)
Before graduate	433	3.62
After graduate	1436	4.37

Time Needed Getting a Job (2007)



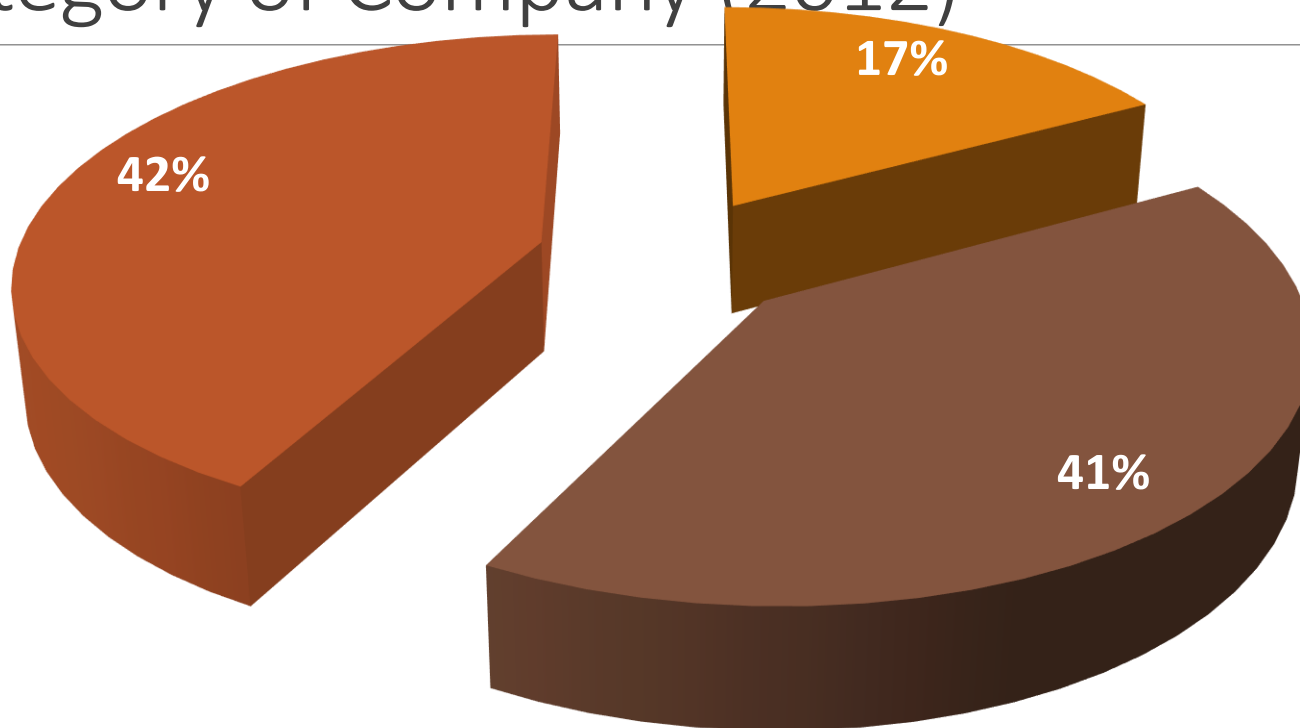
	Total	Mean (month)
Before graduate	436	3.27
After graduate	1326	4.21

Time Needed Getting a Job (2006)



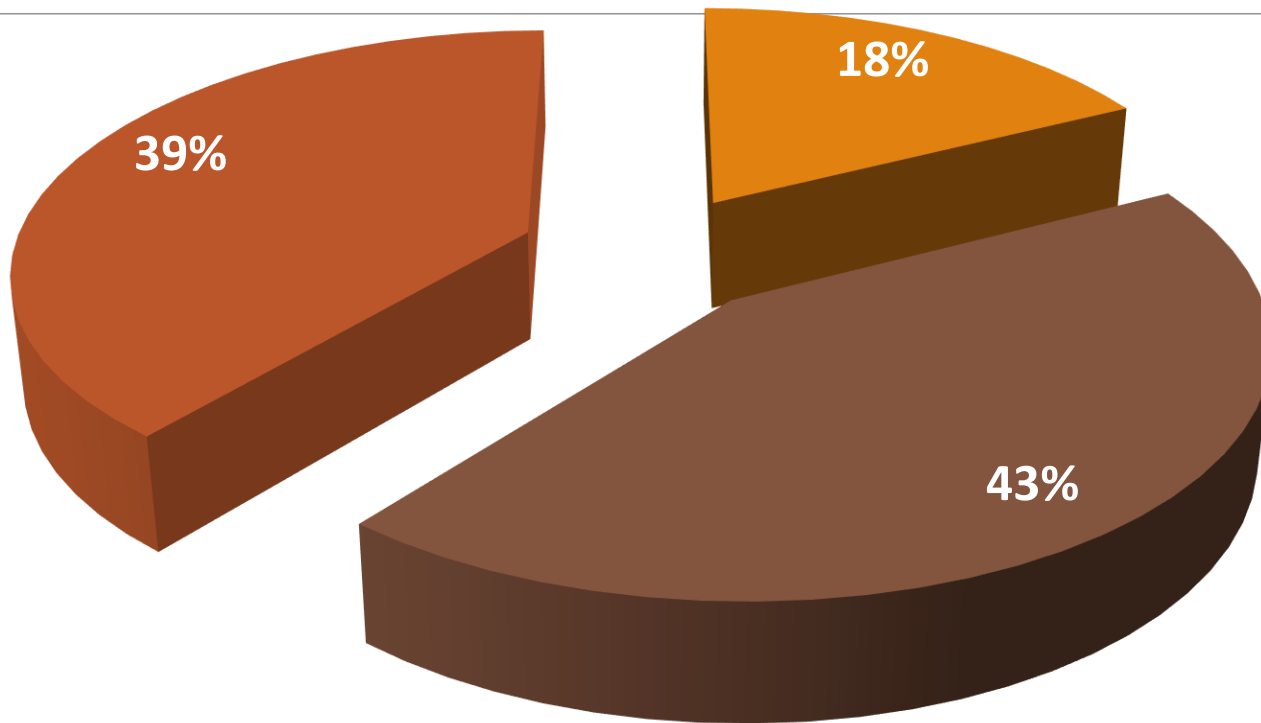
	Total	Mean (month)
Before graduate	372	2.93
After graduate	1159	3.85

Category of Company (2012)



