

Data Analytics

ECON 1008, Semester 1, 2019

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About myself

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Office Hours: Tuesday at 2:30, Room 4.36, Nexus 10 Tower

About yourself

I would like to know something about yourself

This offers me the opportunity to introduce you to

MyUni - <https://myuni.adelaide.edu.au>

About yourself

How many female students?

How many Australian students?

How many students from South Australia?

How many students from Adelaide?

How many students from China?

How many students from India?

How many students from Europe?

How many are occasionally working for pay?

About this course

Data Analytics is a first course in

STATISTICS AND DATA ANALYSIS:

techniques and tools to

collect data

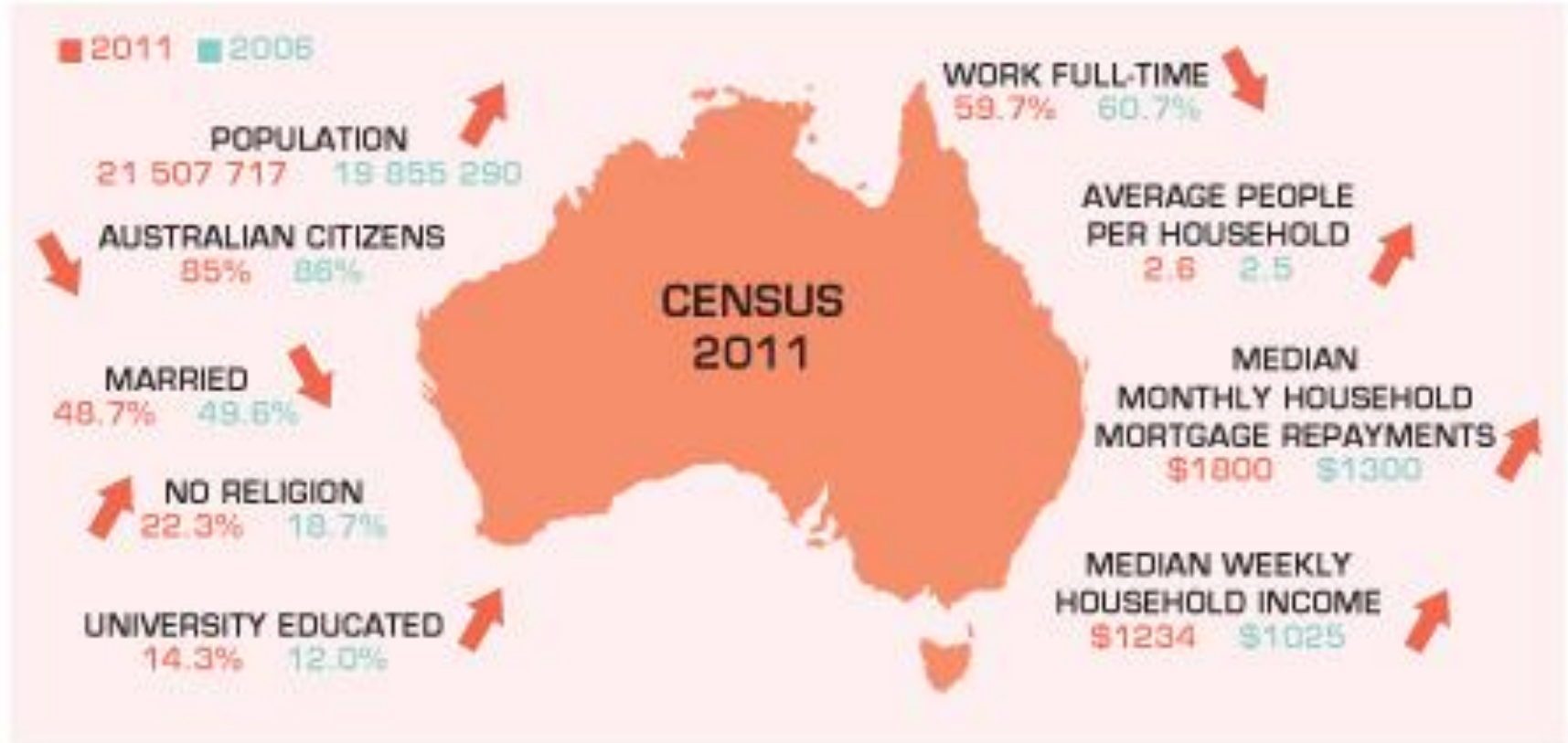
and to extract useful information from these data

in order to make better decisions

regarding business and policy

This is what we just did with my rudimentary class Census

Australian Census: 2011 vs 2006



Course material and resources

- All info about this course available at MyUni
- Textbook: Business Statistics, by E. Selvanathan, S. Selvanathan, and G. Keller, Edition 7
(older editions are totally fine)
- We will use APLIA, a training resource with interactive exercises, to be used for your **weekly assignment**.
- An APLIA account is required and costs \$32. Please come see me at Office Hours if you feel this is a problem.
- David Tonkin will visit us today to explain how to activate an account (also see my announcement on MyUni)

Course material and resources

- Make sure to enroll in a tutorial and to attend it regularly and actively! (see my announcement on MyUni).
- Make sure you also attend classes in a regular and active way, to fully reap the benefits of face-to-face interactions
 - Classes will be recorded, but this is a highly imperfect substitute (what are you spending your money for?)
 - see my announcement on MyUni about recorded lectures.
- I encourage you to use the Discussion Forum on MyUni to
 - Ask questions
 - Answer your colleagues' questions
 - The TAs and I will also of course provide answers as necessary
 - This is preferable to e-mails. But come see me at OH if needed.