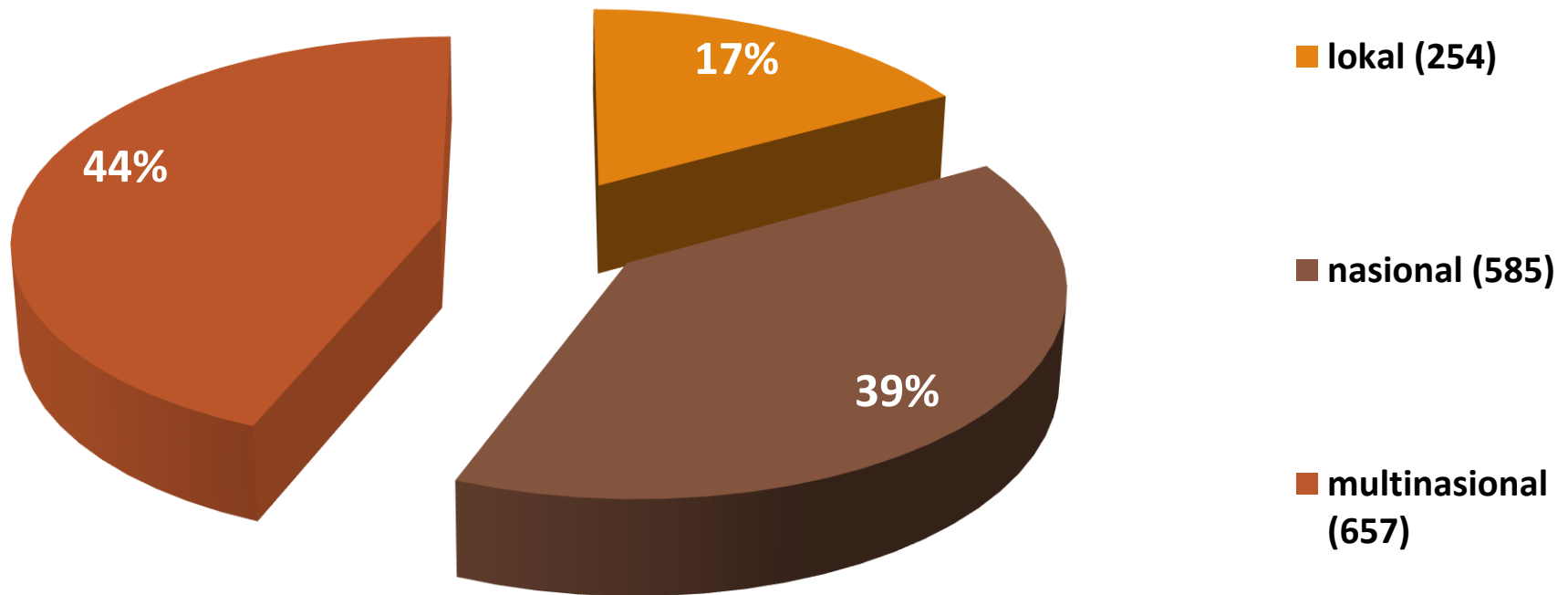
■ lokal (242) ■ nasional (575) ■ multinasional (598)

Category of Company (2008)

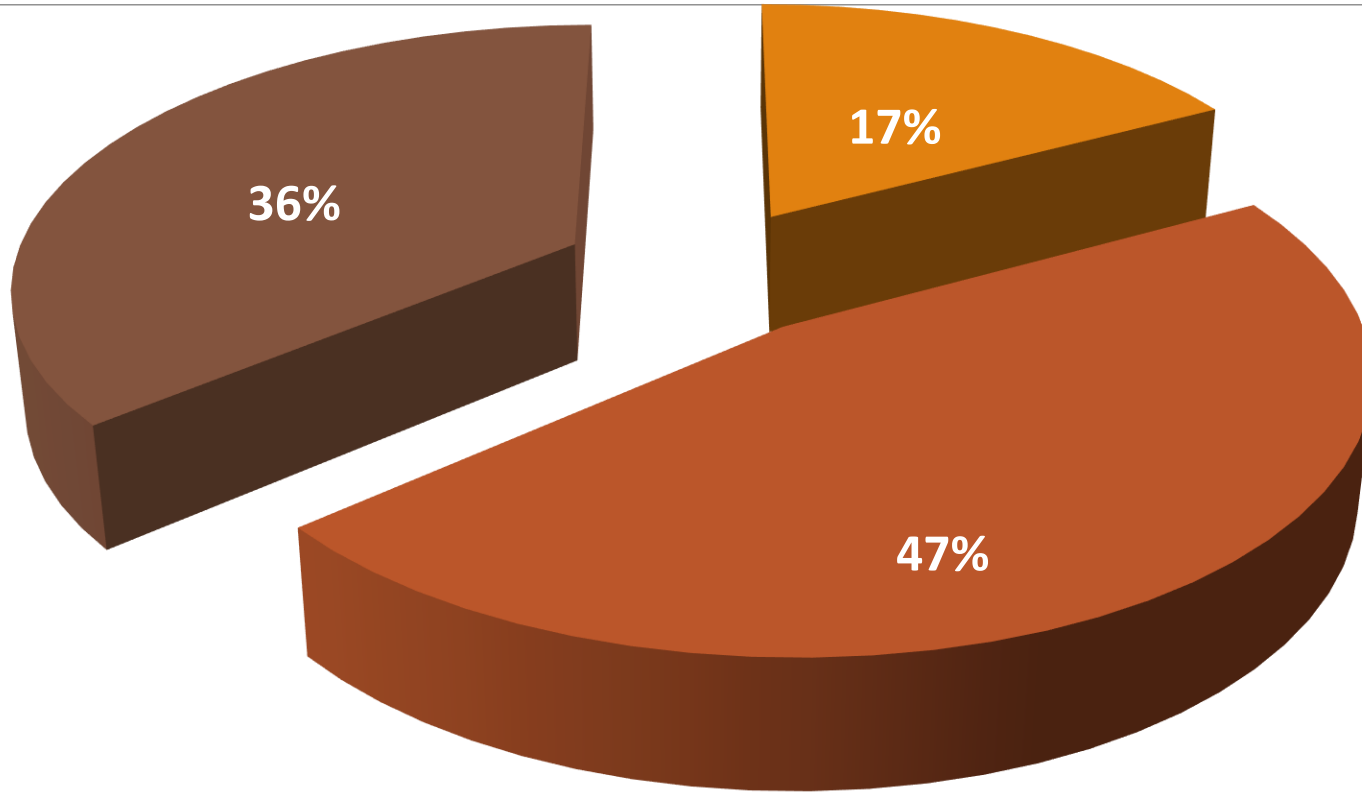


■ lokal (287) ■ nasional (709) ■ multinasional (639)

Category of Company (2007)

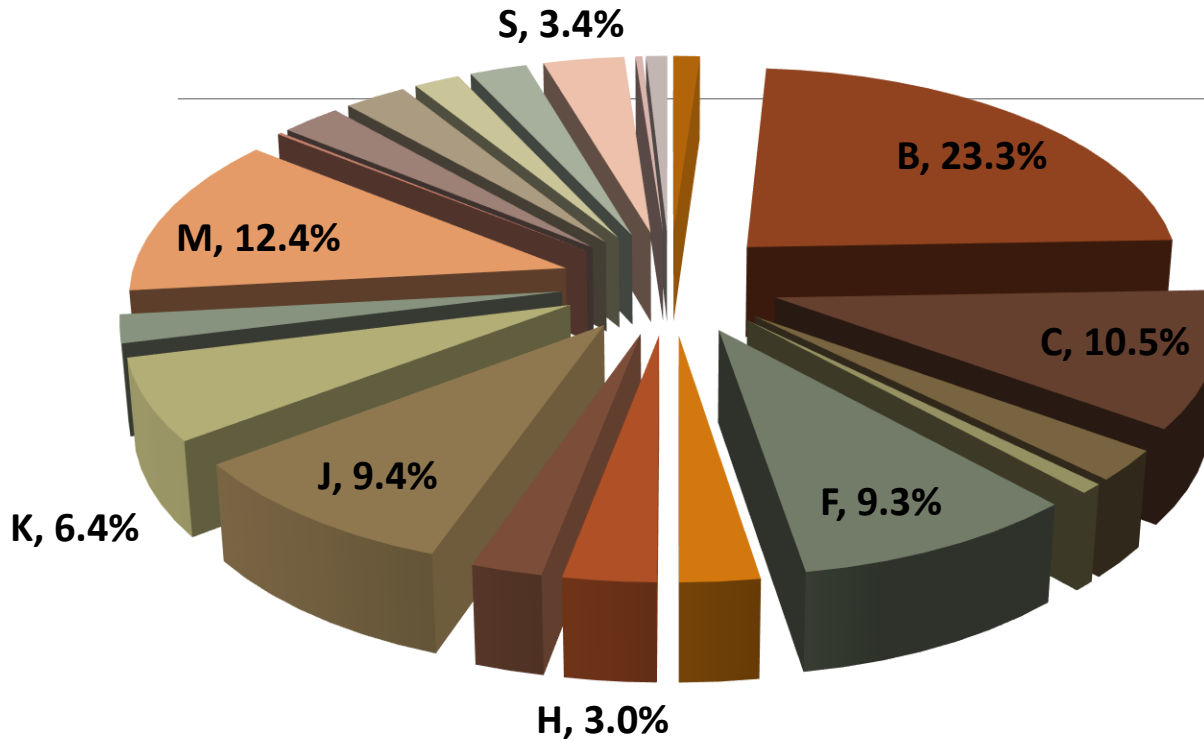


Category of Company (2006)



■ Lokal (227) ■ Nasional (615) ■ Multinasional (478)

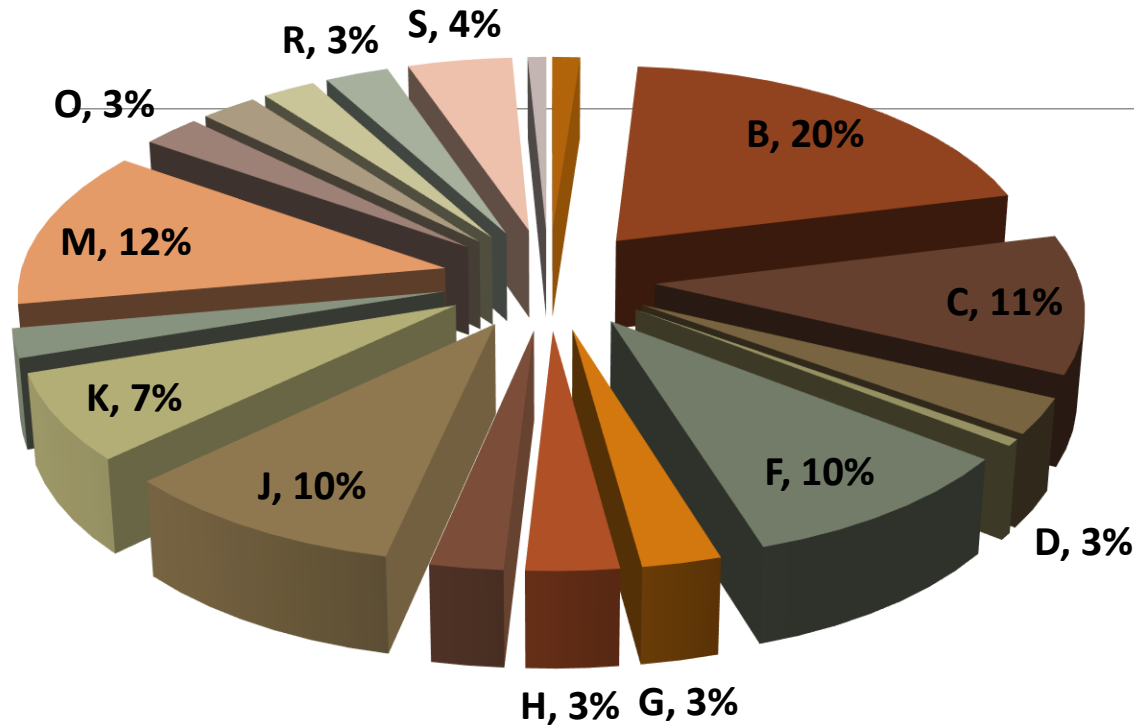
Category of Business (2012)



- A: Pertanian, perikanan, dan kehutanan
- B: Pertambangan dan penggalian
- C: Industri pengolahan
- D: Pengadaaan listrik, gas, uap/air panas, dan udara dingin
- E: Pengadaaan air, pengelolaan sampah dan daur ulang, pembuangan dan pembersihan limbah dan sampah
- F: Konstruksi dan pembangunan
- G: Perdagangan besar dan eceran, reparasi dan perawatan mobil dan sepeda motor
- H: Transportasi dan pergudangan
- I: Penyediaan akomodasi dan penyediaan makanan dan minuman
- J: Informasi dan komunikasi
- K: Jasa keuangan dan asuransi
- L: Real estate, developer, dan properti
- M: Jasa profesional, ilmiah, dan teknis
- N: Jasa persewaan dan sewa guna usaha tanpa hak opsi, ketenagakerjaan, agen perjalanan dan penunjang usaha lainnya
- O: Administrasi pemerintahan, pertahanan, dan jaminan wajib sosial

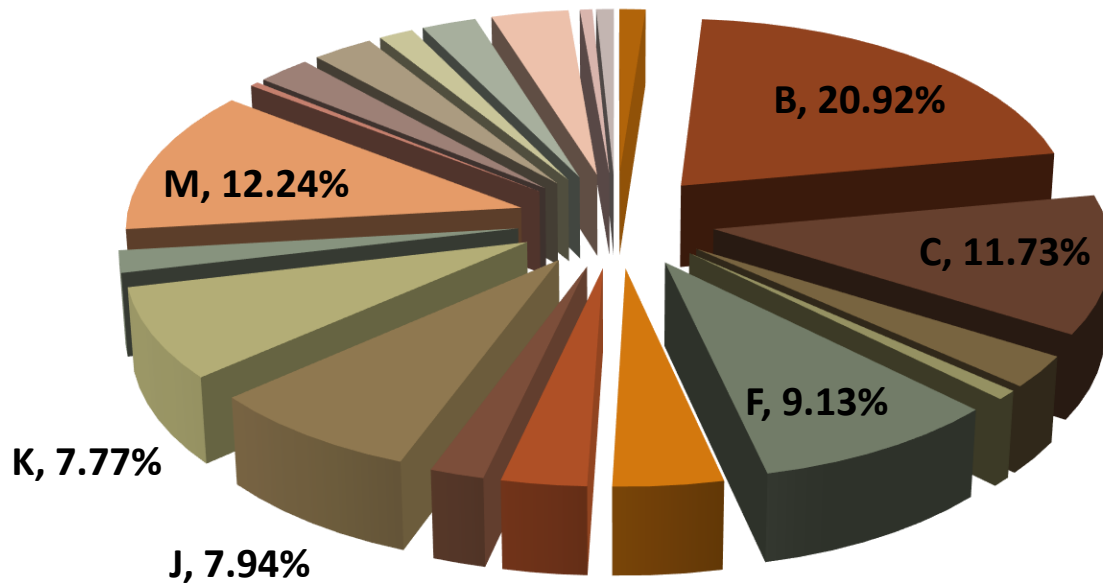
- P: Jasa pendidikan
- Q: Jasa kesehatan dan kegiatan sosial
- R: Kesenian, hiburan dan rekreasi
- S: Kegiatan jasa lainnya
- T: Jasa perorangan yang melayani rumah tangga, kegiatan yang menghasilkan barang dan jasa oleh rumah tangga
- U: Kegiatan badan internasional dan kegiatan badan internasional ekstra lainnya