Assessment

- Weekly assignment: 30%
- Midterm exam: 30%
- Final exam: 40%
- I will average these, no matter what the scores in each of the three parts are

How to do well in this course

- Come to class
- Ask questions if you don't understand me
- Study regularly, on a weekly basis
- Work hard on your weekly assignment
- Work harder on your weekly assignment
- Attend your Tutorial: the TA's are there to help
- Come to Office Hours: I'm here to help

Plan for the rest of today's lecture

- More examples about what Statistics is
- Meet Matt Elliot, PASS (Peer Assisted Study Sessions) leader
- Meet David Tonkin to learn all you need to know about APLIA

Questions?

CHAPTER 1

What is statistics?

What is statistics?

‘Statistics is a way to get information from data to make informed decisions.’



Data: Mostly numerical facts collected from direct observations, measurements or surveys.

Information: Knowledge communicated concerning some particular fact, which can be used for decision making.

Example 1: Chickens and hunger



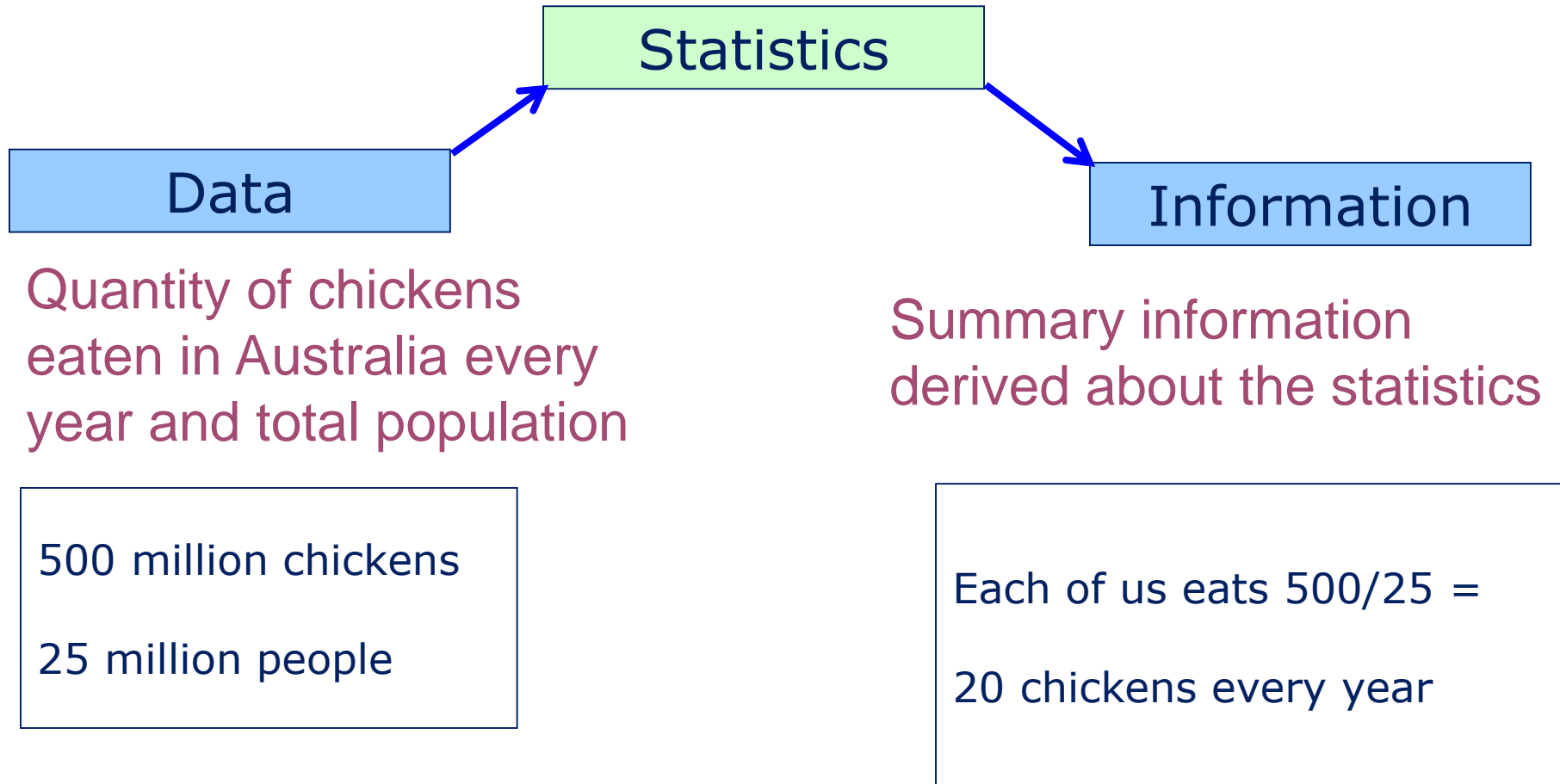
Italian poet Trilussa (1873-1950) liked good food but did not like statistics, back then a young science.

Example 1: Chickens and hunger

“According to the calculations made using current statistics, you eat **one** chicken every year.

And if it's not included in your budget it's still included in the statistics because there is someone else who eats **two.**”

Example 1: Chickens and hunger



Example 1: Chickens and hunger



Example 1: Stats chicken...

‘Typical intake’

Mean (average intake)

Mean = 20

Is this enough information?

Vegans eat zero!

Hungry Jack eats one per week (52)

Measures of **Dispersion** (inequality) must be considered