Category of Business (2008)



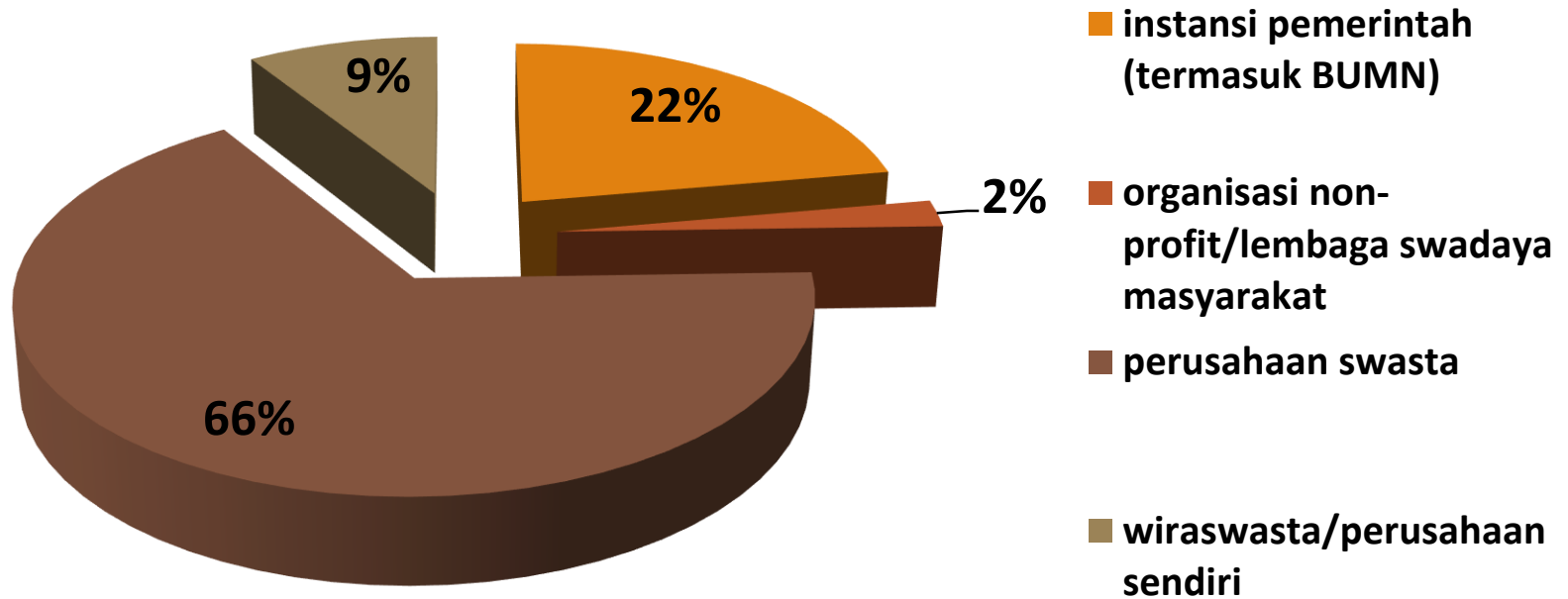
- A: Pertanian, perikanan, dan kehutanan
- B: Pertambangan dan penggalian
- C: Industri pengolahan
- D: Pengadaan listrik, gas, uap/air panas, dan udara dingin
- E: Pengadaan air, pengelolaan sampah dan daur ulang, pembuangan dan pembersihan limbah dan sampah
- F: Konstruksi dan pembangunan
- G: Perdagangan besar dan eceran, reparasi dan perawatan mobil dan sepeda motor
- H: Transportasi dan pergudangan
- I: Penyediaan akomodasi dan penyediaan makanan dan minuman
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- O: Administrasi pemerintahan, pertahanan, dan jaminan wajib sosial
- P: Jasa pendidikan
- Q: Jasa kesehatan dan kegiatan sosial
- R: Kesenian, hiburan dan rekreasi
- S: Kegiatan jasa lainnya
- T: Jasa perorangan yang melayani rumah tangga, kegiatan yang menghasilkan barang dan jasa oleh rumah tangga
- U: Kegiatan badan internasional dan kegiatan badan internasional ekstra lainnya

Category of Business (2007)



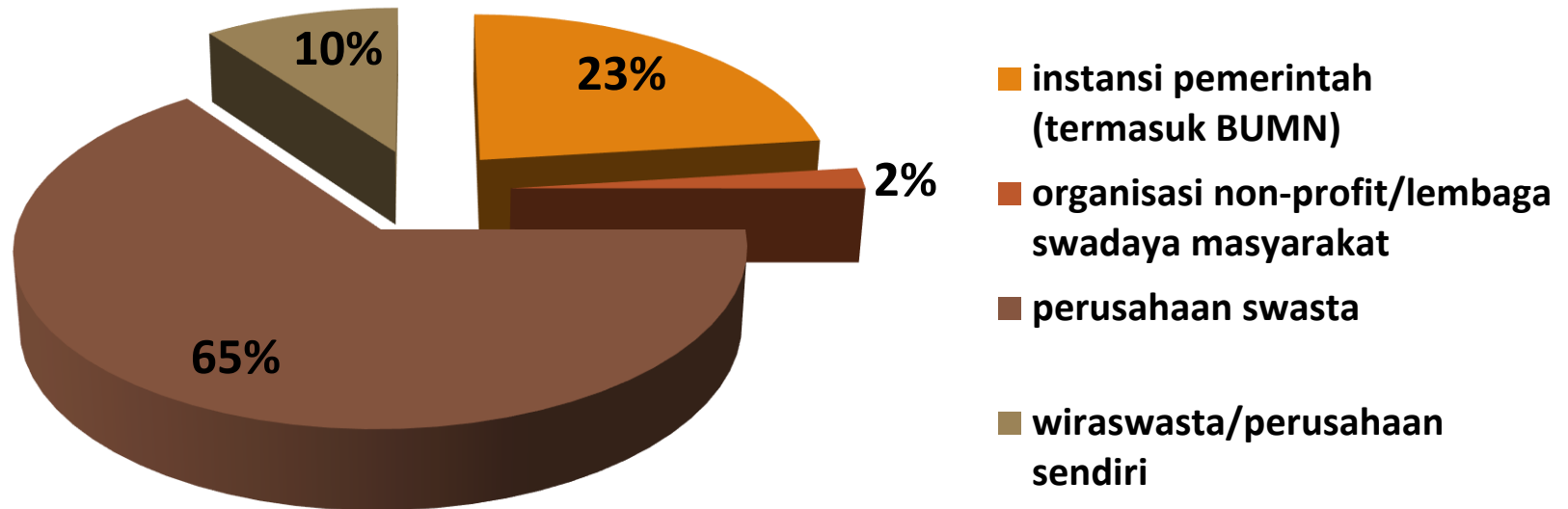
- A: Pertanian, perikanan, dan kehutanan
- B: Pertambangan dan penggalian
- C: Industri pengolahan
- D: Pengadaan listrik, gas, uap/air panas, dan udara dingin
- E: Pengadaan air, pengelolaan sampah dan daur ulang, pembuangan dan pembersihan limbah dan sampah
- F: Konstruksi dan pembangunan
- G: Perdagangan besar dan eceran, reparasi dan perawatan mobil dan sepeda motor
- H: Transportasi dan pergudangan
- I: Penyediaan akomodasi dan penyediaan makanan dan minuman
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- N: Jasa persewaan dan sewa guna usaha tanpa hak opsi, ketenagakerjaan, agen perjalanan dan penunjang usaha lainnya
- O: Administrasi pemerintahan, pertahanan, dan jaminan wajib sosial
- P: Jasa pendidikan
- Q: Jasa kesehatan dan kegiatan sosial
- R: Kesenian, hiburan dan rekreasi
- S: Kegiatan jasa lainnya
- T: Jasa perorangan yang melayani rumah tangga, kegiatan yang menghasilkan barang dan jasa oleh rumah tangga
- U: Kegiatan badan internasional dan kegiatan badan internasional ekstra lainnya

Company Work Type (2012)



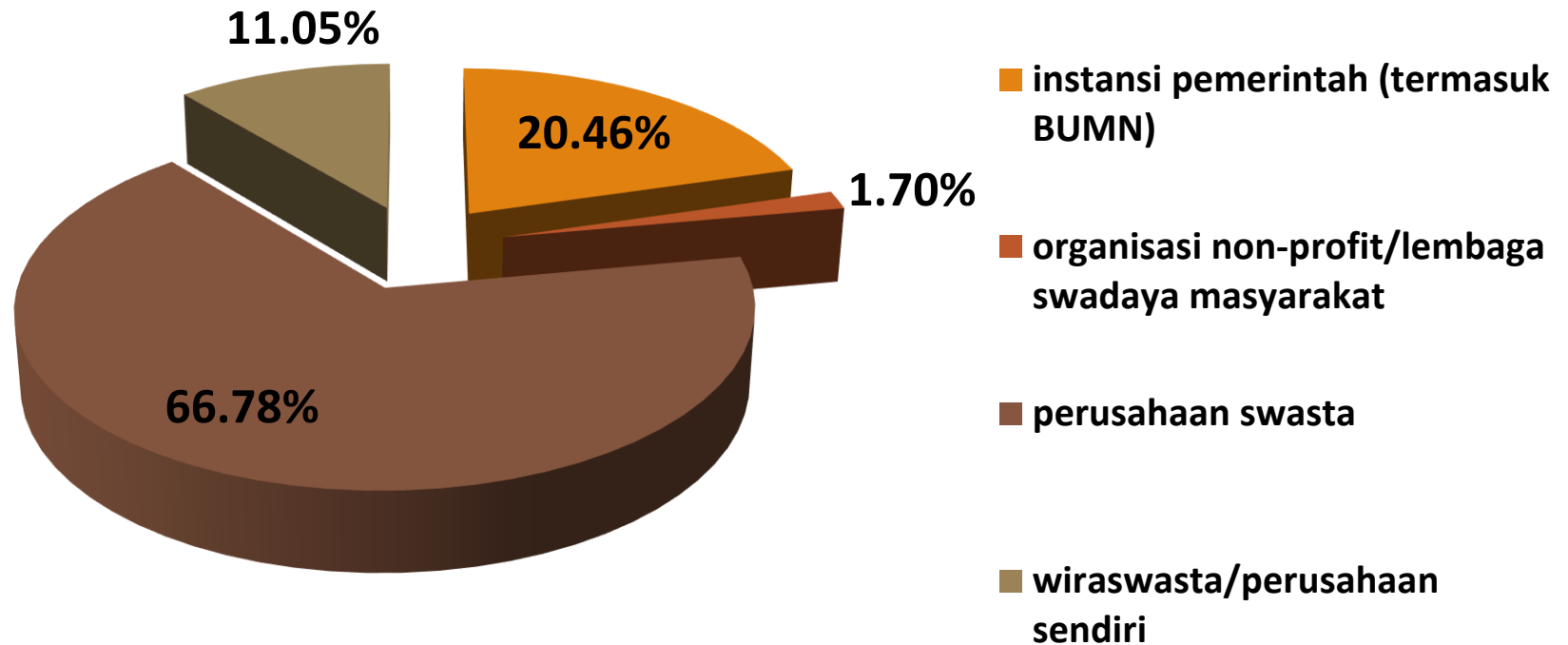
N = 1697

Company Work Type (2008)



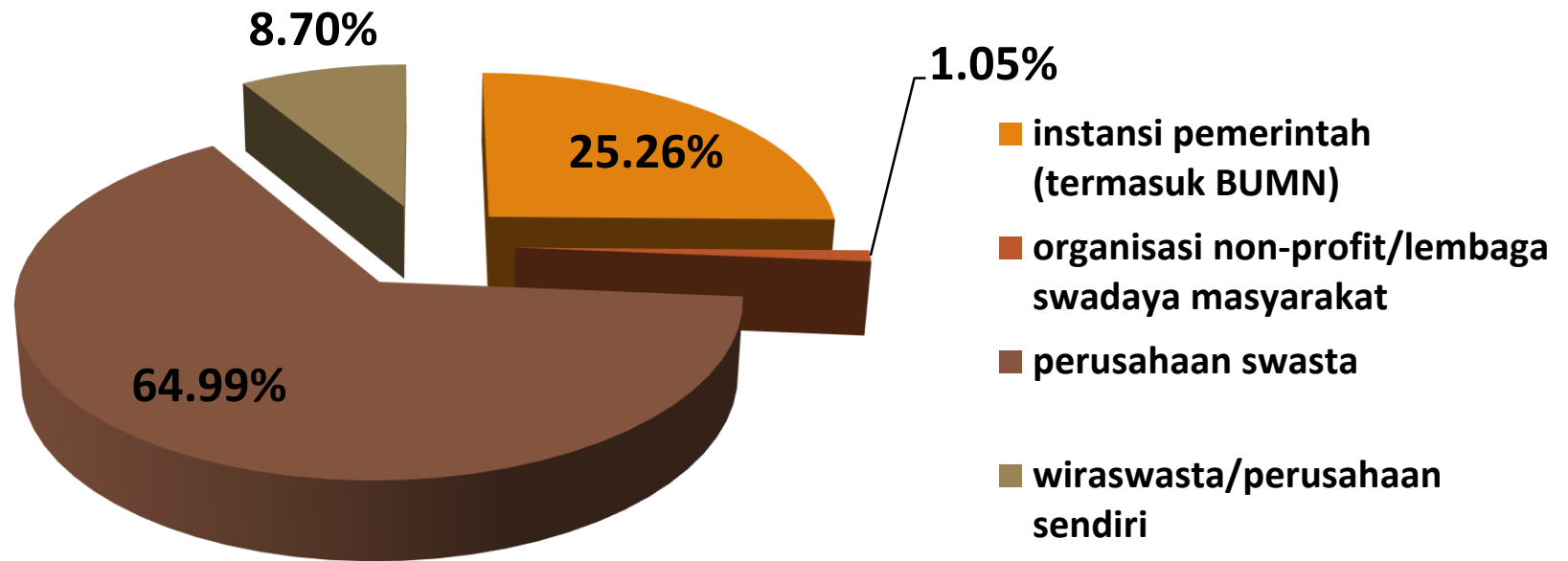
N = 2019

Company Work Type (2007)



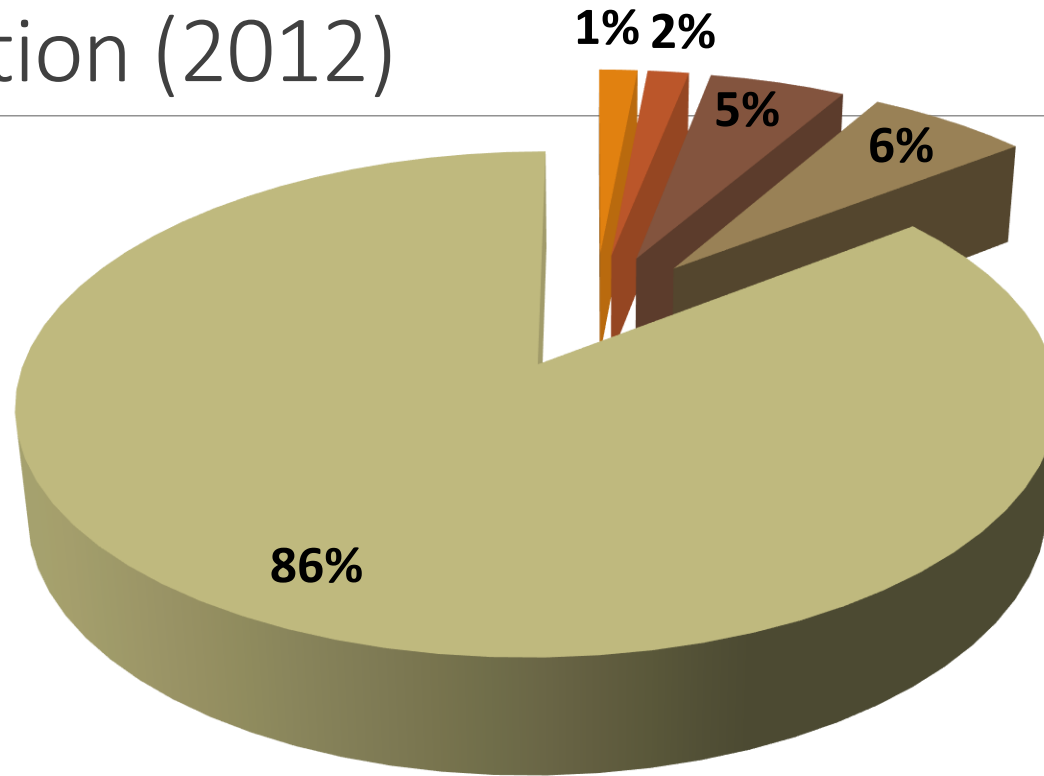
N = 1764

Company Work Type (2006)



N = 1528

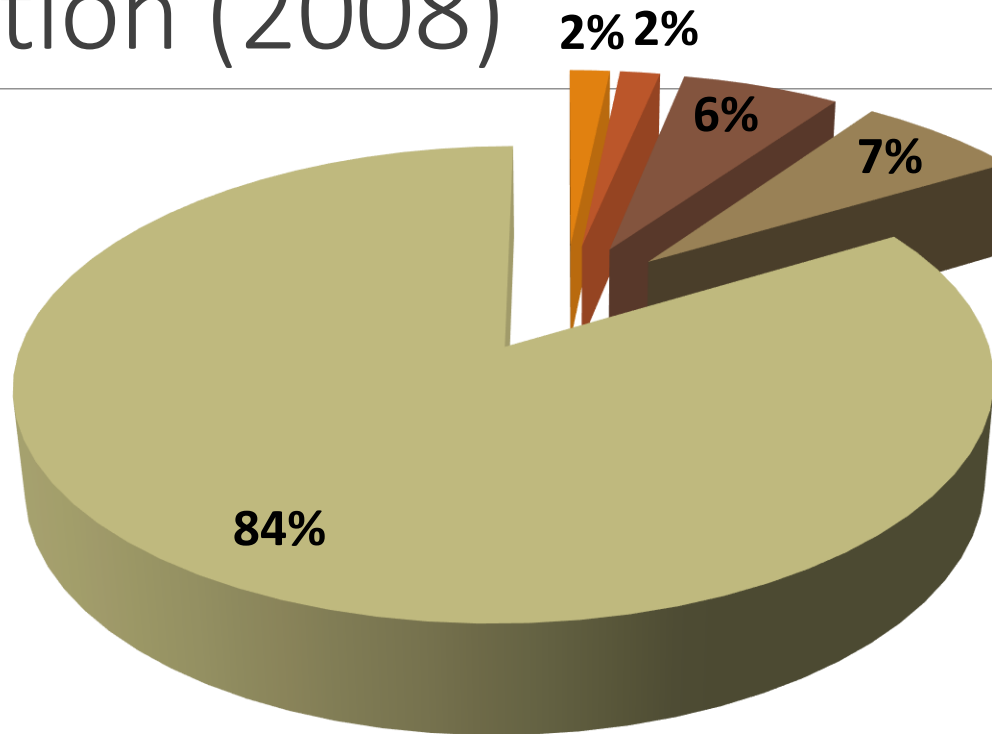
Position (2012)



■ Direktur (25) ■ Magang (27) ■ Manajer (89) ■ Pemilik (105) ■ Staf (1453)

N = 70

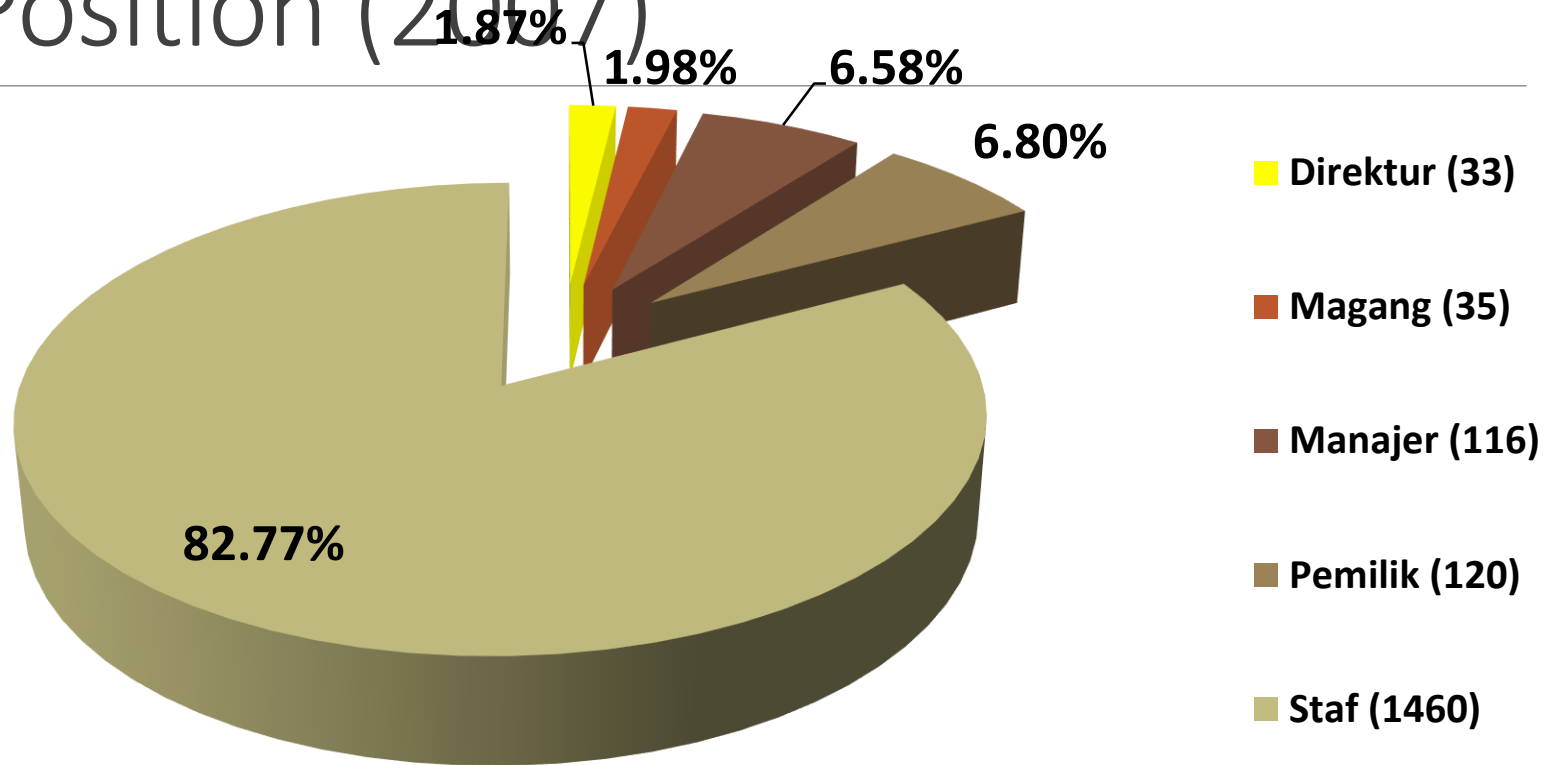
Position (2008)



■ Direktur (33) ■ Magang (33) ■ Manajer (130) ■ Pemilik (136) ■ Staf (1687)

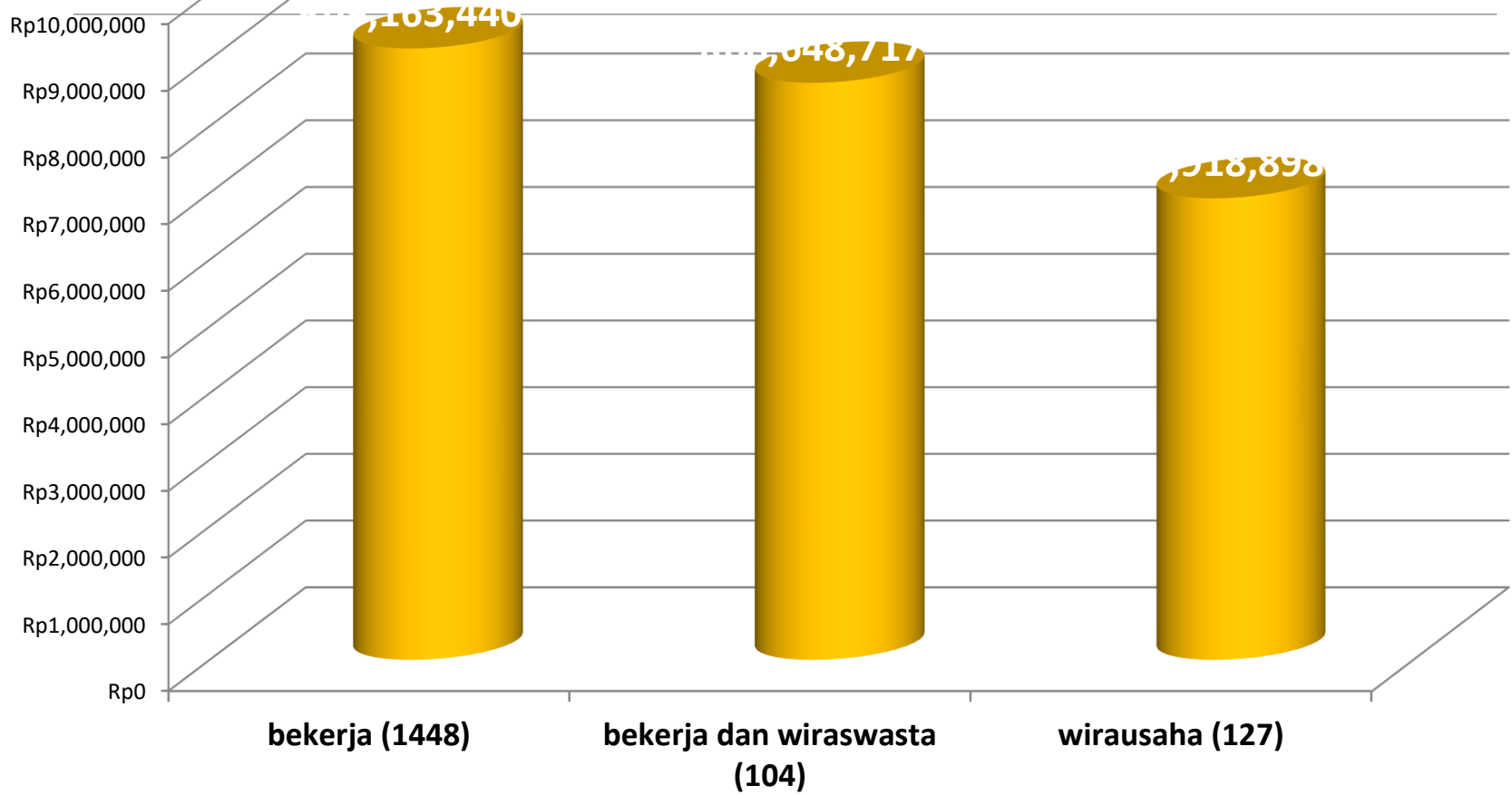
N = 70

Position (2007)

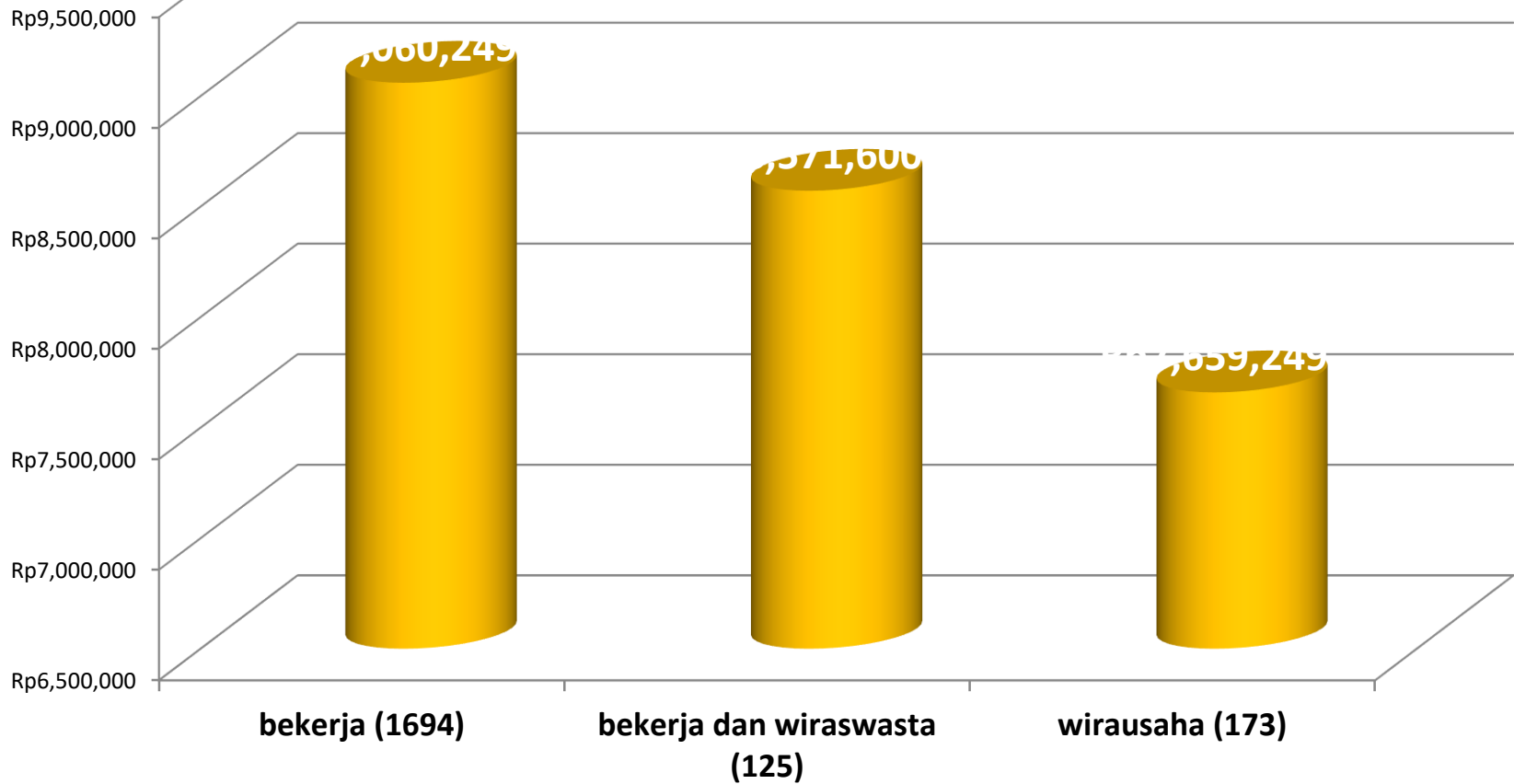


N = 1764

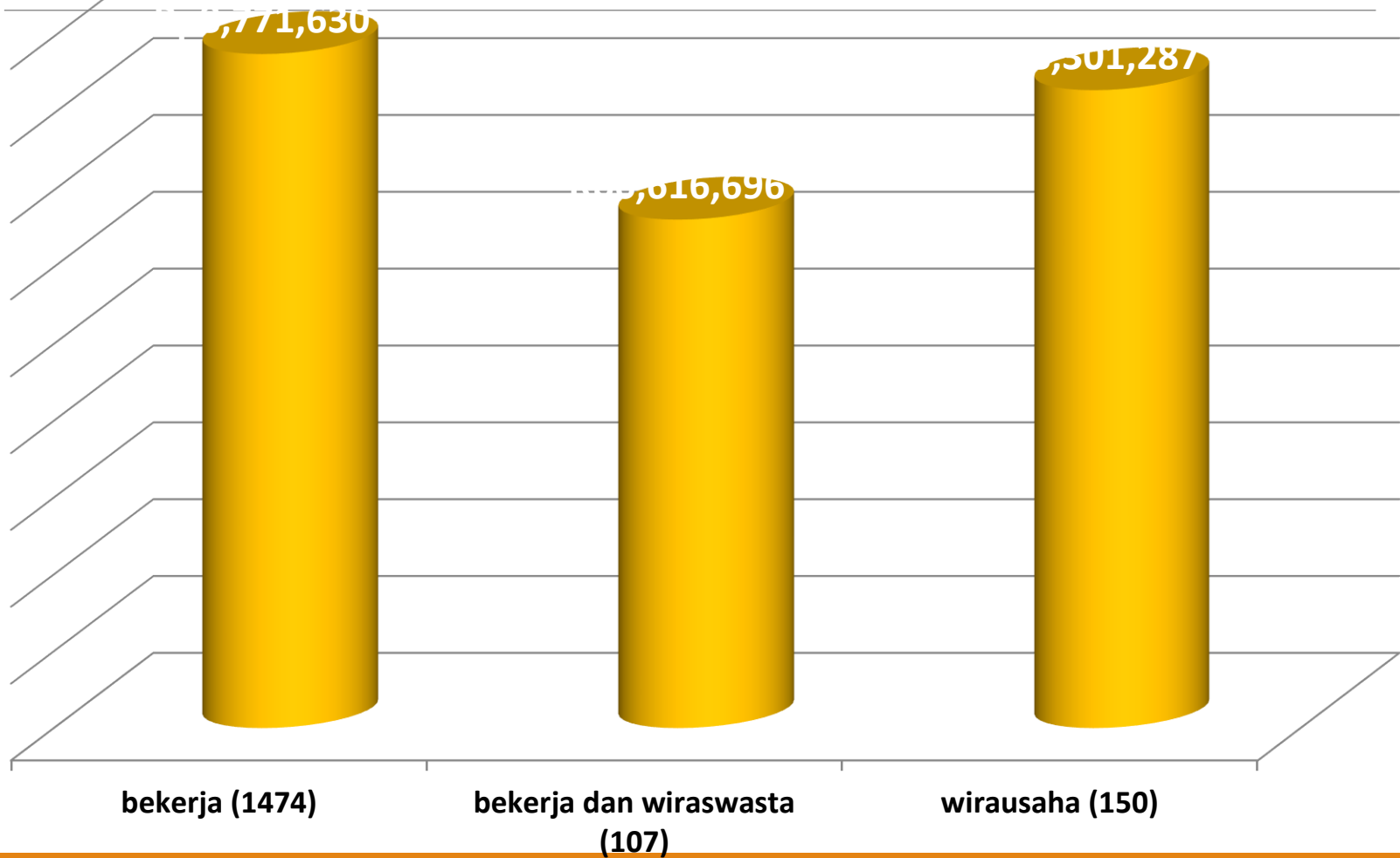
Average Income (2012)



Average Income (2008)



Average Income (2007)



Average Income (2006)



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Thank You
